ECONOMIC REVIEW
2000

GOVERNMENT OF KERALA

STATE PLANNING BOARD
THIRUVANANTHAPURAM

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CHAPTER - 1
GENERAL REVIEW

Development in National Economy

During 1999-2000 all India GDP growth in real terms is placed at 6.4%, which means a decline from the growth rate of 6.8% during 1998-99. Growth rate is projected to decline further to 6% in 2000-01, a fall of above 12% in two years. The growth rate of GDP from Agriculture and allied activities decelerated sharply to 1.3% in 1999-2000, from 7.2% in the previous year. Although food production increased to 205.9 million tonnes in 1999-2000, from 203 million tonnes in the previous year, production of pulses and coarse cereals declined sharply. Similarly the non-food products such as oil seeds – particularly groundnut – cotton and tea registered declines in output over the respective levels in the previous year.

1.2 The decline in the Gross Domestic Saving Rate from 24.7% in 1997-98 to 22.3% in 1998-99 is a matter of concern for the future scenario. At the level estimated for 1998-99, the Gross Domestic Saving Rate showed a fall of 3.2 percentage point from the level achieved in 1995-96. The decline in saving rate in 1998-99 was observed across all the three sectors, viz household, public and private corporate. The saving rate of the private corporate sector declined from 4.3 % in 1997-98 to 3.8% in 1998-99. Household saving rate also recorded a decline from 19% in 1997-98 to 18.5% in 1998-99.

1.3 The investment rate also moved down in tandem with the saving rate. The rate of Gross Capital Formation (GCF) declined from 23.4% in 1997-98 to 21.8% in 1998-99.

1.4 In the external sector, trade deficit was higher at US $ 9.6 billion during 1999-2000 than US $ 9.2 billion in 1998-99. Although exports in 1999-2000 increased by about 13%, imports also increased by 11.4%, from 2.2% in the previous year. Invisibles acted as a major buffer with regard to the balance of payment position and in containing the Current Account Deficit in the absence of an adequate growth in exports. Exports as a percentage of GDP grew only by 0.3%, from 8.2% in 1998-99 to 8.5% in 1999-2000. Current Account Deficit, marginally increased from US $ 4,038 million in 1998-99 to US $ 4,136 in 1999-2000.

1.5 Net capital inflows increased from US $ 8.6 billion in 1998-99 to US $ 10.2 billion in 1999-2000. Foreign direct investment however witnessed a decline from US $ 2000 million in 1998-99 to $ 1581 million in 1999-2000.

1.6 India's external debt increased from US $ 97,666 million at the end of March 1999 to US $ 98,435 million at the end of March 2000, by US $769 million.

1.7 Gross Fiscal Deficit of the Government of India was 5.6% of GDP, according to the Revised Estimate, as against 4% in the Budget Estimate 1999-2000. The revenue deficit at Rs.73,532 crore (3.8% of GDP) exceeded the Budget Estimate by Rs.19,385 crore. The projected fiscal deficit of 5.1% of GDP in the Budget Estimate 2000-01 is likely to exceed, considering the additional financial liabilities on defence. The economy has been witnessing continuing rise in prices, with inflation having nearly doubled in the current financial year. Withdrawal of PDS subsidies combined with the rise in fiscal deficit is bound to have further inflationary repercussions.

Developments in Kerala's Economy

1.8 The economy of Kerala during the past few years has been passing through extremely difficult conditions, largely due to the fall in the prices of principal agricultural commodities such as coconut, rubber, pepper, cardamom, Tea, Coffee and so on. This, besides having a shattering impact on the farming sector, also affected the revenue collection of the State, contributing to a severe strain on the finances of the State Government. Important sources of tax revenue of the

State suffered setback and the growth rate fell far below the rate achieved three years ago. Along with this, the sharp increase in revenue expenditure on account of pay revision in the last two years, severely restricted the State Government's ability to raise adequate resources for financing the State's Ninth Five Year Plan.

1.9 Inspite of the severe resource constraints faced in the past three years, it has been possible to achieve Plan targets. In 1999-2000, against an all-State average achievement of 78% in Plan outlays, Kerala State's achievement was over 95% of the approved Plan outlay. As a result of the public expenditure policy of the State Government, it has been possible to achieve reasonable growth in State income in the preceding years.

1.10 Contrary to the belief that the State Income in Kerala is growing at a rate lower than other States, the latest publication of the Reserve Bank of India, 'Handbook of Statistics on Indian Economy 2000', shows that Kerala ranks fifth among the major States with regard to growth rate of State Income. The growth rate of 59.8 percent achieved by Kerala during the period 1989-90 to 1997-98 is higher than that of Tamil Nadu (58.64%) and Karnataka (51.64%). Kerala would have done even better, if the State had not suffered neglect at the hands of the Centre in regard to Central Sector investment, the indifferent attitude of Financial Institutions and also the price collapse of the State's major agricultural commodities.

1.11 Major setbacks on the farm front like rootwilt disease and the mite attack 'mandari' continue to affect the coconut palms in the central and southern parts of Kerala. This has caused severe damage to the crop. Spraying of pesticides resorted to by the State Government has helped somewhat in restricting the damage.

1.12 The fall in prices of plantation crops such as rubber, tea, coffee, cardamom and also coconut, largely the fallout of trade liberalisation policies of the Government of India, has substantially subdued the agrarian economy of the State. Although the WTO agreement contains provisions for protecting the domestic trade, and thereby the crops, by resorting to the levy of 'bound' rates, due consideration has not been given to it while liberalising the trade regime on agricultural commodities. The support price to, and procurement operations of, rubber and coconut have not helped to the full extent to counter the removal of quantitative restrictions (QRs) on the import of these commodities as part of the export – import policies followed by Government of India.

1.13 The State has achieved substantial progress with regard to availability of power, by adding about 1013.68 MW to the installed capacity during the Ninth Plan period. Power cut and load-shedding have been completely lifted in the State. In order to attain self sufficiency, and also keeping in view the increase in demand for power, it is important to give thrust on the completion of all the ongoing power projects in a time bound manner, and take up new projects, including small, mini and micro hydel projects having great potential in the State.

1.14 Credit flow in the State from banking sector and other financial institutions have to improve substantially to achieve the desired level of economic growth. CD ratio of banks continues to be low, with as low a rate as 42.53% in September 2000. Flow of credit from all-India Financial Institutions is even less encouraging. It is necessary that a congenial atmosphere is ensured for attracting prospective investors, and the financial institutions showing their readiness in adequate measure to support the development policies initiated by the State Government and the initiatives shown by private firms.

1.15 The overall financial position of the State Government has come under severe strain during the past two years, largely due to the pay revision by the State Government following the recommendation of the Fifth Central Pay Commission. This was aggravated by the

unfavourable award of the EFC to the State, with a loss of about Rs.3600 crore during the five year period starting from the current financial year. The increase in revenue deficit is also contributed by the large transfers made to the local bodies in the form of grant. In the past four years, such transfers amounted to Rs.3,764 crore. In 2000-01 out of the total revenue deficit of Rs.1,951.42 crore in Budget Estimate, Rs.1045 crore is on account of the Plan grant passed on to the local bodies. In the Plan programmes implemented by the local bodies, over 60% of the allocation is on schemes of capital nature, which continues to be booked as revenue. Once C & AG concurs to book these under capital, the revenue deficit of the State also would come down to that extent. Nevertheless, in order to contain revenue deficit within reasonable limits, increasingly the revenue expenditure will have to be covered by revenues and revenue account deficit wiped out. Then alone will it be possible to ensure that the excessive debt servicing burden should not lead to diversion of development funds to non-income generating activities and thereby hamper economic development.

1.16 The decentralised planning and development, stabilised after four years, has helped tremendously in transforming the economy, especially, the rural economy of the State. Along side the Kudumbasree project implemented by the State Government has emerged as a catalyst for community participation and empowerment of women, by integrating micro-level development initiatives, through the Neighbourhood Groups, to take up self-help and income generating schemes. Another initiative on rural water supply and sanitation, a spin off of the decentralisation of planning process, is expected to substantially improve the health and living conditions of the rural population.

1.17 Information Technology is an area with very high potential in the State. The decision to lay fibre-optical backbone in the State, with private sector participation, and the access of submarine fibre to Kochi shall provide the much needed impetus for the development of the silicon industry, most suited to the State given the trained manpower and geography.

1.18 The outlook for the future of the economy of the State would depend on the measures taken to improve the infrastructure facilities such as transport, irrigation, power etc. Considering the fact that the demand for infrastructure facilities is large and that the resources required for financing the large investment may be far in excess of what the State Government will be able to mobilise, private sector investment and participation will have a major role to play in accelerating the income growth of the State.

Selected indicators of the State's economy are given in Table 1.1.

State Income

1.19 The State Income (SDP) at current prices in 1999-2000 is estimated at Rs.62,557 crore as compared to Rs.53,553 crore in 1998-99. The per capita income at current prices is estimated at Rs.19,461 in 1999-2000 as against Rs.16,811 in 1998-99.

1.20 In the sectoral distribution of State Income, the tertiary sector continues to dominate the income generation followed by the primary sector. The contribution of the tertiary sector increased from 49.42 per cent in 1998-99 to 50.64 per cent in 1999-2000. The share of primary sector declined from 29.18 per cent in 1998-99 to 28.72 per cent in 1999-2000, while the share of the secondary sector declined from 21.40 per cent to 20.64 per cent.

1.21 While State income has been growing reasonably well, unemployment continues to be a serious problem of the State. The number of job seekers on the live registers of the employment exchanges continues to be quite large, with the latest figure being 41.86 lakhs in 2000. An important dimension of the unemployment situation in Kerala is that about 75 per cent of the job seekers are having educational qualification of S.S.L.C. or above. No less important is it

Table 1.1
Selected Indicators of the State Economy

	Item	1970-71	1980-81	1985-86	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000	2000-2001
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	State Income at Current Prices (Rs. Crore)	1255	3823	6503	10668	12173	15102	17175	23217	28375	34470	39656	46178(P)	53553(P)	62557(Q)	
2	State Income (At 1980-81 Prices) (Rs. Crore) @	1255	3823	4086	4892	5262	5365	5752	23217	25335	26398	27438	28600(P)	30092(P)	NA	
3	Per Capita Income (At Current Prices) (Rs.)	594	1508	2398	3718	4200	5140	5768	7727	9327	11190	12716	14642	16811(P)	19461(Q)	
4	Per Capita Income (At 1980-81 Prices) (Rs.)@	594	1508	1507	1705	1815	1826	1932	7727	8327	8570	8798	9068	9446(P)	NA	
5	Output of Important Commodities															
a)	Rice- lakh tonnes	12.98	12.72	11.73	11.41	10.87	10.60	10.85	10.04	9.75	9.53	8.71	7.65	7.27	7.71	
b)	Coconut- million nuts	3981	3008	3377	4358	4232	4641	5124	5192	5336	5155	5276	5210	5132	5167	
c)	Arecanut - million nuts	12738	10805	10664	11964	13074	13116	13643	15357	17466	17429	17039	17279	13595	16014	
d)	Pepper - 1000 tonnes	25.03	28.52	33.12	54.14	46.80	50.31	49.67	49.55	59.26	68.57	56.55	46.04	68.51	56.43	
e)	Rubber - 1000 tonnes	78.73	140.33	184.7	275.40	307.52	343.11	368.65	408.31	442.83	474.83	512.76	541.94	559.10	572.82	
f)	Tea - 1000 tonnes	41.45	50.72	52.63	57.08	63.42	66.80	54.44	86.69	60.72	60.72	69.32	72.67	68.37	71 30	
g)	Coffee - 1000 tonnes	12.57	36.48	23.35	23.80	35.70	30.96	36.17	43.47	46.24	46.24	47.32	48.30	61.15	60.47	
6	Prices															
a)	Whole Sale Price Index of Agricultural Commodities (Base 1952-53=100) @@	222	551	688	906	1028	1263	1377	1550	1482	1702	1923	2114	2063.52	2690	2537.3*
b)	Consumer Price Index Number (Base 1970-71=100)@@	264	202	314	413	435	497	553	599	675	759	836	911	967	1030	1085**
7	Plan Outlay (Rs. Crore) (Accounts)	59.35	311.31	411.95	620.28	682.7	719.53	826.32	1091.42	1415.92	1763.76	2180.18	2867.63	3165.02	3017.45 (RO)	3535.00 (BE)

Q - Quick Estimate *@ - From 1994-95 onwards (Base year 1993-94)* *BE - Budget Estimate* *RO - Revised Outlay*
P- Provisional *@@ - Figures pertaining to item 6 relete to Calander Year*
** - Average from January to June* *** - Average from January to September*

to note that 55.27 per cent of the job seekers are women.

1.22 Employment in the organised sector stood at 6.39 lakh in the public sector and 5.77 lakh in the private sector in 1999-2000. Placement through employment exchanges increased from 19,661 in 1998-99 to 2,3012 in 1999-2000.

Price Situation

1.23 The consumer price index for agricultural and industrial workers in the State declined from 6.46 per cent in 1999 to 6.16 per cent in 2000. The wholesale price index of agricultural commodities in 2000 declined by 3.8 per cent compared to an increase of 28.16 per cent in 1999. The price index of food crops increased by 1.9 per cent in 2000 as compared to 41.3 percent in 1999. The parity index in 1999-2000 was not favourable to the farmers as while the prices received by the farmers decreased by 8.4 per cent, the prices paid by them increased by 9.1 per cent in 2000.

Agriculture

1.24 The agricultural sector in the State continued to witness positive growth in the last six years in succession. The average growth rate during the Eighth Five Year Plan period was 3.6 per cent against the target of 2.75 per cent. Buoyed by the favourable weather conditions, the growth rate remained consistently positive during the last six years. Commercial crops in general, with the exception of cashew and coffee, recorded increases in production. Production of rubber reached new peaks in 1999-2000, substantially improving the production levels achieved in the previous year.

1.25 Coconut production was 5,167 million nuts in 1999-2000. Production of rubber also reached a new high of 5.73 lakh tonnes, while that of tea increased from 68,373 tonnes in 1998-99 to 71,295 tonnes in 1999-2000. However, the sharp fall in the prices of rubber and coconut had a shattering impact on the State's agriculture economy for the last three years.

1.26 Area under rice has continued to decline. The area declined from 3.53 lakh ha. in 1998-99 to 3.50 lakh ha. in 1999-2000. But rice production increased from 7.27 lakh tonnes in 1998-99 to 7.71 lakh tonnes in 1999-2000. It is significant to point out that productivity of rice reached a new peak of 2203 kg. per ha., higher than the national average of 1,930 kg. per ha. But it is relevant to note in this situation that out of the gross cropped area of 3.50 lakh ha, the coverage of HYV is 2.10 lakh ha. which represents only 60 per cent of the cropped area. The question of the coverage of HYV has therefore to be constantly reviewed from the point of view of raising rice production.

1.27 Production of non-food crops, generally was not encouraging. Production of Ginger decreased from 39,362 tonnes to 38607 tonnes, Pepper from 68,510 tonnes to 56,431 tonnes, Turmeric from 8,034 to 7,945 tonnes and Coffee from 61,150 to 60,470 tonnes and cashew from 51,336 tonnes to 46,366 tonnes. The major crops which recorded increases in production, were arecanut from 13,595 million nuts to 16,014 million nuts, tea from 68,373 tonnes to 71,295 tonnes and Rubber from 5.59 lakh tonnes to 5.73 lakh tonnes.

Livestock

1.28 Kerala accounts for 1.75 per cent of the total cattle population in the whole country. About 68% of the breedable cattle in the State is crossbred, made possible by expanded facilities and veterinary services. So far, out of 2,792, new artificial insemination centres, 2440 have been established by the Animal Husbandary Department and 352 by other agencies. During 1999-2000, 13.91 lakh artificial inseminations were done. The embryo transfer technology introduced in the recent past is yet another step towards livestock development. As a result of these measures, milk production increased from 10.78 lakh tonnes in 1982-83 to 25.25 lakh tonnes in 1999-2000. Milk production in Kerala during the last two decades registered 9.3 per cent growth per annum as against 4.7 per cent at the national level. The per capita availability of milk stood at 214 grams per day, during

1999-2000. At present, the State has three cattle feed plants.

1.29 The Kerala Milk Marketing Federation, the implementing agency for Operation Flood Programme, operates through 2300 Anand Pattern Co-operative Societies (APCOS) with a membership of 6.21 lakh. With the commissioning of North Kerala Dairy Project, the entire state has been brought under the network of APCOS for procurement of milk.

1.30 Production of eggs has gone up from 1605 million in 1991-92 to 2033 million in 1997-98 and to 2,054 million in 1999-2000. The target fixed for the Ninth Plan is 2929 million eggs.

1.31 The total fishermen population in the State in 1999-2000 is estimated at 10.50 lakh. Fishing activities in the State are still concentrated inshore. The potentials of the offshore (deep-sea) area and inland areas remain largely unexploited. The inland sector, with potential water-spread of 3.6 lakh ha., accounts for only about 0.68 lakh tonnes, i.e., 10.18 per cent, of the total fish catch in the State in 1999-2000. In order to expand the coverage of inland fisheries a new project for the development of culture fisheries in five irrigation reservoirs and a new scheme 'Janakeeya Matsyakrishi' have been launched in the State.

1.32 The total fish catch during 1999-2000 was 6.68 lakh tonnes, as against 6.48 lakh tonnes in 1998-99. Out of the total catch in 1998-99, the share of marine sector was 5.94 lakh tonnes, and that of the inland sector was 0.74 lakh tonnes.

1.33 The export of marine products from Kerala in 1999-2000 stood at 0.92 lakh tonnes valued at Rs.1,142 crore, out of the total export of 3.43 lakh tonnes from the whole country valued at Rs.5,117 crore. Thus, Kerala's share in the total marine products exports from country was 27 per cent in terms of quantity and 22 percent in terms of value in 1999-2000.

1.34 A new programme of Janakeeya Matsyakrishi, introduced during the Ninth Plan with people's participation, achieved a coverage of 9,149 ha in 817 Panchayats, 43 Municipalities and two Corporation areas for inland fish culture.

Irrigation

1.35 The cumulative investment on irrigation in Kerala till the end of 1999-2000 amounted to Rs.2,735 crore, out of which 68% was on major and medium irrigation projects. The total irrigation potential created so far is 3.90 lakh ha. (net) and 4.40 lakh ha. (gross).

1.36 Of the cumulative investment of Rs.2,735 crore, that on major and medium irrigation projects amounts to Rs.1,877 crore as at the end of March 2000.

1.37 The Ninth Plan envisaged completion of eight projects which include four originally scheduled for the Eighth Plan viz. Chimmoni, Pazhassi, Kanhirapuzha and Kanakkankadavu. Karappuzha, Kallada, Moovattupuzha and Idamalayar are the other four proposed for completion. Out of these Chimmoni, Kanakkankadavu Pazhassi and Kanhirapuzha could be completed. The remaining four are likely to spillover to the Tenth Five Year Plan. Financial assistance from NABARD, under its RIDF programme, which was operational from 1995-96 onwards, has been helpful in the speedy completion of some of the major irrigation projects.

1.38 Along with time bound completion of projects which are in advanced stages during the Ninth Plan, emphasis also has been on revamping and consolidation of old generation projects commissioned prior to 1970, for optimal utilisation of the potential through appropriate restructuring in the delivery systems and active involvement of the people in the scientific management of the irrigation systems and water use.

1.39 Anti-sea erosion works (Coastal Zone Management), implemented with Central Government support upto the beginning of the Eighth Five Year Plan, are being implemented now as a State scheme. But the coverage of this activity

had to be scaled down. Upto March 2000, 357.95 kms of new sea wall were constructed and reformation works of 85.55 kms of old seawall were carried out.

Command Area Development

1.40 Command area development, is implemented in the commands of 16 completed projects. During 1999-2000, field channels were constructed to benefit 21228 ha. Warabandi system covered 5743 ha., and 305 training programmes arranged and demonstration covered 12082 ha. The programme has to be actively pursued with people's participation to ensure that the farmers realise the benefits of the irrigation potential created.

Energy

1.41 The installed capacity as at the end of March, 1996 was 1505 MW. This has since been enhanced to 2522 MW by January 2001 (i.e. by 68%). The total energy generated during the year was 7655 MU in 1999-2000, while power purchased from the Central pool increased from 3595.58 MU in 1998-99 to 4275.04 MU in 1999-2000. The number of consumers has increased from 56.39 lakh in 1998-99 to 60.30 lakh in 1999-2000.

1.42 The cumulative investment for power development up to the end of March, 2000 amounts to Rs.4,594 crore, with the expenditure during 1999-2000 amounting to Rs.650 crore. Total energy available, including energy purchased in 1999-2000 was 11,930.6 MU. The T&D losses stood at 17.11 percent. Energy sold during 1999-2000 was 9,812.88 MU. Revenue realised by the sale of power amounted to Rs.1,668 crore in 1999-2000. The Kerala State Electricity Board (KSEB) has run into severe financial problems on account of higher recurring expenditure. Consequently, the Board had to resort to high cost borrowing, much higher than the investment plan, not only for capital outlay but also for meeting part of its current account expenses.

1.43 Power situation has considerably improved in the State during the last three years. Power cut and load shedding have been completely withdrawn. Note has to be taken however that per capita consumption of electricity in the State during 1998-1999 was 278 KWH, which is far below the national average of 334 KWH for 1998-99. However, in 1999-2000, per capita consumption in the State has gone up to 300.56 KWH. Dependence on hydroelectric power and the undue delay in commissioning of the projects already taken up for implementation have to be reviewed to take appropriate measures to ensure adequate power supply. In view of the resource constraints faced by the State Government, it has been decided to mobilise funds for the massive investment required for setting up power plants. To involve the private sector in power development, initiatives taken so far have borne fruit.

1.44 Government have decided to reorganise Kerala State Electricity Board (KSEB) into separate profit centres of generation, transmission and distribution. Formation of the State Electricity Regulatory Commission is also under consideration.

Industry

1.45 Even though the recessionary trend witnessed in the country in the recent past had its impact on the State's industrial scene as well, the sector has shown a fair amount of resilience and achieved reasonably good growth rate.

1.46 With the financial support of Kerala State Industrial Development Corporation (KSIDC), 42 projects involving a total investment of Rs.243 crore on large and medium industries could be commissioned in 1999-2000. Another 72 projects costing Rs.1506 crore were under various stages of implementation. KSIDC signed MOUs for establishing 40 projects with private sector firms at a total investment of Rs.897 crore. Out of 60 companies functioning under the Industries Department, 24 were working on profit during1999-2000. Together these units, earned a total profit of Rs. 20 crore during the year.

1.47 The major projects taken up by Kerala Industrial Infrastructure Development Corporation (KINFRA), are Export Promotion Industrial Park at Kochi, International Apparel Park at Thiruvananthapuram, Integrated Infrastructure Development Centre at Thiruvananthapuram, Techno Industrial Park at Malappuram and the Integrated Industrial Township at Palakkad. These parks, when completed, would attract a good number of plants and establishments and create employment. KINFRA had spent Rs.151.58 crore upto 31.03.2000, out of which State Government contribution was Rs.133 crore.

1.48 Total built up area in Technopark is 4.89 lakh sq.ft. which has been fully occupied by 54 Software/Electronics units, employing about 6795 persons. Twenty-seven are software units. Total investment by State Government on Technopark is Rs. 80 crore up to 31.03.2000. The Earth Station in Technopark is operated by the Central Government's Software Technology Park (STP) based in Thiruvananthapuram. In the complexes set up with allocations out of the plans of the Municipal Corporations and run directly by the STP in Thiruvananthapuram, Kochi and Kozhikode, 27 small software firms are already operating.

1.49 Recognising the State's potential trend in Information Technology an Information Technology Policy for the State has been formulated by the State Government and a separate Department for Information Technology has been established. The Department has drawn up a number of future programmes in Information Technology for implementation in the State.

1.50 The number of working factories in the State rose from 18,259 in 1998 to 18,340 by the end of 1999. The number of workers employed increased from 4.43 lakh to 4.51 lakh during the period.

1.51 During 1999-2000 as many as 20,006 small-scale industries were newly registered in the State. The total investment in these units amounted to Rs.397 crore. The total number of small-scale units stood at 2.20 lakh providing employment to 10.01 lakh persons. The new units registered in 1999-2000 provided employment to 72,042 persons. Out of 20,006 units newly registered, 504 units were run by Scheduled Castes, 39 by Scheduled Tribes and 3,873 by women. The Kerala Financial Corporation sanctioned an amount of Rs.176 crore to 1631 units during 1999-2000, out of which Rs.71 crore were sanctioned to small-scale units.

1.52 The new Industrial Policy announced by the State Government envisages a number of incentives and promotional measures for industrial development in the State. The Kerala Industrial Revitalisation Fund Board has been established for revitalising potentially viable Public sector undertakings with funds mobilised from State Government and Financial Institutions. An amount of Rs. 50 crore has already been sanctioned to 14 units.

1.53 The traditional industries, by and large, have shown reasonable growth in output and income, even though many of them were beset with a variety of problems. Coir, the major traditional industry in the State, provides employment to about four lakh workers, of whom as many as 84 per cent are women. As on 31.3.2000, there were 803 coir co-operative societies. The Integrated Coir Development Project is aimed at modernising the industry. Under this programme, mechanised defibering mills and motorised spinning units, with financial support from Government of India and NCDC have been started. The State Government proposes to give thrust to the development of Coir Geo-textiles, an emerging area of growth because of the potential demand. Export earnings of coir and coir products in 1999-2000 stood at Rs.303 crore as compared to Rs.293 crore in 1998-99. Handloom industry provides employment to about two lakh workers. Eventhough the industry has shown improved performance in terms of the number of looms acquired and production

of cloth, the major problem of unsold stock of handloom cloth continues to persist. By the end of March 2000, production of handloom cloth was 74.45 million meters. Shortage of raw cashewnut continues to be the main problem faced by the Cashew industry. The quantity of raw cashew imported in 1999-2000 was 226,396 MT valued at Rs.1,054 crore. Export earnings through the export of cashew kernels and cashew shell liquid amounted to Rs.2,453 crore during 1999-2000. The net foreign exchange earnings amounted to Rs1,399 crore.

1.54 The progress of Sericulture in the State has not been at the expected level. Against the Eighth Plan target of 50,000 acres of land under mulberry cultivation, the achievement was only 1476 acres till the end of 1996-97. During 1997-98 and 1998-99, 3024 acres have been brought under mulberry cultivation and 1,152 acres in 1999-2000. At present, about 6500 acres are under mulberry cultivation. With a view to activating the programme, a new organisation called, "The Kerala State Sericulture Co-operative Federation" (SERIFED) has been set up. Measures initiated by SERIFED for reviving sericulture, seem to be making a good impact.

1.55 The State's share of Central Sector Investment was 1.69 per cent in 1999, which shows a small increase from 1.50 per cent in 1998. Total Central sector investment in the country during 1998-99 rose from Rs. 3,19,829 crore to Rs. 3,53,660 crore in March 1999. Out of the incremental investment of Rs. 33,831 crore, Kerala's share was Rs. 1,249 crore, showing that the State's share of the incremental investment was somewhat higher being 26.4% compared to the all-India level of 10.6 %. In absolute terms, Central sector investment in Kerala went up from Rs. 4,717 crore in 1998 to Rs.5962 crore in 1999.

Transport

1.56 Eventhough the State has a wide transport network, there are several places at which the road network, including road width, is not adequate to accommodate the fast growing motor vehicle population. Total road length in the State in 1999-2000 was 1.24 lakh kms. The total number of motor vehicles stood at 19.10 lakh as on 31.3.2000. Out of 58,888 passenger buses and stage carriages in the State as on 31.3.2000, the number of buses owned by KSRTC were 4,093.

1.57 Kollam, Kochi and Kottappuram stretch of West Coast Canal alongwith the Champakara Canal and Udyogamandal Canal was declared as National Water Way No.III by Central Government. A project for development of Inland Waterways has been agreed to to be funded by World Bank and consultants are at work for preparing the Project Report.

Tourism

1.58 Foreign tourist arrivals in the State during 1999 were 2.20 lakh as compared to 1.90 lakh in the previous year, registering an increase of 6.5 per cent. The total number of tourists including domestic arrivals in the State stood at 50.90 lakh in 1999.

1.59 Kerala Tourism Development Corporation (KTDC) runs a chain of hotels, motels, yatrinivas etc. Priority is being given to infrastructural development and marketing as part of the overall tourism development. A new Four-star hotel at Munnar was inaugurated in 1999. The Bakel Resorts Development Corporation (BRDC) was formed for implementing a comprehensive tourism programme for Bakel Fort and adjoining areas. The estimated cost of the project is Rs.130 crore, out of which State Government's contribution is placed at Rs.35 crore. BRDC has initiated a number of steps for the development of the area. The first site developed by the Corporation has been handed over to KTDC for setting up a Star Hotel.

Education

1.60 According to 1991 Census, Kerala's literacy rate was 89.91 per cent compared to the all-India average of [illegible] per cent. The female literacy [illegible] 86.17 per cent in Kerala co[illegible]

national average of 39.29 per cent. The literacy rate for Scheduled Castes and Scheduled Tribes in the State stood at 69.38 per cent and 48.62 per cent respectively.

1.61 During 1999-2000, there were 12,310 schools in the State, out of which 4,490 (37%) were Government Schools, 7,305 (59%) private aided schools and 515 (4%) private unaided schools.

1.62 Out of the 12,310 schools, 6748 were Lower Primary Schools, 2966 Upper Primary and 2596 High Schools in addition to the L.P and U.P. sections attached to the U.P. and High Schools.

1.63 School enrolment in the State of 52.49 lakh, in 1999-2000, was lower compared to 53.36 lakh in the previous year. Out of the total enrolment 25.78 lakh were girls. The decline in school enrolment is explained by experts in terms of demographic factors principally birth rate decline. The number of teachers in the year under review was 1.85 lakh. The teacher pupil-ratio is 1:28. The number of uneconomic schools with enrolment less than 25 per standard, a peculiar phenomenon witnessed in Kerala, stood at 2244 in 2000, comprising 993 Government Schools and 1251 private aided schools. Correspondingly, the number of protected teachers was 2408 in 2000. Higher Secondary course was introduced in the State in 1991-92. In 1997-98, decision was taken to delink Pre-degree courses in a time bound manner. At present there are 931 Higher Secondary Schools, of which 417 are Government Schools, 506 private aided schools and 8 unaided schools. Total enrolment in Higher Secondary courses stood at 16560 in 2000 with girl students comprising 58%.

1.64 There are seven Universities and 186 Arts and Science Colleges in the State. Out of the total number of colleges, 38 are Government colleges and 148 private aided colleges. 51 colleges were affiliated to Kerala University, 57 to Mahatma Gandhi University, 60 to Calicut University and 18 to Kannur University. In addition, there were 25 unaided colleges in the State. Enrolment of students at the university level stood at 2.90 lakh out of whom girl students accounted for 62.5 per cent. The teaching faculty had a total strength of 11643 in 1998, out of whom 53 per cent were women teachers.

1.65 For Technical Education in the State, there are 32 Engineering Colleges, comprising eight Government Colleges, five private aided colleges, one Regional Engineering College, six Self Financing Colleges and one Model Engineering College. Six new colleges have been started in 1999-2000. There were 54 Polytechnics and 39 Technical High schools. The total enrolment in Engineering Colleges stood at 8,543 in 2000, and that in Polytechnics 9630. Besides, the total enrolment in Cochin University of Science and Technology for various courses was 1864 in 2000.

1.66 The total expenditure on education in 1999-2000 amounted to Rs.2480 crore as against Rs.1929 crore in the previous year. Out of the total expenditure, Rs.1235 crore was spent on primary education, Rs.765 crore on secondary education, Rs.340 crore on University and Higher Education and Rs.125 crore on Technical Education.

1.67 With the existing levels of budget allocations, and given the financial constraints of the State Government, the scope for appreciably increasing the budget provision for improving the quality of education is rather limited. Resource mobilisation through higher cost recovery, without adversely affecting the access of weaker sections to education, may have to be resorted to for meeting the increasing finances needed for quality improvement in higher education.

Health

1.68 Kerala has made notable achievements in health and these are reflected in the attainment of low infant mortality rate, low maternal mortality rate, low birth rate, low death rate, high life expectancy etc. The decadal growth rate (1981-91) in population was 14.32% as

against the all India average of 23.5%. These achievements have been made possible through a wide network of health infrastructure, general health consciousness and clean health habits of the people, combined with virtually total literacy among not only men but also women of Kerala.

1.69 The public sector health care facilities in the Government sector in the State consist of 143 hospitals, five General Hospitals, 11 District Hospitals, 36 Taluk Hospitals, 67 Intermediate Hospitals, eight Women and Child Hospitals, three Leprosy Hospitals, three TB Hospitals, three Mental Hospitals, one Regional Cancer Centre and one Ophthalmic Hospital in addition to 944 Primary Health Centres, 105 Community Health Centres and 5,094 sub-centres. The Ophthalmic Hospital, Thiruvananthapuram has been converted into Regional Institute of Ophthalmology. The total bed strength in these hospitals put together was 45,684. The number of beds in the Government sector for the three systems of medicine per lakh of population stood at 154 during 2000. Total bed strength including those in the private sector is 360 per lakh of population. There were 24,303 medical and paramedical personnel with the Department of Health Services and 1874 clinical and non-clinical personnel in the Medical Education Department. Under the latter, there are six medical Colleges, two Dental Colleges and three Nursing Colleges. In the non-governmental sector, there were 4,288 Allopathic Hospitals, 4,922 Ayurveda Hospitals and 3,118 Homoeopathic Institutions with bed strength of 70,924.

1.70 In the State there were also 113 Ayurveda hospitals with 2,604 beds and 679 dispensaries in the Government Sector. Out of five Ayurveda Colleges in the State, three are in the Government Sector and two in the Private Sector, with an annual intake of 170 students for BAMS, the Bachelor's degree. MD course in Ayurveda is imparted at the Ayurveda College, Thiruvananthapuram with an intake of 42 candidates.

1.71 In 2000, there were 31 Homoeopathic Hospitals with 970 beds and 524 dispensaries. Besides there are two clinical laboratories, one attached to the District Homoeo Hospitals, Thodupuzha and the other to District Homoeo Hospital, Pushpakandom and one rehabilitation centre for mentally retarted attached to Government Homoeo Hospital, Thiruvananthapuram. There are four Homoeo Medical Colleges in the State of which two are in the Government sector and two in the private sector with an annual intake of 224 students.

1.72 The Family Welfare programmes in the State are implemented through the network of 944 Primary Health Centres, 105 Community Health Centres and 5,094 sub-centres. The present couple protection rate in the State is 64.32 as against the all India average of 60.

1.73 The total government expenditure on health stood at Rs.639.25 crore in 1999-2000. The per capita expenditure on health increased from Rs.178 in 1998-99 to Rs.233 in 1999-2000.

Housing

1.74 The total demand for houses in the State projected for 2001 AD is 15.94 lakh. A significant aspect of housing policy in recent years has been to address particularly the requirements of weaker sections. During the period 1991-1999, 6.87 lakh houses were constructed, supported by Government and its agencies. Also, the role of institutional finance for funding the housing programmes is on the increase.

1.75 As many as 30 agencies are involved in housing programmes in the State, the major ones being Revenue Department, Kerala State Housing Board, Finance Department, Kerala State Development Corporation for Scheduled Castes and Scheduled Tribes, State Co-operative Housing Federation etc. With decentralisation of planning, local bodies have emerged as major agencies involved in housing, especially for those belonging to economically weaker sections.

1.76 Housing Board is the major public agency contributing about 43 per cent of a total of 1.57 lakh houses constructed during 1999-2000. Cumulatively, as of 31.3.2000, the Board constructed/assisted 4.85 lakh houses under various schemes. During 1999-2000, 67,897 houses were constructed by the Board. The Co-operative Housing Federation extended financial assistance for the construction of 1,16,565 houses cumulatively as of 31.3.2000. During the period 1997-2000, a total of 9.23 lakh houses have been constructed in the State, out of which local bodies assisted construction of 3.06 lakh houses. In 1999-2000 alone 4.27 lakh houses have been constructed.

Water Supply

1.77 In 2000, 1611 rural water supply schemes and 50 urban water supply schemes were under implementation, out of which 156 water supply schemes were completed.

1.78 In order to meet the huge investment requirement for providing protected water supply, mobilisation of resources through institutional sources and more realistic user charge policies will be crucial for achieving total coverage.

1.79 Local Bodies have formulated about 19,010 water supply schemes with a financial allocation of Rs.159 crore during the first three years of the Ninth Plan.

Bank & Institutional Finance

1.80 There has been a sharp decline in the credit-deposit (CD) ratio of the commercial banks in the State, in recent years. The CD ratio of the banks has declined from 64.77 in March 1988 to 42.53 in September 2000. A more disturbing aspect about the decline in the CD ratio, apart from its impact on development in general, is the fall in credit flow to priority sector areas as a ratio of bank deposits. Also Kerala's share of assistance sanctioned by All India Financial Institutions has been declining steadily. As on 31.3.1998, the share was only 1.6%, next only to Assam. The fall in CD ratio and the very low share of assistance sanctioned by All India Financial Institutions have hampered the tempo of investment in the State. Needless to say that unless investment, that too of the right type, takes place on a substantial scale, the economic growth of Kerala would be difficult to accelerate.

Plan Outlay

1.81 The plan implementation in the State has steadily improved from year to year since the commencement of the Eighth Five Year Plan. Kerala had the distinction of having achieved the Eighth Plan outlay of close to 100 per cent in real terms. The outlay for the State's Ninth Five Year Plan was fixed at Rs.16,100 crore. This is 195 per cent higher than the outlay for the Eighth Five Year Plan. In the first two years of the Nith Plan, 1997-98 and 1998-99, expenditures have exceeded the budgeted outlay.

Decentralisation of Planning

1.82 The process of decentralised planning launched by the State Government during 1997-98 has meant a major change in the approach to planning and development. The enthusiasm generated in the countryside, and among the masses, is also a reflection of the new approach to development. There is increasing realisation that the problems of the people can best be addressed by themselves by participating in planning and development. This has been achieved through the People's Planning Campaign launched in 1996. It is being increasingly recognised that in the race for economic development, the solutions to the problems that are directly faced by the people rest on the initiatives they themselves take. For the Annual Plan, 2001-02, 36% of the State Plan, will be allocated to the Local Bodies. Plan grant to the local bodies will be allocated on the basis of whatever criteria are recommended by the State Finance Commission which has already submitted its report and is under consideration of the State Government.

1.83 In order to make decentrtalised planning meaningful and to equip the Panchayati Raj Institutions to formulate, implement and monitor development programmes, a People's Campaign was

launched in August 1996 throughout the State. The objective of this campaign is to ensure people's participation at all stages right from preparation of shelf of projects and prioritise them for the programmes to be included in the Ninth Plan and the Annual Plans to the implementation stage. A major exercise for preparing District Perspective Plans is in its final stages in all the districts. The Campaign has received wide attention, nationally and internationally, as evidenced by the delegations that have been visiting the State. An International Conference of Democratic Decentralisation held at Thiruvananthapuram was well attended by academicians, administrators, political leaders from within the country and abroad. A World Bank team that visited the State in December 1998, reviewed the plan decentralisation process undertaken in the State and considered it as a unique exercise in decentralisation. The Bank has also approved a project on water supply schemes to be implemented through Panchayats with a financial support of about Rs.350 crore. The project has already been taken up for implementation. The Swiss Agency for Development and Cooperation (SDC), an agency of the Government of Switzerland, is currently providing financial support for strengthening the infrastructural facilities for training and human resource development for decentralised planning. A scheme for computerising the local bodies has been approved by the Union Planning Commission and special central assistance of Rs.31 crore has been allocated by Planning Commission. This was in addition to the Centre's allocation of Rs.4.68 crore during 1996-98 for meeting the Campaign's expenses.

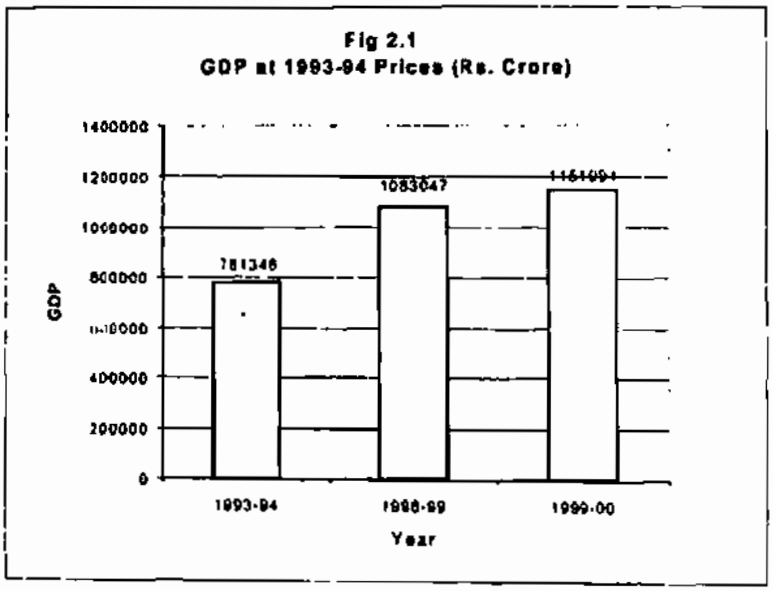
1.84 In general, the economy of the State performed reasonably well with the rate of growth during the year under review, being 16.81%in 1999-2000. Appropriate policies, institutional reforms, speedy decision-making, good public management and fostering of a climate favourable for savings and investment would be essential to sustain progress in the State's development

CHAPTER - 2
INCOME EMPLOYMENT AND POPULATION

National Income

Gross Domestic Product (GDP) at factor cost at constant (1993-94) prices in 1999-2000 is Rs. 1,151,991 crore as against Rs. 1083,047 crore in 1998-99 registering a growth of 6.4 per cent during the year as against the growth rate of 6.6 per cent during the previous year. At current prices, GDP in 1999-2000 is estimated at Rs. 1,786,459 crore as against Rs. 1,616,033 crore in 1998-99, showing an increase of 10.5 per cent during the year.

2.2 At constant (1993-94) prices the national income (i.e. net national product at factor cost) in 1999-2000 is estimated at Rs. 1,011,224 crore as against Rs. 948,982 crore in 1998-99 showing an increase of 6.6 per cent during the year. At current prices, the National Income in 1999-2000 is estimated at Rs. 1,590,301 crore as compared to Rs. 1,434,456 crore in 1998-99 showing an increase of 10.9 per cent during the year.



2.3 The growth rate of 6.4 per cent GDP during 1999-2000 has been mainly due to increases in growth rate in fishing (from -4.8 to 7.7%), manufacturing (from 2.5 to 6.8%), railways (from 1.8 to 9.0%), Community, Social & Personal Services (from 9.9 to 11.8%) etc. But there was decline in the growth of agriculture (from 7.9 to 0.3%), electricity, gas & water supply (6.4 to 5.2%), Hotels & restaurants (from 12.5 to 8.2%) and Communication (from 18.9 to 10.7%). One of the major setbacks noticed during 1999-2000 was a steep fall in the saving of the public sector. The saving of the Public Sector showed a decline from (-) Rs. 14,345 crore in 1998-99 to (-) Rs. 23,220 crore in 1999-2000. This is solely due to increase in the dissaving of government administrative departments from (-) Rs. 86,975 crore in 1998-99 to (-) Rs. 105,508 crore in 1999-2000.

Table 2.1
Sectoral Real Growth Rates in GDP (all-India)
(At factor cost 1998-99 to 1999-2000)

	Per cent change over the previous year	
	1998-99	*1999-2000(Q)*
1. Agriculture & Allied Sectors	7.1	0.7
2. Mining & Quarrying	1.3	1.7
3. Manufacturing	2.5	6.8
4. Electricity, Gas & Water Supply	6.4	5.2
5. Construction	6.1	8.1
6. Trade, Hotels & Restaurants	7.0	7.9
7. Transport, Storage & Communication	7.3	8.3
8. Financing , Insurance & Real estate	8.4	10.1
9. Community, Social & Personal Services	9.9	11.8
10 .Total: GDP at factor cost	6.6	6.4

Q: Quick estimate
Source: CSO, New Delhi.

Per Capita National Income

2.4 The Per capita Income (Per capita net national product at factor cost in real terms i.e. at 1993-94 prices) is estimated at Rs. 10,204 for 1999-2000 as against Rs. 9,733 for 1998-99, registering an increase of 4.8 per cent during the year. The Per capita income at current prices is estimated at Rs. 16,047 in 1999-2000 as against Rs. 14,712 for the previous year depicting a growth of 9.1 per cent. Details of National Income are given in Appendices 2.1 to 2.4.

Table 2.2
National Product, Domestic Product and Per capita Income at Factor Cost (all -India)

(Rs. Crore)

Sl.No. Item	*At current prices*		*At 1993-94 Prices*	
	1998-99@	*1999-2000**	*1998-99*	*1999-2000*
1	*2*	*3*	*4*	*5*
1. Gross National Product (GNP)	1601,065 (16.3)	1,771,028 (10.6)	1,071,073 (6.5)	1,140,389 (6.5)
2. Net National Product (NNP)	1,434,456 (17.1)	1,590,301 (10.9)	948,982 (6.5)	1,011,224 (6.6)
3. Gross Domestic Product(GDP)	1,616,033 (16.3)	1,786,459 (10.5)	1,083,047 (6.6)	1151991 (6.4)
4. Net Domestic Product(NDP)	1,449,424	1,605,732	960,956	1,022,826
5. Per Capita National Income	14,712 (15.2)	16,047 (9.1)	9,733 (4.8)	10,204 (4.8)

Figures within parentheses indicate percentage change over the previous year
@ Provisional estimates
**Quick estimates*
Source: CSO, New Delhi.

Table 2.3
Gross Domestic Product at Factor Cost - Percentage Distribution (all-India)

Sl. No.	Item	At current prices		At 1993-94 prices	
		1998-99	1999-2000	1998-99	1999-2000
1	2	3	4	5	6
1	Agriculture, Forestry & Fishing	28.5	27.1	26.6	25.2
2	Mining & Quarrying	2.2	2.1	2.4	2.3
3	Manufacturing	15.6	15.4	17.0	17.1
4	Electricity, Gas and Water Supply	2.6	2.7	2.5	2.5
5	Construction	5.7	5.9	5.0	5.1
6	Trade, Hotels, & Restaurant	13.9	13.8	14.4	14.6
7.	Transport, Storage and Communication	6.9	6.9	7.2	7.3
8.	Financing, Insurance & Real estate	11.2	12.0	12.3	12.7
9.	Community, Personal & Social Services	13.4	14.1	12.6	13.2
10.	Total GDP	100.0	100.0	100.0	100.0

Source: CSO, New Delhi

State Income

2.5 State Income i.e. Net State Domestic Product at factor cost, at current prices, increased to Rs. 62556.75 crore in 1999-2000 as against Rs. 53552.67 crore in 1998-99, registering a growth of 16.81 per cent compared to 15.97 per cent in 1998-99. (See Table 2.4)

Table 2.4
Net State Domestic Product and Percapita Income of Kerala

Sl. No.	Item	Year			Growth rate (%)	
		1997-98(P)	1998-99(P)	1999-2000(Q)	1998-99(P)	1999-2000 (Q)
1.	Net State Domestic Product (Rs. in crore) I. At Current prices	46178.01	53552.67	62556.75	15.97	16.81
	II. At Constant Prices	28600.11	30091.50	@	5.22	..
2.	Percapita Income (In Rs) i. At Current Prices	14642	16811	19461	14.81	15.76
	ii. At Constant Prices	9068	9446	@	4.17	..

P Provisional; Q Quick Estimate; @: Not calculated as the deflators have not become available.
Source: Department of Economics and Statistics.

2.6 Contrary to the general belief that the economy of the State is growing at a rate lower than other states, the latest publication of the Reserve Bank of India, 'Handbook of Statistics on Indian Economy 2000', shows that the Net Domestic Product of Kerala registered a growth of 59.08 per cent during the period 1989-90 to 1997-98. This is higher than that of Tamil Nadu (58.64%) and a good deal higher than that of Karnataka (51.26%) and several other States. In fact Kerala ranks fifth among the major States with regard to growth rate of State Income during this period. State-wise comparison is given in Table 2.5.

Table 2.5
State-wise Growth of Net State Domestic Product
(At Factor Cost: Constant Prices)
(Percentage)(Base: 1980-81)

State	*Growth Rate*	
	1980-81 to 1989-90	*1989-90 to 1997-98*
1. Gujarat	63.14	72.58
2. Maharashtra	71.81	64.80
3. Andhra Pradesh	57.61	72.82
4. West Bengal	43.16	65.76
5. Kerala	27.96	59.08
6. Madhya Pradesh	38.69	51.65
7. Tamil Nadu	58.88	58.64
8. Rajasthan	77.51	52.08
9./ Karnataka	61.91	51.26
10. Haryana	70.78	45.71
11. Punjab	65.54	37.71
12. Orissa	52.02	14.88
13. Uttar Pradesh	53.45	27.27
14. Bihar	47.50	13.74

Source: Handbook of Statistics on Indian Economy 2000, Reserve Bank of India

Per Capita State Income

2.7 Per Capita Net State Domestic Product at current prices increased from Rs. 16811 in 1998-99 to Rs. 19461 in 1999-2000 recording a growth of 15.76 per cent. It is important to note that, the per capita income of the State higher than that at National level.

Sectoral Distribution of State Income

2.8 Sectoral contribution of State Income during the last three years is given in Table2.6

Table 2.6
Sectoral Share of Net State Domestic Product at Factor Cost

Sector		*1997-98(P)*	*1998-99 (P)*	*1999-200 (Q)*
Primary	Current price	29.45	29.18	28.72
	Constant Price	28.32	27.97	@
Secondary	Current price	22.02	21.40	20.64
	Constant Price	20.35	19.98	@
Tertiary	Current Price	48.53	49.42	50.64
	Constant Price	51.33	52.05	@

P- Provisional
@ -Deflator for working out the constant rates has not become available
Q- Quick Estimate

District-wise Income

2.9 District-wise distribution of Net State Domestic Product at factor cost at current prices shows that Ernakulam district continues to have the highest income at Rs.7401crore in 1999-2000 as against Rs. 6487 crore in 1998-99 recording a growth of 14.1 per cent over the previous year. Thiruvananthapuram district stands second with an income of Rs. 6584 crore in 1999-2000 followed by Thrissur (Rs.6178 crore), Kozhikode (Rs. 5238crore), Alappuzha

(Rs.4931 crore) and Kollam (Rs.4739 crore). The lowest district income was recorded in Kasaragod (Rs.2073 crore) in 1999-2000.

2.10 Highest rate of growth of Net District Domestic Product at factor cost at current prices in 1999-2000 was recorded in Wayanad district (80per cent) followed by Alappuzha (39.5 per cent), Idukki (37 per cent) and Palakkad (24 per cent). A growth rate of 18 per cent was recorded in two districts viz. Thiruvananthapuram and Malappuram. Lowest rate of growth was recorded in Kollam district (4.8 Per cent) while Kasaragod district showed a negative growth rate (-3.3 per cent) during 1999-2000. (See Table - 2.7).

Table 2.7
District-wise Distribution of Net State Domestic Product

(Rs. in Crore)

Sl. No.	District	Net State Domestic Product at Factor Cost				Growth Rate (%)	
		At 1993-94 Price		At Current price		At 1993-94 Price	At Current Price
		1997-98	1998-99 (P)	1998-99	1999-2000(Q)	1998-99	1999-2000
1	2	3	4	5	6	7	8
1.	Thiruvananthapuram	3002.98	3162.09	5567.94	6583.70	5.30	18.24
2.	Kollam	2420.27	2543.75	4520.33	4739.26	5.10	4.84
3.	Pathanamthitta	1151.74	1211.57	2106.40	2312.26	5.19	9.77
4.	Alappuzha	1906.05	2007.26	3535.56	4931.21	5.31	39.47
5.	Kottayam	1936.75	2040.35	3644.58	4218.96	5.35	15.76
6	Idukki	1171.80	1228.72	2154.20	2738.76	4.86	27.14
7.	Ernakulam	3424.96	3606.92	6487.23	7400.98	5.31	14.09
8.	Thrissur	2802.89	2952.26	5535.78	6177.76	5.33	11.60
9.	Palakkad	2017.08	2123.26	3733.59	4637.61	5.26	24.21
10.	Malappuram	2196.43	2312.20	4129.56	4872.01	5.27	18.00
11.	Kozhikode	2565.83	2702.00	4872.68	5237.76	5.31	7.49
12.	Wayanad	652.57	684.11	1218.46	2194.09	4.83	80.07
13.	Kannur	2215.44	2326.45	4201.73	4439.28	5.01	5.65
14.	Kasaragod	1135.32	1190056	2144.63	2073.11	4.87	-3.33
	State	28600.11	30091.50	53552.67	62556.75	5.22	16.81

Source: Department of Economics and Statistics.
Note: Income at constant prices for 1999-2000 not calculated as the deflators have not become available

District wise Per capita Income

2.11 Among the districts, Wayanad stood first with the per capita district income with Rs 34123 at current prices in 1999-2000 as against Rs. 16555 in 1998-99 registering a growth of 106 per cent, followed by Ernakulam (Rs. 23020), Alappuzha (Rs.21916), Kottayam (Rs, 21871), Thrissur (Rs. 21362) and Idukki (Rs 21297). Lowest Per capita income was recorded in Malappuram (Rs.13782) in 1999-2000.

2.12 During 1999-2000, highest rate of growth in per capita income was recorded in Wayanad district with 106 per cent followed by Alappuzha (36 per cent), Palakkad (26 per cent), Thrissur (22 per cent), and Kottayam (20 per cent). Lowest growth rate in percapita income was recorded in Kannur district (1.26 per cent) while negative growth rate (-11.83) was noticed in the case of Kasaragod district. (See Table 2.8).

Table 2.8
District wise Per Capita Income at Current Prices

(Per capita Income in Rs.)

Sl. No	District	1998-99 (P)	Rank	1999-2000 (Q)	Rank	Growth Rate (%) 1999-2000
1.	Thiruvananthapuram	17260	6	20484	7	18.68
2.	Kollam	17148	7	18426	8	7.45
3.	Pathanamthitta	16191	11	17980	11	11.05
4.	Alappuzha	16137	12	21916	3	35.81
5.	Kottayam	18205	4	21871	4	20.14
6	Idukki	18256	3	21297	6	16.66
7.	Ernakulam	21035	1	23020	2	9.44
8.	Thrissur	17470	5	21362	5	22.28
9.	Palakkad	14316	13	18031	10	25.95
10.	Malappuram	12185	14	13782	14	13.11
11.	Kozhikode	16990	9	18105	9	6.56
12.	Wayanad	16555	10	34123	1	106.12
13.	Kannur	17046	8	17260	12	1.26
14.	Kasaragod	18283	2	16121	13	-11.83
	State	*16811*		*19461*		

Source: Department of Economics and Statistics.

District-wise Rate of Growth of Primary, Secondary and Tertiary Sector

2.13 At the State level, tertiary sector recorded highest rate of growth with19.7 per cent in 1999-2000 followed by Secondary sector with 12.6 per cent and Primary sector with 15.0 per cent. In districts, rate of growth of primary sector ranged between –38.8 per cent and 144.3 per cent, secondary sector between 12.5 per cent and 12.9 per cent, and Tertiary sector between 19.3 per cent and 20.0 per cent. Highest rate of growth of primary sector was recorded in Alappuzha (144.3 per cent), Secondary sector in Idukki district (12.9 per cent) and Tertiary Sector in Kannur (20 per cent) during 1999-2000. (see Table 2.9).

2.14 Sector-wise and district-wise details of State Domestic Product are given in Appendices 2.5 to 2.13.

Table 2.9
District-wise Rate of Growth of Sectoral Income during 1999-2000*(In per cent)

(At Current Prices)

Sl. No	District	Primary	Secondary	Tertiary
1.	Thiruvananthapuram	19.9	12.6	19.6
2.	Kollam	-19.4	12.5	19.7
3.	Pathanamthitta	-2.8	12.8	19.3
4.	Alappuzha	144.3	12.5	19.6
5.	Kottayam	11.0	12.7	19.6
6	Idukki	33.6	12.9	19.3
7.	Ernakulam	2.3	12.7	19.8
8.	Thrissur	20.0	12.6	19.8
9.	Palakkad	40.9	12.6	19.6
10.	Malappuram	18.0	12.8	19.7
11.	Kozhikode	-19.6	12.8	19.9
12.	Wayanad	131.8	12.8	19.3
13.	Kannur	-21.6	12.6	20.0
14.	Kasaragod	-38.8	12.5	19.6
	State	15.0	12.6	19.7

* *Quick estimate*

Unemployment

2.14 A paradox of Kerala's unemployment problem is that the State is facing a shortage of agricultural labourers and of construction workers in the unorganised sector, while the number of job seekers in the live register of Employment Exchanges keeps increasing. A peculiar feature of Kerala job seekers is that they register their names in Employment Exchanges mainly for white collar jobs while they may be engaged in some useful avocation for their livelihood especially in unorganised sector or might even have migrated either to other states or to gulf countries.

2.15 According to live registers of employment exchange in Kerala, the total number of work seekers in 2000 is 41.86 lakh, up from 37.84 lakh in 1998 and 39 lakh in 1999. It may be recalled that the total number of work seekers in 1994 stood at 41.69 lakh increasing from 41.57 lakh in 1993(Appendix 2.14). In 1995 job seekers who did not renew their registration even after three years (rule provides that job seekers have to renew their registration every three years), were removed from the live registers. This brought down the job seekers in 1995 to 32.26 lakh. But in 1996, the present Government allowed all those who had lost their registration to reregister their names. Similarly the upward revision in unemployment assistance also was an added incentive for more job seekers registering their names with the employment exchanges.

2.16 The number of job seekers who possess SSLC and above increased from 29.96 lakh in 1999 to 32.40 lakh in 2000. Their percentage share to total work seekers was 75 in 1998, which increased to 77 per cent in 1999 and 2000. Total work seekers below SSLC was 9.04 lakh in 1999 and 9.45 lakh in 2000.

2.17 The number of graduates who registered in employment exchange stood at 2.29 lakh in 1999. It was gone up to 2.50 lakh in 2000. The number of job seekers with post-graduate degrees increased from 0.52 lakh in 1999 to 0.579 lakh in 2000 (Appendix 2.15).

2.18. The number of professional and technical job seekers was 166060 in 2000 as against 152148 in 1999 and 154750 in 1998. The number of medical graduate job seekers declined from 2126 in 1998 to 1698 in 1999, but increased to 2395 in 2000. The number of Engineering graduates, Diploma holders and I.T.I certificate holders registered in Employment exchanges had grown during 1998, 1999 and 2000. But that of agricultural and veterinary graduates witnessed a fluctuating trend (Appendix 2.16).

2.19 A significant and peculiar feature of Kerala's unemployment situation is that women out number men who seek employment through employment exchanges. This position is reflected in all the districts in Kerala except in Palakkad and Kasaragod which are the border districts. Women job seekers in 2000 numbered 23.135 lakh compared to 18.72 lakh men.

2.20 Thiruvananthapuram district ranks the highest in the number of work seekers both in general as well as professional categories. In 2000, the total number of work seekers were 6.19 lakh out of which 3.66 lakh were women and 2.53 lakh men. The second lot of the largest number of work seekers is from Kollam district. There were 4.99 lakh job seekers in Kollam in 2000 out of which 2.77 lakh are women and 2.22 lakh men. The lowest number of job seekers are in Wayanad and Kasaragod districts. In Wayanad, there are 0.86 lakh job seekers, whereas in Kasaragod the number is 0.97 lakh in 2000 (Appendix 2.17).

Unemployment Assistance

2.21 Under this scheme, unemployed candidates remaining on the live registers for over 3 years after attaining the age of 18 and have passed SSLC examination and

having annual family income below Rs.12000 are eligible for an unemployment assistance of Rs. 120/- per month up to the age of 35 from April 2000. Unemployment allowance up to November 1999 has been distributed to the beneficiaries.

2.22 A new scheme called KESRU-99 (Kerala State Self Employment Scheme for the Registered Unemployed) has been implemented since March 1999. Accordingly, persons who had registered in the employment exchanges and are aged 21 to 40 are eligible under the scheme. An amount of Rs.30000/- to Rs.50000/- will be sanctioned from the financial institutions for different self-employment schemes. Subsidy portion is 15% of the sanctioned loan. Besides Government provides interest subsidy over and above 5% fixed by the financial institutions. An amount of Rs. 34.80 crore was given under unemployment assistance scheme during 1999-2000. Also, Rs.7.10 lakh was disbursed under self employment assistance scheme during 2000-01 to 208 beneficiaries (Appendix 2.18).

Employment in the Organised Sector

2.23 The number of persons employed in the organised sector in Kerala increased by 3.2 per cent, from 11,78,626 persons in 1996-97 to 12,15,945 in 1999-2000. Public sector provided employment to 6,39,340 persons and private sector to 5,76,605 persons in 1999-2000. During 1998-99, the corresponding figures were 6,34,803 and 5,86,643 respectively (Appendix 2.19).

Placement through Employment Exchanges

2.24 Placement through employment exchanges increased from 19661 in 1998-99 to 23012 in 1999-2000. Monthly average number of employers using employment exchanges declined during 1999-2000, but picked up slightly in 2000. During 1998-99, 447 employers used the service of employment exchanges for appointment. This figure came down to 388 during 1999-2000 but has improved to 415 employers from April 2000 to October 2000 (Appendix 2.20)

Migration

2.25 According to the sample survey on "Activity Status and Rehabilitation of Migrants from Kerala" conducted by the Department of Economics and statistics, 11.41 lakh persons have migrated from Kerala to different foreign countries. Out of this, 36.2% (413100 persons) were in Saudi Arabia; 35.8% (408700 persons) in UAE; 4.6% (52700) in Kuwait; 18.5% (210500) in other gulf countries; 1.5% (17600) in U.S.A. and 0.2% (2700) in U.K. Among the districts in Kerala, Malappuram ranks first with a total migrant population of 201800 and Wayanad the lowest with a migrant population of 6400. Thrissur ranks second with 128500 persons and Thiruvananthapuram third with 123600 persons followed by Kollam with 114200 persons, Kannur with 114100 persons and Kozhikode with 107600 migrants. It is estimated that due to a number of reasons 543700 persons returned from foreign countries and settled in Kerala during the last few years. The largest number of returnees belonged to Thiruvananthapuram district (92500 persons) followed by Malappuram (90800), Kollam (68100), Thrissur, (54000) Kozhikode (49300), Kannur (36900) and Ernakulam (32000). The lowest number of returnees belonged Idukki with 3900 persons and to Wayanad (3400). It is estimated that about 46% (250000) people had returned from Saudi Arabia followed by UAE 28.1% (152900) and Kuwait 4.3% (23500). Returnees from other gulf countries account for 17.8% (96800).

2.26 NRE deposits increased from Rs.16804.52 crore in September 1999 to Rs.20045.00 crore in September 2000. However a substantial portion of the migrants' bank deposits is flowing out of the State, as reflected in the declining credit deposit ratio of the banks.

Placement through ODEPC

2.27 The Overseas Development and Employment Promotion Consultants Ltd (ODEPC) was incorporated in 1977 with the main objective of promoting employment in foreign countries. The number of persons registered with ODEPC during 2000 is 1716 whereas their cumulative number is 134412. During 2000, only 42 persons got employment outside India, out of which 28 were doctors; 9 paramedical staff; 2 engineers and 3 administrative staff. Against this, the total number of placements through ODEPC in 1999 was 73 persons. The cumulative number of persons who received foreign employment through ODEPC stood at 3931 persons. Out of 3931 persons deployed during 1977-2000 period; 70 numbers were in Bahrain; 58 in Iraq; 447 in Kuwait; 357 in Libya; 7 in Maldives; 23 in Mozambique; 95 in Oman; 31 in Malaysia; 283 in Qatar; 1802 in Saudi Arabia; 337 in Singapore; 398 in U.A.E; 12 in Brunei; 9 in Sri Lanka and one each in Yemen and Cyprus.

Demographic Factors

2.27 Kerala 's population as per Census 1991 was 290.38 lakh consisting of 142.82 lakh males and 147.56 lakh females (India 1991: 8463.03 lakh, with 4392.30 lakh males and 4070.73 lakh females). 73.61 per cent of Kerala's population lived in rural areas in 1991 (India: 74.29 per cent).

2.28 Among the districts in Kerala, Malappuram has the highest population of 30.96 lakh and Wayanad the lowest population of 6.72 lakh. Thiruvananthapuram is the second most populated district in Kerala with a population of 29.47 lakh. According to 1991 Census, Kerala's geometric growth rate of population was 1.4 per cent per annum. The decennial growth rate of population in Kerala between 1981 and 1991 was 14.32 per cent. Among the districts, Pathanamthitta had the lowest decennial growth rate of population of 5.60 per cent and Malappuram, the highest decennial growth rate of 28.87 per cent.

Birth, Death and Infant Mortality Rates

2.29 According to Registrar General of India, among all Indian states with population exceeding 10 million, Kerala had the lowest birth rate of 18.2 and death rate of 6.4 in 1998. Kerala's infant mortality rate in 1998 was 15.6, the lowest among Indian states. The comparable rates for all-India in 1998 are 26.4, 9.0 and 7.6 respectively. Kerala's expectation of life at birth during 1996-2000 was 68.23 years for men and 73.62 for women.

Sex Ratio

2.30 Kerala is the only State in India where sex ratio is favourable to women. According to 1991 Census, there were 1036 women for every 1000 men in Kerala as against the corresponding all-India figure of 927.

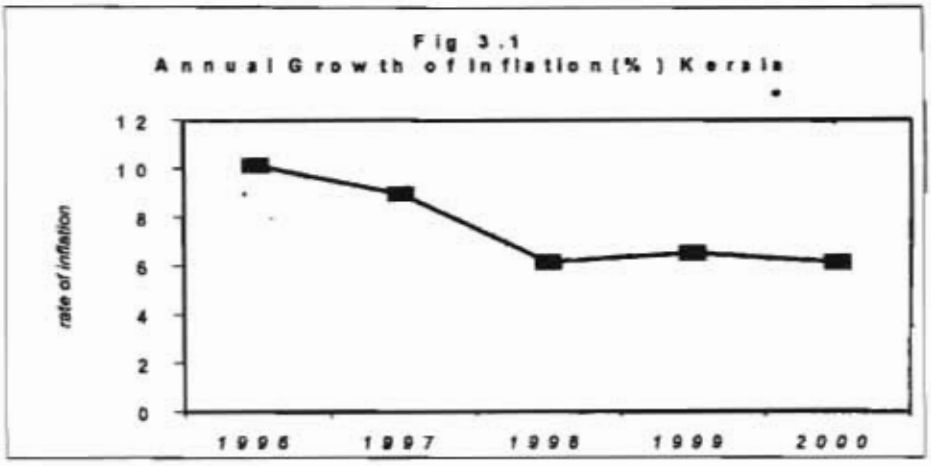
Main Workers

2.31 Total number of main workers in Kerala was 83.01 lakh while that at the all-India level was 2859.32 lakh in 1991. Out of the 83.01 lakh main workers in Kerala 64.04 lakh were men and 18.96 lakh women.

CHAPTER - 3
PRICES, COST OF LIVING AND WAGES

Consumer Price Index

Consumer Price Index (CPI) is a broad indicator of inflationary trend over a period. During the year 2000 (upto September, the latest month for which data are available), the Consumer Price Index of Kerala moved up by 63 points, to 1085 points, compared to a rise of 62 points during the corresponding period last year (see Table 3.1). The CPI grew at an average annual rate of 6.16 per cent between January and September 2000, while the annual average rate of increase of CPI between January and September 1999 was 6.46 per cent. This means the rate of growth of inflation in 2000 was marginally lower than that in 1999. A significant point, based on Consumer Price Indices, is that the rate of inflation in Kerala which was a double digit figure (10.14 per cent) in 1996, has gradually come down to 6.16 per cent by Sept. 2000. (See Fig 3.1)



3.2 Among the fifteen selected centres in the State, it is seen that indices in eight centres, namely, Kannur, Kozhikode, Malappuram, Thrissur, Ernakulam, Munnar, Mundakkayam and Punalur, were below the State average of 1085 points in 2000 as compared to seven centres in 1999. As in the past few years, in 2000 also, the highest index was recorded at Meppaddy (1142 points) followed by Chalakkudy (1116 points) and Alappuzha (1102 points). The index was the lowest at Ernakulam (1052 points). The highest proportional increase in index was recorded at Munnar (7.5 per cent) and the lowest at Malappuram (5.07 per cent). Consumer price Index was comparatively lower in the central region of the State, particularly at Ernakulam (1052 points), Munnar (1063 points) and Mundakkayam (1069 points). The Month-wise Consumer Price indices are exhibited in Appendix 3.1. Month-wise indices recorded an uptrend throughout the period with a total increase of 68 points during the period from Sept. 1999 to Sept. 2000. The highest increase during this period was noticed in Munnar and Kottayam (76 points) and the lowest in Malappuram (59 points).

Table 3.1

Annual Average Consumer Price Index Numbers in Selected Centres of Kerala 1996-2000*

(Base: 1970=100)

Centres	Consumer Price Index Numbers								Percentage change over previous Year				
	1995	1996	1997	1998*	1998	1999*	1999	2000*	1997	1998	1999*	1999	2000*
1. Thiruvananthapuram	760	838	919	983	990	1039	1046	1101	9.67	7.73	5.7	5.66	5.97
2. Kollam	772	860	942	989	995	1037	1044	1098	9.53	5.63	4.85	4.93	5.88
3. Punalur	706	781	868	933	939	986	995	1054	11.14	8.18	5.68	5.96	6.90
4. Alappuzha	762	839	916	968	975	1035	1043	1102	9.18	6.44	6.92	6.97	6.47
5. Kottayam	761	839	909	957	964	1025	1034	1096	8.34	6.05	7.11	7.26	6.93
6. Mundakayam	752	824	890	933	940	998	1007	1069	8.01	5.61	6.97	7.13	7.11
7. Munnar	733	797	871	918	926	989	999	1063	9.28	6.31	7.73	7.88	7.48
8. Ernakulam	734	818	892	940	947	997	1003	1052	9.05	6.17	6.06	5.91	5.52
9. Chalakudy	773	847	928	980	988	1055	1063	1116	9.56	6.47	7.65	7.59	5.78
10. Thrissur	761	835	908	950	958	1017	1024	1076	8.74	5.51	7.05	6.89	5.80
11. Palakkad	769	846	918	966	973	1027	1034	1085	8.51	5.99	6.31	6.27	5.65
12. Malappuram	790	863	927	968	974	1025	1031	1077	7.42	5.07	5.89	5.85	5.07
13. Kozhikode	752	831	902	946	954	1010	1018	1074	8.54	5.77	6.77	6.71	6.34
14. Meppady	794	870	946	1004	1009	1071	1080	1142	8.74	6.66	6.67	7.04	6.63
15. Kannur	773	853	923	970	975	1017	1023	1070	8.21	5.63	4.85	4.92	5.21
State Average	759	836	911	960	967	1022	1030	1085	8.97	6.15	6.46	6.52	6.16

Source:- Department of Economics and Statistics

** Average from January to September*

Retail Prices

3.3 During the period under review, the retail prices of essential commodities in general witnessed a downtrend, compared to that in 1999 (see Table. 3.2). When the retail prices of 22 important items of essential commodities were subjected to review, the prices of twelve items showed negative growth in their prices, ranging between -42.68 per cent and –0.44 per cent over the previous year, as against eleven items recording negative growth in 1999 ranging from –40.42 per cent to –0.86 per cent .The prices of coconut (without husk) and coconut oil witnessed unprecedented fall in prices. Price of coconut (without husk) declined by 42.1 per cent from Rs.616.79 for 100 nos. in 1999 to Rs. 357.14 in 2000 and that of coconut oil by 42.68 per cent from Rs. 61.13 per kg in 1999 to Rs. 35.04 in 2000. Fig.3.2 presents the annual rate of change of prices of coconut and coconut oil over a period of five years from 1996 to 2000.Such a sharp fall in the prices of coconut oil had a shattering impact on the agrarian economy of the State. Dhall and Chillies (dry) also recorded downtrend in their prices. While the price of dhall came down by Rs. 4.28 per kg, from Rs. 33.63 per kg in 1999 to Rs. 29.35 per kg in 2000, showing a decline of 12.7 per cent, that of chillies (dry) came down by Rs. 9.28 per kg, from Rs. 50.29 per kg in 1999 to Rs. 41.01 per kg in 2000, showing a decrease of 18.5 per cent. The price of rice, which was Rs. 13.90 per kg in 1999, decreased marginally by Rs.0.56 per kg to Rs. 13.34 in 2000, registering a decline of 4 per cent. The other commodities which witnessed fall in their prices during the period under review were green gram by 2.2 per cent, from Rs. 26.70 per kg in 1999 to Rs. 26.11 per kg in 2000, ground nut oil by 3.3 per cent, from Rs. 49.70 per kg to Rs48.05 per kg, refined oil (Postman) by 4.7 per cent, from Rs.64.34 per kg to Rs. 61.34 per kg, potato by 2.7 per cent, from Rs. 9.16 per kg to Rs. 8.91 per kg and milk (cow) and sugar which registered only marginal decrease of 0.8 per cent and 0.4 per cent respectively.

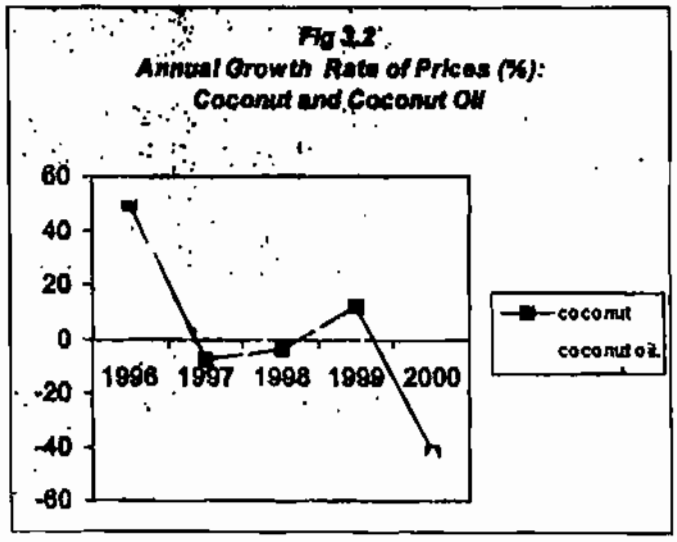


Fig 3.2
Annual Growth Rate of Prices (%): Coconut and Coconut Oil

3.4 Ten items recorded moderate to heavy uptrend in their price. The price of coriander shot up by 39.4 per cent, from Rs. 26.32 per kg in 1999 to Rs. 36.68 per kg in 2000. So was the case of onion (small), the price of which moved up by 30.7 per cent, from Rs. 9.95 per kg in 1999 to Rs. 13.00 per kg in 2000. Black gram (without husk) and banana (green) also recorded steep increase in their prices. While the rise in price was 22.6 per cent in the case of black gram (without husk), from Rs. 34.71 per kg in 1999 to Rs. 42.57 per kg in 2000, the increase was 16.3 per cent in the case of banana (green), from Rs. 11.36 per kg in 1999 to Rs. 13.21 per kg in 2000. While the prices of sugar and tapioca rose moderately by 1.33 per cent and 4.60 per cent respectively, those of egg and baby food

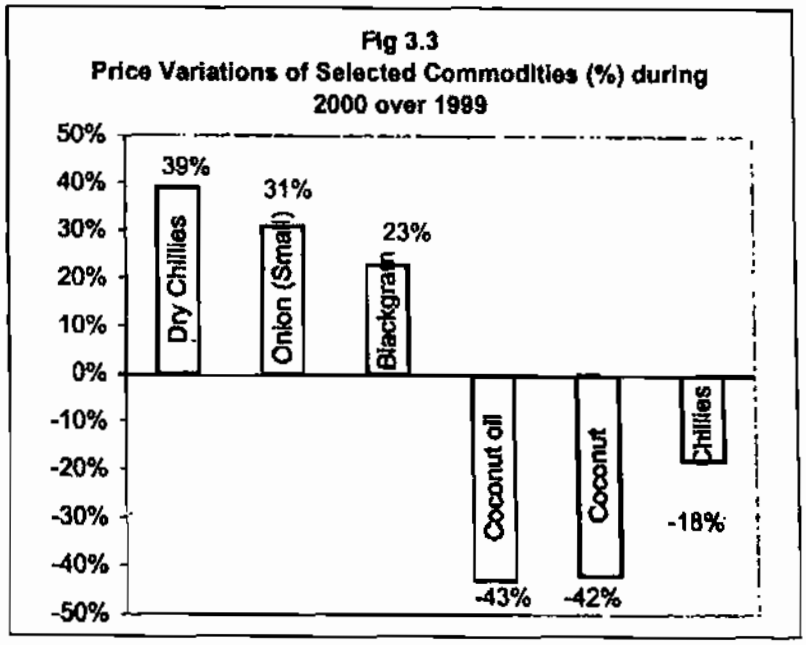
Table 3.2
Average Retail Prices of Essential Commodities 1995-2000

(Rupees)

Commodities	Unit	Prices at the end of December						Percentage of change over Previous Year				
		1995	1996	1997	1998	1999	2000	1996	1997	1998	1999	2000
1	2	3	4	5	6	7	8	9	10	11	12	13
1. Rice	Kg	9.78	11.72	11.02	12.58	13.90	13.34	19.84	-0.97	14.16	10.49	-4.03
2. Green Gram	Kg	21.54	22.96	24.42	26.96	26.70	26.11	6.59	6.35	10.40	-0.96	-2.21
3. Black gram (without Husk)	Kg	27.30	27.43	23.15	31.96	34.71	42.57	0.36	-15.60	38.06	8.60	22.64
4. Red gram	Kg	15.06	18.17	17.07	22.75	21.05	19.88	20.65	-6.05	33.27	6.15	-5.56
5. Dhall	Kg	33.03	33.32	25.32	41.50	33.63	29.35	0.27	-23.55	63.90	-18.96	-12.73
6. Coconut Oil	Kg	44.30	67.91	56.81	59.21	61.13	35.04	53.30	-16.35	4.22	3.24	-42.68
7. Ground Nut Oil	Kg	45.31	45.48	44.60	51.50	49.70	48.05	0.38	-1.93	15.47	-3.50	-3.32
8. Refined Oil (Postman)	Kg	64.84	65.23	62.14	75.11	64.34	61.34	0.60	-4.74	20.87	-14.34	-4.66
9. Topioca	Kg	3.52	4.05	4.35	4.43	5.43	5.68	15.06	7.40	1.84	22.57	4.60
10.Banana (Green)	Kg	8.29	12.32	11.12	10.68	11.36	13.21	48.61	-9.74	-3.96	6.36	16.29
11.Milk (cow)	Litre	9.75	11.00	11.85	12.00	13.04	12.93	12.82	7.72	1.27	8.67	-0.84
12.Egg (Hen Nadan)	Dozen	14.21	23.15	25.68	25.37	26.70	29.14	62.91	10.93	-1.21	5.24	9.14
13.Potato	Kg	7.36	9.14	7.50	13.54	9.16	8.91	24.18	-17.94	80.53	-32.35	-2.73
14.Corriander	Kg	25.11	49.21	36.38	27.07	26.32	36.68	95.98	-26.07	-25.59	-2.77	39.36
15.Chillies (Dry)	Kg	64.00	48.43	35.31	69.17	50.29	41.01	-24.32	-27.09	95.89	-27.30	-14.75
16.Onion (small)	Kg	12.54	9.29	17.62	16.70	9.95	13.00	-25.92	89.67	-5.22	-40.42	30.65
17.Sugar	Kg	12.60	13.48	15.71	15.12	14.99	15.19	6.98	16.54	-3.76	-0.86	1.33
18.Coconut(without Husk)	100 Nos	413.57	620.00	571.92	548.93	616.79	357.14	49.91	-7.75	-4.02	12.36	-42.10
19.Fire wood (Local spilt)	Qtl	128.83	0.00	0.00	151.00	153.33	154.00	0.00	0.00	0.00	1.54	-0.44
20.Washing Soap (501)	1/2 Bar	5.82	6.35	6.63	7.29	7.16	7.23	9.11	4.41	9.95	-1.78	0.98
21.Electric Bulb (Philips)	each	9.50	0.00	0.00	10.71	10.85	10.85	0.00	0.00	0.00	1.31	0.00
22.Baby Food (Amul)	Kg	103.29	113.08	111.64	129.33	127.55	136.14	-1.27	15.85	-1.38	-1.38	6.73

Source:- Department of Economics and Statistics

(Amul) showed rather higher increases of 9.1 per cent and 6.7 per cent respectively. Fig. 3.3 shows the variations in prices of selected commodities during 2000, over the previous year.

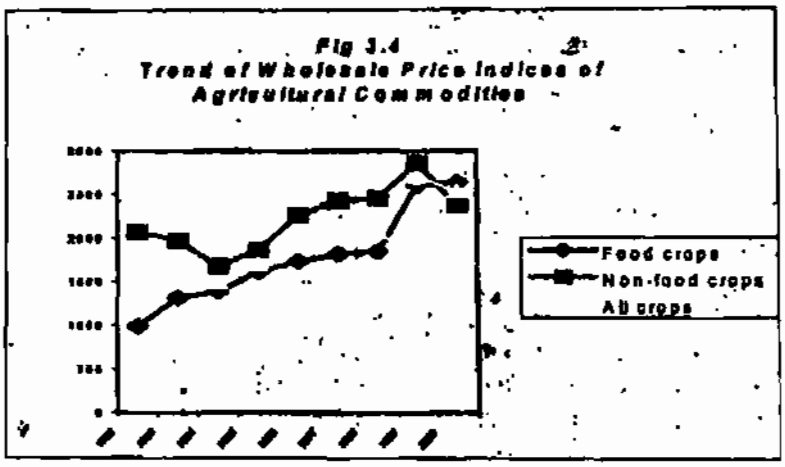


3.5 Month-wise prices of essential commodities in 2000 witnessed a mixed trend. A significant point to note is that, at the end of December 2000, the prices of as many as twenty four commodities namely, rice (matta), rice (white), green gram, red gram, dhall, milk, coffee, egg, coconut oil, groundnut oil, refined oil, gingelly oil, coconut, chillies, tamarind, chenai, pumkin,cucumber, ashgourd, snake gourd, chillies (green), tobacco, electric bulb and fire wood rolled back to a level lower than that in January 2000, as against only nineteen commodities in 1999, thanks partly due to the market intervention by the State Government through the public distribution system in bringing down the prices of essential commodities. The price of coconut oil, which was Rs. 56.54 per kg in January declined drastically by Rs. 21.50 per kg to Rs. 35.04 per kg in December. So was the case with regard to coconut, the price of which steeply declined from Rs. 577.5 for 100 numbers in January to Rs. 357.14 in December, recording a sharp decline of Rs. 220.36 for 100 numbers. The price of rice attained a peak level at Rs. 13.75 in May and declined thereafter, recording a low of Rs. 13.34 per kg in December. The price of sugar, which was Rs. 14.81 per kg in January, moved in an erratic manner and after attaining a high of Rs. 16.30 per kg in August, declined to Rs. 15.19 per kg in December. A sudden spurt in prices was witnessed in the case of coriander and onion (big). While the price of coriander, which was Rs. 26.21 per kg in January shot up to Rs. 36.68 in December, that of onion (big) went up from Rs. 6.55 per kg in January to Rs. 10.54 per kg in December. Rising from Rs. 149.33 per bag in January to Rs. 197.14 per bag in December, the price of cement (sankar-paper bag) recorded an unprecedented rise of Rs. 47.81 per bag during the period of twelve months. The price of banana (green), which was Rs. 10.86 per kg in January rose to Rs. 16.97 per kg in September and thereafter declined to a level of Rs. 13.21 per kg by December. Similar was the case with plantain (green), the price of which rose from Rs. 7.75 per kg in January to a peak level of Rs. 10.11 per kg in September and there after to a level of Rs. 9.36 per kg by December. Overall, the movement of month-wise prices were within rather a moderate range, compared to the

previous year, but for the prices of a few commodities such as coconut oil, coconut, coriander, gingelly oil and cement. The month-end average retail prices of essential commodities in 2000 are shown in Appendix 3.2.

Wholesale Price Index of Agricultural Commodities

3.6 The Wholesale Price Index (WPI) of all crops declined by 3.8 per cent in 2000 (upto June, the latest month for which data are available), from 2638.35 points in 1999 to 2537.3 points in 2000, as against an increase of 28.16 per cent in 1999, from 2063.6 points in 1998 to 2638.35 points in 1999. Amongst the sub-groups, the wholesale price index of food crops increased by 1.9 per cent from 2582 points in 1999 to 2631.1 points in 2000 and that of non-food crops decreased by 13.24 per cent, from 2736.38 points in 1999 to 2374.1 point in 2000. Under food crops, while the index of rice increased by 22.86 per cent, indices of condiments & spices and fruits & vegetables decreased by 22.3 per cent and 7.1per cent respectively. Among non-food crops, oil seeds and plantation crops recorded declining trend in their prices by 14.1per cent and 9.9 per cent respectively. The details are presented in Table 3.3. Fig. 3.4 shows the trend of wholesale price indices of food crops, non-food crops and all crops during the period from 1992-2000.(see Appendix 3.3)



3.7 In 2000, the month-wise movement of wholesale price indices witnessed a mixed trend. Index of rice, which was 1953.3 points in July 1999, remained static through out the period from July 1999 to March 2000. It jumped to 2523 points in April 2000 and again remained static during the remaining months of the year under review. Indices of molasses and condiments & spices witnessed very erratic trend. The index of molasses, which was 1743.5 point in July 1999 shot up by 172 points to 1915.7 points in August and after that kept an upward trend and attained a peak level of 2106.6 points in November and then gradually declined to a low of 1630.5 points in June 2000. After a dip by 2824 point, from 8254.1 point in July to 5429.7 point in August 1999, index of condiments & spices moved with an erratic trend and touched 3883 points in June 2000. In June 2000, excepting the indices of rice, fruits & vegetables and condiments & spices, indices of all other commodities rolled back to a level lower than that in July 1999. The index of fruits & vegetables, which rose from 2739 points in July 1999 reached a high of 3762.7 points in October, moved down in December 1999 to touch a low of 2128.6 points and thereafter witnessed an erratic trend. The index of oilseeds, after increasing gradually from 3185 points in July 1999 to a peak level at 3637 points in November, declined to 2184 point in June 2000. Index of plantation crops also behaved in a similar

Table 3.3
Wholesale Price Index of Agricultural Commodities - 1996-2000*

(Base 1952-53=100)

	Crops	Weight	Wholesale Price Index							Percentage change over previous year				
			1996	1997	1998*	1998	1999*	1999	2000*	1997	1998	1999*	1999	2000*
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
A	*Food Crops*	63.50	1731.10	1814.70	1814.56	1839.54	2582.00	2598.9	2631.1	4.83	1.37	42.29	41.28	1.90
	Rice	40.40	1161.90	1161.90	1161.90	1161.90	1821.56	1887.6	2238.4	0.00	0.00	56.77	62.46	22.88
	Condiments & Spices	10.40	2305.80	2818.30	2763.10	2872.38	4804.90	4768.4	3733.0	22.23	1.92	73.90	66.00	-22.31
	Fruits and Vegetables	10.70	3287.70	3182.40	3293.60	3336.34	3453.55	3325.7	3208.5	-3.20	4.84	4.86	-0.32	-7.10
	Molasses	2.00	1896.70	2453.70	2144.75	2130.01	1769.98	1846.9	1774.2	29.37	-13.2	-17.47	-13.29	0.24
B	*Non Food Crops*	36.50	2255.60	2426.30	2483.20	2452.75	2736.38	2849.1	2374.1	7.57	1.09	10.20	16.16	-13.24
	Oil Seeds	25.50	2553.40	3069.00	2749.30	2713.20	3144.51	3294.7	2702.4	20.19	-11.6	14.37	21.43	-14.06
	Plantation Crops	11.00	1567.50	1630.90	1867.91	1851.35	1793.06	1819.0	1615.2	4.04	13.52	-4.01	-1.75	-9.90
C	All Crops	100.00	1922.50	2114.00	2058.62	2063.52	2638.35	2690.0	2537.3	9.96	-2.39	28.16	30.36	-3.83

Source:- Department of Economics and Statistics

Average from January to June (6 months)

manner. During the period from July 1999 to June 2000, when the index of non-food crops moved within the range of 2069 points to 3017, that of food crops moved within the range of 2360 points to 3106 point and that of all crops within a rather smaller range of 2397 points to 2987 points.(Appendix 3.4)

Farm Commodity Price

3.8 Data on average annual prices of important agricultural commodities grown in Kerala for the year 1999-2000 are given in Table 3.4. The data shows decline in prices compared to previous year in respect of only two commodities, namely coconut (-2%) and banana (-12%). In a situation where prices show very wide variations in their month-wise indices, the annual averages fail to portray the real situation. Data on month-wise prices of the commodities during 1999-2000 (see Appendix 3.5) show that there was sharp decline in the prices of most of the important cash crops grown in Kerala, namely coconut, pepper, cashew and arecanut. As a consequence of the Centre's policies of indiscriminate import liberalisation and rapid removal of quantitative restrictions, prices of several items of agricultural produce have crashed. Price of coconut which was Rs.500.45 per 100 nos. in July 1999 has come down to Rs.314.65 in June 2000. The decline in prices of pepper was from Rs.228 per Kg. in November 1999 to Rs.200 in June 2000, while that in respect of arecanut was from Rs.154 per 100 nos. to Rs.72 and cashew nut from Rs.2850 per qtl. to Rs.2664 during the period. The market trend in the subsequent months further reveals that the trend is still persisting, pushing the rural economy of Kerala to a severe economic crisis. Coconut registered such a steep decline in prices in spite of a very massive market intervention programme in operation for copra with a support price of Rs.3250 per qtl. during the period. Support price of Rs.3250 per qtl. was fixed with a view to ensuring a fair price of Rs.4.50 per nut for coconut at the farm level. Still the prices of copra remained more or less sticky at around Rs.2000 per qtl. throughout the second half of 2000. Fall in prices of plantation commodities are dealt with in detail under the chapter on 'Agriculture'. The emerging situation suggests that the State has to establish effective system for monitoring the domestic and international prices closely with a view to considering appropriate strategies for dealing with the situation from time to time.

Table 3.4

Average Farm Prices of Principal Crops

Commodity	Unit	Prices								% increase during 1999-2000 over 1998-99
		1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*
Paddy	Qtl	420.8	414.53	494.86	547	607	583	627	684	9
Tapioca	Qtl	187.24	197.6	217.13	253	300	297	313	368	18
Coconut	100 Nos	420.14	325.55	307.83	331	480	443	485	476	-2
Pepper	Qtl	2616.59	3898.02	6687.43	7320	8780	17440	18090	20506	13
Ginger	Qtl	2490.5	2858.06	5250.29	5871	4214	4462	5625	6394	14
Cashewnut	Qtl	2000.41	2134.34	2353.36	2700	2730	2848	3538	3639	3
Arecanut	100 Nos	33.01	33.65	36.73	43	43	44	65	75	15
Banana	100 Nos	93.89	108.56	125.7	130	161	148	167	147	-12

Source: *Department of Economics and Statistics*

Parity Index

3.9 Parity Index is a relative measure of prices received and prices paid by farmers. The index is constructed to assess how the price situation in the state affects the farmers. The parity index decreased by 13 points from 82 points in 1999 (Sept.) to 69 points in 2000 (Sept.), as against an increase of 6 points in 1999, compared to 1998. While the index of prices received by the farmers decreased by 8.4 per cent in 2000, over the previous year, the prices paid by the farmers increased by 9.1 per cent, reflecting an unfavourable situation to the farming community in the State during the year 2000. Taking the decade of 1990s as a whole, the prices received by farmers annually increased by 10 per cent, while the prices paid by farmers increased by 11.7 per cent. Thus, in general, the price situation in the State was not favourable to the farming community during the years since the economic reforms were initiated in 1991. The details are presented in Table 3.5.

Table 3.5

Index Number of Prices Received and Price Paid by Farmers

Year	Prices received by Farmers	Farm Culti vation Cost	Domestic Expenditure	Price paid by farmers	Parity as col. 2 to5
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	1315	1910	1078	1435	92
1992	1486	2255	1202	1646	90
1993	1496	2579	1303	1834	82
1994	1582	2891	1464	2057	77
1995	1802	3312	1641	2331	77
1996	2079	3928	1810	2666	78
1997	2486	4571	1979	3007	83
1998	2447	4895	2117	3212	76
1999*	2859	5457	2228	3487	82
1999	2907	2246	5556	3532	82
2000*	2619	2368	6111	3804	69

Source: *Department of Economics and Statistics*

* Average from January to August

Public Distribution System (PDS)

3.10 PDS in Kerala occupies an important place in the welfare programmes of the State Government and ensures availability of all essential commodities at affordable prices throughout the state, including in rural areas. In Kerala, the coverage of ration population is nearly hundred percent. Total number of ration cards in use in 2000 was 62,62,074 compared to 61,62,484 in 1999. Ration articles were supplied through 17528 institutions during 2000. As on 1st April, 2000 there were 14266 Retail Ration Shops in the State including 1025 under Co-operative sector. Table 3.6 gives the details of Public Distribution System in Kerala. When Government of India decided to restrict PDS supply of rice at concessional rate only to families Below Poverty Line i.e. to only 25% of population, the Government of Kerala extended the benefit to 42% of total population. Retail prices of commodities issued through ration shops are shown in Table. 3.7.

Table 3.6

Public Distribution System in Kerala – A Profile (1995-2000)

Sl.No	*Items*	*1995*	*1996*	*1997*	*1998*	*1999*	*2000*
1	No.of Ration Cards	5654075	5774934	5944701	6110822	6162484	6262074
2	No.of Ration Permits	13173	13553	15015	17250	17663	17528
3	No.of FCI sub depots as on 1st April 2000	39	39	20	20	20	23
4	No.of Wholesale Shops as on 1st April 2000 under Co-operative Sector	51	54	42	41	41	42
	Others	302	306	317	315	329	303
	Total	353	360	359	356	370	345
5	No.of Retail Shops	14179	14224	14255	14263	14290	14266
6	Sugar (in M.T)	149829	159549	158290	151583	153821	152437
7	Kerosene Oil (K.L)	359554	378862	371898	383816	387511	361610

Source: Department of Civil Supplies

Table 3.7

Retail Price of Commodities issued through Ration Shops during April 2000

(Rs./Kg)

Sl.No	*Items*	*Revised Price*
1	A grade rice	11.90
2	A grade rice after Government Subsidy	10.00
3	Common rice issued to people Below Poverty Line	6.20
4	Wheat	8 to 8.90
5	Sugar	13.10
6	Kerosene per Litre	7.70 to 7.80

Central Allotment of Rice and Wheat

3.11 Central allotment of rice, wheat, sugar and kerosene to Kerala has shown a declining trend during the last two years whereas the allotment of rice during 1998 was 17.84 lakh tonnes, it was 17.44 lakh tonnes in 1999. Similarly, while allotment of wheat to Kerala was 4.73 lakh tonnes in 1998, it was 4.53 lakh tonnes in 1999. Allotment of sugar to Kerala was 153,821 M.T in 1999 but was 152,437 M.T. in 2000 and the allotment of Kerosene oil was

38,7511 K.L in 1999 and 361,610 K.L in 2000.

Distribution of Rice and Wheat

3.12 Distribution of rice and wheat through PDS in Kerala reveals a declining trend since 1998 whereas in 1998 the off-take of rice through public distribution system was 16.40 lakh tonnes and wheat 4.58 lakh tonnes it declined to 13.58 lakh tonnes of rice and 2.71 lakh tonnes of wheat during 1999. During 2000 the quantities have declined sharply to 6.14 lakh tonnes of rice and 0.62 lakh tonnes of wheat. Higher prices of ration wheat and rice may be the reason for the low off-take of these two items. The following Table 3.8 gives an idea of off-take through the public distribution system from 1995-2000.

Table 3.8
Quantity of Rice and Wheat Distributed through Public Distribution System in Kerala

(Lakh tonnes)

Year	*Rice*	*Wheat*
1995	11.32	4.23
1996	14.04	4.92
1997	16.17	3.52
1998	16.39	4.58
1999	13.58	2.71
2000	6.14	0.62

Source: Civil Supplies Department

Civil Supplies Corporation

3.13 The main functions of the Corporation are wholesale distribution of ration articles in six districts of Kerala, procurement and distribution of levy sugar in the entire State and supply of essential commodities at reduced prices. The essential commodities supplied by the Corporation at reduced prices are Green gram, Toor Dhall, Peas Dhall, Lobia, Black Gram, Washed, Black Gram Split, Chillies, Coriander, Mustard and Meth. This has helped to control the open market prices.

3.13 The Corporation has an authorised share capital of Rs. 15 crore of which Rs. 8.56 crore is paid up. The entire share capital is held by the Government of Kerala. The Corporation has 820 Maveli stores through which essential commodities and other consumer goods are marketed. In addition to this, the Corporation has 28 medical stores, 20 super markets, 9 petrol bunks and 4 L.P.G outlets. During 1999-2000, the Corporation started 104 Maveli stores, 4 super markets and 13 medical stores. The procurement and distribution of levy sugar, ration articles and essential commodities are organised through 61 Taluk level depots and 10 sub depots. During 1999-2000, a total quantity of 66235 M.T.s of pulses and spices were sold through its outlets.

3.14 Credit facility of the Corporation is Rs. 15 crore from a consortium of five commercial banks for its non-food operation and a food credit limit of Rs. 5 crore for PDS- sub depots operation. The turnover and loss incurred by the Corporation from 1993-94 to 1998-99 [provisional] are shown in Table 3.9

Table 3.9
Turnover and Loss of Kerala State Civil Supplies Corporation

(Rs. in crore)

Year	*Turnover*	*Loss*
1993-94	231.14	19.09
1994-95	225.20	13.59
1995-96	229.05	14.84
1996-97	322.50	37.27
1997-98	472.51	1.78
1998-99	599.21	1.19
1999-2000	640.00	16.43

3.15 The Corporation conducts fairs and markets in all part of the State in order to check rise in prices of essential commodities during festival seasons. The Corporation organised 77 Onam fairs, with a total turnover of Rs. 4.09 crore in addition to the routine functioning of supermarkets in major towns. The sales turnover of supermarkets has increased from Rs. 23 crore in 1998-99 to Rs. 27 crore in 1999-2000. The total turnover of the Corporation during 1999-2000 was Rs. 640 crore as against 599.21 crore in 1998-99. During 1997-98 and 1998-

99, its annual losses were to the tune of Rs. 1.78 crore and 1.19 crore respectively as against a huge loss of Rs. 37.27 crore incurred during 1996-97. But its loss has increased to Rs. 16.43 crore in 1999-2000.

3.16 Supply of rice and pulses to schools for their Noon meal programme is an important activity of the Corporation. During 1999-2000, the Corporation supplied about 63000 MTs of rice and 9500 MTs of pulses to 11568 schools benefiting 28 lakh school children in Kerala.

3.17 The Corporation has introduced a number of branded products in the market. The Corporation is the second largest seller of packed tea known as 'Sabari Tea'. During 1999-2000, 2477 MTs of Sabari tea was sold. The other branded products are PDS Atta, Sabari Curry Powders, Iodised Salt, Parboiled Rice, Washing Soaps and Detergents.

Wages

3.18 The details of average daily wage rates of the skilled and unskilled workers in agricultural sector are presented in Tables 3.10 and 3.11. In 1999-2000, the daily wage of a carpenter increased from Rs. 155.42 in 1998-99 to Rs. 165.35 in 1999-2000 and that of mason from Rs. 154.80 in 1998-99 to Rs. 164.70 in 1999-2000,showing the same rate of increase The annual average growth rates of wages of carpenter and mason since 1990-91 are more or less the same (13%). For paddy workers, while the wage rate for male increased by 6.39 per cent from Rs. 111.76 in 1998-99 to Rs. 118.90 in 1999-2000, that for female increased by 10.33 per cent from Rs. 71.42 in 1998-99 to Rs. 78.80 in 1999-2000.

Table 3.10

Average Daily Wage Rates of Skilled Workers in Agricultural Sector

Year	Average Daily Wage Rates		Percentage changes over Previous year	
	Carpenter	Mason	Carpenter	Mason
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	20.62
1986-87	45.93	45.53	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
1991-92	59.00	58.55	8.32	8.47
1992-93	68.28	67.63	15.73	15.51
1993-94	76.49	76.57	12.02	13.22
1994-95	87.44	87.04	14.32	13.62
1995-96	107.20	105.96	22.60	21.74
1996-97	128.54	127.81	19.91	20.62
1997-98	145.94	144.04	13.54	12.70
1998-99	155.42	154.80	6.50	7.47
1999-2000(p)	165.35	164.70	6.34	6.40

Source: *Department of Economics and Statistics* P: *Provisional*

Table 3.11
Average Daily Wage Rates of Unskilled Workers in the Agricultural Sector

Year	Average Daily Wage rates of paddy field workers		% of change over previous year	
	Male	Female	Male	Female
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	15.93
1984-85	23.60	11.89	48.80	7.90
1985-86	26.08	15.10	10.51	27.00
1986-87	28.36	16.39	8.74	8.54
1987-88	30.36	16.39	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
1991-92	41.38	26.12	15.16	23.73
1992-93	48.40	32.31	16.97	23.70
1993-94	54.26	35.49	12.11	9.84
1994-95	63.53	41.92	17.08	18.12
1995-96	77.17	51.17	21.47	22.10
1996-97	92.18	60.52	19.45	18.27
1997-98	103.72	69.35	12.52	14.59
1998-99	111.76	71.42	7.75	2.98
1999-2000(P)	118.90	78.80	6.39	10.33

Source: *Department of Economics and Statistics*
P: *Provisional*

3.19 The details of average daily wage of skilled and unskilled workers in the construction sector in Kerala for the period from 1980-81 to 1999-2000 are presented in Table 3.12 and 3.13. While the wage of carpenter in rural area increased by 9.13 per cent, from Rs. 158.09 in 1998-99 to Rs. 172.52 in 1999-2000, that in urban area increased by 8.59 per cent, from Rs. 159.17 in 1998-99 to Rs. 172.84 in 1999-2000. In the case of wage of mason, the trend is reversed, because increase is more in urban area. When the wage of mason in rural area increased by 8.61 per cent, that in urban area increased by 8.77 per cent. In the case of unskilled workers in the construction sector, wage of male worker increased by 11.02 per cent in rural area and by 10.56 per cent in urban area. The corresponding increases with respect to female workers were by 9.97 per cent and 10.55 per cent respectively. From this, it could be seen that while the rate of increase in male and female wage rates in urban area is exactly the same, that in rural area differs during 2000 over the previous year.

Table - 3.12
Average Daily Wage Rates of Skilled Workers in the Construction Sector

(Rupees)

Year	Carpenter		Mason	
	Rural	Urban	Rural	Urban
1980-81	18.66	19.33	18.75	19.36
1985-86	40.91	40.67	41.10	42.01
1990-91	56.55	56.67	56.18	55.93
1991-92	59.79	61.25	59.38	60.77
1992-93	68.89	70.92	68.07	70.23
1993-94	73.57	76.50	72.75	75.98
1994-95	87.03	91.47	86.49	90.55
1995-96	109.45	113.65	107.59	112.83
1996-97	129.57	134.87	129.20	134.00
1997-98	146.30	150.07	145.78	148.78
1998-99	158.09	159.17	156.71	157.88
1999-2000(QE)	172.52	172.84	170.20	171.73

Source:- Department of Economics & Statistics *QE: Quick Estimate*

Table 3.13
Average Daily Wage Rates of Unskilled Workers in the Construction Sector

(Rupees)

Year	Men		Women	
	Rural	Urban	Rural	Urban
1980-81	12.30	13.07	9.62	10.22
1985-86	25.31	25.70	19.08	19.42
1990-91	37.34	36.78	29.23	30.84
1991-92	39.71	41.63	31.64	34.32
1992-93	46.34	48.66	37.23	39.32
1993-94	50.36	52.85	40.89	42.80
1994-95	60.08	63.63	49.94	52.00
1995-96	76.59	79.15	62.80	65.34
1994-95	88.47	90.76	73.73	75.76
1997-98	101.42	104.07	85.00	87.28
1998-99	111.18	112.43	93.44	94.06
1999-2000(QE)	123.43	124.30	102.76	103.98

Source: *Department of Economics and Statistics*
QE - Quick Estimate

CHAPTER - 4
AGRICULTURE AND IRRIGATION

Agriculture in Kerala is passing through a very difficult period as a result of the steep fall in prices of most of the farm commodities. Recent developments in global trade have adversely affected a wide spectrum of economic activities. Being the major cash crop producing state in the country, Kerala is perhaps the worst hit on account of the new agenda for trade liberalisation adopted by Government of India through its import policies. The agenda fails to recognise the concerns for food security to the masses and livelihood security to the marginal farmers. The economic reform process has not even helped improve the country's market access to global trade. In spite of substantial increase in the productivity of most of its major agricultural commodities, these has been income loss consequent to the fall in price of agricultural commodities. The loss is estimated to be of the order of Rs. 4000 crore which works out to an average of Rs. 7400 per farm family. The marginalisation of agricultural holdings consequent to extreme subdivision and fragmentation, high degree of dependence on the farm front for livelihood (see appendix 4.1) and the decreasing trend in family participation in the farm operations with resultant increase in paid out costs make the Kerala farm front more vulnerable to the onslaught of global competition. In Kerala, more than 80 percent of the agricultural land is devoted to perennial crops. As a result, the scope for adjustments in the short run to tide over the situation is limited. The emerging scenario warrants a paradigm shift in the approach for agricultural development in favour of consolidation of the small size holdings through appropriate institutional arrangements, promoting group endevours and sharpening the competitive edge through improvement in productivity and quality. Scaling up of the production potential through induction of new technologies including biotechnology, well organized arrangements for micro propagation of genetically upgraded progeny material and capacity building for the different partners in the production process, value addition at the farm level and linkage with agro processing are the measures warranted to salvage the farm front from its present plight. The thrust given to decentralised planning process under the People's Planning Campaign provides the opportunity for internalising appropriate technologies and institutional systems capable of empowering the small farm segment.

4.2 Through the Export –Import policy 1997-2002 announced by Government of India in March 1997 and the modifications and amendments introduced in April 1999 and 2000, quantitative restrictions on the import of 1948 commodities have been removed. The items listed in the free import category under the open license system include most of the important agricultural commodities produced in Kerala such as marine products, spices, green pepper, turmeric, fruits, rubber products. Natural rubber has been placed under the category of restricted imports against a license. Obviously the producers of natural rubber have been placed at a greater disadvantage as manufacturers are free to import rubber with the intention to depress the domestic prices. Although copra and coconut oil are included among items which can be imported only under license, other edible oils including palm oil which is a close substitute for coconut oil have been included in the freely importable list. Although the agreement in the World Trade Organisation provides opportunities for protecting the domestic trade and vulnerable sections of the community through appropriate hikes in import duties, this aspect has not been given due consideration before liberalizing such a large number of agricultural commodities. Liberalisation of imports does not mean that the country should resort to indiscriminate import of agricultural commodities and low quality products at reduced rates much below the domestic prices. It was with the intention of preempting such consequences that the permissible limits for import duties for agricultural commodities have been fixed at

very high levels and countries given freedom to regulate imports. Unfortunately, there was no effort what-so-ever in this direction at the national level before permitting large scale imports of important commodities where small and marginal farmers predominate.

4.3 The major strength of the mixed cropping pattern followed in Kerala is the high degree of resilience it lends for meeting the adverse conditions emerging from the loss in revenue as a result of the fall in prices of agricultural commodities. Fluctuations in the prices of agricultural commodities normally do not adversely affect a cross-section of the commodities concurrently and the mixed cropping systems thus acts as a cushion for absorbing the shock through cross subsidisation. Unfortunately, however the fall in prices now being experienced is all pervasive and as a result even this advantages which the Kerala farm front was enjoying in the past has been dissipated.

Agricultural Income

4.4 As can be seen in table 4.1 growth in agricultural income recorded during the first year of the Ninth Plan could be improved in the subsequent years. The annual average growth for the first three years of the plan is 2.3 per cent which compares favourably with the performance during the Eighth Plan.

Table 4.1
Growth of Agricultural Income in Kerala
(Base year 1993-94)

Sl. No.	*Year*	*Agricultural Income (Rs. in crore)*	*Rate of change over previous year (%)*	*Percentage contribution to State income*
1	*2*	*3*	*4*	*5*
1.	1993-94	5622.07	...	24.22
2.	1994-95	6323.64	12.48	24.96
3.	1995-96	6397.66	1.17	24.24
4.	1996-97	6525.72	2.00	23.78
5.	1997-98*	6577.92	0.80	23.00
6.	1998-99*	6829.33	3.82	22.70
7	1999-00**	6979.56	2.20	22.04

Source: Directorate of Economics and Statistics
** provisional ** quick* estimate

4.5 Productivity-wise, there are inter-state differences for various crops. Still the total income generated per unit of land in Kerala is high compared to other states in the country. Kerala leads other states in the country in respect of the gross income generated per ha. of cultivated land. Relevant data is given in table 4.2. The average gross income generated per ha. in Kerala is Rs. 31468 against the national average of Rs. 14178 during 1996-97.

Table 4.2

Per hectare income of major states from Agriculture

(in Rs)

State	1972-73	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97
Andhra Pradesh	1165	8344	10415	10561	15429	14745	16688	18029
Assam	1631	9124	10792	11917	13611	15750	16062	16546
Bihar	1320	9097	9839	11760	13249	15020	12195	13161
Gujarat	887	6139	6410	8754	8811	12880	11559	13911
Haryana	1197	9102	11774	12167	14331	16296	16204	20026
Himachal Pradesh	1319	7310	9275	9917	10595	13062	15107	NA
Jammu & Kashmir	1545	9736	10863	11883	12185	15277	19674	NA
Karnataka	1033	5809	7711	8342	9735	11666	13362	13946
Kerala	1993	11650	17458	17865	19859	23836	27369	31468
Madhya Pradesh	1320	4239	4604	4821	6330	6490	6967	8443
Maharashtra	551	5358	5801	7968	8651	9833	11386	13356
Orissa	1050	3297	4567	4538	5472	6274	7519	7766
Punjab	1536	9854	12534	14455	16803	18647	20090	22442
Rajasthan	566	4251	4807	5165	5134	6446	7220	9249
Tamil Nadu	1332	7852	9422	11433	14517	15721	17287	NA
Uttar Pradesh	1009	8054	9592	9621	11297	12810	14043	NA
West Bengal	1921	10317	14033	14109	15801	20158	22368	NA
India	**1034**	**6851**	**8221**	**9001**	**10424**	**13581**	**12842**	**14178**

Source: CMIE & National Accounts Statistics

Weather

4.6 In contrast to the comfortable weather conditions which Kerala was experiencing during the last nine years in succession, rainfall was only 2464 mm during 2000 against the normal of 3107mm. The rainfall was not only deficient by about 1/5th of the normal but also there was a very skewed pattern of temporal distribution. For the first time during the last decade, the rainfall was below normal in both seasons. The onset of southwest monsoon was delayed by around two weeks and remained very scanty during the initial period. The rainfall was near or above normal only in two months during 2000. This has adversely affected the crop production prospects of the state. The khariff crop was delayed, which in turn has prolonged the subsequent seasons. As a consequence, the sowing of the second crop of paddy was delayed in the major producing districts like Palakkad and Thrissur. With the reservoir levels in the major irrigation projects remaining much lower than normal, the state may be heading for a major drought situation affecting the second crop of paddy. The productivity of the perennial crops such as coconut, rubber and pepper may also be affected in the long run. The spatial distributions show aberrations from normal behaviour. None of the districts could escape from this calamity and worst hit among them are Thiruvananthapuram, Thrissur, Palakkad, Kozhikode and Wayanad. The relevant data are given in table 4.3 and appendices 4.3, 4.4 and 4.5.

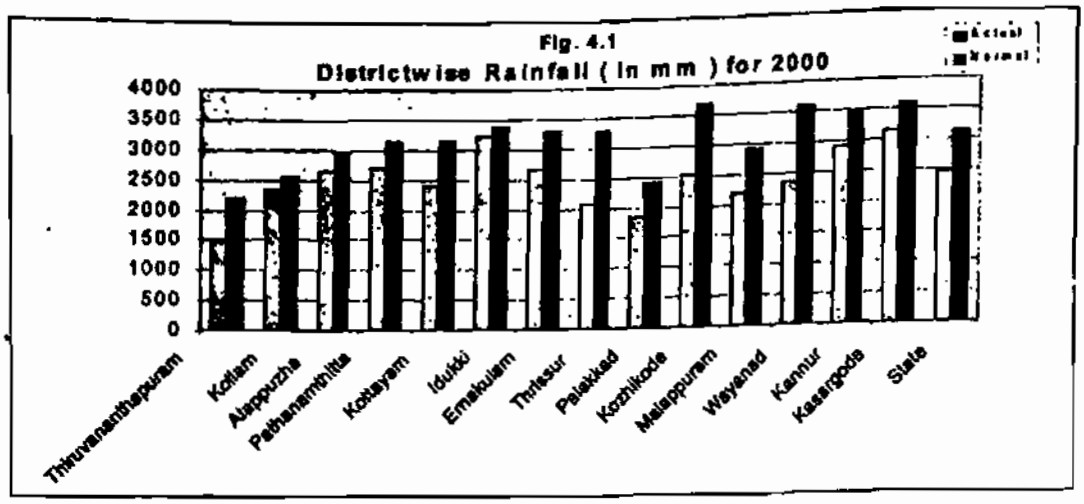


Table 4.3
Percentage Departure of Rainfall from Normal
(1990 to 2000)

Sl.No.	*Year*	*Annual*	*South West Monsoon*	*North East Monsoon*
(1)	(2)	(3)	(4)	(5)
1.	1990	-28	-25	-4
2.	1991	-39	18	-21
3.	1992	-37	15	35
4.	1993	-08	-12	32
5.	1994	11	15	13
6.	1995	-06	-6	-22
7.	1996	-13	-8	2
8.	1997	3	6	31
9.	1998	0	2	30
10	1999	-8	-25	23
11	2000	-21	-18	-27

Source: Meteorological Centre, Thiruvananthapuram.

Land Use.

4.7 Data on land use pattern of Kerala for the year 1998-99 is given in table 4.4. Out of a total geographical area of 38.85 lakh ha., land devoted to agriculture is about 58 per cent. Forest occupies around 28 per cent. These two sectors together account for over 85 per cent of the land area (see fig.4.2). In view of the high density of population, the pressure for non- agricultural uses is increasing. Land under non-agricultural uses was 8.24 percent in 1997-98 and has increased to 8.59 percent in 1998-99. In spite of a very favourable rainfall for three years in succession, there was no perceptible improvement in the extent of land use for agriculture. In fact, net cropped area has marginally declined from 22.70 lakh ha to 22.58 lakh ha, and the cropping intensity has come down from 130.70 to 129.10. There was an increase in the areas under current fallows (9523 ha) and fallow other than current fallow (3807 ha). But there was a decrease in the area under cultivable wastes (-2362 ha) and barren and uncultivated land (-10593 ha).

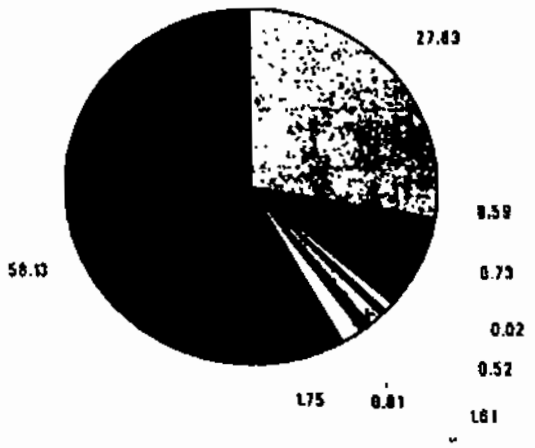
Table – 4.4

Land Use Pattern in Kerala (Area in ha.)

Sl. No.	*Classification of Land*	*1997-98*		*1998-99*		*Change in area between 1997–98 & 1998-99*	
		Actual	*%*	*Actual*	*%*	*Actual*	*%*
1	2	3	4	5	6	7	8
1	Total Geographical Area	3885497	---	3885497	---	----	---
2	Forest	1081509	27.83	1081509	27.83	----	----
3	Land put to non agricultural uses	320307	8.24	333822	8.59	+ 13515	4.2
4	Barren and uncultivated land	38934	1.00	28341	0.73	- 10593	27.2
5	Permanent pastures & Grazing land	825	0.02	682	0.02	- 143	17.3
6	Land under miscellaneous tree crops not included in net area sown	22028	0.57	20200	0.52	- 1828	8.3
7	Cultivable waste	65072	1.67	62710	1.61	- 2362	3.6
8	Fallow other than current fallow	27730	0.71	31537	0.81	+ 3807	13.7
9	Current fallow	58499	1.51	68022	1.75	+ 9523	16.3
10	Net area sown	2270593	58.44	2258674	58.13	- 11919	0.5
11	Area sown more than once	698409	17.97	657831	16.93	- 40578	5.8
12	Total cropped area	2969002	76.41	2916505	75.06	- 52497	1.8
13	Cropping intensities	130.76	---	129.12	---		1.3

Source: Directorate of Economics & Statistics

Fig 4.2
Land Use Pattern (1998-99)



Trend in area, production and productivity of Crops.

4.8 Data regarding the area, production and productivity of important crops grown in Kerala during the last three years are given in table 4.5. The trend in area under the various crops during the period reveals that the urge for replacing seasonal and annual crops by perennial crops is persisting. Seasonal/annual crops, namely rice, sugarcane, ginger, turmeric, banana, tapioca, groundnut and sesamum recorded decline in area by 9471 ha. On the other hand, perennials such as pepper, arecanut, coconut, coffee, tea and rubber have consolidated their coverage further by recording an additional coverage of 0.25 lakh ha. Among the perennials cashewnut is the only crop which has suffered reduction in area (-4973 ha). Plantation crops as a category are expanding and the lead crop among them is rubber which has recorded an increase of nearly 3000 ha.

Table 4.5
Area, Production and Productivity of Principal Crops

Sl. No.	Crops	Area (ha)			Production (tonnes)			Productivity (kg/ha)		
		1997-98	1998-99	1999-00#	1997-98	1998-99	1999-00#	1997-98	1998-99	1999-00#
1.	Rice	387122	352631	349774	764610	726743	770686	1975	2061	2203
2.	Jowar	2881	2177	2177	1466	1108	1097	509	509	504
3.	Ragi	2362	1157	1157	1909	936	864	808	809	747
4.	Other Millets	2568	2300	---	1996	1788	—	777	777	---
5.	Pulses	15078	12627	–	11668	9822	–	774	778	----
6.	Sugarcane	5805	6160	6020	42227	47216	47767	7274	7665	7935
7.	Pepper	180370	182384	184370	46040	68510	56431	255	376	306
8.	Chillies	417	297	297	406	288	291	974	970	980
9.	Ginger	12352	11107	11048	43617	39362	38607	3531	3544	3494
10.	Turmeric	3586	3706	3680	8585	8034	7945	2394	2168	2159
11.	Cardamom	40867	41449	40867**	5290	4990	6550**	129	120	160
12.	Arecanut	73351	73639	76129	87038	68479	80667	1187	930	1060
13.	Banana	31001	30521	27914	436717	386588	393720	14087	12666	14105
14.	Other Plantains	49639	50947	51274	356622	397986	408533	7184	7812	7968
15.	Cashewnut	94689	91268	86295	56885	51336	46366	601	562	537
16.	Tapioca	121389	112774	109257	2741696	2630155	2563512	22586	23322	23463
17.	Sweet Potato	1405	1099	1091	15491	11924	11853	11026	10850	10864
18.	Groundnut	10032	7021	6810	7458	5219	5416	743	743	795
19.	Sesamum	4211	3303	3249	1389	1057	930	330	320	286
20.	Coconut *	884344	882288	899127	5210	5132	5167	5891	5817	5747
21.	Cotton	14551	10999	10999	3992	3018	2867	274	274	261
22.	Tobacco	93	41	---	518	228	—	5570	5561	---
23.	Coffee**	82878	83683	84139	48300	61150	60470	583	731	719
24.	Tea**	36817	36826	36877	72667	68373	71295	1974	1857	1933
25.	Rubber	465282	469924	472900	541935	559099	572820	1165	1190	1211

*Source : Directorate of Economics and Statistics, Rubber Board, ** UPASI*

* *Production in million nuts & Productivity in nuts/ha.*

\# *Provisional except for rice.*

4.9 In contrast to the area coverage, the performance of the seasonal and annual crops in respect of productivity recorded during 1999-2000 is promising. The crops, which have improved their productivity levels during the year include rice (+142 kg/ha), sugarcane (+270 kg), chillies (+10 kg), cardamom (+100 kg), banana (+1439 kg), plantains (+156 kg), tapioca (+141 kg), sweet potato (+14 kg) and groundnut (+52 kg). However, perennial crops present a mixed trend. Arecanut (+130 kg), tea (+76 kg) and rubber recorded increasing trend while in respect of pepper (-70 kg), cashewnut (-25 kg), coconut (-70 nuts) and coffee there was decline in productivity during 1999-2000. The improvement in productivity recorded by cardamom is more than 150 percent. The declining trend in the productivity of the three major small holder

crops, which support vast majority of the small and marginal farmers in Kerala, namely pepper, coconut and cashewnut, has to be taken note of.

4.10 Indices of area, production and productivity of crops in Kerala for the year 1997-98, 1998-99 and 1999-2000, the first three years of Ninth Five Year Plan, comparing it to the base level index for the triennium ending 1979-80 are given in appendix 4.6. The overall index for the crop sector has recorded a marginal increase of around four points during 1999-2000 over 1998-99. A further analysis of the different categories of crops shows that both food crops and non-food crops have contributed to the positive performance. For the first time during the last two decades, the food crop sector is making a positive contribution to the commodity basket of Kerala. The increase in production has been contributed by rice crop, which had been on a declining trend continuously during the past three decades. This improvement was made possible because of the strong recovery in the productivity the rice crop could show during 1998-99 and 1999-2000 over 1997-98. In the non-food category, the largest contribution in production was made by plantation crops followed by condiments and spices and oil seeds. Production indices in respect of fruits and tubers have however declined. The increase in the overall production index has been contributed largely by the productivity index which has moved from 135 to 137 while the area index has shown only a very marginal increase from 97.10 to 97.49 points in 1999-2000.

4.11 A review of the long term performance of the crop sector, over the last decade, shows that the total output from the sector has recorded an average annual growth of around 2.5 per cent. There was of course, large scale shift from high volume, low value crops like tapioca and rice, to low volume, high value crops like pepper and rubber.

Crop wise Analysis.

Rice

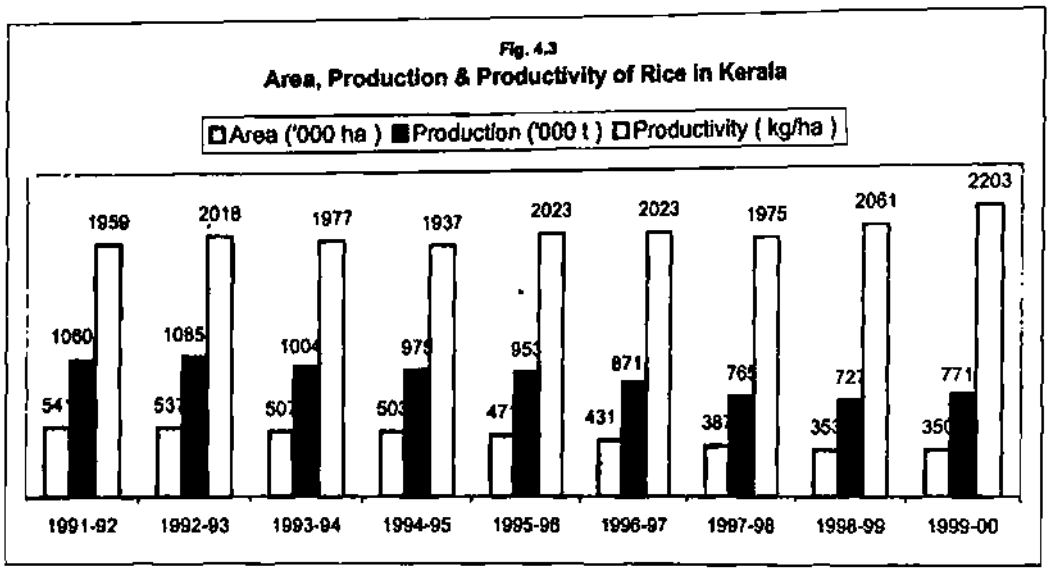
4.12 Rice, which is the staple food of Kerala, has experienced continuous decline in area over two decades. Rice production touched its peak of around 14 lakh tonnes in the mid seventies. Even at its peak level, internal production was hardly sufficient to meet 50 per cent of the state's requirement. Consequent to the enormous pressure which high value crops like coconut, banana, pineapple and plantain have exerted, area under paddy has declined from its peak coverage of 8.81 lakh ha in mid seventies to 4.31 lakh ha in 1996-97. Special programmes launched from the state level and by the local bodies have helped in reducing the degree of decline considerably during the Ninth Plan particularly during the last two years. The average annual decline in area under rice during the Eighth Five Year Plan was around 22,000 ha., whereas it has come down to an average of 18,000 ha. during the last two years. During 1999-2000 it could be brought down to just 3,000 ha. The annual production of rice which was 7.27 lakh tonnes in 1998-99 is reported to have made a very strong recovery in 1999-2000 recording a production level of 7.71 lakh tonnes. It is noteworthy that the average productivity of rice at its current level of 2203 kg per ha is higher than the national average of 1930 kg per ha, although it is behind the levels achieved by the major rice producing states of Punjab, Tamil Nadu and West Bengal (see table 4.6). The future of rice production in Kerala also lies in improving the productivity through promotion of the cultivation of high yielding varieties under scientific management. The special committee appointed by Government, to examine the scope for augmenting rice production and to suggest suitable measures, under the chairmanship of Dr. K.N. Syamasundaran Nair, Vice-Chancellor of Kerala Agricultural University has made a number of suggestions in this regard. The committee also advocated a package of assistance for the rice growers and recommended concentrated efforts in 54 blocks accounting for 75 percent of the rice area in the state.

Table 4.6

Area, Production and Productivity of Rice in Kerala and India

Year	Area('000 ha)		Production('000t)		Productivity(kg/ha)	
	Kerala	India	Kerala	India	Kerala	India
1	2	3	4	5	6	7
1991-92	541	42649	1060	74678	1959	1750
1992-93	537	41775	1085	72867	2018	1740
1993-94	507	42539	1004	80298	1977	1890
1994-95	503	42814	975	81814	1937	1910
1995-96	471	42837	953	76975	2023	1800
1996-97	431	43433	871	81737	2023	1882
1997-98	387	43446	765	82535	1975	1900
1998-99	353	44598	727	85995	2061	1930
1999-00*	350	NA	771	NA	2203	NA

Source: Directorate of Economic and Statistics, C M I E. * *Provisional*



4.13 Season-wise data shows that the reduction in area under rice was entirely during the Mundakan season whereas during Virippu and Puncha seasons of 1999-2000 the negative trend has been reversed. The data also reveal that out of around 1.70 lakh ha of double cropped area, nearly 50,000 ha are remaining fallow during the Virippu season. The single cropped lands of Kuttanad and Kole, where only one crop is raised during Punja season, also offer scope for additional cropping. Among the three seasons, Punja season records the highest productivity and the trend is continuing. (see appendix 4.7)

4.14 The coverage of high yielding variety is given season-wise in appendix 4.8. In spite of sharp decline in the area under rice, the coverage under high yielding varieties remains steady and is increasing. The coverage, which was stagnating in the range of 1.65 to 1.75 lakh ha during the past decade, has registered marked improvement during 1999-2000. The coverage has increased from 1.77 lakh ha in 1998-99 to 2.10 lakh ha in 1999-2000. The increase in coverage was all pervasive through the three seasons. The Mundakan season could retain higher rate of growth as well as high proportion in coverage. The overall percentage of high yielding coverage during 1999-2000 was over 60 and is much higher than the national average.

4.15 District-wise, while there was reduction in area under rice in the districts of Thiruvananthapuram, Ernakulam,

Kozhikode and Kannur, there was an increase in Kottayam, Thrissur, Palakkad, Wayanad and Kasaragod. (see appendix 4.9&4.10) The districts of Pathanamthitta, Alappuzha, Kottayam, Ernakulam, Thrissur, Palakkad and Malappuram together account for 79 percent of the total area under rice in the state. In respect of productivity also, these districts with the exception of Ernakulam and Malappuram perform fairly well.

Coconut.

4.16 With a coverage of nearly 9 lakh ha, coconut occupies 40 per cent of the net cropped area and provides livelihood for over 3.5 million families in Kerala. The area under the crop has remained more or less around 9 lakh ha during the last five years (see fig. 4.4). The productivity recorded during 1999-2000 is 5747 nuts which is marginally lower than the yield of 5817 attained in the previous year (see table 4.7). The wide-spread attack of Mandari pest which was an exotic mite that appeared all of a sudden in Ernakulam District and its rapid spread affecting over 590 lakh palms could perhaps be the factor responsible largely for the decline in productivity. The pest has again reappeared in 2000-2001 as well in spite of the massive spraying organised by the state in association with the local bodies concerned. During 1999-2000, plant protection treatment could be organised with the participation of farmers covering 2.77 crore palms, the cost being shared by the state and the district and grama panchayats. The mode of operation of the spraying compaign against the coconut mite set an example of the manner in which the State Government and local bodies could combine their efforts towards a common goal.

Table – 4. 7

Area, Production and Productivity of Coconut in Kerala and India

Year	Area('000 ha)		Production (million nuts)		Productivity (nuts/ha)	
	Kerala	India	Kerala	India	Kerala	India
1	2	3	4	5	6	7
1991-92	863	1529	4641	10080	5377	6593
1992-93	877	1538	5124	11241	5843	7310
1993-94	882	1635	5192	11975	5885	7324
1994-95	911	1714	5336	13300	5858	7760
1995-96	914	1833	5155	12952	5638	7066
1996-97	902	1891	5276	13061	5849	6908
1997-98	884	1898	5210	13096	5891	6902
1998-99	882	1910	5132	14925	5817	7810
1999-2000*	899	NA	5167	NA	5747	NA

Source: Directorate of Economics and Statistics, CMIE. ** Provisional*

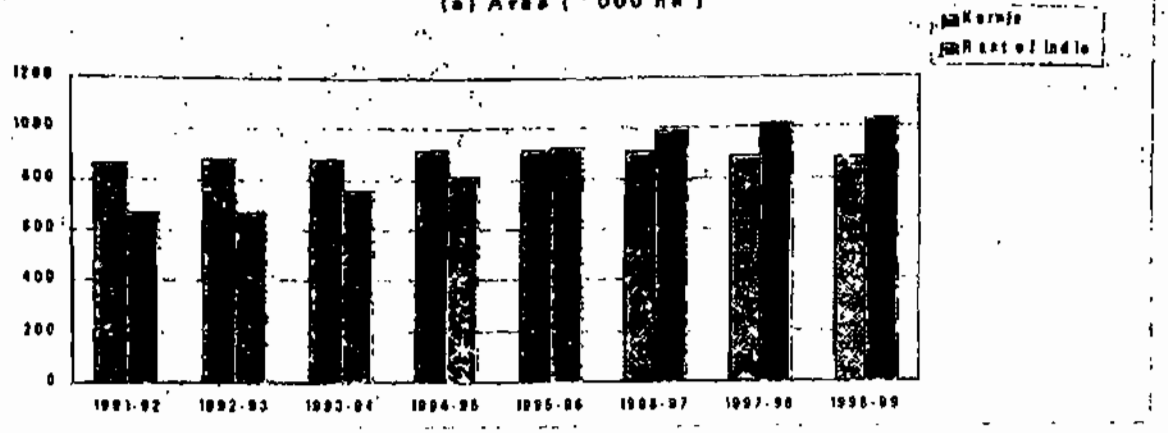
4.17 Coconut is facing a very severe crisis in view of the sharp decline in prices during the last year. The average price of coconut which was in the range of Rs.4.50 to 5 a nut during 1999 has fallen sharply and the average farm price declined to as low as Rs.2.50 to 3.00 a nut during the last one year. The minimum support price of Rs.3250 per quintal of copra announced by Goyernment of India for the period and the market intervention operation supported by Government of India had very little impact on the price of copra and coconut oil. The average price of copra did not show any improvement from its depressed level of Rs.1900 to 2000 per quintal in spite of a substantial procurement of over 70,000 tonnes in Kerala.

4.18 Coconut, which is the major crop in the coastal parts and midlands of Kerala, provides income and employment for millions of households with small land holdings. The fall in price of coconut, combined with the wide-spread attack of coconut mite depressing the yield considerably in the central region, has affected the livelihood security of a vast majority of the small and marginal farmers of the state.

Fig 4.4

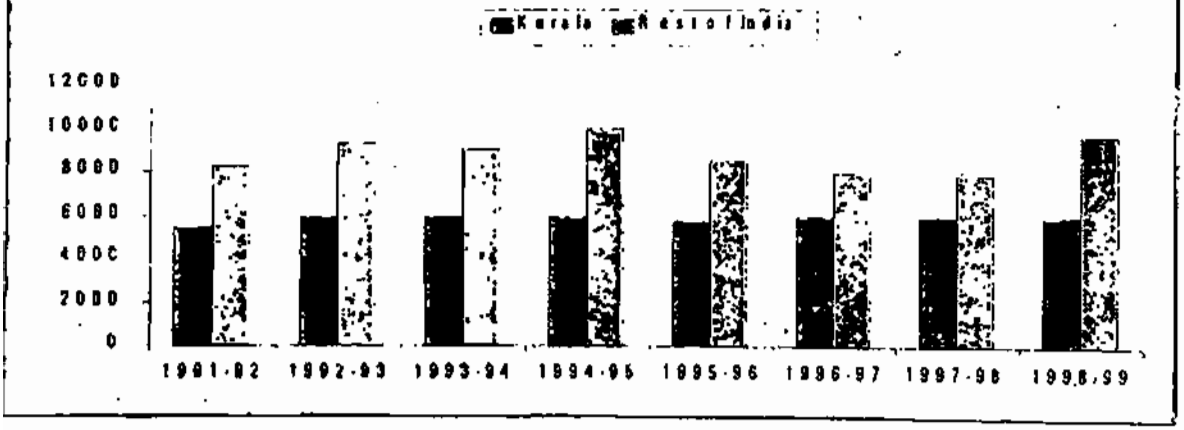
Area, Production & Productivity of Coconut in Kerala and rest of India

(a) Area ('000 ha)



(b) Production (million nuts)

(c) Productivity (nuts/ha)



Pepper.

4.19 The State continues to enjoy a near monopoly in area and production of pepper, accounting for 97 per cent in the country. The crop productivity achieved its peak level of 357 kg per ha during 1995-96. The productivity of pepper recorded during 1999-2000 was only 306 kg per ha. and its production declined from 68,510 tonnes to 56,430 tonnes (see table 4.8). At the same time, pepper is one crop which has improved its area coverage substantially. Of late the price of pepper in the international market also started declining consequent to the emergence of Vietnam as a major producer and exporter. Pepper produced in Kerala fetches a premium price in international market in view of its intrinsic quality. However consequent to the liberalisation of imports, there are reports of low quality pepper arriving from other producing countries.

Table – 4. 8

Area, Production and Productivity of Pepper in Kerala and India

Year	Area('000 ha)		Production('000 t)		Productivity(kg/ha)	
	Kerala	India	Kerala	India	Kerala	India
1	2	3	4	5	6	7
1991-92	178	184	50.31	52.0	282	282
1992-93	183	189	49.67	50.8	271	268
1993-94	184	191	49.55	51.3	269	269
1994-95	187	193	59.26	60.7	317	310
1995-96	192	198	68.57	61.6	357	311
1996-97	183	190	56.55	59.15	309	311
1997-98	180	182	46.04	NA	255	NA
1998-99	182	NA.	68.51	NA	376	NA
1999-00*	184	NA	56.43	NA	306	NA

Source: Directorate of Economics and Statistics, CMIE **Provisional*

4.20 Ending a two-year long sustained increasing trend, Indian pepper prices are set to enter a bearish phase in 1999. After remaining above Rs.200 per kg mark for a long time, there are signs of pepper prices coming down. This follows a wide disparity in Indian and International prices as well as the increase in production in major producing countries. The slowing down in the exports to the Russian market also acted as a major constraint. In spite of stiff competition from other countries, India could consolidate its exports further from 31,500 tonnes in 1998 to 40,000 tonnes in 1999 against total World export of 1.35 lakh tonnes.

4.21 The pattern of global demand for the crop is undergoing changes. The consumer preference is for value-added forms of pepper such as white pepper, pepper in brine, oleoresin etc . Kerala could not take advantage of the emerging opportunities for want of adequate processing facilities to process the commodity for export in the desired form.

4.22 The state has to bestow specialised attention for upgrading the productivity through an organized replanting programme. The varietal selection and improvement through genetic upgradation is also important for stabilizing and retaining its lead share in global trade.

Cashew

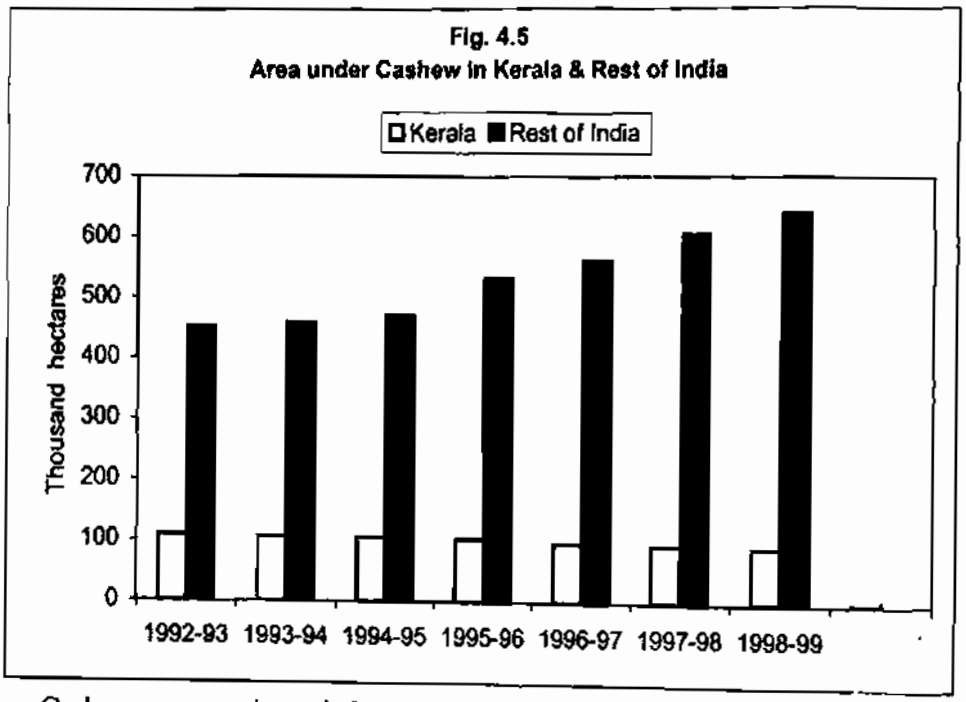
4.23 In spite of operating special schemes for expansion of area under cashew, the coverage has been steadily declining during the last two decades. The decline in area suffered during the period is to the tune of around 30,000 ha. Productivity of the crop, which was lingering at around 800 kg per ha. has also started declining from 1995-96 onwards, reaching 537 kg per ha. during 1999-2000 (see table 4.9 and fig.4.5). The share of Kerala in the area under cashew in the country has come down from 23 percent in 1987-88 to 12 percent in 1998-99. The state's share in All-India production is 11 per cent.

Table – 4. 9

Area, Production and Productivity of Cashew in Kerala and India

Year	Area ('000 ha)		Production ('000 t)		Productivity (kg / ha)	
	Kerala	India	Kerala	India	Kerala	India
1987-88	121.6	527.4	81.5	260.3	670	494
1988-89	124.7	529.3	108.3	274.3	868	518
1989-90	123.7	530.9	106.3	285.6	859	538
1990-91	115.6	531.9	102.8	294.6	889	554
1991-92	112.1	533.5	104.6	305.3	933	572
1992-93	109.0	560.3	95.6	349.4	877	624
1993-94	106.7	565.4	87.5	348.1	820	616
1994-95	105.7	577.0	87.0	371.2	823	643
1995-96	103.3	635.0	82.8	418.8	801	658
1996-97	97.1	659.0	69.0	430.0	710	653
1997-98	94.7	701.0	56.9	360.0	601	514
1998-99	91.3	732.0	51.3	460.0	562	.630
1999-00*	86.3	NA	46.4	NA	537	NA

Source: Directorate of Economics and Statistics, Directorate of Cashew. * Provisional



4.24 Cashew processing industry is finding it extremely difficult even to maintain the present level of capacity utilization because of the lower availability of local raw material.

Horticulture

4.25 The opportunity for raising a variety of fruits and vegetables by taking advantage of the varying climate and other favourable features remain largely untapped. It was only in respect of vegetable production some efforts could be made for commercial production. There was favourable response in respect of the seasonal vegetables, with additional coverage in area, while the area under all other types of traditional vegetables and fruits remained more or less constant. (see table 4.10)

Table 4.10
Area under Vegetables in Kerala from 1991-92 to 1998-99

(in hectares)

Year	Drumstick	Tubers except Tapioca & Sweet Potato	seasonal vegetables	Banana & Plantains
1991-92	18110	33066	21743	65069
1992-93	18058	31057	21866	67957
1993-94	19304	31914	25052	72148
1994-95	20130	32039	23774	72566
1995-96	21452	33098	17616	72861
1996-97	20720	29585	17243	78079
1997-98	19838	28906	24139	80640
1998-99	19622	28768	24606	81468

Source: Directorate of Economics and Statistics

Plantation Crops

4.26 Kerala has a substantial share in the four plantation crops of rubber, tea, coffee and cardamom. According to the crop estimates for 1999-2000, they together occupy 6.35 lakh ha., accounting for 28 percent of the net cropped area in the state and 45 percent of the area under these crops in the country(see appendix 4.11). Kerala's share in the national production of rubber is 92 percent, cardamom 71 percent, coffee 21 percent and tea 9 percent. The Western Ghats Region falling in the Kerala territory is considered to be the abode of plantation crops and in view of their strategic distribution over a very sensitive and fragile eco-system, they play a very vital role in eco-preservation as well.

4.27 Plantation crops in general are either export oriented or import substituting and therefore assume special significance from the national point of view. It is estimated that nearly 14 lakh families are dependent on the plantation sector for livelihood. Each of the four plantation crops of South India has its distinct characteristics and economic problems. Consequent to the removal of the quantitative restrictions on import of these commodities and signing of the Indo-Sri Lankan Treaty, plantation crops in general are facing the threat of unbridled in flow of these commodities to the country. While productivity of tea and rubber have increased by over 4 percent and 5 percent respectively, income generated have declined because of competition and its adverse impact on prices. In the case of rubber the reduction in income was almost to the extent of 50 per cent.

Rubber

4.28 Kerala accounts for 85 percent of the area under rubber in the country (5.58 lakh ha.). The coverage under the crop in 1999-2000 was 4.73 lakh ha, higher by around 3,000 ha over the previous year. The production of natural rubber in Kerala during the year was 5.85 lakh tonnes against the all India production of 6.22 lakh tonnes. The increase in production registered during the year was by 2.8 per cent. The total value of rubber produced in Kerala is around Rs.3,000 crore. Being predominantly a small holder plantation crop in Kerala, the average size of a small rubber holding is as low as 0.47 ha. There are 9.12 lakh small holdings accounting for 4.31 lakh ha. in the state. The increasing trend in productivity continued during 1999-2000. It was 1190 kg per ha in 1998-99, which rose to 1211 kg during 1999-2000. In terms of tapping area, productivity recorded is 1617 kg per ha which is higher than national average of 1576 kg by 2.6 per cent. The average price of rubber (RSS-4) which was Rs. 51 per kg in 1995 fell to Rs.39 in 1997. It declined further to Rs.30 in 1998 (see appendix 4.12). There was no improvement in 1999 and 2000 and price level has touched its rock bottom of Rs 24 per kg in 2000. This is far below the bench mark of Rs.34.05 per kg announced by Government of India in September 1998 based on the cost of production in 1996-97. The huge stock pile does not allow the market price to cross the bench mark level. Initiatives have been taken by the state government by way of procurement from open market at a higher price and the authorisation given to RUBCO for export. Government of India has also decided on procurement of rubber from the

open market through STC for meeting the domestic industrial demand against advance licenses by suspending the permission given to them for import. Even this did not help in improving the market sentiments.

4.29 India is the fourth largest producer of natural rubber in the world after Thailand, Indonesia and Malaysia and is at the same time the fourth largest consumer after USA, Japan and South Korea. Indian industry comprising 29 tyre manufacturing units and 250 medium scale and 5500 small scale units in the organised sector offers 35,000 diversified products. The long experience in the manufacture of such a large number of diversified products and the low cost man-power available have to be considered as the relative advantages the country possesses on the promotion of rubber based industries for export purposes.

4.30 Eventhough the domestic prices of natural rubber were more or less comparable to international prices during the last two years (see table 4.11), the industrial sector still resort to imports in bulk quantities since the import duty is only 25% which is lower than the additional transport cost which they have to incur for procurement and transport. As per the agreement with World Trade Organisation (WTO), natural rubber has been categorised as an industrial commodity and it put restraints for raising the import duty further on par with other agricultural commodities.

Table 4.11
Price Trend of Rubber During 1999-2000

Month	*India (Rs. per 100 kg. of RSS 4)*	*World (Rs.per 100 kg. of RSS 3)*
April 1999	2818	2434
May 1999	3190	2474
June 1999	3408	2518
July 1999	3360	2381
August 1999	3318	2364
September 1999	2951	2513
October 1999	2958	2750
November 1999	3036	3133
December 1999	2865	2902
January 2000	3099	2762
February 2000	3133	3180
March 2000	3049	3032
Average (1999-2000)	3099	2704

Source: Rubber Board, Kottayam

4.31 With all these adverse conditions the consumption of natural rubber during 1999-2000 has registered an annual growth of 6.2 per cent and it is the auto tyre manufacturing segment which has registered the highest growth (10.6%) compared to the other categories (see table 4.12).

Table 4.12
Consumption of Rubber during 1998-99 & 1999-2000

	Consumption (in tonnes)		Growth (%)
	1998-99	1999-2000	
Natural Rubber (NR)			
Auto Tyre Manufacturers	281121	310870	10.6
Others	310424	317240	2.2
Total of NR	591545	628110	6.2
Synthetic Rubber (SR)			
Auto Tyre Manufacturers	89062	97482	9.5
Others	67333	69738	3.6
Total of SR	156395	167220	6.9
NR & SR			
Auto Tyre Manufacturers	370183	408352	10.3
Others	377757	386978	2.4
Total of NR & SR	747940	795330	6.3

Source: Rubber Board, Kottayam

Coffee

4.32 According to the crop estimates for 1999-2000, the area under coffee in Kerala was 0.84 lakh ha out of 3.40 lakh ha in the country, which works out to 25 per cent. The share of Kerala in production is 21 per cent. Production of coffee during the year was only 0.60 lakh tonnes against 2.92 lakh tonnes for the country. Productivity of the crop in Kerala (719 kg/ha) is lower than the national level of 858 kg/ha. Area under coffee registered substantial increase during the last two decades with an annual growth rate of over 2 per cent. The increase in production recorded during the period was much higher and registered an annual average growth rate of nearly 9 per cent. Increase in production was contributed substantially by the increase in productivity rather than expansion in area. Major variety grown in Kerala is Robusta. Coffee provides opportunities for livelihood to nearly one lakh families including agricultural labour. In Kerala, coffee is also one of the small holder plantation crops with nearly 75,000 holdings coming under the category with an average size of 1.1 ha per holding.

4.33 The average price of coffee which was in the range of Rs.65 to 75 a kg during the last 5 years has come down to Rs.59 per kg during 1999. The main reason attributed is the spurt in production compared to the increase in demand. Consumption of coffee has remained more or less unchanged at around 55,000 tonnes for the past one and half decades inspite of growth in incomes as well as population.

Tea

4.34 Against the total area of 4.37 lakh ha under tea (1999) in the country Kerala accounts for only 0.37 lakh ha. In respect of production also Kerala could retain its share of nine per cent. Tea plantations owned by big companies, employ a labour force of over 84,000 in the organised sector. Of late, small plantations of tea have started emerging in Idukki and Wayanad Districts.

4.35 Prices of tea were bouyant during 1998 but started declining in 1999. The average auction price of South Indian tea in 1999 was Rs.55 per kg against Rs.69 per kg in 1998. The combined average price for 1998 at Cochin was Rs.74 per kg which declined to Rs.62 per kg in 1999 and Rs.51 in 2000. Tea is among the 2000 items agreed to be imported from SAARC countries under marginal tariff whereas India's commitment with WTO bound rate for the commodity was 35 - 100 percent. Liberal imports from Sri Lanka under the Indo Sri Lankan Treaty has also adversely affected tea prices. There are reports that deterioration in the quality of South Indian tea has also affected the export prospects. Statistics regarding the production, consumption, export and auction price of tea are given in appendix 4.15

Cardamom

4.36 Among the plantation crops grown in Kerala, cardamom has emerged as a model for other crops in regard to production and marketing. The commodity has registered new heights in production through productivity improvement. Productivity which was more or less stagnant around 50 kg in the 1980s has improved its position to the level of around 120 kg per ha by 1999-2000. Kerala was lagging behind the national level till 1993-94 but has improved its position by raising its productivity from 50 kg to 160 kg per ha over the last five years. Consequently, the share of Kerala in production at the All India level also increased from 32 per cent to 70 per cent. While the area under cardamom in the country has reduced from 1.2 lakh ha to 0.85 lakh ha. in Kerala it has come down from 65,000 ha to 40,867 ha. On the export front cardamom has been facing cut throat competition from Guatemala although the quality of Guatemala cardamom is inferior. Indian exports of cardamom had come down from around 3,000 tonnes to between 300 to 500 tonnes in early Nineties. The country could tide over the challenge by expanding the domestic market through market promotion. With the increase in productivity now achieved, export is also gradually picking up. Exports during 1998-99 and 1999-2000 are reported to be 475 tonnes and 550 tonnes respectively. The average price during 1999-2000 also remained at around Rs.500 per kg inspite of substantial increase in production.

Crop Development Programmes

4.37 As a matter of policy, creation of common service facilities, infrastructural facilities that help productivity and quality improvement, induction of new technologies, promotion of primary processing and value addition and training etc are given for support from the State level. Production support and direct incentives are expected to be catered to by the local bodies as part of their local plans. A brief review of the major programmes implemented at the State level for crop development during 1999-2000 is given below.

Rice

4.38 In rice development the major areas supported from the State level include multiplication and distribution of improved seeds (4300 tonnes), integrated pest management (16000 ha, IPM demonstration 140), small farm mechanisation (supply of 424 power tillers, 46 tractors and 35 threshers) and support by way of infrastructure facilities for the special areas such as Kole, Kari, Kuttanad, Palakkad, Onattukara, Wayanad and Pokkali lands. Government have already constituted 11 separate authorities for formulating comprehensive development programmes for areas which offer potential for augmenting production and for implementing them with institutional finance.

4.39 As an incentive for sustaining rice cultivation, a production subsidy of Rs.350 per ha. per season has been extended to all the rice growing areas in the State. As an incentive for raising additional crops for paddy, further assistance of Rs.1000 per ha was also extended during 1999-2000. The electricity charges in respect of irrigation and drainage for rice cultivation have also been fully subsidised.

Coconut

4.40 For coconut, emphasis was on community irrigation and market intervention through KERAFED for price stabilisation. The centrally sponsored scheme operated with assistance from Coconut Development Board was also operational during the year and the entire amount was utilised for the control of coconut mite by organising spraying covering 2.77 crore palms. The nursery programme for quality seedling production was continued with the target of 5 lakh seedlings. Coconut is one crop which received considerable support under the local level plan schemes formulated by the grama panchayats. In fact, the massive spraying organised against mite was a joint effort by State, District panchayat and Grama panchayat, sharing the cost more or less equally by all.

Pepper

4.41 The "Technology Mission on Pepper" was conceived as an integrated project as per the guidelines of the Central Ministry of Agriculture. The own resources of state government and the assistance available under the centrally sponsored scheme were pooled for the purpose. Activities taken up under the programme include production and distribution of rooted pepper cuttings (68.74 lakh), area expansion (2500 ha), rehabilitation of old pepper gardens (1650 ha), plant protection measures (13,942 ha) and soil conservation measures (586 ha).

4.42 Along with pepper, other spices such as ginger, turmeric, chillies and tree spices also received attention during the year.

Cashew

4.43 Activities taken up were expansion of area under cashew (1870 ha), rehabilitation (3969 ha), plant protection measures (12,092 ha), distribution of high yielding grafts (50 cashew nursery) and distribution of plant protection equipments (550 nos.).

Horticulture

4.44 Vegetable development is an area which received priority attention in the local level schemes of the panchayats. At the State level, the programme for commercial cultivation of vegetables in selected areas through the Haritha Sanghoms has been continued with an outlay of Rs.7 crore during 1999-2000. So far 1199 Haritha Sanghoms were organised involving 79,819 farmers and benefiting 12,855 ha. The financial assistance extended under the programme cover intensive vegetable

cultivation (5005 ha), seed multiplication and distribution (6000 seed kits), establishment of irrigation (50 wells, 50 pump sets) and distribution of sprayers (43 nos.) and marketing. The production programmes were linked with a procurement and sales network organised by the Kerala State Horticulture Products Development Corporation (HORTICORP). The corporation has 735 sale outlets which were organised on a commission basis engaging unemployed youths in important consuming centres. For state-wide distribution of vegetables and fruits, the corporation has established 12 regional production centres and two cold storages at Munnar and Eruthiampathy. Average daily sales of vegetables and fruits of the corporation during 1999-2000 is 200 tonnes. The total turn over of the corporation during the year was in the order of Rs.14.60 crore.

4.45 The Kerala Horticulture Development Programme, under implementation with EEC assistance, was also continued for promoting vegetable and fruit cultivation. During 1999-2000, 97 self help groups were organised additionally to support coverage of vegetables (602 ha) and banana (711 ha). Twelve "Karshaka vipanies" were organised and concessional credit to the tune of Rs.6.7 crore was advanced. To ensure availability of quality seeds to the vegetable farmers, the programme has set up a seed processing plant at Alathur near Palakkad with an installed capacity of processing 1.50 tonnes of seed per hour. The fruit processing factory with a processing capacity of 3.5 tonnes per hour at Moovattupuzha has become operational for the processing of pineapple and mango. The factory recently launched its first product in the brand name 'JIVE'.

Supplies and services

4.46 The State has a strong network for supplies and services. This includes Krishi Bhavans in all the grama panchayats for transfer of technology and organising agricultural services. Planting material delivery system has been developed which includes 33 state seed farms, 10 district farms, 10 special farms and 8 coconut nurseries. The paddy seed farms and the District Agricultural Farms are under the control of the District Panchayats for facilitating appropriate seed planning at the grass root level. Inspite of such elaborate progeny support, supply of quality seeds of paddy and other seasonal crops remain as a weak link in the production front.

4.47 During 1999-2000, the consumption of fertilizers has increased from 1.81 lakh tonnes to 2.11 lakh tonnes. The trend of fertilizer consumption shows that the state has successfully overcome the decline in consumption consequent to the hike in prices of phosphatic and pottassic fertilizers. The increase in consumption recorded during 1999-2000 has helped the State to improve its position in respect of average consumption per ha from 62 to 72 kg. (see appendix 4.16). However, the State average is lower than the national average (90 kg).

4.48 In plant protection, the strategy is one of need-based adoption of chemical control. From a long term perspective the thrust will be on bio control measures. The mite attack on coconut which has emerged as a very serious threat for coconut warranted chemical intervention. With the active involvement of the local bodies, state government have organised massive control programme for coconut mite and the menace could be contained to some extent. Repeated treatment with appropriate chemicals appears to be necessary. However, the long term solution lies in evolving biological control measures. Selected indicators of progress are given in appendix 4.17

AGRICULTURAL RESEARCH AND EDUCATION

The Kerala Agricultural University is the principal institution in the state providing human resources and technology required for the sustainable development of its agriculture, encompassing all production activities based on land and water, including crop production (agriculture), animal husbandry, forestry and fisheries through conducting, interfacing and integrating education, research and extension in these spheres. The University fulfils its obligations and commitments through a network of 36 big and small campuses spread through out the state consisting of ten colleges, six

regional agricultural research stations, twenty six research stations, five krishi vignan kendras and three centres of advanced studies. The Central Training Institute, the Centre of Excellence in Training for Plantation Crops and the Communication Centre support the training and research activities. The University has a strong technical manpower consisting of 1,000 academics and over 800 technical staff.

4.50 During 2000, the Indian Council of Agricultural Research (ICAR) adjudged the University as the second best performing among the 35 State Agricultural Universities in the country. Admission and passing out levels of the various under graduate and post-graduate courses in the university during 1997-98 to 1999-2000 are furnished as appendix 4.19

4.51 Research initiatives undertaken in the university are focussed on increasing the productivity of crops, livestock and fish currently raised in the state through manipulation of the genetic base; improvements in the management practices; control and management of pests; diseases and parasites; increasing the efficiency of the bio-physical and human resources, and inputs used in production; the introduction of new crops, animals, and machines; evaluating and designing policies, programmes, institutions and infrastructure; and analyses and appraisal of the value systems and gender equation which are conducive or inhibitory to the adoption of technologies and innovations evolved through research. The research support for the sustainable development of the agriculture sector of the state is rendered in a partnership mode in close association with the research institutions managed by ICAR, Development and Commodity Boards and Department of the State and Central Governments. Over 700 research projects are currently in operation.

4.52 The University produced and distributed around five tonnes breeder seed of important rice varieties during 1999-2000 as against four tonnes in the previous year. Research activities pertaining to the management of mite infesting coconut was intensified. Field trials were conducted in Ernakulam District to standardise chemical control of mite. Frontline demonstrations on the management of coconut mite were started in Alappuzha, Kottayam, Ernakulam and Thrissur districts in collaboration with the State Agricultural Department. Action research on surveillance and monitoring of mite infestation and yield loss assessment was also initiated. Training was given to people's representatives and staff of the Agriculture Department for the effective implementation of massive spraying operations for controlling coconut mite under the district level rapid action plan. The University is also represented in the Central Team constituted by Government of India for the survey of Eriophyd mite on coconut in the southern states and union territories.

4.53 Under the State Government sponsored project on fish ranching in Vembanadu Lake, an extensive survey covering 93 landing centres were made for fish catch and species-wise fish landings are estimated. A design for establishment of fish sanctuary in the Vembanadu Lake was evolved and work is in progress.

4.54 University facilitates in-service training on new innovations, technologies and extension management to the grassroots as well as middle level functionaries of development departments and agencies drawing considerable technical, scientific and professional capacity available in the University. During 1999-2000, the University could conduct 76 training programmes and publish four books for the benefit of the farmers and extension personnel.

4.55 The 'Special Planing Cell' constituted in the University provides technical support to local level planning by designing and developing projects for the sustainable development of agriculture and their natural resource management sectors. The Group Approach for Locally Adapted and Sustainable Agriculture (GALASA) formulated by the University has been tested in three grama panchayats in Palakkad District. GALASA is being extended to other panchayats in the district. The concept of utilising group dynamics for boosting up crop production is being extended to the cultivation of coconut for transferring the

technology package developed for the management of root (wilt) affected areas by introducing Comprehensive Coconut Care Programme (CCCP) in selected panchayats of Alappuzha and Kottayam districts.

SOIL CONSERVATION

In the absence of systematic efforts for soil and water conservation, heavy incidence of rainfall coupled with undulating terrain makes the Kerala soils vulnerable to soil erosion. It is estimated that out of 22.8 lakh ha. of cultivated land, 9 lakh is prone to erosion. Among the major crops, plantation crops-particularly rubber-are planted after proper soil conservation and land development. On the other hand, the small holder perennial crops such as coconut, pepper and cashew are planted without providing the required land preparations. Soil and moisture conservation is critically important for crops like pepper which are normally raised in the upper elevations of the land terrain. The cumulative coverage under soil conservation at the end of Eighth Five Year Plan was 1.40 lakh ha. With the introduction of decentralised planning, there is increasing awareness about the need for effective conservation measures. Accordingly, considerable attention has been paid by the local bodies for supporting the activity. With the substantial assistance rendered by NABARD under RIDF and the inclusion of a good number of projects as part of local plans, soil and water conservation activities in the watersheds of the state received an impetus during the Ninth Five Year Plan.

4.57 The first phase of RIDF programme was completed in December 1997 with a total project cost of Rs.10.13 crore benefiting an area of 5718 ha. spread over 37 watersheds in the five districts of Thiruvananthapuram, Idukki, Wayanad, Kannur and Kasaragod. Phase II of the programme with a project outlay of Rs.12.90 crore was commenced in 1997-98 and is implemented in 28 watersheds in 11 districts excluding Alappuzha, Ernakulam and Malappuram covering an area of 8725 ha. Phase III of the programme was started in October 1998 and is in progress in 40 watersheds with a project cost of Rs.16.22 crore. All 14 districts are thus covered under the project benefiting 13,423 ha.

4.58 The National Watershed Development Project for Rainfed Areas (NWDPRA) is a 100 per cent Centrally Sponsored Scheme taken up from 1990-91 onwards. During the Eighth Plan, an area of 88,226 ha coming under 114 watersheds received the benefits of the scheme involving expenditure of Rs.29.94 crore. During the Ninth Plan, the project is under implementation in 1.37 lakh ha, coming under 114 watersheds lying adjacent to the old ones. During 1999-2000, conservation activities were carried out in 18,649 ha with an expenditure of Rs.917 lakh whereas in 1998-99 the area covered was 2800 ha. and expenditure there on was Rs.112 lakh.

4.59 The grant-in-aid earmarked by the local bodies in their Annual Plans 1997-98, 1998-99 for soil conservation and land development were of the order of Rs.30 crore and Rs.34 crore respectively. As part of the new strategy for local level planning, a policy decision has been taken to reorient the development interventions treating watershed as the basic unit. Accordingly, elaborate training programmes are under way, involving the newly elected members of the local bodies, voluntary workers, line Departments and non- governmental organisations.

LIVESTOCK

Livestock rearing provides opportunities for augmenting income and employment in the rural households of Kerala. In view of its suitability for combining with crop sector and sustainability as a household enterprise with the active involvement of the farm women, it is emerging as a very popular supplementary avocation in the small farm segment. Backyard system of dairy farming and poultry rearing which have a very long tradition in Kerala are facing new challenges as a result of the fast changes that are taking place in the farm front replacing livestock friendly seasonal crops by perennial cash crops. It is estimated that about 32 lakh out of the total number of 55 lakh households in Kerala are engaged in livestock rearing for supplementing their income. The homestead settlement pattern, the relatively high level

of literacy particularly among women, the highly favourable agroclimatic conditions conducive for bio mass production, and the long tradition in live stock rearing are the inherent strengths which the Kerala economy possesses in favour of livestock rearing. However, some of the recent developments in the Kerala farm front pose serious threat for sustaining the activity on a firm footing. They include the sharp and continuous decline in the area under livestock-supporting seasonal crops especially paddy, marginalisation of agricultural holdings, declining trend in the family participation particularly among youth and high cost of production as a result of increasing reliance on externally sourced purchased inputs.

Live stock Population

4.61 Kerala possesses 34.0 lakh cattle, 1.7 lakh buffaloes, 18.6 lakh goats, 1.4 lakh pigs, 11.9 lakh ducks and 256.5 lakh poultry. The cattle population in Kerala accounts for 1.75 per cent of the total in the country. Comparative picture of livestock population during the last two Census 1987 and 1996 is presented in Table 4.13.

Table 4.13
Livestock Population of All India and Kerala

(Nos. in lakh)

Species	1987 India	1987 Kerala	% share of Kerala	1992 India	1996 Kerala	% share of Kerala	% increase over the previous Census (Kerala)
Cattle	1958.70	34.24	1.75	2045.16	33.96	1.61	- 0.8
Buffalo	769.70	3.29	0.43	842.39	1.65	0.20	- 50.0
Goats	994.10	15.81	1.59	1152.81	18.61	1.61	17.7
Pigs	107.60	1.37	1.27	127.88	1.43	1.12	4.4
Poultry	2583.40	170.92	6.62	2840.25	256.46	9.03	50.0
Ducks	234.90	8.46	3.60	220.86	11.87	5.4	40.0

Source: Livestock Census All India & Livestock Census Kerala.

4.62 A comparison of the data reveals that significant reduction has taken place in bovine population from 37.5 lakh to 35.6 lakh i.e., 5 per cent. While the decline in cattle population was very marginal (0.8%), that of buffaloes was by half (50%). This marginal decline in cattle population has no adverse impact on milk production, as there was considerable increase of 17 percentage points (from 50% to 67%) in the number and proportion of crossbred cattle during this period. All categories of livestock have registered increases in their population in varying degrees. Maximum growth was recorded by poultry (50%) followed by duck (40%).

4.63 The spatial distribution of the different categories of livestock in Kerala shows a regional pattern. While dairy activity is popular in almost all districts, poultry rearing is concentrated in Idukki and Pathanamthitta, goats in Malappuram and duck in Alappuzha and Kottayam districts. The emerging trend also reveals a shift in the population of dairy cattle from the coastal districts to midland and high land regions.

Weak feed and fodder base

4.64 The dispersal of livestock, particularly cattle, in Kerala in the past reveals that it was concentrated in regions where there was substantial area under rice cultivation. Cattle rearing has been integrated with rice farming system to the advantage of both. The availability of straw for cattle combined with the demand for organic manure motivated the farming community to own cattle. With the shift in cropping pattern, the area under rice has come down by 50 per cent over the last two decades leading to drastic reduction in the availability of straw for feeding cattle. The present level of supply is estimated to be around 20 lakh tonnes which constitutes only 30 per cent of the estimated requirement. Kerala farmers sought to address the situation by restricting the number of cattle and that too by preferring high yielding crossbreds. This is evident from the steady increase in the proportion of

crossbred animals which Kerala could achieve during the last three decades. The proportion of crossbred animals in the total cattle population is of the order of 68 per cent (see appendix 4.21). There is drastic reduction in other categories of livestock such as bullocks, indigenous female cattle, male calves etc. (see appendix 4.22 & 4.23). The recent trend reveals that the farmers are reluctant to maintain even high yielding crossbred cows during their dry period.

Trend in Production of major Livestock Products

4.65 Trends in requirement and availability of major livestock products is given in table 4.14 Milk is the only product which could maintain its growth rate in tune with the increase in demand. The per capita availability of milk during 1999-2000 is estimated to be 214 gm/day against 207gm/day recorded during 1998-99. In the case of egg, the domestic production is sufficient to meet only 25 per cent of the internal requirement. The per capita availability which was 64 egg per year has increased marginally to 65 per year during 1999-2000. The state is largely dependent on external sources for maintaining the supply of meat. The supply is more or less steady around 50 gm per capita per day during the period.

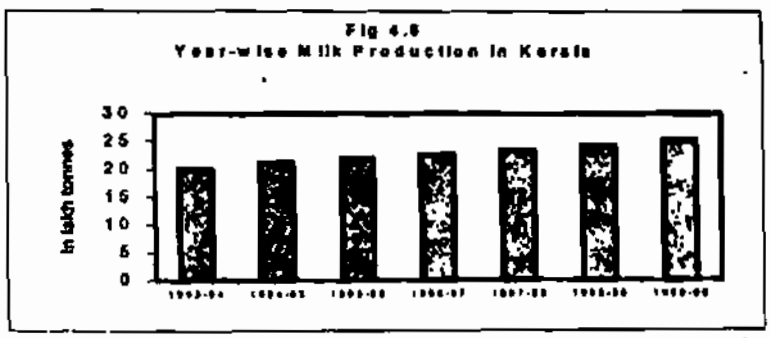
Table 4.14
Requirement and Availability of Livestock products

Year	*Milk (lakh tonnes)*		*Egg (million Nos.)*		*Meat ('000 tonnes)*	
	Requirement	*Availability*	*Requirement*	*Availability*	*Requirement*	*Availability**
1981	18.62	9.82	2952	1618	177	50.81
1991	21.24	17.85	3471	1710	208	120.65
2000 (estimate)	23.73	25.25	5063	2054	304	155.08

Source :Animal Husbandry Department ** Authorised sector only*

Milk

4.66 In spite of a shrinking fodder base, the dairy sector in Kerala could maintain its performance during the last three decades. The annual average growth recorded during the last decade was 6.7 per cent, which is being maintained during 1999-2000 as well. The genetic upgradation attained through the artificial insemination programme launched by the state with the support of the frozen semen technology has helped it to attain new heights in milk production. However, the high yielding potential secured through cross breeding could not be converted into a corresponding increase in milk yields. Despite considerable increase in the proportion of high yielding crossbred cattle, average milk yield per animal per day remains low at 6 litres compared to its potential of 8-10 litres. However, the average productivity attained by Kerala is higher than the national average (2.78 litres) and has been increasing. Index of milk production of Kerala and India from 1984-85 to 1999-2000 is given in appendix 4.24. Year-wise milk production for the period from 1993-94 to 1999-2000 is given in fig.4.6.



4.67 The sub optimal realisation of the productivity potential and the increasing reliance on purchased inputs, particularly concentrate feed, make the production of milk in Kerala less competitive compared to the neighbouring states. The cost of production can be reduced only by increasing the productivity through efficient management of cross bred cattle and increasing the availability of fodder through organised efforts including the utilisation of bio wastes and by-products that originate from the farm.

Egg and Meat

4.68 Poultry farming for egg production relying purchased feed is uneconomic in Kerala. Poultry rearing on commercial lines is therefore largely confined to broiler production. However, the backyard system for egg production continues to thrive. The egg production which has reached the level of 2024 million numbers by the end of Eighth Five Year Plan is showing signs of slowing down. The production which was 2044 million in 1998-99 could record only a marginal increase to 2054 million in 1999-2000. This is against the target of 2929 million numbers. Index of egg production of Kerala and India over the years 1984-85 to 1999-2000 is given in appendix 4.24.

4.69 Meat production in Kerala comprises of beef, muttton, pork and broiler chicken. Out of this, beef is almost entirely from the culled animals brought from the neighbouring states. The rearing of goat and pig is concentrated in selected pockets. As in the case of poultry, meat production under stall-fed condition in general is not economical in Kerala. However, there is scope for fostering this activity in selected areas largely by utilising the bio wastes available. Meat other than poultry increased to 1.22 lakh tonnes from 1.18 lakh tonnes during 1998-99. This is against the Ninth Plan target of 1.66 lakh tonnes. The production of poultry meat including broilers is on the increase. It reached 33,204 tonnes in 1999-2000 as against 32,480 tonnes in 1998-99. Details of milk, egg and meat production are furnished in table 4.15.

Table – 4.15
Year-wise estimate of Milk, Egg and Meat production in Kerala and India (1993-94 to 1999-2000)

Year	Milk Production (lakh tonnes)				% contribution of Kerala	Egg Production (million numbers)				% contribution of Kerala	Kerala	
	India	% change over previous year	Kerala	% change over previous year		India	% change over previous year	Kerala	% change over previous year		Poultry Meat (tonnes)	Meat other than Poultry Meat (tonnes)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1993-94	606	-	20.01	-	3.3	24167	-	1844	-	7.3	28000	101223
1994-95	638	5.28	21.18	5.84	3.3	25975	7.40	1916	3.90	7.2	30000	103551
1995-96	663	3.91	21.92	3.49	3.3	27284	5.03	1987	3.70	7.3	32000	105933
1996-97	683	3.02	22.58	3.01	3.3	27492	0.76	2024	1.86	7.4	34000	108336
1997-98	705	3.22	23.43	3.76	3.3	28400	3.30	2033	0.44	7.2	31688	114306
1998-99	747	5.96	24.20	3.29	3.2	30150	6.16	2044	0.54	6.8	32480	117840
1999-00	NA	NA	25.25	4.34	NA	NA	NA	2054	0.48	NA	33204	121875

Source: Economic Survey and Department of Animal Husbandry

4.70 Kerala State Poultry Development Corporation was established in 1989 to give special attention for the revival of poultry farming. The corporation has built up a broiler breeding farm and hatchery at Kudappanakunnu in Thiruvananthapuram District with a total investment of Rs.5.95 crore. The corporation has partially

commissioned a project to rear 15,000 parent stock against the target of 25,000 and to hatch 28 lakh day-old chicks against the target of 58 lakh by utilising financial assistance from the State Government and commercial banks. Presently 27,000 chicks are being produced per week from the unit.

New opportunities for meat production

4.71 The universal experience is that beef is the costliest item of meat. But in Kerala it is the cheapest item costing only 50 per cent of the prices elsewhere. This is because of the migration of large number of cattle and buffalo from the neighbouring states for slaughter. As per the study by the Swiss Agency for Development and Co-operation (1998) the number of animals migrating to Kerala is of the order of 11 lakh per annum. Kerala has the relative advantage for substantially increasing manufacture and export of meat and meat products as it is the only state which could build up and maintain a disease free zone against contagious disease. Male calves available as the bye-product of intensive cross breeding programme are estimated to be about 1.5 lakh every year. If properly looked after for value addition, these could be utilised for export. Farmers are reluctant to keep the male calves, as fattening with purchased inputs is not an economic proposition. Rearing of cattle for meat purposes continues to be a losing proposition in Kerala and it is therefore prudent to rely on external sources for meeting domestic demand.

Animal Health Care

4.72 Health cover is an important support which has to go hand in hand with an intensive cattle improvement programme. Veterinary health care programmes are implemented through a network of institutions consisting of veterinary polyclinics, veterinary hospitals, mobile units and district veterinary centres. During the Eighth plan all the panchayats have been provided with veterinary hospitals/ dispensaries. The district veterinary centres are serving as referral centres. Mobile veterinary service is also offered from these centres. These centres and veterinary polyclinics at taluk level are fully equipped with diagnostic facilities.

Production of Vaccine

4.73 The Veterinary Biologicals, Palode is the sole agency engaged in the production and distribution of animal vaccine in the State. During 1999-2000, the institute has produced 56 lakh doses of poultry vaccine and 2 lakh doses of livestock vaccine as against 27 lakh doses of poultry vaccine and 3 lakh doses of livestock vaccine produced during the previous year. Number of vaccinations done during the year was 5.29 lakh for livestock and 20.73 lakh doses for poultry. Details are given in appendix 4.25

Breeding Support

4.74 Kerala Livestock Development Board (KLDB) is involved in the production and distribution of frozen semen and maintains 4 bull stations at Mattupetty, Peerumede, Dhoni and Kulathupuzha for the production of crossbred and purebred cattle and buffalo bulls. Production of frozen semen during 1999-2000 increased to 26.17 lakh doses from 25.57 lakh doses in the previous year. But the distribution inside the state remained more or less static. Details are furnished in appendix 4.26.

4.75 The Department of Animal Husbandry is responsible for providing artificial insemination (AI) support. The Ninth Five Year Plan envisages providing one centre for every 500 breedable cattle in addition to 2293 centres operating in the state by the end of 1996-97. The number of AI centres under Animal Husbandry Department was increased to 2393 in 1997-98, 2408 in 1998-99 and to 2440 in 1999-2000. Along with 352 centres operated by other agencies the total number of AI centres operational is 2792. (Details in appendix 4.27)

4.76 Animal Husbandry Department has launched a pilot programme to extend artificial insemination facilities to the doorstep of farmers. As part of this programme mobile units were established in 10 centres in Thiruvananthapuram District. The number of AI centres has been almost doubled during the last decade. But proportionate increase in the number of inseminations could not be achieved. The achievement in this regard is only 2.4 percent. Against the total of 13.91 lakh artificial inseminations done during 1999-

2000 the number of calvings recorded was only 3.49 lakh. This is against 3.14 lakh calvings recorded out of 12.51 lakh AIs during the previous year. The number of AI is more or less constant inspite of large scale expansion in the number of centres. The average number of inseminations done by one centre during the year is 570, which is very low. This is more glaring in the context of the fact that average number of inseminations needed for producing one calf was four (see table 4.16). Obviously, the number of animals serviced is around 125. The low calving rate also speaks of the quality of service rendered. The calving rate which was around one for every 2.5 inseminations during Eighth Plan appears to have further deteriorated.

Table – 4.16
Number of artificial inseminations conducted and calving produced (1993 – 94 to 1999 – 2000)

Year	*No. of artificial Insemination Centres*	*No. of Artificial Inseminations done*	*No of AI Done Per centre*	*Recorded Calving*	*No of inseminations per calving*
1	*2*	*3*	*4*	*5*	*6*
1993-94	2037	1353058	664	299358	5
1994-95	2097	1464941	698	306975	5
1995-96	2298	1240116	540	323958	4
1996-97	2293	1151189	502	332962	4
1997-98	2393	1259419	526	327365	4
1998-99	2408	1251119	520	313859	4
1999-2000	2440	1391495	570	348834	4

Source: Animal Husbandry Department.

4.77 Apart from the frozen semen technology, KLD Board is also engaged in research and development activities like progeny testing, embryo transfer, production of liquid nitrogen, fodder seed and training programmes. The Board has an embryo transfer centre at Mattupetty, a goat farm at Dhoni for production of frozen semen and kids, a pig breeding centre at Puthur etc. During the year, the Board has produced 454 kids, collected 154 embryos and trained 365 personnel. Other activities of the Board are given in appendix 4.28.

Cattle Feed

4.78 At present the State has three cattle feed plants functioning at Pattanakkad, Malampuzha and Kallettinkara . The cattle feed plant at Pattanakkad (300 MT/day capacity) and Malampuzha (200MT /day capacity) are under KCMMF, whereas Kallettinkara factory commissioned in 1999 is operating under a separate management. The production of 2 Cattle Feed Units under KCMMF is insufficient to meet the internal demand. The total production by two cattle feed units during the year 1999-2000 was 1.32 lakh MT. This is higher by 44.67 percent over the previous year.

Better Management of Young Calves

4.79 Bringing down the age at first calving and reducing the intercalving period of cross-breds have been recognised as the most effective measures for augmenting milk production. With this objective, a 'calf rearing programme by subsidising cattle feed for rearing the cattle up to 32 months along with health cover and insurance' was under implementation during the Eighth Plan through dairy co-operatives. From 1997-98, i.e. the first year of the Ninth Five Year Plan, this scheme is being implemented by local bodies as State Sponsored Programme. During 1999-2000, 10,000 calves were covered. Details are furnished in table 4.17.

Table – 4.17
Year-wise details of calves under Special Livestock Breeding Programme from 1997-98 to 1999-2000

Year	*No. of calves enrolled under SLBP*	*Amount subsidised (Rs. in lakh)*
1997-98	30000	938
1998-99	10000	500
1999-2000	10000	500

Source: Animal Husbandry Department

4.80 The Animal Husbandry Department in collaboration with United Insurance Company has formulated a Kamadhenu Insurance Scheme to insure the family of the farmers and their crossbred milch cows. The scheme is under implementation from 1998-99 onwards with the target of covering 400 crossbred cows per panchayat. The Animal Husbandry Department provides technical assistance and the local bodies are subsidising the premium at varying rates. The response from the farmers as well as the local bodies for participation in the scheme is very encouraging. The number of cows insured during 1998-99 is 42,583 and 1999-2000 is 37,008. Details of number of farmers insured, amount of premium remitted and claims settled are given in table 4.18

Table 4.18
Kamadhenu Insurance Scheme
Progress of Implementation from 1998-99 to 2000-01 as on 31.10.2000 and details of claims settled as on 31.05.2000

Year	*Progress of Implementation*			*Claims settled (cum)*					
	No. of cows insured	*No. of farmers insured*	*Amount of premium (Rs. lakh)*	*Cattle Insurance*		*Accident death*		*Medical Re-imbursement*	
				No.	*Amount (Rs. lakh)*	*No.*	*Amount (Rs. lakh)*	*No.*	*Amount (Rs. lakh)*
1998-99	42583	69003	339.99	1649	133.65	10	10	990	24.85
1999-00	37008	61288	277.24						
2000-01 (as on Oct. 31)	3280	6170	27.14						

Source: Animal Husbandry Department

4.81 Average price of important inputs and products of livestock sector for the last 7 years is presented in appendix 4.29. Compared to previous year, there is an overall increase in the prices of all products during 1999-2000. During the year, the price of milk recorded an increase of 5.5 per cent, broiler chicken 2.3 percent, mutton 0.8 percent, beef 5.0 percent, fowl-white egg 7.4 percent, and fowl- brown egg 15.2 percent. On the input side, the cost of groundnut cake has increased by 1.8 percent and coconut cake 3.5 percent. Compared to 1998-99, rate of increase in the prices of many of the articles are very nominal. For instance, compared to previous year's 17.4 percent increase in the price of straw and 44.2 percent increase in grass, rate of increase during the year 1999-2000 is much less at 3.7 percent and 0.4 percent respectively. In the case of prices of products, the rate of increase is more or less comparable to 1998-99.

Dairy Development

4.82 Dairy sector in Kerala made spectacular progress during the last three decades. Milk marketing continues to be largely under private sector. However, with the inception of Operation Flood Programme, the organised sector under the co-operative fold started giving lead for the market trends of milk in Kerala. Kerala Co-operative Milk Marketing Federation (KCMMF) (Milma) supported by the three Regional Unions has emerged as the single

largest dealer of milk in Kerala with a very wide network of 2300 co-operatives regularly engaged in the procurement and distribution. The milk processing capacity of the Federation was 1.38 lakh litres at the time of its inception in 1983. It increased to 5.89 lakh litres per day by the end of 1998-99. In addition 'Milma' has installed a milk powder plant with a capacity of 10 MT/day. Besides marketing support, the Federation also provides extension support, input delivery service and health cover.

4.83 Extension support for dairy development, fodder development programmes, advisory service, quality control measures, training of farmers etc. are the major activities coming under the purview of Dairy Development. The Department is undertaking activities such as promotion of indigenous milk product units and assisting the co-operatives for making them economic. The development programmes are operated through 2945 dairy co-operatives including 2300 Anand pattern societies functioning under KCMMF.

4.84 During Eighth Plan, quality control units were established in eight districts. Six more units were sanctioned during 1997-98 and made operational in 1998-99. Training programmes are organised through 5 dairy training centres.

4.85 Realising the importance of fodder development in optimising economic return from the dairy activity, the KLD Board has taken up fodder development as an important activity right from the beginning. KLD Board produced 30.50 MT of fodder seeds during 1999-2000. (see table 4.18.) During the year, Dairy Development Department has procured and supplied 100.80 MT fodder seeds (NSC, KLD Board and Government of India) against 307.40 MT during 1998-99. The Department has also supplied 460 lakh root slips/stem cuttings during 1999-2000 against 250 lakh during the previous year. The total area covered under fodder cultivation is 5331 ha against 10026 ha during 1998-99. Compared to previous year, there is reduction in quantity of seeds procured and supplied (67.21%) and total area covered under fodder cultivation (46.82%). However, short fall in the production of fodder seeds has been made good by stepping up the production of root slips/stem cuttings (84%) (see table 4.19).

Table – 4.19
Production and Sale of fodder seeds by KLD Board
1996 – 97 to 1999 – 2000

Year	*Quantity of Seeds Produced (MT)*	*Quantity of Seeds Supplied* (MT)*
1996-97	28.42	29.35
1997-98	31.64	28.96
1998-99	26.50	30.48
1999-00	30.21	28.36

Source: KLD Board & Annual Reports

* *Including sales to outside agencies and used for KLDB programme*

Table 4.20
Procurement & supply of fodder seeds / root slips and area covered under fodder cultivation – Dairy Development Department (1996-97 to 1999-2000)

Year	Procurement of seeds	Total quantity of seeds supplied to farmers	Area covered	Fodder root slips/stem cuttings supplied	Area covered	Total area covered under fodder cultivation
	(in MT)	(in MT)	(in Ha)	(in lakh)	(in Ha)	(in Ha)
1996-97	196.49	196.49	5932	546	2182	8114
1997-98	310.45	310.45	9326	200	799	10125
1998-99	307.40	307.40	9026	250	1000	10026
1999-00	100.80	100.80	3491	460	1840	5331

Source: Dairy Development Department

Milk Marketing

4.86 The Co-operative Milk Marketing Federation (KCMMF) has a widespread network of outlets for marketing of milk. With the advent of Operation Flood Programme, under the aegis of the KCMMF, a well established system for regular procurement of milk from the producers for distribution to the regular consumers became a reality and it has helped in ensuring better returns to the dairy farmers. With the implementation of North Kerala Dairy project supported by Swiss Development Agency, the entire state is under the network of Anand pattern dairy co-operatives (APCOs). As of September 2000, the federation was operating through 2300 APCOs with a total membership of 6.21 lakh. The average milk procured per day by APCOs during the year was 6.09 lakh litres (as on September 2000) against the previous year average of 5.36 lakh litres. The activities of KCMMF are presented in appendix 4.30.

4.87 In Kerala, where the production of milk is concentrated in the small farm sector and ultimate supply is dependent on seasonal factors, maintaining uninterrupted supply particularly during lean period is very difficult. The federation is thus forced to import milk from the neighbouring States. The periods August-September and January-May are considered to be lean periods when the internal supplies used to shrink. But during 1998 and 1999 seasons, consequent to the fairly good distribution of rain, there was unprecedented increase in supplies leading to holding of excess stock beyond the distribution capacity. Season-wise milk production in Kerala is given in table 4.21. The problem is further compounded by the influx of milk at cheaper price from the neighbouring states. Holding of excess stock involves cost and it cannot be avoided in the long term interest of stabilising the internal prices and supporting the small farmers. The procurement of milk of KCMMF was 2253 lakh litres during 2000 against the previous years 1950 lakh litres. The total quantity of milk marketed was 2292 lakh litres against 2316 lakh litres during the previous year. The milk procurement recorded a growth of 15.53 per cent during the year and sale declined by 1.02 percent. The gap between procurement and distribution could be brought down to 40 lakh litres against 366 lakh litres during the previous year. The excess requirement was met by procurement of fluid milk and milk powder from neighbouring states. Data on procurement and sale of milk by different dairies of KCMMF during 1998, 1999 and 2000 is presented in appendix 4.31.

Table 4.21
Season wise Estimated Production of Milk

Year	Summer		Rainy		Winter		Total
	Quantity	% to total	Quantity	% to total	Quantity	% to total	
1996-97	7.49	33.17	7.71	34.15	7.38	32.68	22.58
1997-98	7.81	33.33	7.94	33.89	7.68	32.78	23.43
1998-99	8.14	33.64	8.26	34.13	7.80	32.23	24.20
1999-2000 (P)	7.83	31.01	9.48	37.54	7.94	31.45	25.25

Source: Integrated Sample Survey

4.88 . The veterinary services rendered by KCMMF are noteworthy. During 2000, services were provided through 31 regular and 17 emergency routes and 26,960 animals were treated as of September 2000. The number of animals treated over the years shows more or less a declining trend from around 2.0 lakh in 1996 to 1.07 lakh in 1997, 0.5 lakh in 1998. The number increased marginally to 0.52 lakh in 1999. KCMMF has sold 76,885 MT of cattle feed and 1227 tonne ghee during the year. Details are furnished in appendix 4.30.

4.89 The number of functional milk co-operatives increased from 2040 in 1999 to 2077 in 2000 (as on September 2000). The quantity of milk procurement per society increased to 331 litre / day in 2000 from 308 litre / day during 1999. The increase is only marginal and the quantum handled by many of the primaries are not adequate enough to fend for themselves. Year-wise average procurement of milk per day by APCOS is presented in appendix 4.32

4.90 The average price of milk paid to the producer during 1999-2000 remains at the same level of Rs.9.93 per litre as in 1998-99. The price at which milk was supplied to the consumer also remains at the same level of Rs.13 per litre. The last price revision was on 1-4-99. The price revision details of KCMMF are furnished in appendices 4.33 and 4.34.

FISHERIES DEVELOPMENT

In view of its strategic location in the area with extensive coastal belt of about 590 KM coupled with a wide network of inland water bodies, Kerala State has the requisite natural endowments for emerging as a leading fish producing state in the country. The area of continental shelf of the state is around 40,000 sq.km. There are 222 fishing villages in the marine and 113 fishing villages in the inland sector, where fishing and related activities provide livelihood for a vast majority of the population. The projected fisherpeople population in Kerala during 1999-2000 is 10.50 lakh which includes 8.09 lakh in marine and 2.41 lakh in the inland sector. The number of active fishermen during the period was 2.26 lakh which comprises of 1.85 lakh in marine and 0.41 lakh in inland sector. Kollam district is in the first place in the number of fisherfolk with a fisherfolk population of 1.77 lakh followed by Alappuzha (1.74 lakh). The district-wise details of fisherfolk population are presented in appendix 4.35.

4.92 The assessment of fisheries resources made by the Central Marine Fisheries Research Institute reveals that there is potential for capture fisheries to the extent of 11.50 lakh tonnes in the marine sector. This includes 5.70 lakh tonnes from the inshore areas and 1.80 lakh tonnes through offshore and deep sea fishing. So also there is potential for cost effective culture fisheries in about 65,000 ha in the inland water spreads. In the remaining areas which are largely natural bodies such as river systems, backwaters, ponds etc., the approach should be one of ecofriendly extensive social fishery activity with people's participation. Although the total opportunity available for inland fish production has not been quantified precisely, it can be safely projected as 1.5 to 2.0 lakh tonnes. Past performance of the sector reveals that the state could tap only around 50 percent of the total fisheries potential. In the marine sector, the activity is largely concentrated in the inshore areas without any serious effort for tapping the potential available in the off shore and deep sea areas. Against the minimum sustainable yield of 5.7 lakh tonnes, the fish landing from the inshore area has already crossed 6.0 lakh tonnes thus leading to a resource depletion crisis. The inland fish production has been more or less constant around 0.75 lakh tonnes all these years. There was an organised attempt for inland fisheries development during the last 4 years when the Janakeeya Malsya Krishi was launched.

4.93 There was enormous increase in the number of fishing crafts operating in Kerala during the last decade. The total number of mechanised and non-mechanised crafts has increased from 34,007 in 1988-89 to 54,774 in 1999-2000. The increase was mainly in the case of motorised crafts which rose from 9914 to 28,829. Category-wise details of crafts in operation in the Kerala coast are given in table 4.22 and appendix 4.36. The

enormous increase in the number of crafts does not appear to have helped in boosting the marine fish production proportionately. On the other hand, the high pressure of mechanised and motorised crafts have deprived the opportunities for thousands of traditional fishermen who solely depend on this sector for substanance. The state has enacted the Kerala Marine Fishing Regulation Act with a view to enforcing strict regulatory measures for restricting the number of crafts and their operational areas. According to this Act, the inshore area coming within the depth range of 50 metres has been demarcated for fishing by the traditional fishermen using country crafts and the area beyond this limit in the economic zone can be utilised by mechanised boats and large vessels. As this restriction is not being followed strictly monsoon trawling has been banned as a conservative measure. The ban on monsoon trawling has been in force for the last 11 years from 88-89 onwards including 1999 and 2000. However, the enforcement of other regulatory measures remains very weak. The State's Ninth Five Year Plan suggested introduction of an Aquariam Reform for safeguarding the interest of traditional fishermen. An expert committee has been appointed by the Government to prepare a bill to be enacted in the area of Aquarian Reforms

Table 4.22
Fishing Crafts Operating in Kerala

Sl.No.	*Category of crafts*	*1988-89*	*1998-99*	*1999-2000*	*Increase/decrease over*	
					1988-89	1998-99
1	Mechanised	3548	4040	4194	646	154
2	Motorised	9914	27094	28829	18915	1735
3	Non-motorised	20545	21598	21751	1206	153
TOTAL		34007	52732	54774	20767	2042

Source: Directorate of Fisheries

Trend in Production

4.94 The target for fish production set for the Ninth Five Year Plan is 7.5 lakh tonnes consisting of 6.0 lakh tonnes marine and 1.5 lakh tonnes inland. The overall performance during the last three years presents more or less a similar trend which has been persisting over the last decade. The marine fish production is stagnant and the inland fish production is showing signs of improvement though at a very slow pace (see table4.23).

Table 4.23
Fish Production

(lakh tonnes)

Year	Marine	Inland	Total
1988-89	3.75	0.28	4.03
1989-90	6.46	0.33	5.79
1990-91	6.78	0.36	7.14
1991-92	5.40	0.40	5.80
1992-93	5.53	0.42	5.95
1993-94	5.59	0.45	6.04
1994-95	5.49	0.48	5.97
1995-96	5.53	0.50	5.83
1996-97	6.61	0.52	7.13
1997-98	5.11	0.58	5.69
1998-99	5.82	0.66	6.48
1999-00	5.94	0.74	6.68

Source: Directorate of Fisheries

Export of Marine Products

4.95 The export of marine products from Kerala increased from 70,641 tonnes valued at Rs.817 crore in 1998-99 to 91,759 tonnes valued at Rs.1142 crore in 1999-2000. It showed an increase of 32 percent in quantity and 40 percent in value. The overall exports from the country also increased from 3.03 lakh tonnes in 1999-99 to 3.43 lakh tonnes in 1999-2000 during the period which works out to 27 per cent. The increase in value terms at the national level was from Rs.4627 crore to Rs.5117 crore. The contribution of the state to the export of marine products from the country has increased from 23 to 27 per cent while in money terms, it was from 18 to 22 per cent. Data given in table 4.24 shows that the stagnancy persisting in the export front in respect of the share of Kerala during the last decade has been overcome.

Table 4.24
Export of Marine Products from Kerala
***vis-a-vis* India (1992-93 to 1999-2000)**

Q: Quantity in Metric Tonnes
V: Value in Rs. crore

Year		All India	Kerala	Share (%)
1992-'93	Q	209025	49094	23
	V	1768	414	23
1993-'94	Q	243960	63848	26
	V	2503	622	25
1994-'95	Q	307337	74653	24
	V	3575	817	23
1995-'96	Q	296277	78895	26
	V	3501	856	24
1996-'97	Q	378199	92288	24
	V	4121	936	22
1997-'98	Q	385818	89366	23
	V	4697	948	20
1998-99	Q	302934	70641	23
	V	4627	817	18
1999-00	Q	343031	91759	27
	V	5117	1142	22

Source: Directorate of Fisheries

4.96 Species-wise composition of fish landings in Kerala both in the marine and inland sectors are given in appendices 4.38 and 4.39. The landings during 1999 shows that the sector has successfully overcome the signs of depletion of certain common varieties of fish which the lower strata of the society consume. They include oil sardine, other sardine, mackarel etc. The landings of prawn which has been stagnant around 0.56 lakh tonnes during the last two years has declined to 0.44 lakh tonnes. The inland sector also could not make substantial increase in prawn production during the period.

Inland Fisheries

4.97 The state is endowed with rich inland water bodies consisting of 44 rivers (having an area of 0.09 lakh ha) 30 major reservoirs (0.30 lakh ha) fresh water ponds and tanks (0.03 lakh ha) 45 backwater (0.46 lakh ha) and extensive brakish water area (9.65 lakh ha). But the inland fish production accounts for only about 11 per cent of the total production.

Major Development Programmes

Janakeeya Matsya Krishi

4.98 The programme of Janakeeya Matsya Krishi has been introduced during the Ninth Plan. It envisages optimal utilisation of the inland water resources with people's participation. The technical guidance and supply of fingerlings are made by the Department of Fisheries, while the organisation of the 'Matsya Krishi' and its management are entrusted to the beneficiary committees at the local level. The

Janakeeya Matsya Krishi is an integrated programme consisting of fresh water and brackish water farming, seed rearing, setting up of hatcheries etc. The details of activities are given in table 4.25.

Table 4.25
Performance of Janakeeya Matsyakrishi

Sl.No.	*Programme*	*1997-98*	*1998-99*	*1999-2000*
1	Participation of Local Bodies			
a	Grama Panchayats	694	770	817
b	Municipalities	32	37	43
c	Corporations	2	2	2
2	Area under cultivation			
a	Culture area targeted (ha)	3000	6000	10000
b	Area brought under culture (ha)	3257	6620	9149
3	Types of culture			
a	First phase - Fresh water fish culture (ha)	2937	5685	7934
b	Second phase	320	935	1214
4	Farmers participation			
a	Fresh water fish culture	22257	29492	38298
b	Brackish water fish culture	1816	3171	4441
5	Seed Rearings			
a	Number of fish-seed rearing farmers	141	141	262
b	Area covered under reaining (ha)	9	12	17
c	Span used for rearing (No.lakh)	241	346	661
d	Seed Produced	18	47	108
e	Fish seed forms/Hatcheries engaged	39	57	72
f	Fish seed training units engaged	44	78	261
g	Fish seed Produced			
	(i) Fresh water fish seed	109	274	361
	(ii) Strimp seed	73	159	170
6	Annual Fish Production (Tonnes)			
a		58215	65855	74130
7	Financial Support			
a	Through Department	250	180	100
b	Through local bodies	250	200	100
	Total	500	380	200

Source: Directorate of Fisheries

Integrated Fisheries Development Project

4.99 The National Co-operative Development Corporation (NCDC) assisted Integrated Fisheries Development Project implemented by Matsyafed has completed its three phases for creation of employment opportunities for traditional fishermen through supply of fishing inputs. The distribution of fishing inputs to fishermen at subsidised prices and at lower rates of interest led to group ownership system among fishermen. The Federation has invested Rs.53.75 crore benefiting 32,595 fishermen under the three phases up to the end of 1999-2000 (see appendix 4.40). The project is being implemented on an annual basis during Ninth Plan. The activities taken up during Ninth Plan are given in table 4.26.

Table 4.26
Achievements under NCDC assisted Integrated Fishery Development Project 1999-2000

Sl. No.	*Project Component*	*Unit disbursed*	*Amount Rs. in lakh*
1.	Fishing Inputs		
a.	Gill/castnets	1850	402.16
b.	Clam type – A	247	45.25
c.	Clam type – B	196	28.26
d.	Hook and lines	228	31.92
2.	Marketing Infrastructure	2200	33.00
3.	Working Capital	600	4.80
4.	Training	Fishermen – 1750 Secretaries - 25	5.50 0.11
5.	Project Management		9.93
6.	Pre-operatives		29.07
	Physical and Price contingency		46.37
	Total		*636.37*

Source: Fisheries Department

NCDC Assisted Inland Fisheries

4.100 With a view to enhancing the fish production in the inland sector, a project for the distribution of fishing inputs to fishermen at a cost of Rs.6.37 crore has also been approved by the NCDC. Under the project till the end of March 2000, a sum of Rs.6.36 crore has been utilised to assist 2521 units.

Schemes Implemented with the Financial Assistance of NBCDC

4.101 Special programmes assisted by the National Backward Classes Development Corporation (NBCDC) are also under implementation. With the financial assistance of NBCDC, 484 screwpine mat making units, 44 cold storages and 911 fish marketing units have been established for providing additional employment opportunities to fishermen. In addition, autorikshaws have also been supplied under this scheme for self-employment among fishermen.

Fishing Harbours and Landing Centres

4.102 There are nine fishery harbours under implementation during Ninth five Year plan. Of these, five-Neendakara, Munambam, Puthiyappa, Mopla bay and Chombal- have been completed and commissioned. Vizhinjam and Thankassery harbours will be commissioned shortly. Work on Kayamkulam and Muthalapozhi fishing harbours is progressing. Details of works are given in appendix 4.41.

Welfare Activities

4.103 A number of welfare programmes are under implementation. They include Savings-Cum-Relief Scheme, National Fishermen Welfare Fund (NFWF) Housing, Theerajyothi, DANIDA model Sanitation, Matsya Bhavans, Group Insurance etc. Major highlights of achievements under the various welfare programmes are listed in table 4.27. and appendix 4.42.

Table 4.27
Welfare Activities of Fisheries Department

(Rs. in lakh)

	1997-98		*1998-99*		*1999-00*		*2000-01*	
	Outlay (Rs.)	*Achievement No.*	*Outlay (Rs.)*	*Achievement No.*	*Outlay (Rs.)*	*Achievement No.*	*Outlay (Rs.)*	*Achievement No.*
NFWF Housing	551-51	151	55.76	1543	517.13	1252	229.35	1382
Danida Model Sanitation	27.39	1003	37.02	1444	29.05	1018	23.80	102
Theerajyothi (Electrification)	29.00	2903	40.00	3961	27.00	2211	34.00	421

Source: Fisheries Department

FORESTRY AND WILD LIFE

Forest cover of Kerala is largely spread over the Western Ghats which border the state. The Western Ghats represent one of the World's 18 hot spots of bio-diversity and is considered to be a repository of endemic, rare and endangered flora and fauna. In tune with the National Forest Policy, the Government of Kerala, developed a vision and strategy for the management of forest resources with an endeavor to reconcile the disparate demands on forests, to conserve the bio-diversity on the one hand and to meet the demands of the society on the other. The present forest management policy envisages technology improvement, response to the needs of people and development of partnership with the forest-dependent community.

Forest Cover

4.105 The recorded forest area is 11,125.59 sq.kms. The percentage of forest cover in Kerala is 28.90 which is higher than the national coverage of 19.50. This includes 9157.10 sq.km reserve forests, 214.31 sq.km proposed reserve and 1754.18 sq. km vested forest. Out of the total of 11,125 sq.km. of recorded forest area, the effective (actual) forest area in Kerala is only 9400 sq.km. as given in table 4.28. As per the assessment of Forest Survey of India (1999), the area under forest in the State is 10323 sq.km, which is higher than the effective forest cover as assessed by the Forest Department. Division wise details of forest cover is given in appendix 4.43. Out of the total reported forest cover, 51 percent is in the southern districts and the remaining 49 percent is in the central and northern regions north of Ernakulam District. In the south, the reserve forests constitute the largest segment, while the proposed reserve and the vested forest account for the major share in the northern region. Idukki and Pathanamthitta Districts have a coverage of 58 percent of the total forest area while in Kannur District it is as low as 8 percent. The forest ecosystem in Kerala shows wide variation among the categories ranging from tropical evergreen to grass land. Tropical evergreen and tropical moist deciduous forest accounts for 78 percent. The coverage under plantation forestry is also substantial to the extent of 18 percent.

Table 4.28
Types of Forest in Kerala

Sl. No.	*Forest Type*	*Area (lakh ha.)*	*Percentage of the total area*
1.	Tropical Wet Evergreen Forests	3.480	37.02
2.	Tropical Moist Deciduous Forests	4.100	43.62
3.	Tropical Dry Deciduous Forests	0.094	1.00
4.	Mountain Sub Tropical	0.188	2.00
5.	Plantations	1.538	16.36
	TOTAL	**9.400**	**100**

4.106 Out of the total forest area of 11.12 lakh ha, 1.88 lakh ha are degraded with crown density below 40 per cent. Afforestation of the degraded forest is one of the thrust areas for forestry development supported under various programmes which include compensatory afforestation, general forestry and World Bank-aided Kerala Forestry Project. Afforestation of degraded forests has been carried out in 68,532 hectares under various programmes during the Ninth Five Year Plan till 2000-2001.

4.107 The State Government banned clear felling of natural forest in 1983 to arrest further degradation. Moratorium on selection felling in natural forests was imposed in 1987 with the objective of preventing disturbance and damage to the eco-system.

4.108 Forest plantations constitute the major source of raw material to the forest based industries. The total area covered by forest plantation of various species is about 1.70 lakh ha, which has remained more or less stagnant during the last three years. Teak is the major (45%) species planted, followed by mixed plantations (26%) and eucalyptus (15%) (see appendix 4.44).

4.109 Major forest produce includes timber, bamboo, reeds and firewood. Their total production shows a declining trend from 1993-94 onwards. Reeds and bamboos show sharp decline in supplies during the period while the extraction of timber is on the increase. The quantity of timber produced in 1999-2000 is 44,337 cubic meters against 19,246 cubic meters in 1997-98 and 28,664 cubic meters in 1998-99. The number of bamboo and reeds has come down from 656million in 1997-98 to 402million. These are species which can be promoted under farm forestry with people's participation (see appendix 4.45).

Forest Revenue.

4.110 The revenue from the forestry sector by way of sale of timber and other forest produce is Rs. 115 crore during 1999-2000 as against Rs. 121 crore in 1998-99 (see appendix 4.46). The reduction in revenue in spite of substantial increase in the quantity of timber and firewood extracted needs further examination. The revenue from reeds and bamboos has come down considerably during 1999-2000 due to the drastic reduction in the quantum of extraction.

4.111 The State Government have modified the policy of supplying raw materials to Hindustan News Print Ltd. at reduced rate from 8/99 onwards. According to the new agreement entered with the company, there will be an annual increase in the price of forest produce supplied to them at 20 per cent per annum. The base price for the year 1999 has also been fixed more or less in par with the supply made to other agencies. Accordingly, the price of eucalyptus was raised from Rs.438 to Rs.626 per tonne. In the case of reeds, the rate has been revised from Rs.134 to Rs.498 per tonne, and for bamboo it is from Rs. 875 to Rs.985. The increase in revenue attainable through this measure is of the order of Rs.10 crore per annum.

Wild Life

4.112 The area covered by the two national parks, twelve wild life sanctuaries and one biosphere coming under the category of protected areas in Kerala works out to 2.32 lakh ha. It is 25 per cent of the total area under forests and 6 per cent of the total geographical area, which is higher than the national average of 5 per cent. (Details are given in table 4.29). Protected areas are managed now as showcases of bio-diversity with predominance for large animals in habitat management. Participation of communities based on the principles of eco-development has been initiated and this strategy has attracted cooperation of the neighbourhood communities.

Table 4.29

Sanctuaries, National Parks, Biosphere Reserves and other Protected Areas of Kerala

Sl. No.	*Name of NP/WLS/BR*	*Area in sq. km.*	*Year of formation*
1	Periyar WLS	777	1950
2	Neyyar WLS	128	1958
3	Peechi- Vazhani WLS	125	1958
4	Parambikulam WLS	285	1973
5	Wayanad WLS	344.44	1973
6	Eravikulam NP	97	1978
7	Idukki WLS	70	1976
8	Thattekkad BS	25	1983
9	Peppara WLS	53	1983
10	Chimmony WLS	85	1984
11	Chinnar WLS	90.44	1984
12	Shendurney WLS	100.32	1984
13	Aralam WLS	55	1984
14	Silent Valley NP	89.52	1984
	Total Protected Area	**2324.72**	
15	Nilgiri Biosphere Reserve	1455	1986
16	Agasthyavanam Biological Park	23	1992

Source: Forest Department

Social Forestry

4.113 Participation of communities has been taken as a priority management strategy in forestry sector. Participatory forest management has been started in the State on a pilot scale and attempts are being made to develop location-specific models in this regard. Social forestry is an area which should come under the domain of the local bodies. Unfortunately, forestry activities comprising farm forestry and social forestry did not adequately figure in the local plans of the panchayats. Dearth of adequate planting materials of the desired types is a major constraint for popularising the activity in rural areas. District and Block panchayats can render the required support for organising nurseries with people's participation. Planting of trees in homesteads and public places could be promoted by the Grama Panchayats by involving farmers and non-governmental organisations.(NGOs)

4.114 The Integrated Afforestation and Eco-development Project (IAEDP) supported by the National Afforestation and Eco-development Board under the Ministry of Environment and Forests is under implementation in Kerala from1998-99 onwards. Eco preservation and sustainable management in selected watersheds is the ultimate objective of the scheme. The areas covered include Sankily water shed in Thiruvananthapuram, Kakkad watershed in Pathanamthitta, Devian watershed in Idukki, Edamalayar and Illithode watersheds in Ernakulam, Pulakkad – Chelakkara watershed in Thrissur, Agali - Attappadi and Chulliar – Chittoorpuzha in Palakkad District. The coverage of area under the project during 1998-99 and 1999-2000 is 7565 ha with an investment of Rs.6 crore.

Research and Training

4.115 Kerala Forest Department has also been sponsoring relevant research programmes through selected research institutions like Kerala Forest Research Institute, Tropical Botanical Garden and Research Institute, Kerala Agricultural University, Kerala University etc. The research includes studies on flora and fauna, eco-system analysis and technology development for better productivity in the forests. Documentation of bio-diversity and their wide scale use are also covered.

4.116 HRD programmes of the Department include training of staff and interaction with communities through seminars, workshops, training programmes in participatory forest management, eco-development etc.

Major Development Programmes.

1. General Forestry

4.117 Survey and demarcation of forest boundaries is one of the important activities taken up under general forestry. In spite of the operation of a separate programme from Eighth Five Year Plan onwards for the purpose, it appears that large area still remain uncovered. Out of an estimated boundary area of 11,220.kms, 770 km still remain unattended. The coverage during the Ninth Plan is 2,193 km. The activity deserves top priority for time bound completion. Fire protection is another important area receiving attention. The coverage under this during Ninth Plan is 4,516 ha. The approach is one of fire proofing. The pace of implementation of the various components appears to be very slow. The cultural operations include special tending, climber cutting and loranthus cutting. The coverage under the operations are behind the targets. Against the target of 11,550 ha projected for the first 3 years, the achievement reported is only 1,776 ha.

4.118 In the area of infrastructure support, construction of 24 km of roads and 10 buildings were completed during the first three years of the plan. Details are given in appendix 4.47.

2. World Bank Aided Kerala Forestry Project

4.119 The World Bank Aided Kerala Forestry Project taken up in 1998 aims at the integrated development of the forest sector. The Project is for a period of four years and the total cost is Rs.182 crore. The project aims at capacity building in promoting bio-diversity conservation, use of modern technologies in increasing productivity, management of forest through participation of communities, adoption of information

technologies in management planning and implementation.

4.120 Out of the total outlay of Rs.182 crore, the cumulative expenditure up to the end of 1999-2000 was Rs.61 crore. The programme is being continued with an outlay of Rs.50 crore during 2000-2001.

4.121 Details of physical targets and achievements under the project during the first 2 years are given in table 4.30. Year-wise financial and physical targets envisaged are given in appendices 4.48 and 4.49.

Table 4.30
Activities under Kerala Forestry Project during 1998-99 and 1999-2000

Item	*Physical Coverage*	
	1998-99	*1999-2000*
1. Treatment areas (ha)	5460	13091
2. Construction of		
a) Quarters (Nos.)	118	42
b) Office building (Nos.)	8	3
c) Road Trench path (km)	250	60
3.Consultant studies Nos.	70	16
4. Training Nos.	163	55
5. Workshop Nos.	170	28
6. Study tour Nos.	53	4
7. Equipment		
a. Computer and accessories Nos.	202	67
b. Car Nos.	26	7
c. Jeep Nos.	64	23
d. Truck Nos.	1	..
e. Mini bus Nos.	1	..
f. Motor cycle Nos.	30	20
g. Lorry Nos.	1	1
h. Boat Nos.	1	2

Source: Forest Department

3. Compensatory Afforestation

4.122 State Government have already taken a policy decision to issue pattayams for the forest lands encroached prior to 1977. According to the assessment made by the Forest Department, the area to be dereserved for the purpose is in the order of about 28,588.ha. As per the National Forest Policy, such dereservation is permissible only if compensatory afforestation is organised in double the area. Accordingly, the State Government is moving ahead with a programme for compensatory afforestation with the target of covering 57176ha. The coverage achieved till the end of 1999-2000 in this regard is 46,521 ha.

AGRICULTURAL MARKETING

In the changing environment, the nature of marketing support required for safeguarding the interest of the small and marginal farmers is different. The protective regime under which the small farm segment was nurtured is gradually disappearing. A very efficient market intelligence service capable of monitoring the global trends and preparing the production front for transformation in line with the emerging trends is perhaps the most important support that is needed in the present situation. A brief account of the major co-operatives along with their activities is presented as part of the write up under co-operation. Along with the co-operative institutions, the Department of Agriculture is also operating schemes of agricultural marketing in specific areas. The programmes operated by the Department are described below.

Procurement of Paddy through Primary Co-operatives

4.124 State Government is operating a scheme for procurement of paddy. During Mundakan and Puncha, paddy is procured by providing an incentive of Rs. 60 per quintal by way of handling charges to the co-operatives that come forward. An additional incentive of Rs. 5 per quintal is also being made available if the paddy procured is processed and sold as rice. The incentive provided during Virippu season is Rs.100 per quintal. The procurement during

the Virippu season of 1999 was 214 tonnes while that in the Mundakan and Punja seasons was 48,286 tonnes.

Grading of Agricultural Commodities

4.125 The quantity of agriculture commodities graded through the ten district level Agmark Labs during 1999-2000 includes 89 tonnes honey, 395 tonnes ground spices, 3 tonnes gingely oil, 182 tonnes coconut oil, 19 tonnes ghee and 112 kg desiccated coconut.

Agricultural Market Development Project

4.126 The project is for the construction of 3 urban markets, (one each in Thiruvananthapuram, Ernakulam and Kozhikode Districts) and three rural markets, (one each in Thiruvananthapuram, Ernakulam and Wayanad Districts) with a block cost of Rs.72 crore. Five markets have been commissioned. The market at Nedumangad is yet to be commissioned.

Warehousing Facilities

4.127 The Kerala State Warehousing Corporation at present has 61 warehouses (Own – 48 and hired – 13) with a total storage capacity of 2.16 lakh tonnes (Own – 1.60 lakh tonnes and hired – 0.56 lakh tonnes). The Corporation has diversified its activities by taking up procurement and storage of agricultural commodities, consultancy service for construction works, disinfestation and soil fumigation extension service, courier service, transportation and running own container freight station, ship and wagon clearance etc. A coconut processing unit is under construction at Nattika. The corporation realised a profit of Rs.19.27 lakh in 1999-2000 as against Rs.74.55 lakh in 1998-99.

AGRICULTURAL FINANCE

Agricultural finance has special significance under the emerging scenario in Kerala with capital intensive perennial crops expanding their coverage replacing seasonal and annual crops. In the context of sharply falling prices of most of the agricultural commodities consequent to liberalisation, the small holdings which predominate the farm front are denied the opportunity for generating surpluses for reinvestment for improving the productivity. Opportunities for value addition and quality improvement that help sharpen the competitive edge of the small producers have to be created. Since agriculture is mainly in the private sector, the financing sector servicing this important segment has to play a significant role in this direction. The credit policies and the priorities and directions of dispensations have to undergo appropriate changes to meet the emerging challenges.

4.129 Co-operatives and commercial banks constitute the two equally strong arms of the organised credit sector in Kerala. The short and medium term co-operative credit structure comprises of a three tier system with State Co-operative Bank at the base, 14 District Co-operative Banks and 1628 Primary Agricultural Credit Societies at the grass roots level. The Kerala State Co-operative Agricultural and Rural Development Bank along with 44 primary agricultural and rural development banks operating at the taluk level constitutes the long term co-operative credit structure. The commercial banking sector operates concurrently through 42 banks with 3224 branches and 2 regional banks with 301 branches catering to short, medium and long term finance.

Short and Medium Term Loans

4.130 A substantial portion of the S.T. and M.T. credit requirements in the state are provided by the co-operative banking sector comprising the State Co-operative Bank and the primary agricultural credit societies. They channelise funds from NABARD and also use their own funds. They mobilise deposits through special campaigns. The working results of the Kerala State Co-operative Bank for the last three years are given in Appendix 4.50. The purpose-wise cumulative loan disbursement position of Kerala State Co-operative Bank is furnished in Appendix 4.51. The cumulative loan disbursement by the Bank as on 3/2000 is Rs.1019 crore as against 468 crore during the previous year. The flow to agricultural sector (production and investment) during the period was Rs.176 crore which is higher by 13 per cent than the disbursement during the previous year (Rs.155 crore). However, the proportion of flow to agriculture out of the cumulative disbursement has come down from 33 to 17 per cent during 1999-2000. The sectors which have recorded increases

in credit disbursement during 1999-2000 include procurement and marketing, consumption business and 'other purposes'. The co-operative credit movement is not full filling its primary responsibility of catering to the vital needs of the society in areas like agriculture, housing, consumer, cottage and small industries.

4.131 The total loan disbursed through the PACs during 1999-2000 was Rs.3994 crore compared to Rs.3683 crore in 1998-99, registering a growth of 8.4 per cent which was lower than the growth of 13 per cent recorded in the previous year. However, the credit for agriculture purpose has increased from Rs.973 crore in 1998-99 to Rs.1145 crore during 1999-2000. The proportion of agriculture loan was 29 per cent as against 26 per cent recorded in the previous year. The dominance of non-farm sector is still continuing. This is noteworthy since PACs are basically meant for servicing the farm front. Selected indicators of credit operations of PACs is furnished in Appendices 4.52 and 4.53.

Long Term Credit

4.132 Long term credit for rural development is mainly provided by the Kerala State Co-operative Agricultural and Rural Development Bank (KSCARDB) at the apex level and 44 Primary Agricultural Development Banks at the taluk level. The various activities covered by the KSCARDB's lending include minor irrigation, farm mechanisation, land development including soil conservation, cultivation of horticultural and plantation crops etc. The bank also supports non-farm lending consisting of composite loans, small road transport schemes and integrated loan schemes with 100 per cent assistance from NABARD. During 1999-2000, the bank disbursed Rs.301 crore as loan against Rs.232 crore in 1998-99. The advances included Rs.105 crore for farm sector (35%), Rs.73 crore under non farm sector (24%) and Rs.123 crore (41%) under rural housing. The details of loans issued and debentures floated by KSCARDB are given in Appendix 4.55 and purpose-wise lending by PARDBS from1992-93 to 1999-2000 is given in Appendix 4.56. The Land Development Bank which was also set up for servicing the farm front is gradually moving away from the basic purpose.

4.133 Data on credit disbursed in terms of short, medium and long term by commercial banks are not available at the state level. According to data published by the State Level Bankers Committee (SLBC), the cumulative loan disbursement as on 31, March 2000 in respect of commercial banks operating in Kerala was Rs.15,941 crore as against Rs.13,577 crore as on 31, March 1999. Out of this, the priority sector advance was Rs.6,840 crore as against Rs.5,997 crore as on 31, March 1999. Within the priority sector, the cumulative loan disbursement in the agricultural sector was Rs.2,231 crore in March 2000 against Rs.1,951 crore in March 1999. The percentage share of agriculture to the total loan outstanding in respect of the commercial banks as on 3/2000 works out to 14 per cent, which was lower than the previous year (15%). The banks have failed to fulfil the obligation of 18 per cent prescribed by Reserve Bank of India.

4.134 According to the figures furnished by the SLBC (Table 4.29) the priority sector lending in Kerala during 1999-2000 was Rs.5767 crore which included Rs.1692 crore disbursed through co-operatives and Rs.4075 crore through commercial banking sector (commercial banks, rural banks and Kerala Financial Corporation). The increase in priority sector lending during the year works out to 28 percent over the previous year when the total disbursement was only Rs.4,516 crore. The growth rate during 1999-2000 recorded by the commercial banking sector was 20 per cent against 49 per cent by co-operatives. The performance of commercial banking sector in this regard is much below the co-operative sector. It is also lower than its own growth rate of 29 per cent recorded in the previous year. The gap between the total deposit and the disbursement also continues to persist. The credit-deposit (CD) ratio of the commercial banking sector as on 3/2000 was 41 per cent which was lower than the level of 43 per cent recorded in 3/99.The CD ratio has been on continuous decline from 1990 onwards when it was 62 per cent. The consistent fall in the credit deposit ratio in spite of the serious concern expressed by the State Government warrants appropriate corrective measures.

Table 4.29
Annual Credit Flow to Agriculture and total priority sector in Kerala during 1997-98 to 1999-2000

Rs. in crore

Sl. No.	Agency	Priority Sector			Agriculture		
		1997-98	1998-99	1999-00	1997-98	1998-99	1999-00
1	Commercial Banks	2119.19	2692.57	3356.79	831.33 (39.23)	1153.98 (42.86)	1318.55 (39.28)
2	Regional Rural Banks	353.76	381.54	551.06	196.55 (55.56)	211.51 (55.44)	331.06 (60.08)
3	Co-operatives including Land Development Banks	952.65	1134.42	1691.90	506.24 (53.14)	561.64 (49.51)	782.11 (46.23)
4	Kerala Finance Corporation	142.28	307.66	167.63			-
5	Grand Total	3567.88	4516.19	5767.38	1534.12 (43.00)	1927.13 (42.67)	2431.72 (42.16)
6	Percentage increase over previous year		26.58	27.70		25.62	26.18

Source: State Level Bankers Committee *Figures in brackets are percentage of priority credit*

4.135 Priority sector lending as a proportion to the bank deposits generated in Kerala and also as a proportion to the total credit disbursed in the state have not shown improvement during the last ten years, as could be seen from the data given in Table 4.30.

Table 4.30
Flow of credit to Priority Sector and Agriculture as a Proportion of Credit and Deposits (in percentage)

All Commercial Banks				
	Priority sector lending		Agriculture Credit	
Year	As a % of total credit	As a % of total deposits	As a % of Total credit	As a % of Total deposits
1991	43.4	25.6	17.4	10.3
1992	43.0	22.3	16.4	8.5
1993	41.0	19.6	15.7	7.5
1994	40.2	17.3	14.5	6.4
1995	43.7	19.5	15.4	6.9
1996	43.0	19.8	14.2	6.7
1997	44.2	20.2	15.2	6.2
1998	42.2	18.9	14.7	6.6
1999	44.2	19.0	14.4	6.2
2000	42.91	17.71	13.99	5.78

Source: State Level Bankers Committee

Refinance by NABARD

4.136 Refinance support in the rural credit sector is provided by National Bank for Agricultural and Rural Development (NABARD). NABARD provides financial support for both co-operatives and commercial banks. Data on agency-wise and purpose-wise refinance assistance by NABARD is furnished as Appendices 4.57 & 4.58. The cumulative disbursement of refinance from NABARD as on 3/2000 was Rs.213 crore as against Rs.159 crore on 3/1999. The Kerala State Co-operative Agricultural and Rural Development Bank Ltd. (KSCARDB) continues to absorb largest share of refinance (72%) followed by the Regional Rural Banks (RRBs) (12%), State Co-operative Banks (SCBs) (9%) and the Commercial Banks (8%). The trend was similar to the previous year. During 1999-2000, refinance for KSCARD and SCB increased by 3 and 8 per cent respectively while that for RRBs and commercial banks decreased by 5 and 6 per cent respectively. The low proportion of refinance made available to the co-operative sector is on account of the denial of this concessional financing facility to the sector in view of the minimum involvement of 40 per cent in the agricultural sector out of the own funds of the society insisted by NABARD as criterion for eligibility. In view of the high rate of interest offered by the co-operatives for the deposits mobilised by the sector it may not be possible for them to fulfil this requirement. This leads to penalisation of co-operatives for their effort for generating rural deposits.

4.137 Purpose-wise refinance assistance indicates that non-farm sector continues to be the major activity with 42 per cent share followed by plantation and horticulture (19%), minor irrigation (11%), land development (8%) and dairy development (6%). The poor performance in plantation and horticulture, land development and minor irrigation, which are very important for the rural sector of Kerala for income and employment generation, calls for speedy correction.

4.138 District-wise refinance indicates that Kannur district with Rs.22.8 crore stood first in drawal of refinance followed by Kasaragod (Rs.21.9 crore), Thiruvananthapuram (Rs.20.1 crore), Kollam (Rs.20.6 crore) and Palakkad (17.1 crore). Pathanamthitta continued to be last in making use of refinance assistance. Kannur, Kasaragod, Thiruvananthapuram and Kollam continued to enjoy a good proportion of the refinance in all the three years, 1997-2000.

Rural Infrastructure Development Fund (RIDF) of NABARD

4.139 National policy supports rural infrastructure development projects sponsored by State Governments utilising the resources available under the Rural Infrastructure Development Fund (RIDF) constituted with contributions from the scheduled commercial banks against their short fall in agricultural target lending up to an extent of 1.5 per cent of the net bank credit. The State Government has been receiving assistance under this policy from 1995-96 onwards.The initial corpus(RIDF-I) of Rs.2000 crore was utilised for extending loans to State Governments mainly for incomplete irrigation projects. Assistance was extended to projects on rural roads and bridges under RIDF-II along with development of integrated market yards, modernisation of existing inland waterways etc. Additional areas like harvesting of rain water, renovation of irrigation projects, construction of terminal and rural markets etc. were added to the list of areas under RIDF-III. Under RIDF –IV, projects relating to construction of fish jetties have also been included for assistance. The canvas for assistance was enlarged under RIDF -V by adding primary school buildings, rural drinking water works, drainage, primary health centres, village markets, forest development etc. if the activities are taken up by panchayat raj institutions, self help groups and non governmental organisations.

4.140 So far 1268 projects with a total financial assistance of Rs.599 crore has been sanctioned for Kerala. The projects included five pertaining medium irrigation, 633 to minor irrigation, 132 to watersheds, 131 to rural bridges, 350 to rural roads, 1 to inland navigation, 9 to flood protection and 1 to reclamation. The amount drawn by the State Government till 12/2000 was Rs.244 crore.

Details of sanction and disbursement are given in appendix 4.59.

4.141 NABARD prepared district-wise long term potential linked credit plans (PLPS) for Kerala for five years, coterminous with the Ninth Plan. The PLPs are updated every year taking into consideration factors such as past trend, additional infrastructure support created, marketing support as well as the policy changes in the banking sector. The total credit potential available for priority sector in Kerala has been estimated at Rs. 5,321 crore in 1999-2000 while the achievement reported is Rs. 5,767 crore (108%). The credit potential available for priority sector in Kerala during 2000-2001 and 2001-2002 were estimated as Rs.7,432 crore and Rs. 8959 crore respectively.

4.142 The preparation of PLPs is being done by NABARD as part of the strategy advocated by Reserve Bank of India for decentralising the credit planning exercise. In the context of Kerala, the exercise would become meaningful only when it is linked with the panchayat level planning. With local planning gaining ground, priorities and direction of investments at the grass root level have to be taken due note. The allocation of plan funds by the local bodies to the development of agriculture and allied sectors is made on the basis of the bio-physical resources so as to facilitate resource based planning at the grass root level. Under the changing scenario, the banking sector is in a much more firm ground regarding the flow of plan fund to the grass root level, making the credit lending easy to operate. Also, the local bodies gain access to the required funds for the creation of the infrastructure at their command, thereby enabling planning for infrastructure development in support of credit dispensation easier.

4.143 Despite this favourable setting, the first three years' experience, indicates that there is little linking of credit flow from the banking sector, to the local level plans. Bank credit has not been duly reflected even at the conceptualisation stage of the plan, only a meagre 12 per cent has been projected as bank credit in the first year's plan and 9 per cent in the second year.

4.144 The overall performance of the organised financing sector in recent years raises several concerns. They include the following,

(i) The proportion of finance made available to the farm front is on the decline.

(ii) Short term (ST) credit predominates the farm credit advanced, accounting for more than 3/4 of the total. In the context of the structural transformation taking place in the farm front of Kerala in favour of perennial crops, the importance of ST production credit is diminishing and the need for term loan is increasing. However, this has not so far been reflected in the credit front.

(iii) The average per hectare credit advanced continues to be low both in respect of ST as well as LT.

(iv) There is very little linkage with the decentralised planning process at the grass roots level. As a result, the opportunities available for increasing the credit deposit ratio have not been effectively tapped.

(v) While the Ninth Plan strategy for agricultural development adopted by the state relies on resource based planning with people's participation, this philosophy has not been imbibed by the organised credit sector.

Irrigation

Kerala State is endowed with rich water resources. The high rainfall combined with a very luxurious vegetative cover over a vast area of the land surface provides ample opportunities for the recycling of the available water resources. The normal annual rainfall in Kerala is 3107 mm against the national average of 1190 mm. The state has the benefit of both South West and North East Monsoons. All these favourable

factors have made this small territory in the country very conducive for human habitation. However, the high density of population has exerted pressure on water resources for meeting the various needs of the people.

1.146 Although quantum-wise the rainfall received is fairly high, its distribution shows wide temporal and spatial variations. The six districts north of Thrissur do not have the full benefit of both monsoons. The North East Monsoon is generally very weak in the northern region. On the other hand, the rainfall pattern in the southern districts in general is bimodal.

4.147 On an average, the number of rainy days in Kerala is in the range of 120-140 in a year. The adversity of this skewed pattern of distribution is further compounded by the fact that in 70 out of 125 days the quantum of precipitation is as low as 2.5 mm or less. The scanty rainfall thus received is so feeble and incapable of making any perceptible improvement in the moisture regime of the surface soil.

4.148 The heavy downpour concentrated over limited number of days in a year causes heavy floods during the monsoon periods and at the same time exposes the remaining part of the year to severe drought. Optimal utilization of the available water resources through appropriate conservation and management measures, therefore assumes critical importance in sustaining the life support systems. The pattern of demand for water is also undergoing gradual but continuous changes towards increasing pressure for drinking and other domicilliary needs and decreasing demand for irrigation. The demand for irrigation support is changing because the state has almost reached a saturation point in respect of land use for agriculture and the emerging trend is towards less water demanding perennial crops in lieu of seasonal crops. Planning for irrigation development in the context of Kerala should therefore be part of the total plan for development of water resources and its rational utilization. It should necessarily encompass surface and ground water development and it should take into account the opportunities for their development through public and private investment. The first and foremost step to be initiated in this regard is updating assessment of the demand pattern. The latest assessment was in 1974.

4.149 The annual yield of water in Kerala in a normal year is around 7030 crore cubic meters. The utilizable water resources as per the earlier assessment is around 4200 crore cubic meters. Nearly 40 percent of the available resources are lost as run off causing heavy floods. Water resources development planning should therefore have in its agenda the objective of reducing the degree of loss on this account through appropriate conservation measures and recharge mechanisms. The available supplies could be effectively utilized to benefit more number of people through better management. The local level planning already launched by the state has set the ground for prioritising the various needs for water at the grass root level and planning for their development in a systematic manner.

4.150 The cumulative investment so far made by the state in the irrigation sector under various five year plans is estimated to be Rs.2735 crore, which includes Rs.1877 crore (68%) for major and medium projects and Rs.459 crore (17%) for minor irrigation including ground water development. Emphasis was mainly on major irrigation projects and that too for supplementing water for paddy cultivation. Drinking water and irrigation sectors need an integrated approach.

4.151 On the physical side, the coverage under irrigation is not commensurate with the investment made. The cumulative coverage under irrigation till the end of Eighth Five Year Plan as assessed by the Department of Economics and Statistics was 3.57 lakh ha (net). The irrigation support did not appear to have helped either in bringing new areas under cultivation or increasing the cropping intensity. In all these areas, the overall performance in Kerala presents more or less a static picture. As already mentioned, rice is the major crop benefited through irrigation infrastructure. Even in the case of this crop, the incremental yield which the irrigation support could bring is insignificant. With the fast changes taking place in the farm front of Kerala with considerable reduction in the area under rice

cultivation, even the systems already developed for gravity irrigation to service rice cultivation require realignment in the distribution systems.

4.152 The Ninth Five Year Plan contemplates an investment of Rs.1028 crore against the expenditure of Rs. 908 crore made during the Eighth Five Year Plan through the state sector. The target set for coverage under irrigation for the plan period is 2.44 lakh ha through completion of major/medium projects (1.50 lakh ha) and supplementing irrigation support under minor irrigation (0.94 lakh ha.). The coverage reported during the first 3 years is only 20,000 ha under major/medium irrigation and 30,000 ha under minor irrigation. The inadequate performance in the physical coverage in spite of substantial investment during the period (Rs.441 crore) is due to the delay in the completion of major irrigation projects.

4.153 A major transformation which the state could bring in during the Ninth Five Year Plan is the devolution of funds and authority for planning and execution of minor irrigation projects to the local bodies. A review of the flow of funds to the local bodies during 1997-98 and 1998-99 reveals that the average annual investment through the local plans for minor irrigation was in the order of around Rs. 76 crore against the normal support of Rs.20 crore which the state could give through the State budget in a year. The execution of the minor irrigation programmes by the local bodies was through beneficiary committees with substantial contribution by way of voluntary labour.

Review of major irrigation projects.

4.154 A five-pronged strategy has been adopted for the implementation of the major irrigation schemes during the Ninth Plan period which includes (i) time bound completion of projects which are nearing completion. (ii) revamping and consolidation of major irrigation schemes through a modernisatioin programme. (iii) reinvestigation for reassessment of the costs and benefits of the projects which are under consideration. (iv) optimum utilisation of the potential already created through proper maintenance of the completed systems with participatory management and (v) introduction of the concept of multipurpose and self supporting medium projects under autonomous authorities.

4.155 Against 8 projects targeted for time bound completion, only 4 projects namely Chimmoni-Mupli, Kanakkankadavu, Kanhirappuzha and Pazhassi, could be completed so far. The remaining four-Karappuzha, Kallada, Muvattupuzha and Idamalayar- are to be carried forward to Tenth Five Year Plan.

4.156 As part of the new strategy, reinvestigation has been undertaken in respect of five projects which were originally conceived long back. The reinvestigation of the projects "Bridge-cum-regulator at Chamravattom" and "Thrithala" has been completed and their execution as multipurpose projects with external funding support has been cleared. The project wise details of the ongoing projects are given in table 4.31

Table 4.31
Details of Ongoing Projects

(Rs. in lakh, Area in ha.)

Sl. No.	*Name of Project*	*Year of starting*	*Original estimate*	*Revised estimate*	*Year of revision*	*Cost escalation (%)*	*Expenditure upto March 2000*	*Expected area to be irrigated*		*Physical achievements*		*Cost per ha*
								Net	*Gross*	*Net*	*Gross*	*Gross*
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*
1	Kallada	1961	1328	72500	1999	5356	58982	61630	92800	35602	53608	1.10
2	Chimmoni-Mupli	1975	633	3615	1992	471	5958	13000	26000	13000	26000	0.23
3	Kanhirapuzha	1961	365	14000	1999	3735	9737	9713	21853	7266	16348	0.60
4	Pazhassi	1962	442	15000	1999	3293	14483	11525	19650	6348	12696	1.14
5	Muvattupuzha	1974	2086	51500	1999	2368	30081	17737	34737		-	

1	2	3	4	5	6	7	8	9	10	11	12	13
6	Vamanapuram	1981	1982	26000	1996	1211	1319	8800	18010		-	
7	Idamalayar	1981	1785	41200	1999	2208	10113	14394	29036		-	
8	Kuriyarkutty-Karappara	1987	1036	15830	1999	1427	1127	17488	34976		-	
9	Chaliyar (Beypore-Puzha)	1981	1061	64500	1992	5979	652	73240	108040		-	
10	Kakkadavu	1979	1335	9885	1990	640	240	13940	41760		-	
11	Attappady	1975	476	16100	1999	3282	912	4347	8380		-	
12	Karapuzha	1979	760	25300	1999	3228	16991	5221	8721		-	
13	Meenachil	1980	3500	12800	1996	265	506	9960	14510		-	
14	Banasurasagar	1979	800	5000	1999	525	396	2800	4740		-	
15	Chamravattom	1985	1327	12000	1999	804	579	3106	9659		-	
16	Kanakkankadavu	1984	168	1275	1999	658	1106	2600	2600	2600	2600	0.43
17	Thrithala	1998	1900	2660	1999	40	392	1303	3997			

Progress under RIDF assisted Projects.

4.157 Out of the total assistance of Rs.475 crore sanctioned for Kerala under RIDF of NABARD till 1999-2000, Rs.156 crore (32%) was for supporting irrigation which includes completion of five medium projects (Chimmoni, Kanakkankadavu, Pazhassi, Kanhirapuzha and Karapuzha) and 614 minor irrigation projects. The original schedule of 3 years was extended to 5 years for completion of projects under RIDF I, II and III and 7 years for the projects in the remaining phases. Out of the five projects assissted, only three (Chimmoni, Kanakkankadavu and Pazhassi) could be completed within the time schedule. Under minor irrigation, 558 schemes were taken up for execution and 56 dropped. The number of schemes completed so far is 319.

Coverage and Pattern of Irrigation

4.158 The data on source-wise and crop - wise area irrigated during 92-99 are given in Table 4.32, and 4.33 which shows an increase of 7 per cent. Among the sources of irrigation, wells and tanks predominate. The area serviced by the public irrigation systems is only 30 per cent of the total.

Table – 4.32
Net Area Irrigated (Source wise)

(area in ha.)

SL No.	Source	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99
1	2	3	4	5	6	7	8
1	Government canals	102880	108633	103136	103300	101023	94643
2	Private canals	3743	3464	3681	3601	3548	2482
3	Tanks	48474	53364	49213	48479	45377	47532
4	Wells	66221	75871	73137	82731	82917	107213
5	Other sources	102280	116626	113026	118774	117648	122639
6	Total	323598	357958	342193	356885	350513	374509
7	Area irrigated more than once in a year	89273	147532	123311	-	-	-
8	Gross irrigated area	412871	505490	465504	458569	417082	420844
9	Net area irrigated to net area Sown(%)	14.38	15.98	15.11	15.73	15.44	16.58
10	Gross irrigated area to gross cropped area (%)	13.71	16.58	15.18	15.18	14.05	14.43
11	Irrigated area under paddy to total irrigated area	51	54	49	50	49	47

Source: Directorate of Economics & Statistics

Table 4.33
Gross Area Irrigated (Crop-wise)

(area in ha.)

Sl. No	Crops	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99
1	2	3	4	5	6	7	8
1	Paddy	209735	272772	234409	230087	202143	196927
2	Tubers	801	859	954	862	841	887
3	Vegetables	5013	5676	7428	7061	6567	7049
4	Coconut	146682	172486	164518	160475	144029	152917
5	Arecanut	22621	22709	25544	26167	26741	26798
6	Nutmeg/clove	1074	1352	1459	1749	1846	1804
7	Other Spices and condiments	1966	2110	2942	2921	2608	2824
8	Banana	8853	10331	10737	11835	12497	11735
9	Betelvine	743	840	931	1088	822	881
10	Sugarcane	2289	2260	3844	3668	5805	6160
11	Others	13099	14105	12738	12656	18183	12862
	Total	**412871**	**505490**	**465504**	**458569**	**417082**	**420844**

Source: Directorate of Economics & Statistics

4.159 Paddy continued to be the major crop supported by irrigation during 1998-99(1.96 lakh ha), accounting for 47 per cent of the gross area irrigated. Among the commercial crops, coconut, arecanut and vegetables received attention. The irrigated area under coconut, arecanut and vegetables has increased from 1.77 lakh ha during 1997-98 to 1.87 lakh ha in 1998-99. Despite drastic reduction in the area under paddy, the area under irrigation for the crop remained more or less constant. This shows that the shift in area from rice cultivation is more in the un-irrigated tract.

Revamping & Consolidation of old irrigation projects.

4.160 Under the new programme introduced for revamping and consolidation of old generation projects, 9 out of 10 projects coming under the category of those completed before 1970 could be taken up. Rehabilitation packages have been drawn up based on detailed study of the current status of each project, its resource base, current level of utilisation, changes that have taken place over time and the modifications necessary to make it more effective and beneficial. Although the planning phase has been done in an organised manner, the implementation part has not been satisfactory. Against the total outlay of Rs. 50 crore earmarked in the Plan, only Rs. 13.67 crore could be utilised till the end of 1999-2000. In the case of systems modernised, the participatory approach for irrigation scheduling and management is yet to be imbibed. Details of projects implemented under revamping programme are given in table 4.34.

Table 4.34
Details of Revamping and Consolidation Programme

(Rs. lakh)

Sl. No.	Name of project	Estimated cost for revamping	Estimated cost for				Expenditure upto 3/2000
			Head works	Main canal	Branch canal	Distribu-tories	
1.	Malampuzha	1658.00	-	279.20	1110.22	268.49	246.09
2.	Pothundy	813.00	53.50	150.60	593.75	15.15	214.07
3.	Mangalam	430.00	7.00	22.00	204.00	197.00	143.36
4.	Walayar	370.00	27.00	155.00	126.81	60.64	115.04
5.	Gayathri	700.00	42.00	284.45	331.07	42.48	172.45
6.	Neyyar	380.00	35.00	118.70	158.10	68.20	186.27
7.	Vazhani	145.00	8.00	45.50	75.50	16.00	57.68
8.	Cheerakuzhy	230.00	25.00	166.00	39.00	-	42.27
9.	Peechi	810.00	50.50	412.00	201.10	146.40	190.10
	Total	5536.00	248.00	1634.09	2839.55	814.36	1367.33

Performance of Externally Aided Projects

4.161 The externally aided projects under implementation during the Ninth Plan period include (I) World Bank assisted National Hydrology Project (NHP), (ii) EEC assisted Kerala Minor Irrigation Project (KMIP) and (iii) Dutch assisted Kerala Community Irrigation Project (KCIP).

4.162 The World Bank assisted NHP is a project operated jointly by the Irrigation and Ground water Departments, for building up a data base covering all aspects of the surface and ground water hydrology. The total cost of the project is Rs.35.96 crore and duration of the project is 6 years starting from 1995-96. The progress of implementation of the project was slow in the initial stages. The project is scheduled for completion by 2002. The physical achievements made upto 3/2000 include installation of 10 river gauge stations, 9 new meteriological stations, 4 first grade laboratories and one second grade laboratory. The cumulative expenditure up to 3/2000 under surface water component is Rs.334.20 lakh. Under ground water, the civil works for piezometer was over and sites for 8 full climatic stations were identified. The cumulative expenditure upto 3/2000 is 264 lakh. With only one more year to go, the state may not be able to absorb the entire funds earmarked for the project.

4.163 The EEC - assisted Kerala minor irrigation project aims at creation of or rejuvenating surface water irrigation structures such as vented cross bars, tanks, weirs and sub-surface dykes in potential areas. The project was started in 1994-95 with a total cost of Rs.52.04 crore. The project period was 5 years. The extended period has also been completed by 12/2000. As per the original work plan, the area targeted for irrigation was 17,500 ha of paddy through implementation of 575 schemes. Considering the tardy performance, the target for coverage has since been reduced to 7,300 ha and number of schemes to 251. Out of this, 160 schemes were completed and 45 schemes are nearing completion. The expenditure upto 3/2000 is Rs.12.91 crore and the irrigation potential created is 4420 ha. The performance of the project in general is not satisfactory.

4.164 The Dutch-assisted Community Irrigation Project is intended for developing ground water resources in Thrissur district with the active participation of the beneficiary communities. As per the original programme, 210 borewells are to be constructed for irrigation and drinking purposes within a period of 5 years. Based on a midterm review, the target has been revised to 131 from 210 and the project period has been extended to 6/2000. Out of the 131 wells drilled, 91 have been commissioned and handed over to the beneficiary *samithies.*

4.165 The physical and financial achievements under the externally aided projects are given in appendix 4.60.

Minor Irrigation.

4.166 The state has a wide network of rivers and rivulets spread over the entire cropped area under the 41 west flowing river basins. Minor irrigation, particularly the submersible check dams, lift irrigation systems, vented cross bars for diversion of water etc., are ideally suited for the farming situation of Kerala. With the introduction of decentralised planning process, the responsibility for implementing minor irrigation class II schemes involving an area up to 15 ha has been vested with local bodies.

4.167 The additional area brought under minor irrigation by implementing schemes including ground water development during 1999-2000 was 8184 ha (net). The investment made was Rs.44.46 crore. The cumulative area reported under minor irrigation as on 3/2000 including ground water is 2.34 lakh ha (net) and 2.99 lakh ha (gross). The physical achievement of the minor irrigation schemes, both surface and ground water are given in Appendices 4.61 &4.62.

Ground Water Development.

4.168 The state has a replenishable ground water resource of 7,900 MCM. The potential so far utilised is only one fourth of the total. The ground water resources are largely

concentrated in the sedimentary acquifers of the coastal region. The foot hill regions of the Western Ghats and selected pockets in the midland region are also endowed with ground water resources, though an accurate assessment is yet to be made. The activities under ground water development include ground water exploration, identification of potential zones, assessment of recharge and use of ground water, hydrological and geological studies to identify suitable sites for wells, preparing the community for ground water conservation and management. During 1999-2000, technical guidance offered for siting 511 open wells, 473 drilled wells constructed and irrigation potential created in 946 hectares. Failed well compensation was given to 5 beneficiaries.

4.169 An assessment by the Groundwater Department reveals that the level of utilization of groundwater is in the range of less than 5 per cent in 11 blocks, 5 to 25 per cent in 108 blocks and above 25 per cent in 39 blocks. There is enormous potential for utilization of groundwater, particularly for drinking water purposes.

Flood Management

4.170 The high intensity of rains over a short spell of time combined with undulating terrain make the State highly prone to floods. The surface run off which originates during heavy rains in the highland regions traverse through the midland and flush the narrow low lying lands adjacent to the coastal regions causing heavy floods. The low lands which are narrow compared to the mid and high lands cannot contain the flash floods and as a result heavy damages to crop and properties occur. The flood control measures operated by the State are more of a relief work for the affected areas. It was in this background that the State's Ninth Plan suggested a new approach for flood proofing after identifying prone areas through basin wise studies. However, progress in this direction is limited. Flood control works continue to be on conventional lines like strengthening the river banks, construction of retaining walls, embankments, lay out of field channels etc. The physical coverage upto 1999-2000 is reported to be 53,745 ha. During 1999-2000, an amount of Rs.966 lakh has been expended for protecting an area of 1,431 ha.

Coastal zone Management

4.171 Kerala has a long coastal stretch of 590 kms and more than half of it is subjected to sea erosion. Unlike other parts in the country, Kerala sea coast is thickly populated and as a result the loss due to sea erosion is relatively very high. Instead of the traditional approach of construction of sea walls for protection, the Ninth Five Year Plan suggested a multipronged approach integrating engineering, eco preservation, regulatory and management measures. The type of management, including the type of measures for protection, has to be opted on the basis of a detailed study of the vulnerability of the region and the nature of erosion. However, for want of operationalisation of the new strategy, construction of sea walls continues to be the sole intervention for coastal zone protection. In the area of sea wall construction and protection, modern technologies like geo textiles, polyethylene fabrics/sheets, nourishment of foreshore with bio-materials, etc. are emerging.

4.172 During 1999-2000, an amount of Rs.1675 lakh has been spent to construct 3.55 kms. of new sea wall and to undertake reformation works in 2.28 kms. The physical and financial achievement under flood management and coastal zone management are given in table 4.35.

Table 4.35
Financial & Physical Progress of Flood Management and Coastal Zone Management Programmes during 1998-99 & 1999-2000

(Rs. lakh)

SL No.	*Item*	*Financial Achievement*		*Physical Achievement*		*Cumulative Achievement as on 3/2000*
		1998-99	*1999-2000*	*1998-99*	*1999-2000*	
1	Flood Management	813.97	966.37	2815 ha	1431 ha	56539 ha
2	Anti-Sea Erosion Works a) New sea-wall construction	1713.52	1675	5.09 km	3.55 km	357.95 km
	b) Reformation of old & damaged sea-wall			4.73 km	2.28 km	85.55 km

Source: Irrigation Department

Command Area Development

4.173 The Command Area Development (CAD) activities were carried out in the 16 completed irrigation projects, namely Malampuzha, Mangalam, Pothundy, Walayar, Cheerakuzhy, Vazhani, Peechi, Chalakudy, Neyyar, Gayathri, Pamba, Periyarvalley, Chithupuzha, Kuttiyadi, Pazhassi and Kanhirapuzha with a total ayacut of 2.03 lakh ha. The main activities of Command Area Development Authority include construction of channels, field drains, enforcement of warabandhi and reclamation of water logged areas. Agricultural activities like large scale demonstration, adaptive trials, training to farmers, soil conservation, land leveling and shaping, and formation of beneficiary activities are nearing completion in the first 10 projects. The reclamation activities are progressing.

4.174 Achievement during 1999-2000, includes field channels constructed in 2593 ha; drains to benefit 21,228 ha; warabandhi system in 5743 ha; large scale demonstrations in 12082 ha, adaptive trails in 392 ha, 305 training programmes, bench mark and evaluation studies in 3084 ha, detailed soil survey in 3035 ha and reclamation in 6000 ha. The physical achievements in almost all the activities during 1999-2000 are lower than those in 1998-99. Details are given in appendix 4.63.

CO-OPERATION

The importance of co-operative sector for empowering the weaker sections of the economy is assuming critical importance in the context of the severe competition faced by the small scale sector in the production front consequent to trade liberalisation. The major segments of the State economy serviced by the co-operative sector include production, marketing, agro-processing, consumer, housing, employment, public health, professional education, insurance, and infrastructure development. The number of co-operatives operating in Kerala is 27,705. A large number of co-operatives in the state are operated under the patronage and special support by Government and it is imperative that they are nurtured and developed as self supporting autonomous institutions. A profile of the important Co-operative institutions along with the areas serviced by them is presented below.

(I) Credit Co-operatives

4.176 Kerala has the strongest co-operative credit base in India capable of catering to the short, medium and long term credit needs of the farm front. Activities under the credit sector have been dealt with in detail under "Agricultural Finance."

(ii) Agricultural Marketing Co-operatives

4.177 As the cropping pattern of Kerala is dominated by export oriented cash crops, the

production of which is largely concentrated in the small farm sector, organised marketing support is critically important. In the context of the severe competition which the Kerala's commodities have to face in the international market, the co-operatives in Kerala have to enlarge their area of activities and expand coverage.

4.178 The main agencies functioning in the Co-operative sector for marketing of agricultural produce and the institutional network established by them along with the major marketing and processing operations are indicated below.

a. ***The Kerala State Co-operative Marketing Federation (MARKETFED)***

4.179 The federation with its headquarters at Kochi is operating through 115 primary agricultural marketing co-operatives organised largely on block/ taluk basis. The commodities handled by MARKETFED include copra, coconut oil, rubber, arecanut, spices, pesticides, agro chemicals, fertilizers etc. MARKETFED is the only organisation in the Co-operative sector dealing in spices comprising important exportable commodities like pepper, ginger, turmeric, cardamom and tree spices. In the context of special commodity federations like KERAFED, RUBBERMARK, RUBCO, CAMPCO etc. dealing in the respective commodities, it is imperative that MARKETFED concentrates on spices

b. ***The Kerala State Rubber Marketing Federation Ltd. (RUBBERMARK)***

4.180 The Federation was established in 1971 with 37 co-operative rubber marketing societies spread all over Kerala. The main activities of the Federation include marketing of various grades and types of natural rubber, manufacturing of customised rubber compounds (CRC), processing of crumb rubber, manufacture and supply of special grades of fertilizers and aerial spraying of plantations. It has seven sales branches located in New Delhi, Bombay, Calcutta, Faridabad, Ghasiabad, Jalandhar and Ahamedabad and fourteen purchase depots spread all over the state.

4.181 Despite such elaborate infrastructure facilities, the Federation could not gear up its procurement operation during 1998-99 and 1999-2000 when the commodity was facing serious crisis as a result of sharp decline in prices. The total procurement during 1998-99 and 1999-2000 was only 21,219 tonnes as against 33,964 tonnes in 1997-98 and 37,126 tonnes in 96-97. The Federation could export 1133 tonnes of rubber during 1997-98 to 1999-2000.

c. ***The Kerala State Rubber Co-operative Ltd.(RUBCO)***

4.182 The unprecedented fall in the price of rubber has prompted the State Government to promote a new co-operative for procurement and processing of natural rubber. Accordingly, Kerala State Rubber Co-operative Ltd. (RUBCO) came into existence in 1997 with an authorised share capital of Rs. 300 crore, with the main objective of setting up of industries based on rubber and rubber wood. Within the short span of three years, the co-operative could make a good beginning in the marketing and processing segments of rubber industry. Details are given below.

(i) The co-operative continued its procurement operation during 1999-2000 also and 28,631 tonnes of rubber was procured.

(ii) The co-operative is actively engaged in export of rubber. An export contract for 15,000 MT of rubber was entered into with a Singapore Co. (TONBTEIK). Already, 10,453 tonnes have been exported.

(iii) A Hawai chappal manufacturing unit with a capacity of 36 lakh pairs has been established at a project cost of Rs.3 crore. NCDC provided Rs. 195 lakh as loan and the state Government Rs. 78 lakh as share capital. The unit has so far achieved a production capacity of 16.8 lakh pairs. RUBCO could export 8500 pairs of Hawai Chappals valuing Rs.2.38 lakh to Saudi Arabia. It has also

started production of Ultra lightweight Hawai Chappals.

(iv) A cycle tyre and tube manufacturing unit with an investment of Rs. 4.35 crore was commissioned. First consignment of 12 lakh tyres and tubes valuing about Rs.49 lakh was exported to Egypt

(v) A new unit for thread rubber manufacturing is in the anvil.

(vi) The rubber wood treatment unit was commissioned and production and sales started.

(vii) A rubberised coir mattress factory was commissioned at Pampady in Kottayam District.

(viii) RUBCO took over the Sreekantapuram Latex (P) Ltd. and started producing PLC and CF latex in the unit. A new unit for manufacturing of block rubber was also commissioned.

(ix) RUBCO Sales International Ltd. was formed for marketing of Rubco products.

d. The Central Arecanut and Cocoa Marketing and Processing Co-operative Ltd. (CAMPCO)

4.183 CAMPCO is a joint venture of Kerala and Karnataka State Governments. It was set up with a view to intervening in the arecanut market so as to stabilise its prices. Subsequently the co-operative started marketing of cocoa also which is considered to be a companion crop of arecanut. Also it has one chocolate factory with marketing arrangement with M/s. Nestle Ltd. Operations of CAMPCO during 1997-98 to 1999-2000 are given in Appendices 4.64 & 4.65. The quantity of arecanut and cocoa procured by CAMPCO during 1999-2000 were 23,500 tonnes and 5200 tonnes (wet beans) respectively as against 29,000 tonnes and 4900 tonnes in the previous year. The performance of CAMCO in providing marketing support for the commodities dealt by them is commendable.

e. The Regional Agro-industrial Development Co-operative of Kerala Ltd. (RAIDCO)

4.184 RAIDCO is a co-operative organisation functioning for the past 28 years with a membership of 1211 co-operatives and is engaged in the production and distribution of agricultural implements. RAIDCO has recently ventured into the marketing of transplanters and combine harvesters. The total share base of the co-operative is Rs. 1.88 crore. It has 40 selling outlets spread all over the state. With the assistance of NCDC, RAIDCO has established one pumpset-manufacturing unit at Kanjikode, two agro service centres and three mobile workshops and a curry powder unit at Mavilai in Kannur district.

4.185 The major activities of the co-operative include trading of agricultural implements and machinery, manufacturing of agricultural machinery, service facilities and custom hiring and fruit processing and sale of bio-fertilizers and organic fertilizers. With financial assistance from Government of India, RAIDCO started a fruit processing training centre attached to the fruit processing centre at Mattannur to impart training to unemployed youth including those sponsored by local bodies. RAIDCO had recently launched a curry powder under the brand name 'Family Curry Powder'. The total turnover during 1999-2000 was Rs. 37 crore against Rs. 36 crore in 1998-99 recording a profit of Rs.14 lakh. RAIDCO is undertaking many minor irrigation schemes by supplying and installing higher HP pump sets under the local plan schemes of Grama Panchayats.

e. The Kerala Kera Karshaka Co-operative Federation Ltd. (KERAFED)

4.186 KERAFED is an agency created for the integrated development of coconut through procurement, processing and marketing of coconut and its products. The federation has 936 Primary Agricultural Credit Societies as its members.

4.187 The procurement of copra by KERAFED during 1999-2000 was only 10,324 tonnes, which is around 17 per cent of the capacity of the copra processing unit functioning at Karunagapally. Performance details of copra procurement, processing and

marketing from 1995-96 onwards is furnished in appendix 4.66.

(iii) Consumer Co-operatives

4.188 Consumer Co-operatives operating in Kerala include the Kerala State Co-operative Consumer Federation at the apex level, 12 district co-operative societies and 980 primary consumer co-operatives. They deal in groceries, household articles, textile goods, stationery, cosmetic and other items. The Federation directly operates 21 super markets and 14 departmental wholesale stores. With the objective of supplementing civil supplies, State Government have launched the scheme for setting up of 'Neethi Stores' attached to primary agricultural credit co-operatives in 1997-98. "Neethi Stores" are intended for the distribution of quality consumer goods at reasonable prices taking advantage of the benefit of large-scale procurement. There are 1040 'Neethi Stores' functioning, serviced by 14 Neethi godowns established at the district level. CONSUMERFED is also running 78 Neethi Medical Stores in the state.

(iv) The Kerala State Co-operative Housing Federation

4.189 The Kerala State Co-operative Housing Federation is the apex institution of 207 Primary Housing Co-operatives in the State. It raises funds for its lending programmes from national financial institutions like LIC of India, HUDCO, HDFC, National Housing Bank etc. The Federation advances housing loans to the member societies. During 1999-2000, the Federation received total financial assistance of Rs.98.41 crore, of which Rs. 1.00 crore was government contribution towards share capital. It could disburse loans amounting to Rs. 75.54 crore for the construction of 8934 houses as against Rs. 58.96 crore for 7348 houses during the previous year.

(v) The Scheduled Caste and Scheduled Tribes Co-operatives

4.190 There are 570 Scheduled Caste and 87 Scheduled Tribe Societies, which are federated into the Kerala State Federation of SC/ST. Along with development and welfare schemes aimed at these communities, the Federation is also running a petrol bunk, honey processing unit, a 'cheevaka' processing unit and an ayurvedic medicine manufacturing unit under the brand name 'Ayurdhara'. The total business handled by the Federation during 1999-2000 was Rs. 7.6 crore against Rs. 6.03 crore in 1998-99.

(vi) Special Purpose Co-operatives

4.191 Special types of co-operatives are also functioning in specific areas. They include co-operatives for women development (569), transport societies (1227), Autorickshaw societies (53), taxi drivers co-operative societies (19), printing societies (73), tailors co-operatives (44), educational co-operatives (95), labour contract co-operatives (392), social welfare societies (72), literary societies (14), canteen societies (103), hospital and dispensaries societies (150), washermen societies (6), Chethuthozhilali societies (25), lime shell societies (17), co-operative insurance society (1) etc.

Self Help Groups

4.192 Self Help Group project launched in 1997 in Kannur envisages to organise marginal farmers with limited land resources, land owning but absentee cultivators and the landless labourers into small groups of 25-50 with a view to utilising the available land for optimal agricultural production. During 1998-99, the project was extended to Palakkad and Ernakulam districts. The project is now being extended to the whole state. So far 503 co-operative societies were selected and 1840 groups organised with 31608 members. Primary Agricultural Credit Societies issued loans worth Rs.15.38 crore to the SHGs. Government assistance so far granted to the scheme is Rs.3 crore.

Intensive Co-operative Development Project (ICDP)

4.193 Intensive Co-operative Development Project (ICDP) aimed at the development of grass root level co-operatives in selected districts has been under implementation in the state with NCDC assistance. Palakkad, Wayanad and Kottayam districts with a total investment of Rs.15.71 crore have already been covered under the project during Eighth FiveYear Plan. In the first three years of Ninth Plan, the

project was extended to six more districts viz., Kasaragod, Kannur, Malappuram, Idukki, Pathanamthitta and Thrissur, with a total outlay of Rs. 71 crore. The total investment made in the six districts under ICDP during 1999-2000 was Rs. 9.46 crore as against Rs. 10.48 crore in the previous year.

The Kerala State Co-operative Union and National co-operative Union of India

4.194 Kerala State Co-operative Union is the organisation which has the responsibility for imparting awareness and education to the officials and non-officials engaged in the co-operative sector. The Union is conducting education programmes through the nine co-operative training centres and seven co-operative colleges in the State. The National Co-operative Union of India has also started two institutes of co-operative management in Thiruvananthapuram and Kannur districts for providing advanced training courses to department officials, non-officials and employees of co-operative institutions.

Special Efforts by State Government for strengthening the Co-operative Movement

4.195 The State Government is operating two special schemes for project based funding to all types of co-operatives. The first one is to activate dormant but potentially viable co-operatives while the second one is for promotion of large scale commercial ventures supported under the scheme. During 1999-2000, financial assistance to the tune of Rs.4.3 crore was provided to 19 societies under these two schemes.

4.196 Government of Kerala passed the Kerala Co-operative Societies (amendment) Act 1999 which came into force with effect from 1-1-2000 in order to make co-operative set up more democratic and progressive. Providing membership to the local body institution, Deposits Guarantee Scheme in Primary Agricultural Credit Societies, Consortium Lending Scheme, Co-operative Development and Welfare Fund, Independent Election Commission, Separate Audit Wing, Vigilance Wing, and Co-operative Examination Board are the new provisions made in the Amendment Act. Kerala Co-operative Societies Rules framed under Kerala Co-operative Societies Act 1969 was also amended consequent on the Amendment Act 1999.

4.197 Government of Kerala introduced the Co-operative Development and Welfare Fund Scheme for safeguarding the interest of the Co-operative Societies against any loss or damage to their assets and properties, despite reasonable precautions to prevent such damages or loss. The fund will be provided by way of subsidy/grant or loans to the needy co-operatives for implementing their development activities. The assistance will be provided on the basis of action plan prepared for the purpose and for viable projects.

4.198 A Co-operative Insurance Society (COINS) has been registered in the state with the total share capital of Rs.125 crore. The major stake holders of the society are Kerala State Co-operative Bank, District Co-operative Banks, Kerala State Co-operative Agricultural and Rural Development Bank, Urban Co-operative Banks, Primary Agricultural Credit Societies, and Primary Co-operative Agricultural and Rural Development Banks.

4.199 A co-operative academy has been set up for professional education as a joint venture of co-operatives. The academy (CAPE) has already started an engineering college at Vadakara (Kozhikode district) and a Medical College at Kochi.

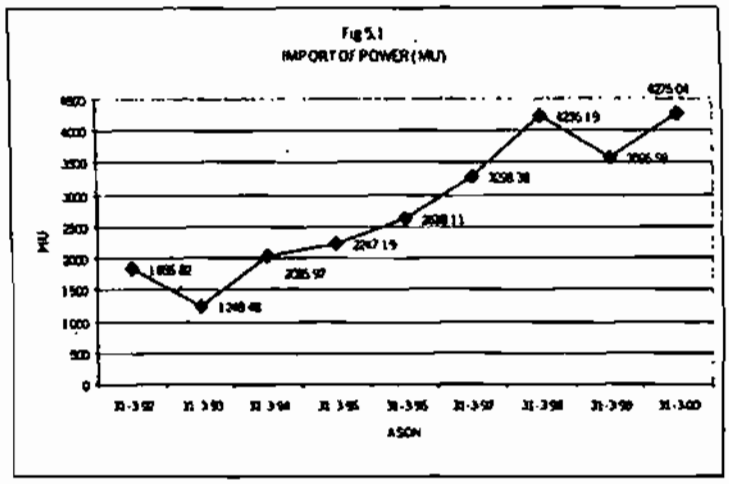
Support by NCDC

4.200 The amount released by NCDC for activities in Kerala during 1999-2000 was Rs. 56 crore against Rs. 47 crore in 1998-99. It accounts for 10 per cent of the assistance released by NCDC in the country during 1999-2000. (See appendix 4.67). More than one-third of the total credit flow from NCDC was in support of the co-operatives concerned with weaker sections like fisheries, handloom, coir, SC/ST etc. Sector wise sanction and release of assistance from NCDC from 1962-63 to 1999-2000 are furnished in appendix 4.68.

CHAPTER - 5
ENERGY DEVELOPMENT

Growth in power development in Kerala during the Ninth Plan period has been quite significant. Total addition to the installed generating capacity during the first four years of the Ninth Plan has been 1013.68 MW, i.e. by 67.32 %. During the Eighth Plan the additions to the generating capacity in the State was of only 32 MW. The installed capacity in the State increased by 348 MW during 1999-2000 and stood at 2391 MW on March 2000. With this increase and improvement in the overall performance, the State has been able to achieve self-sufficiency in power and withdraw the power cuts and load shedding.

5.2 Kerala's resource endowment for power generation is limited to its vast hydro potential. It has no known source of fossil fuels. Hence all the efforts for the generation of electricity hitherto were directed towards the hydro potential. But development of hydro power slowed down after the commissioning of Idukki Power Project in 1976 due to the growing environmental concerns. In the Ninth Plan Government turned towards thermal power and Central share from Central Sector power stations to meet the growing demands for electricity. Fig.5.1 depicts the import of Power from 31.3.1992 to 31.3.2000.



5.3 Performance highlights of the power sector during the last five years are presented in table 5.1. Appendix 5.1 depicts the growth of the Kerala Power System at a glance.

Table 5.1
Performance Highlights of Power Sector, 1996-2000

No.of Generation Projects Commissioned	10
Installed Capacity Added (MW)	1016
No.of Sub stations commissioned	35
Length of EHT/HT Lines (Ct Kms)	2063.69
Length of LT lines (Ct. Kms)	25.636
No.of Transformers Installed	6122
No.of Service Connections provided	15,12,176
No.of Street Lights provided	1,41,309

Source: Kerala State Electricity Board

5.4 The installed capacity increased from 1505.5 MW in 1996 to 2522.18 MW by January 2001. Details of power generation projects commissioned during the last five years are shown in Table 5.2.

Table 5.2
Projects Commissioned, 1996-2000

SL No	*Name of Project*	*Type of product*	*Capacity (MW)*	*Year of commissioning*
1	Lower Periyar	Hydel	180	10/97
2	Kakkad	Hydel	50	8/99
3	Mattupetty	Hydel	2	1/98
4	Pepara	Hydel	3	6/96
5	Peringalkuthu L.B. Extension	Hydel	16	3/99
6	Kuttiadi Extension	Hydel	50	1/2001
7	Brahmapuram	Thermal/Diesel	106.60	11/98
8	Kozhikkode	Thermal/ diesel	128	11/99
9	Kayamkulam – NTPC	Thermal-CCGT*	359.58	11/99
10	BSES – Kochi (3 units)	Thermal-CCGT*	121.50	6/99
	Total		**1016.68**	

Note: CCGT= Combined Cycles Gas Turbine Power Plant
NTPC= National Thermal Power Corporation
BSES= Bombay Suburban Electric Supply
Source: Kerala State Electricity Board.

Kerala Power Policy

5.5 According to Kerala State Government's power policy, the main thrust has been to make Kerala power surplus by 2000 AD and ensure permanent relief from power cuts and load shedding by adopting a multipronged strategy. The main elements of the policy are:

(i) Short term measures to increase power availability such as timely and expeditious completion of on going projects, increasing productivity of existing projects, maximising supply from central generation projects, undertaking system improvement schemes to reduce losses and remove transmission bottlenecks, rationalising traiffs to conserve electricity use etc.

(ii) Medium/long term measures such as identifying new schemes, developing a strategy earmarking roles for different entities, both government and private, creating a conducive atmosphere for attracting investment etc.

(iii) Reforms in the power sector to bring about improvements in the technical, financial and managerial performance of the power sector consistent with protecting consumer interests.

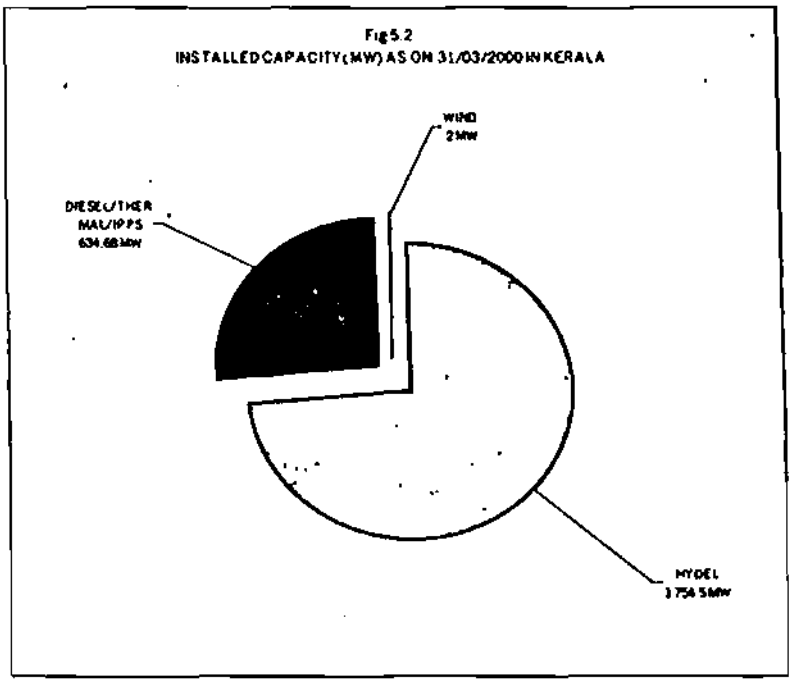
(iv) Reorient power programmes to dovetail with the people's plans at the district and local levels.

In pursuit of this policy it has been possible to bring about significant improvements in the power sector and the goal of adequate power by 2000 has also been achieved.

Progress during 1999-2000

Installed Capacity

5.6 Installed Capacity increased from 2043.1 MW on March 1999 to 2391.18 MW on March 2000, recording a growth of 17%. The additions include 50 MW of hydel power and 298.08 MW of thermal power. Fig 5.2 depicts the installed capacity of the State as on 31.3.2000.



5.7 The projects commissioned during 1999-2000 are listed in Table 5.3

Table 5.3.
Projects Commissioned in 1999-2000

Name of Projects	*Installed Capacity (MW)*	*Date of Commi ssioning*
Hydel 1. Kakkad	50	8/99
Thermal 1. Kozhikode Diesel Power Project	128	11/99
2. NTPC – Kayamkulam (Third Stage)	129.58	9/99
3. BSES Ltd. Kochi (Private)	40.5	6/99
Total	**348.00**	

Source: Kerala State Electricity Board.

5.8 Power Plants in operation and power generation as on 31.3.2000 are detailed in Appendix 5.3.

Energy Generation and Availability

5.9 The dominance of hydro power in the Kerala system makes power availability dependent on the rainfall and strength of the two monsoons, especially the South West. The monsoon during 1999-2000 was somewhat weak and subnormal and this affected the hydro generation which was only 7075.172 (Gross) Mu. Thermal generation from the new diesel plants at Brahmapuram, Kozhikode and NTPC's Kayamkulam and BSES, Kochi contributed 1826.202 (gross) Mu to augment availability. The State had to avail itself of

not only its maximum share from the central sector but also resort to imports from West Bengal/Eastern Region. Power availability in the State during 1999-2000 was as under as compared to 1998-99 (see Table 5.4). The growth of generating capacity from 31.3.1992 to 31.3.2000 is depicted in Fig.5.3.

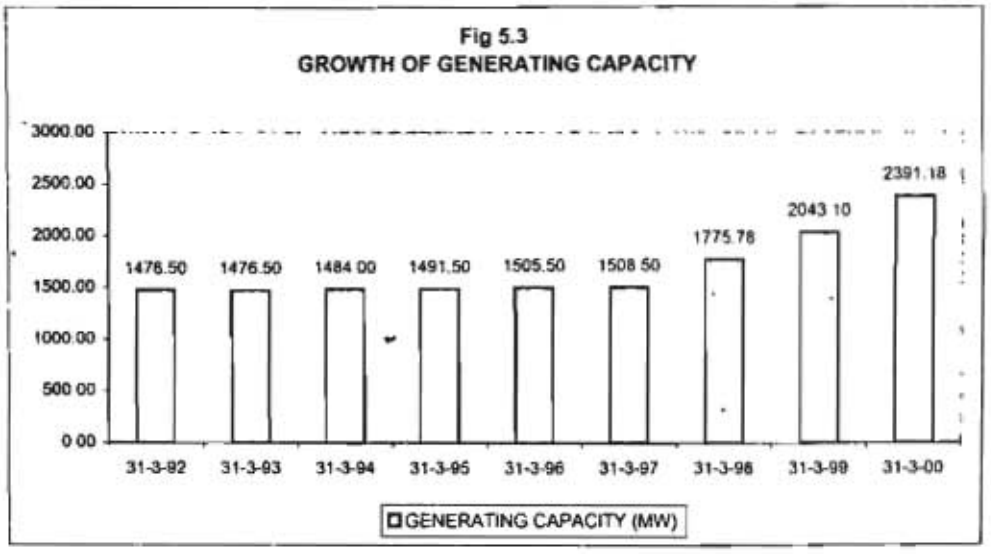


Table 5.4
Energy Availability in the State During 1998-99 and 1999-2000

Sl.No.	*Source*	*1998-99*	*1999-2000*
1.	Kerala's own sources		
a	Hydro	7348.68	7074.09
b	Thermal (BDPP+KDPP) Diesel	251.28	579.54
c	Wind Farm	1.59	1.93
	Total (1)	7601.55	7655.56
2.	Power Purchase		
a	NTPC Kayamkulam	241.95	1243.74
b	NTPC Ramagundam	1811.95	1277.60
c	Neyveli Lignite Corporation	1058.35	972.45
d	Western Region	16.88	30.97
e	Madras Atomic Power Project	229.36	222.88
f	Eastern Region	237.07	27.4
	Total (2)	3595.56	4275.04
3.	Total (1)+(2)	11197.11	11930.6
4.a	T&D Losses	1981.72	2068.09
b	Auxiliary Consumption	32.5	49.63
	Total (4)	2014.22	2117.72
5.	Net Availability	9182.89	9812.88

Source: Kerala State Electricity Board.

Future Programmes

5.10 Although Kerala has achieved significant growth in Power Sector in the last few years it cannot be overlooked that power development in Kerala is constrained by several factors. The State's only resource

for power generation is hydro power. The hydro potential of the State is estimated to be 4500 MW of which 40% has already been exploited. Most of the attractive sites are already developed. The development of the remaining sites is fraught with environmental concerns and has to be planned and implemented carefully. Consequently, there have been delays in project formulation and clearance. This has slowed down the hydro power programme. Thermal power development in the State is constrained by non-availability of fuel which has to be imported and also non-availability of suitable site for locating major thermal plants. The fragile nature of the coastline and high density of population make it difficult to find sites for coal based power generation. Even use of hydro carbons has to be restricted to relatively cleaner fuels.

5.11 Development of hydro still continues to receive high priority. The main thrust is to expeditiously complete the on-going schemes, take up new schemes with emphasis on both major schemes and small and medium projects. A number of projects including small/mini hydel projects are at various stages of construction. The State has taken initiative to start small/mini/micro hydel schemes with Chinese assistance. also help local bodies and involve private firms. Agreement has been executed with M/s HIC-IN SHP China to implement 14 small hydel schemes having installed capacity of 95.20 MW in addition to the four pilot projects. Preliminary works are under way and expected to be commissioned in 2001-2002. Detailed project reports of various other hydel schemes of 192 MW are expected to be completed by 2001-2002.

5.12 Further tapping of hydel potential is contemplated to reach a total of 1000 MW hydel projects within the next five years. A profile of ongoing hydro electric projects in the State can be seen in Appendix 5.2. KSEB has initiated implementation of four new projects having a total installed capacity of 269.45 MW in 2000-01. Details are given in Table 5.5.

Table 5.5
New Schemes Undertaken for Implementation in 2000-2001

Name of Scheme	*Capacity (MW)*	*Nature*
1. Athirappally	163	Hydel
2. Kuttiyadi Additional Extension	100	Hydel
3. Kuttiyadi Tailrace	3.75	Hydel.
4. Chembukkadavu Stage I	2.70	Hydel.
Total	**269.45**	

Source: Kerala State Electricity Board.

Table 5.6
Projects to Commence in 2000-2001

Sl.No.	Name of Scheme	Capacity/Generation	Nature
1.	Lower Meenmutty	3.5 MW	Hydel
2.	Neriyamangalam Extension	25 MW	Hydel
3.	Chembukkadavu Stage II	3.75 MW	Hydel
4	Urumi Stage I	3.75 MW	Hydel
5	Urumi Stage II	2.40 MW	Hydel
6	Sengulam Augmentation	85 MU	Hydel
7	Azhutha Diversion (Balance works)	57 MU	Hydel
8	Renovation of Sabarigiri Project	--	Hydel

Source: Kerala State Electricity Board.

5.13 Efforts to commence a few more projects are being made. Details are given in Table 5.6. Renovation and upgradation of Pallivasal, Panniar and Shenkulam have already commenced in 2000-01. Details of ongoing projects targeted to be commissioned in 2001-02 are given in Table 5.7.

Table 5.7
Projects likely to be Commissioned, 2001-02

Sl.No.	Name of Scheme	Capacity/Generatio:	Nature
1	Malankara Small	10.50 MW	Hydel
2	Vazhikadavu Diversion	24 MU	Hydel
3	Chembukadavu	2.70 MW	Hydel
4	DC Power Limited Kasargode	107.MW	Thermal

Source: Kerala State Electricity Board.

Private and Joint Venture Projects

5.14 SIASIN Energy Ltd., a private firm has obtained techno-economic clearance for the implementation a LNG based 679 MW power project. Cochin Refineries Ltd. has also obtained stage I clearance for setting up 521.50 MW combined cycle power project at Ambalamugal as a joint venture with KSE Board. The Board has also decided to share 200 MW power from the proposed Ennoor project and MOU is yet to be signed. Kannur Power Project (513 MW) has also obtained Techno Economic Clearance from Central Electricity Authority. A gasifier based power plant, using cashew shell as fuel. of one MW proposed by M/s PUMA Corporation is under consideration of the Government.

Transmission

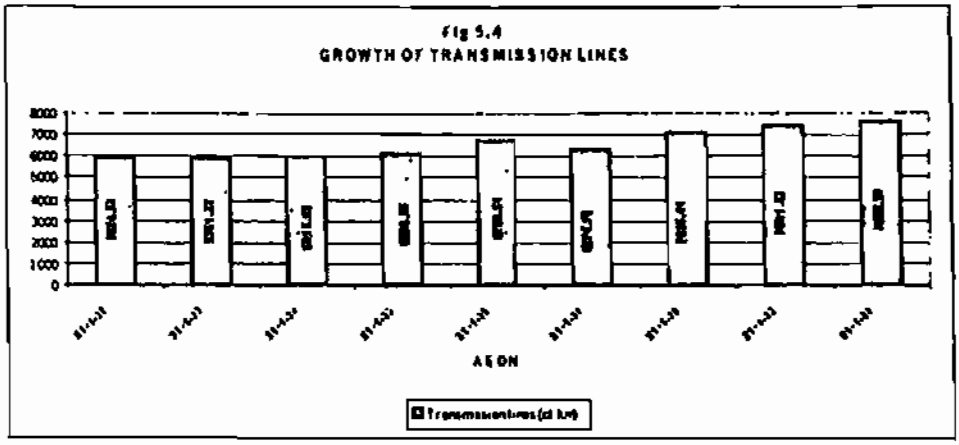
5.15 Strengthening of the transmission system in tune with the growth in generation capacity is given due importance to ensure area spread, efficiency and quality of power supply. Significant progress has been made in extending transmission lines, substations and upgrading the existing sub stations. Construction of 57.26 kms of 220 KV line and 101.27 kms of 110 KV line could be completed during 1999-2000. Six numbers of 110 KV substations were newly constructed/upgraded and commissioned in 1999-2000. Details of sub stations newly constructed and upgraded are given in table 5.8.

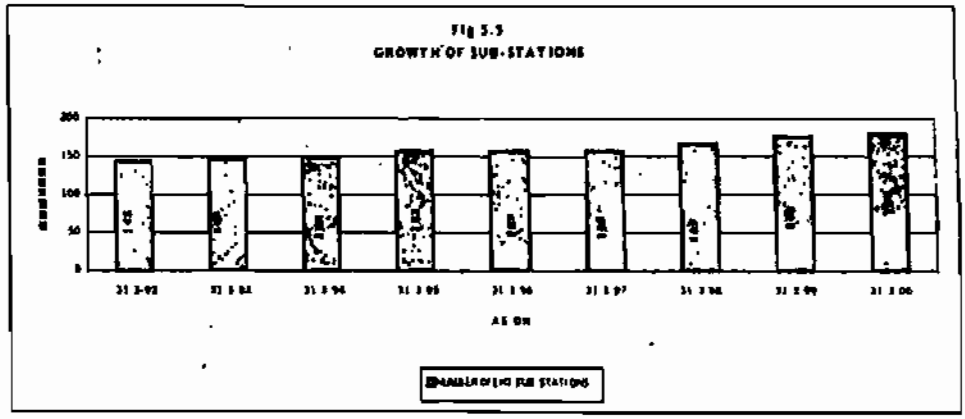
Table 5.8
110 KV Substations newly Commissioned - 1999-2000

Sl.No.	Name of Scheme	Date of Commissioning
1.	Adimaly 2x10 MVA	29/03/1999
2.	Kayamkulam 2x10 MVA	16/06/1999
3.	Technopa;rk 10 MVA	02/06/1999
SubStations upgraded to 110 KV - 1999-2000		
1.	Thirumala	22/10/1999
2.	Kuttanad	25/03/2000
3.	Edappal	23/03/2000

Source: Kerala State Electricity Board.

5.16 Transformer capacity of 17 sub-stations has been enhanced for stabilising the supply. Construction including upgradation of 110 KV substation, 52 in number, is in progress. Growth of transmission lines and growth of sub-stations from 31.3.1992 to 31.3.2000 is depicted in Fig. 5.4 and Fig. 5.5.





5.17 In order to reduce transmission losses and to improve the quality of power, 33 KV sub- transmission system has been introduced, 141 sub-stations of 33 KV are under construction all over the State. KSEB has also taken initiative to install 200 MVAR capacitors during 2000-01 and has a plan to install 350 MVAR capacitors during 2001-02.

Distribution

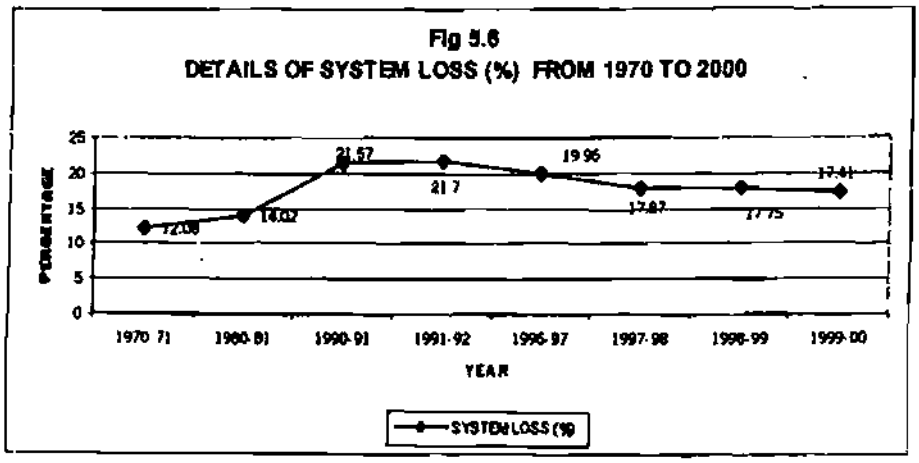
5.18 On the distribution side 3,90,512 new service connections and 20,711 agricultural connections were given in the year 1999-2000 by constructing 581.38kms of 11 KV lines and 6303 kms of LT lines. The number of distribution transformers installed during the year under review is 1580.

5.19 In addition the KSEB is giving one lakh connections under Kutir Jyothi Scheme and to people below poverty line (BPL) with the assistance of REC and other agencies. Government has also taken initiative to electrify 986 Harijan colonies under SCP scheme by spending an amount of Rs.34.30 crore and 130 Girijan colonies in TSP scheme spending an amount of Rs.5.67crore.

5.20 As a result of strengthening the transmission and distribution system it has been possible to lift the load shedding from November 2000 onwards.

Sale of power

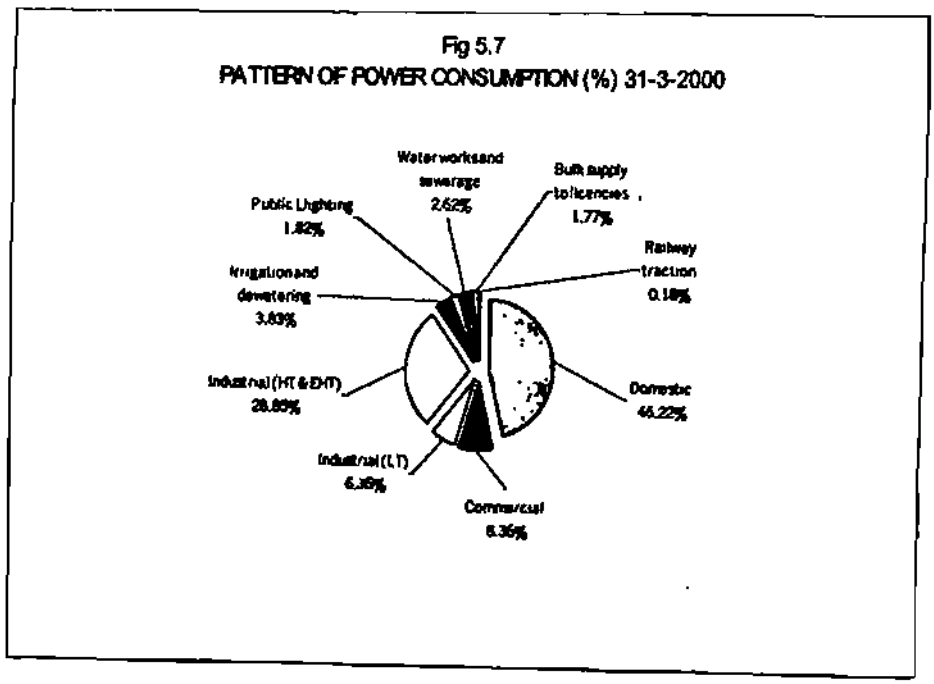
5.21 The quantum of power sold increased from 9182.89 MU in 1998-99 to 9812.88 MU in the year 1999-2000, the period under review. Transmission and distribution losses decreased from 17.75% in 1998-99 to 17.41% in 1999-2000.



5.22 Energy audit is being implemented in the Thirumala Sub-station area by incorporating 25,000 consumers in that area to ascertain the energy loss and to take remedial measures to reduce the loss.

Consumption Pattern and Revenue Collection

5.23 Total number of consumers increased by 7%, from 56,39,134 in 1998-99 to 60,29,754 during 1999-2000. Domestic consumption increased from 45.09% in 1998-99 to 46.22% in 1999-2000. The share of consumption by the HT and EHT industries decreased from 30.44% in 1998-99 to 28.85 % in 1999-2000. The pattern of power consumption is depicted in Fig. 5.7.



5.24 Pattern of power consumption and revenue collected from various category of consumers are furnished in Appendix 5.4.

5.25 Revenue collection by sale of power increased from Rs. 1,23,471.07 lakh in 1998-99 to Rs. 1,66,765.08 lakh in 1999-2000. Average realisation from the sale of power during 1999-2000 is given in Appendix 5.5.

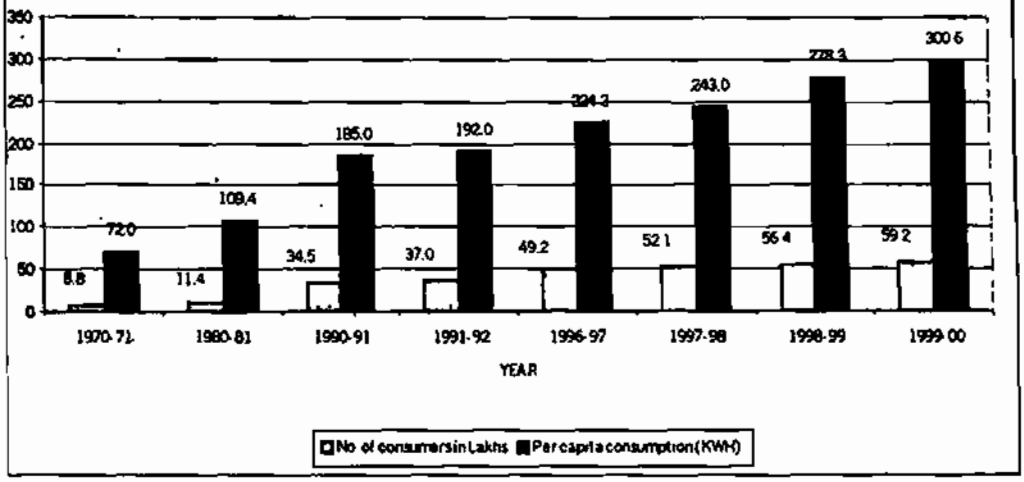
5.26 As regards revenue collection, 38.56% is the contribution of industrial sector and 22.58% is that of the domestic

sector in 1999-2000 as compared to 37.87% and 27.10% respectively in 1998-99.

Per Capita Consumption

5.27 Per capita consumption of electricity increased from 278.240 KWh as on 1999 to 300.56 as on March 2000 recording an increase of eight percentage. The comparable figure at the national level for the year 1999 was 334.26 KWh. Details of the number of consumers and per capita consumption is depitcted in Fig.5.8.

Fig 5.8
NUMBER OF CONSUMERS AND PER CAPITA CONSUMPTION



Tariff

5.28 Power tariff was revised with effect from 15th May 1999. The average selling rate works out to 187 paise per unit. The average tariff rate in respect of different categories of consumers is given in Appendix 5.6.

Plan Outlay

5.29 The outlay earmarked for power development in various Five Year and Annual Plans is detailed in Appendix 5.7. The Annual Plan outlay for various activities for the years 1999-2000 and 2000-01 and the corresponding expenditure are given in Table 5.9. The details of the source of funding of the power programmes of KSEB for the year 1999-2000 are given Appendix 5.8.

Table. 5.9
Outlay and Expenditure

(Rs. in lakh)

Sl. No.	*Name of Sub Sector*	*1999-2000*		*2000-2001*	
		Proposed Outlay	*Expenditure*	*Proposed Outlay*	*Expenditure*
I	Generation				
1.	Hydel	9072	7198.6	6015	6015
2.	Thermal/Diesel	8010	14183	525	525
II	Transmission				
1.	Transmission (Normal)	8000	8868.6	22000	22000
2.	Transmission(World Bank Schemes)	585	2333	15	15
II	Distribution				
1.	Distribution (Normal)	15500	10461	12503	12503

2.	Rural Electrification Corporation (REC)	7500	9117.2	7500	7500
IV	System Improvement works	8700	1103.8	3850	3850
V	Renovation and Modernisation	1875	1475.2	8440	8440
VI	Others	4258	443.33	3172	3172
VII	Non-Conventional Sources of Energy, including ANERT, IREP and Others	1500	184.01	1250	1250
	Total	**65000**	**55367.74**	**65270**	**65270**

Source: State Planning Board, Thiruvananthapuram.

Reforms

5.30 Consistent with the framework outlined in Power Policy, KSEB has been reorganised into three Profit Centres without unbundling the vertical structure and retaining the Board as a public sector service organisation. All the necessary diagnostic studies have been conducted by constituting four task forces one each for the three profit centres and one for corporate head office. Exposure to profit centre concept, process improvement and organisational assessment etc. was envisaged in the Energy Infrastructure Project.

5.31 Power Sector restructuring in Kerala is unique in the sense that the proposals are evolved by the employees of KSEB themselves, resulting in better understanding of the changes and impact and hence has encountered least resistance.

5.32 Energy accounting documentation at profit centre level has been prepared. Meters have been installed at the interphases of the profit centres and profit centre-wise energy accounting is in force with effect from 15th June 2000. Grid Code to ensure smooth operation of the system is in place. KSE Board has approved an IT policy covering all areas of computerisation and net working. HT/EHT billing is already computerised and LT billing is being attempted in one model division. The entire computerisation programme will be completed by the end of 2001.

5.33 Bi-monthly spot billing has been introduced through out the State. All consumers' premises are metered.

5.34 A scientific study on manpower as well as skill requirement, work norms, job specification etc. in the context of the reform programme is being conducted through an external consultant. Functional disintegration even at the lowest level is envisaged in the study report.

5.35 As a Pilot Project on restructuring at the Division level, three typical Divisions, one each under the categories Rural, Semi-urban and Urban, are identified and strategies for implementation are being evolved.

5.36 Human Resources Development, Customer Service, Safety and Environmental aspects are given focus in the reform process.

5.37 Restructuring of the distribution sector becomes all the more important and significant as this sector is dealing directly with the beneficiaries/customers. The Distribution Profit Centre will have three Regional Profit Centres with Head Quarters at Thiruvananthapuram, Ernakulam and Kozhikkode. Electrical Divisions under the Distribution Profit Centre are the smallest business units, accountable for all the operations including energy transactions within the unit. The entire implementation is expected to be completed within 16 to 18 months.

Other Activities of KSEB

5.38 In order to tap tourism potentials around hydel project area, an ambitious Hydel Tourism Project is being implemented through an autonomous Society named 'Hydel Tourism Centre' which commenced functioning at Mattupetty

Reservoir area. Actions are being taken to extend the same to other reservoir areas also.

5.39 The Board has also decided to construct Administration-cum-Commercial Complexes at 16 locations and action is underway to undertake construction of these complexes with financial assistance from Kerala Power Financial Corporation Limited.

5.40 Two Insurance Schemes have been introduced, one for the benefit of victims of electrical accidents among the public and cattle (Vydhyuthi Suraksha Insurance Policy – 2000) under which ex-gratia upto Rs.50,000/- for human victims and upto Rs,5,000/- for cattle is payable and the other is for ex-gratia payment to petty contractors and their workers under Workmen's Compensation Act.

Kerala Power Finance Corporation

5.41 During 1999-2000, Kerala Power Finance Corporation sanctioned Rs.34.39 crore for system improvement projects of KSEB at Chathannur, Karunagapply in Kollam district, Changanassery in Kottayam district, Rs.34.7 crore for construction of office cum commercial complexes at Thodupuzha in Idukki district and Chendamangalm in Ernakulam district.

5.42 An amount of Rs.11.90 crore was disbursed during the year 1999-2000 for the system improvement projects at Chittur in Palakkad district and Punalur in Kollam district. During this period the corporation availed itself a loan of Rs.10 crore from State Bank of Travancore out of the Line of Credit (LOC) facility of Rs.20 crore sanctioned in August 1999. The Corporation also proposes to finance independent power producers in the State.

Agency for Non-conventional Energy and Rural Technology (ANERT)

5.43 ANERT is engaged in the propagation of use of new and renewable source of energy promotion of energy conservation, development of technologies for rural applications etc. The programmes implemented by ANERT during 1999-2000 are:

(1) Integrated Rural Energy Programme (IREP);
(2) Bio Energy Programme;
(3) Improved Chulah Programme;
(4) Energy Conservation Programme;
(5) Solar Photo Voltaic Programme;
(6) Solar Thermal Programme;
(7) Wind Energy Programme; and
(8) Research and Development.

Integrated Rural Energy Programme (IREP)

5.44 Major objectives of the programme include:

(i) To utilise local energy resources to the extend possible for meeting the energy needs like cooking, lighting, water supply, irrigation and drinking of weaker sections of the society.

(ii) To provide energy as a critical input to the rural economic development by creation of employment, enhanced productivity and income, accelerating the process of decentralised development and for sustainable agricultural production.

The programme was implemented in 28 rural development blocks in the State during 1999-2000. Under IREP 34259 improved chulahs were installed which consisted of 30,553 fixed family chulahs 463 fixed community chulahs and 3243 family portable chulahs. During 1999-2000, CFLs distributed were 63,080. Training programmes were also conducted under the National Programme for Improved Chulahs. Two Bio-gas plants, one at Hindustan Latex Ltd., Thiruvananthapuram and another at Divine Retreat Centre Chalakkudy, were set up. Through local bodies, 2,000 solar lanterns were distributed. Solar Water Heaters installed at Dhanalakshmy Hospital Kannur (3,900 LPD), Medical and Research Centre, Palakkad (3,000 LPD) and PRS hospital Thiruvananthapuram (3,000 LPD).

ANERT has already initiated action for establishment of a Windmill of capacity of 2 MW at Ramakkalmedu in Idukki District.

Electrical Inspectorate

5.45 Electrical Inspectorate works under the Power Department and carries out technical inspection of electrical installation in the State issues competency certificate and licenses for undertaking electrical works and conducts testing and calibration of electrical meters etc.

5.46 Meter Testing and Standards Laboratory is functioning under the Electrical Inspectorate. Procurement and installation of electrical equipments for obtaining accreditation within national accreditation Board and Bureau of Indian Standards are in progress.

Energy Management Centre (EMC)

5.47 EMC undertakes R&D activities training programmes, consultancy projects and conducts seminars and workshops in connection with the energy conservation measures. It has been made responsible for co-ordinating small hydro development

5.48 During 1999-2000, EMC identified small hydel potential in 13 districts. In order to strengthen the implementation of small hydel projects EMC entered into MOU with Steel Industries Ltd., Kerala. The centre also prepared 10 reports on behalf of KSEB to be submitted to Ministry of Non-Conventional Energy Sources (MNES) Government of India. Energy clinics were conducted in all districts and 12 training programmes were organised during the year.

CHAPTER - 6
INDUSTRY AND MINING

Introduction

The economic policies of indiscriminate liberalisation, privatisation and opening up being pursued by the Central Government have created a situation where Indian industry in general, and small scale sector in particular are seriously threatened. Removal of quantitative restrictions (QRs) on imports – which will be total by April 1, 2001 – and dereservation of areas of production hitherto reserved for the small scale sector – are affecting small scale industry badly.

6.2 The new textile policy announced by Government of India has not been beneficial to the domestic textile industry. The policy envisages the removal of garment units from the small-scale sector and also removes the existing limit on foreign direct investment at 24 per cent. The entry of 100% foreign owned units capable of under cutting domestic producers, will spell disaster for tiny and small sector units in the garment industry. The SSI sector contributes a sizeable share of the country's export earnings. It needs to be carefully nurtured and supported, from the view points of export earnings and employment potential.

6.3 During the post-liberalisation period, the electrical and electronic sectors have experienced some growth. Sericulture has also good performance in production and foreign exchange earnings. Export earnings in dollar terms worked out to $174.82 million in 1999-2000 against $150.11 million for the same period in fiscal year 1998-99.

6.4 In the recent period, there has been significant investment in Kerala in information technology and food processing. Metals, chemicals, rubber, textiles and electrical industries also continue to attract investment though not to the same extent as IT and food processing. IT claimed about 17 per cent of the project proposals during the period from 1998-99 to 1999-2000. IT is likely to see higher growth in the coming years and has got a bright future in the industrial horizon of Kerala. IT is viewed not only as a potential tool for development but also as an important instrument for empowering the poor. Technopark is the hub of IT activity in the state and is one of the prestigious institutions in the country with immense potential to change the landscape of Kerala. STPI-Thiruvananthapuram has established centres at Kochi, Kozhikkode, Palakkad, Thrissur, Kottayam, Kollam and Thiruvalla in association with local bodies.

6.5 Government of Kerala has taken several initiatives for the development of the industrial sector in its Industrial Policy. A major initiative is the implementation of a single window clearance scheme with effect from 1st June 2000, in order to simplify procedural formalities. Besides, the following steps have been taken to foster rapid growth in the sector; declaration of an IT policy and a separate department for IT; strengthening of infrastructure for long term development; creative steps for investor-friendly environment, factoring and marketing support to small scale units and Rs.538 crore for development of PSUs.

6.6 Kerala emphasises the role of Public Sector, while encouraging private involvement, in the development of industrial sector. There are 72 public sector units under the Industries department; including 11 units in the cooperative sector and one statutory corporation. 24 PSUs recorded profit during the year 1999-2000. 17 companies could come out with an all time record turnover. All PSUs together achieved a turnover of Rs.1518 crore during the year 1999-2000. Public Sector enterprises under the Industries Department accounted for around 42% of employment in the state level public enterprises. State PSUs

contributed Rs.779 crore to the exchequer by way of taxes and duties in the last four years. Public Sector reforms in the state are being pursued by addressing various issues which include:

(i) moving away from continued dependence on Government protection;
(ii) building up an overall culture of productivity and efficiency in the organisations;
(iii) managing competition from both domestic and foreign environment;
(iv) controlling and cutting down cost at every level;
(v) adoption of appropriate manpower policy in the PSUs;
(vi) introducing modern production systems and technology;
(vii) improving working conditions, ensuring quality and productivity standards; and
(viii) managing change as a collective effort by involvement of management, trade unions and Government.

6.7 Expert groups were constituted in the form of sectoral committees to formulate specific revival strategies. The recommendations of the committee being implemented are the following:

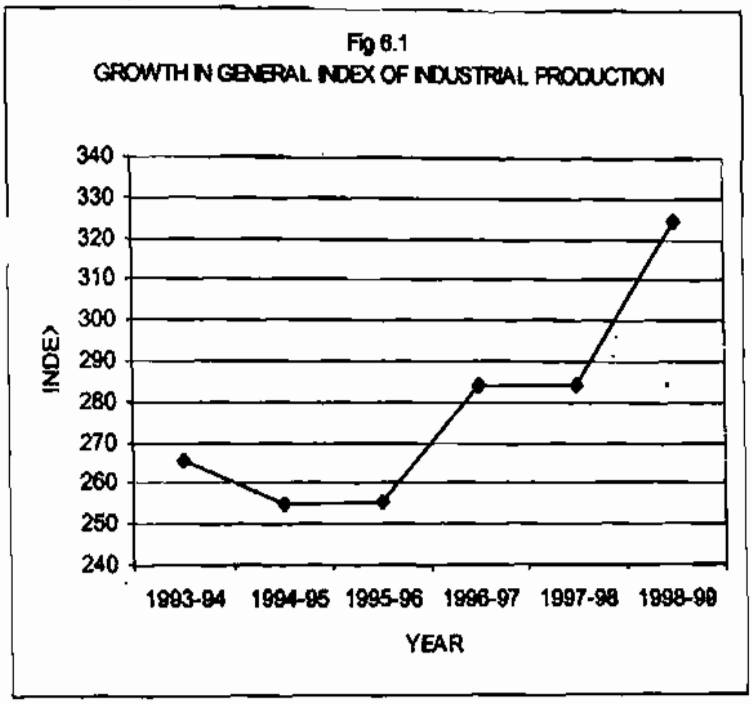
i. Conversion of government loans to equity;
ii. Share capital reduction by setting off against accumulated losses;
iii. One time settlement (OTS) of dues to institutions;
iv. Conceptualisation of comprehensive restructuring programmes including modernisation;
v. Factoring of debtors and sale of unwanted assets;
vi. Business Re-engineering and use of information technology;
vii. Strategic tie up within the policy frame work;
viii. Professionalisation of management, restructuring of organisations, employee's training;
ix. Functional autonomy for units through implementation of performance contract in order to ensure accountability for performance; and
x. Strengthening of appraisal and monitoring mechanisms in PSU's.

6.8 Strategic options are decided on a macro-perspective and immediate to short term plans are developed in the case of viable PSUs. Kerala Industrial Revitalisation Fund (KIRF) was constituted with a fund base of Rs.240 crore comprising of Rs.60 crore equity and Rs.180 crore raised through bonds. Total of Rs.258.06 crore was sanctioned as on 30/11/2000 and the amount disbursed is Rs.131.72 crore. Recovery of the amount is also initiated and an amount of Rs.18.97 crore has already been recovered from PSUs. KIRF Board has been conceptualised as a virtual organisation, for management of the funds. Rs.800 crore expansion project for KMML, Rs.120 crore for cashew, Rs 180 crore for handloom, Rs 110 crore for coir, Rs. 72 crore for textiles and Rs. 18 crore Clinker units for Malabar Cements are all under active consideration. A project with an investment of Rs.120 crore was also formulated for the revival of Keltron.

6.9 Private investment by various companies in the Technopark alone which stood at Rs.29.30 crore at the end of 1996, went up to Rs.147.51 crore as on January 2001, an increase of 403%. Government have cleared an Optical Fibre project with a total cost of Rs.2240 crore and nine companies have already come forward for implementing the project. Also, STP units including those based in Technopark have investment plans amounting to Rs.50 crore, at least 50 per cent of which has been invested already. Under active consideration is the establishment of Rs.7,000 crore Petro Chemical Complex at Kasargode by a 'foreign'company Sansol

Polymers of South Africa. A feasibility study of the project has been undertaken already. KSIDC has signed agreement with Gas Authority of India Ltd., (GAIL) for setting up a Rs.1700 crore natural gas pipeline project from Kochi to Kayamkulam to the south and Mangalore to the north.

6.10 The industrial sector witnessed recovery since the beginning of the Ninth Plan. The general index of industrial production (1980-81 = 100) recorded a rise from 284 in 1997-98 to 324.44 in 1998-99. The index of the sub-sector, manufacture of machinery and equipments other than transport equipment stood high at 1575.35 in 1998-99, which was 1196.20 in 1997-98. Metal products and parts, except machinery and equipment, recorded an increase from 883.58 to 908.37 during the same period. While other sub-sectors viz. manufacture of food products, wool, silk, man-made fibre textiles, textile products, basic chemicals and chemical products (except petroleum and coal), non-metallic mineral products, basic metals and alloys, electricity generation, etc. registered growth in index of production, slight fall was recorded in the case of beverages, tobacco and related products, cotton textiles, wood and wood products, paper and paper products, rubber, plastic, petroleum and coal products, and transport equipment and parts. The index of Industrial production is shown in Appendix 6.1 and Fig 6.1.



6.11 Performance of medium and large-scale industries during the year 1999-2000 was encouraging. The Public Sector manufacturing companies viz. Malabar Cements, Kerala Automobiles, Kerala Clays and Ceramic Products Ltd., Kerala Minerals and Metals Ltd., Travancore Titanium Products Ltd., Travancore Cements Ltd., United Electrical Industries Ltd., and Foam Mattings India Ltd., could present remarkable improvement in their performance and earn profits. The highest profit, i.e. Rs.96.66 crore was earned by Kerala Metals and Minerals Ltd., followed by Malabar Cements, (Rs.15.87 crore) and Travancore Titanium products (Rs.12.73 crore). It is also to be noted that 42 projects with a total cost of Rs.243 crore and employment potential of 3673 persons were commissioned with the assistance of KSIDC during the year 1999-2000. The other industrial promotion agencies – Kerala

Financial Corporation (KFC) and Technopark - also fared well during the year under review. KFC could sanction loans to the extent of Rs.176.12 crore to 1631 units, and the Technopark could accommodate seven more units. State Government accorded top priority to revitalise sick companies also. For revitalisation of such units, Government released about Rs.50 crore directly, in addition to the efforts taken up by the Kerala Industrial Revitalisation Fund Board.

6.12 The Village and Small Industries scenario witnessed notable achievements during the year. Investment in the SSI sector went up from Rs.302.10 crore in 1998-99 to Rs.397.53 crore in 1999-2000. The aggregate number of registered SSI units rose from 2 lakh to 2.20 lakh during the same period. Modernisation of traditional industries continued. Handloom, Coir, and Cashew sector could increase their contribution on the export front. Export earnings of Hantex alone amounted to Rs.5.22 lakh. Achievement of Kerala in the export sector, especially from Coir geotextiles, was also noticeable, increasing from 1208 tonnes to 1711 tonnes in terms of quantity and from Rs.546.90 lakh to Rs.808.41 lakh in terms of value between 1998-99 and 1999-2000. Khadi Board assisted 408 units under schemes of KVIC, generating employment to 3993 persons.

6.13 In tune with the fast developments in the Information Technology (IT) sector, Kerala also took rapid strides in the field. The State now has the highest tele-density in the country, fully developed telecom and data-com-services and eight branded Internet Service providers. The Indian Institute of Information Technology and Management – Kerala in the campus of Technopark has been established for advanced training in IT.

6.14 Industrial relations in the State have improved. Though the number of man-days lost in 1998-99 on account of strikes and lockouts (10.88 lakh) was higher than in 1997-98, it was significantly lower than in 1996-97 (14.33 lakh). The number of disputes leading to lockout/strike came down from 53 in 1996-97 to 39 in 1998-99. The number of strikes declined substantially from 31 in 1997-98 to 16 in 1998-99.

6.15 Plan allocation for Industry and Minerals (including Information Technology) increased from Rs.226.20 crore in 1999-2000 to Rs.252.20 crore in 2000-01. Details of outlay and expenditure during the period from 1997-98 to 2000-01 are given in Table 6.1.

Table 6.1

IX Plan Outlay and Expenditure (Rs. lakh)

Sector/Sub Sector	*IX Plan Outlay (1997-2002)*	*1997-98*		*1998-99*		*1999-2000*		*2000-01*
		Outlay	*Expen-diture*	*Outlay*	*Expen-diture*	*Outlay*	*Expen-diture (P)*	*Outlay*
1	2	3	4	5	6	7	8	9
A.Village & Small Industries								
1. Small Scale Industries	25900.00	2990.00	3194.63	2345.00	2277.92	2655.00	2570.77	2784.00
2. Handloom & Powerloom	8000.00	1222.00	1203.11	1300.00	1508.73	1300.00	1138.05	1400.00
3. Handicrafts	1000.00	288.00	312.24	145.00	135.00	190.00	148.45	190.00
4. Coir Industry	10000.00	1587.00	3096.54	1600.00	2319.87	1600.00	1451.45	2300.00
5. Khadi & Village Industries	2000.00	346.00	253.00	275.00	275.15	275.00	275.00	425.00
6. Sericulture	2000.00	600.00	600.00	500.00	50.00	250.00	250.00	250.00
7. Cashew Industry	2000.00	100.00	0.00	150.00	100.00	550.00	550.00	600.00
Sub Total - A	50900.00	7133.00	8659.52	6315.00	6666.67	6820.00	6383.72	7949.00

B. Medium & Large Industries	60186.00	13800.00	14333.66	15910.00	16828.31	15560.00	15845.00	15565.00
C. Biotechnology for Industrial Development (*)	500.00	0.00	0.00	75.00	-	0.00	-	0.00
D. Information Technology	-	-	-	-	-	100.00	100.00	1600.00
E. Mining	1000.00	200.00	121.54	200.00	61.08	140.00	63.56	106.00
Total A+B+C+D+E	**112586.00**	**21133.00**	**23114.72**	**22500.00**	**23556.06**	**22620.00**	**22392.28**	**25220.00**

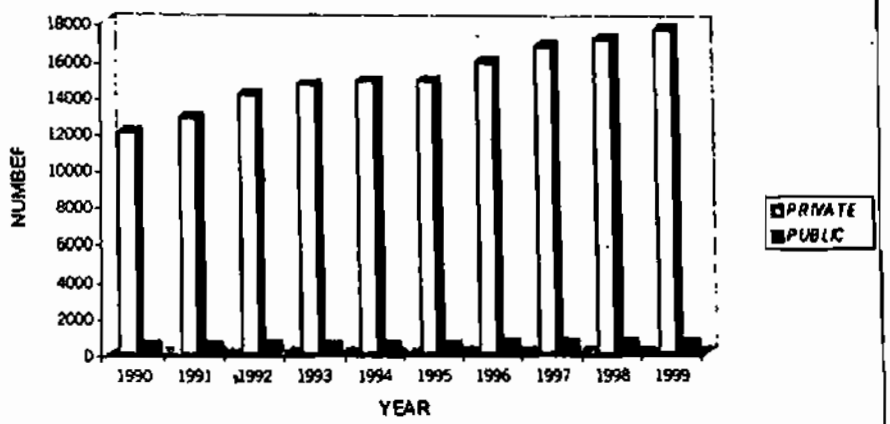
Note: (P) Provisional; (*) Transferred to S&T from '99-2000

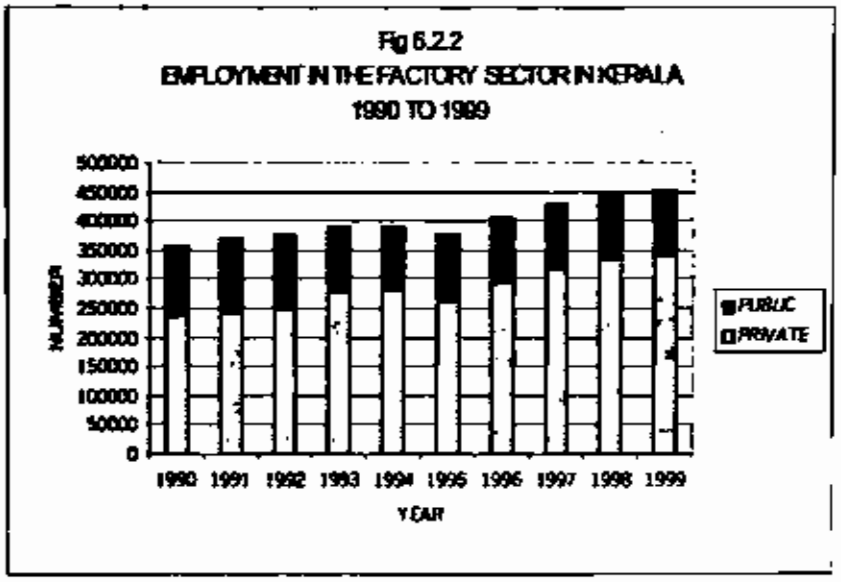
Working Factories and Employment

6.16 As of December 1998 the numbers of working factories in private and public sector were 17,719 and 540 respectively. At the end of 1999, there were 18,340 registered working factories in the State comprising of 17,788 units in the private sector and 552 units in the public sector showing an increase of 3.54% and 2.22% respectively compared to previous year. The average number of workers employed daily in the registered working factories in the State increased to 4,50,895 in 1999 from 4,43,841 in 1998. Of the total average number of workers employed in factories, 1,10,086 were in public sector and 3,40,809 in private sector in 1999 as against 1,09,698 and 3,34,143 in 1998. Details regarding the growth of working factories and average daily employment during the period from 1990-1999 are in given Appendix 6.2.

6.17 The number of working factories in 12 districts increased compared to the previous year, while it decreased slightly in Kottayam district and remained at the previous year's level in Wayanad. As in 1998, Ernakulam district has the highest number of factories i.e. 2,858, followed by Thrissur (2566), Palghat (2004) and Kollam (1817). Thrissur district witnessed the largest increase in the number of factories (8.54%) from 2364 to 2566 in 1999 followed by Kasargod (6.87%), Malappuram (6.82%) and Ernakulam (5.85%). In Kottayam district, the number of working factories decreased by 0.31% from 1293 in the year 1998 to 1289 in 1999. District-wise distribution of registered working factories in Kerala since 1990 is furnished in Appendix 6.3. Number of workers in all districts increased during the period. Thrissur district recorded the largest percentage increase (4.95%) followed by Wayand (4.81%), Malapuram (3.12%) and Idukki district (2.73%). The district-wise distribution of registered working factories and workers employed as on 31/12/1999 is given in Appendix 6.4. Gowth of working factories and employment is shown in Figs. 6.2.1 and 6.2.2.

Fig 6.2.1
GROWTH OF WORKING FACTORIES IN KERALA 1990 TO 99



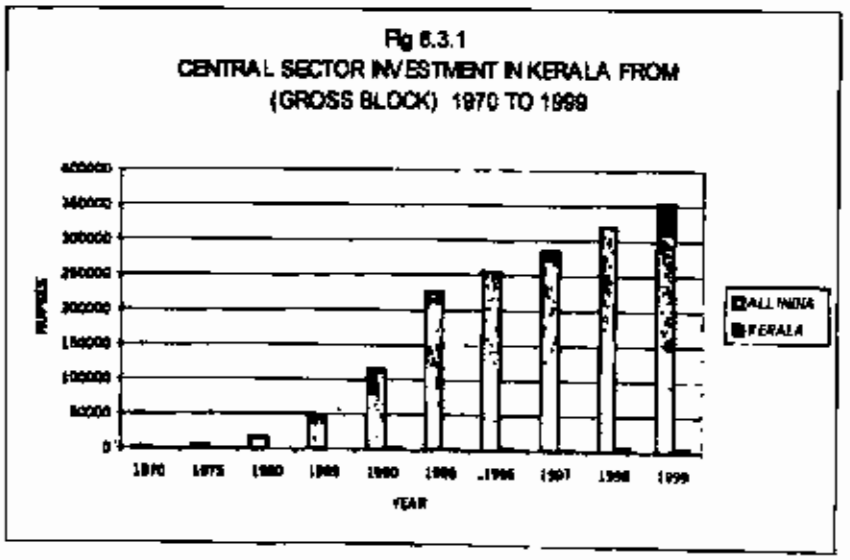


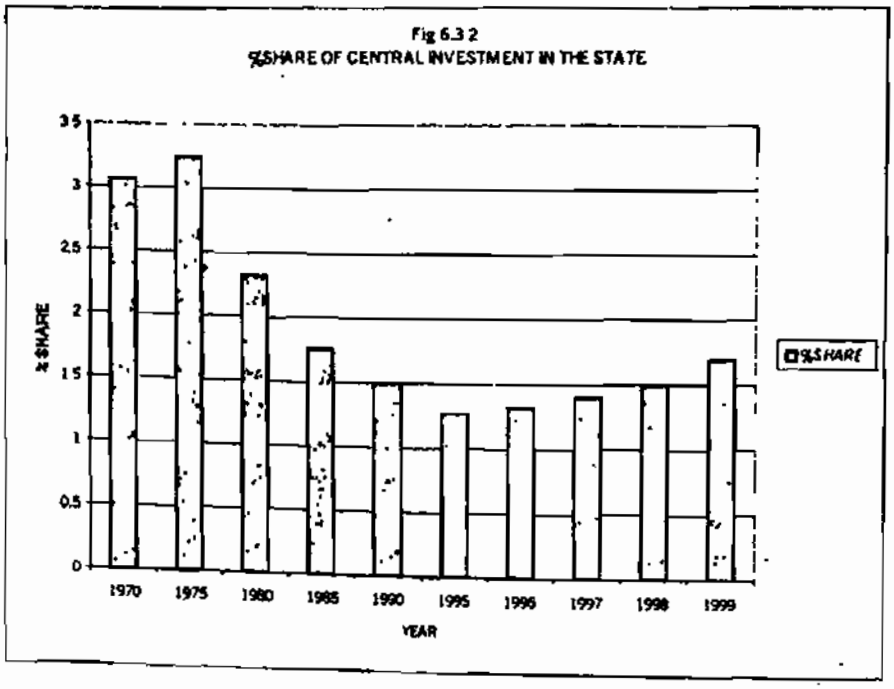
Industrial Disputes

6.18 The number of industrial disputes handled in the State during 1998-99 was 9116. Details of industrial disputes arose, handled, settled etc. in the State during the period, 1996-97 to 1998-99, are furnished in Appendix 6.5.

Central Sector Investment

6.19 The Central Sector investment in Kerala has been steadily declining from 3.24 per cent in 1975 to 1.50% as on 31.3.1998. There was a marginal increase in Kerala's share in Central sector investment in 1999 (1.69%), but this was still only around 50% of the 1975 figure. The investment in terms of gross block in the public sector in the State was Rs.4,717 crore as on 31.3.98, which has increased to Rs.5,962 crore as on 31.3.1999. Data relating to Central Sector investment in the country and Kerala at different intervals are furnished in Appendix 6.6. While total Central Sector investment in the country during 1998-99 increased by Rs.33,831 crore (10.58%) the corresponding increase for Kerala was by Rs.1,245 crore (26.39%). Central Sector investment in Kerala since 1970 is depicted in fig. 6.3.1. The trend in the percentage of share of Central investment is given in fig. 6.3.2.





Central Sector Units

6.20 There are 19 Central sector industrial units including five textile mills under National Textile Corporation functioning in the State as listed below.

1. Cochin Refineries Ltd., Ernakulam
2. Cochin Shipyard Ltd., Ernakulam
3. Fertilizers & Chemicals Travancore Ltd., Ernakulam
4. Hindustan Latex Ltd., Thiruvananthapuram
5. Hindustan Newsprint Ltd., Kottayam
6. Indian Rare Earths Ltd., Ernakulam and Kollam
7. Indian Telephone Industries Ltd., Palakkad
8. Instrumentation Ltd., Palakkad
9. Hindustan Insecticides Ltd., Ernakulam
10. Modern Food Industries (India) Ltd., Ernakulam*
11. H.M.T., Ltd. Ernakulam
12. Balmer Lawrie & Co.Ltd., Alappuzha
13. Cochin Refineries – Balmer Lawrie Ltd., Ernakulam
14. Hindustan Organic Chemicals Ltd., Ernakulam
15. Cannanore Spinning & Weaving Mills, Kannur
16. Vijayamohini Mills, Thiruvananthapuram
17. Parvathy Mills, Kollam
18. Kerala Lakshmy Mills, Thrissur
19. Alagappa Textiles (Cochin) Mills, Thrissur

* *Government share holding is only 24%. Rest is with the Hindustan Lever Ltd.*

6.21 Out of 19 Government of India companies, only 11 reported their performance during 1999-2000. Total capital invested in respect of these 11 companies amounted to Rs. 1860.67 crore in 1999-2000 against Rs. 1532.50 crore in the previous year. Major share of this investment was in Cochin Refineries Ltd, followed by FACT and Hindustan Latex Ltd. During 1999-2000 a total number of 17608 persons were employed in these companies, as against 17246 employees during 1998-99, showing a marginal increase in employment. The value of production of these 11 companies was Rs.6650.02 crore for the year 1999-2000, as against Rs.4948.63 crore during 1998-99, registering an increase of Rs.1701.39 crore. Performance in respect of production of major companies was encouraging. Sales turnover of eight companies showed improvement during the year with high turnover reported by Cochin Refineries Ltd. There was improvement in capacity utilisation of Hindustan Newsprint Ltd.,

Cochin Refineries Ltd., FACT Ltd., Hindustan Latex Ltd., and Hindustan Organic Chemicals Ltd., during 1999-2000. Out of these 11 companies, 5 companies recorded profit. Cochin Refineries recorded a profit of Rs.235 crore. FACT incurred the highest loss among the Central Sector companies in the State, amounting to Rs. 39.80 crore for the year 1999-2000. Relevant data on the central sector industrial undertakings working in Kerala are given in Appendices 6.7, 6.8 & 6.9.

Large & Medium Industries

6.22 A total of 567 large and medium industrial units existed in Kerala on 31.3.2000 as against 511 units as on 31.3.1999. This included 19 central sector, 62 state-sector, 16 co-operative sector, 29 joint sector and 441 private sector units. District-wise and sector-wise details of medium and large industrial units are given in Appendix 6.10.

6.23 As on 31.3.2000, KSIDC assisted 408 industrial units, 30 in public sector and 378 in private sector. The total project cost of the units assisted by KSIDC amounted to Rs.3,512.05 crore; Rs.429.73 crore went to public sector units and Rs. 3082.32 crore to units in private sector. District-wise details regarding the number of large and medium units assisted by KSIDC in both the public and the private sectors in Kerala are furnished in Appendix 6.11.

Public Sector Manufacturing Industrial Enterprises

6.24 As on 31-3-2000, there were 60 Public Sector Undertakings, which included 44 manufacturing industrial enterprises. Twenty-two units were fully owned by the State Government and 24 units in joint ventures managed by Government and holding companies. Out of the above 44 companies, 31 companies furnished details of their working results during the year 1999-2000.

6.25 Among the fully Government-owned companies, 15 furnished details regarding their performance for the year 1999-2000. The capital invested in respect of these 15 companies as on 31.3.2000 was Rs.624 crore. Kerala State Electronics Development Corporation Ltd. (KELTRON), followed by Kerala Hi-tech Industries Ltd, Steel Industrials Kerala Ltd. and Kerala Electrical & Allied Engineering Company Ltd., accounted for the major share of the capital invested. The number of employees working in these companies was 9436 as on 31.3.2000, showing a marginal increase from 1998-99. Performance in terms of value of production in respect of Malabar Cements Ltd., Kerala Automobiles, Kerala Clays & Ceramic Products Ltd., Kerala Hi-tech Industries Ltd., Autokast Ltd., and Kerala Minerals & Metals Ltd., was encouraging for the year 1999-2000. The total value of production in 11 companies reported was Rs. 668.94 crore and sales turnover of 13 companies was Rs. 646.89 crore. Kerala Minerals and Metals Ltd., reported the highest turnover, followed by Malabar Cements Ltd. With regard to capacity utilisation, Kerala Electrical and Allied Engineering Company Ltd., Malabar Cements Ltd., Kerala Automobiles Ltd. and Kerala Minerals & Metals Ltd. reported better performance during the year 1999-2000. Relevant details regarding capital invested, employment, value of production, sales turnover and the capacity utilisation in respect of government owned companies are furnished in Appendices 6.12 to 6.14.

6.26 Among the majority owned companies, 13 have furnished details of their performance during 1999-2000. Total capital invested in these companies was Rs.209.27 crore as on 31.3.2000. Total number of employees in these units was 6861 in 1999-2000. Out of these 13 companies, performance in terms of value of production of 7 companies was encouraging during 1999-2000 compared to 1998-99. Total sales turnover of these companies was Rs.406.58 crore as against Rs.365.74 crore in 1998-99, showing an increase of Rs.40.84 crore. Twelve companies showed better performance in terms of sales turnover.

Details of capital invested, employment, value of production, sales turnover and capacity utilisation of majority companies are given Appendices 6.15 to 6.17. Sectorwise performance of all Public Sector Undertakings is shown in Appendix 6.18.

6.27 Public Sector Restructuring and Internal Audit Board (RIAB) is the agency functioning as an interface between Public Sector Undertakings (PSUs), Government and Management Consultants/Research/ Support Agencies. For the appraisal of projects of the Public Sector Undertakings, RIAB is playing an important role, monitoring performance, fund utilisation of PSUs on a monthly basis. Strategies formulated to improve the performance of enterprises under the Industries Department are now being implemented. As of now, Government investment in the PSUs under the Industries Department has increased to around Rs.1100 crore. For implementing comprehensive restructuring programmes on a priority basis, Government put in place the Kerala Industrial Revitalisation Fund (KIRF). Effort for management improvements, labour productivity and streamlining of interface with Government have helped to improve the profitability of PSUs. The strategy that is being adopted now is to stabilise short term operations through management improvements monitored by performance contracts and then to embark on a medium to long term programme for ensuring the sustenance of PSUs. Better working conditions for workers are being ensured. The performance during 1999-2000 was promising. Against a record turnover of Rs.1518 crore during 1999-2000, the PSUs made a net profit of Rs.20 crore and it is expected that by 2000-01 they would generate a net profit of above Rs.60 crore. RIAB was also entrusted with the management of the Kerala Industrial Revitalisation Fund Board (KIRFB) created for revitalising potentially viable units under the Industries Department. During 1999-2000, an amount of Rs.50 crore was released from Plan provision for the revitalisation, restructuring and diversification of 14 units and also to the Revitalisation Board as detailed in Table 6.2.

Joint Stock Companies

6.28 The total number of joint stock companies working in Kerala as on 31.3.2000 was 11,494, which included 1416 public and 10,078 private limited companies. During the year under review, a total of 903 joint stock companies were newly registered, comprising 50 public and 853 private limited companies. A total of 197 companies were wound up/amalgamated during 1999-2000. These consisted of 29 public and 168 private limited companies. As in the year (1998-99), three private limited companies working in Kerala were transferred to other states during the year 1999-2000. Hence the net addition to the number of joint stock companies in Kerala during 1999-2000 was 703 consisting of 21 public and 682 private limited companies.

6.29 As on 31.3.1999, there were 108, Government companies. One more Government company was registered during 1999-2000 (Roads and Bridges Development Corporation of Kerala Ltd). Among the 109, 60 were private limited and 49 public limited companies. Details of joint stock companies working in Kerala are given in Appendix 6.19.

Table 6.2
Amount Released for Revitalisation during 1999-2000

Sl. No.	*Name of Company*	*Amount Released (Rs. in lakh)*
A	Chemical Sector	
1	Kerala State Detergents & Chemicals Ltd.	50.00
2	Kerala State Drugs and Pharmaceuticals	232.75
3	Kerala Soaps & Oils Ltd.	373.44
4	Kerala State Salicylates and Chemicals Ltd.	72.45
	Total (A)	**728.84**
B	Electrical Sector	
5	The Metropolitan Engineering Company Ltd.	40.00
C	Ceramics & Refractories Sector	
6	Kerala Ceramics Ltd.	210.25
D	Engineering Sector	
7	Scooters Kerala Ltd.	80.00
8	Autokast Ltd.	300.00
	Total (D)	**380.00**
E	Textiles Sector	
9	Trivandrum Spinning Mills	70.00
F	Electronics Sector	
10	Kerala State Electronic Development Corporation Ltd.	1848.27
11	Keltron Counters Ltd.	95.00
12	Keltron Power Devices Ltd.	72.00
13	Sidkal Televisions Ltd.	5.00
	Total F	**2020.27**
G.	Wood & Agro Sector	
14	Travancore Plywood Industries Ltd.	50.00
H	Development & Infrastructure Sector	
15	Kerala Industrial Revitalisation Fund Board	1500.00
	Grand Total	**4999.36**

VILLAGE AND SMALL INDUSTRIES

Small Scale Industries (SSI Sector)

6.30 Several measures were initiated in the SSI sector for achieving the objectives of the 'New Industrial Policy' announced in 1998. Various incentives were announced in addition to the existing ones. SSI sector witnessed a significant increase in investment and employment during the last two years. During the year under report investment increased to Rs. 397.53 crore as against Rs.302.10 crore in the previous year.

6.31 In 1999-2000, 20,006 SSI units were newly established which created employment opportunities to 72,042 persons as compared to 19,736 units and 71,632 persons employed in 1998-99. Total number of SSI units newly registered during 1999-2000 included 504 units by (2.5%) SC entrepreneurs and 39 (0.19%) by ST entrepreneurs. Women entrepreneurs contributed 19.63% of the total. Total value of output showed an upward trend during the period from Rs.1156.02 crore to Rs.1166.23 crore. Total bank credit to SSI sector recorded a rise in absolute terms from Rs.1783 crore in 1999 to Rs.1991.2 crore in

2000. But the percentage share of the SSI sector in the total bank credit registered a decline from 13.13% to 12.5% during the same period. Details of bank credit are shown in Table 6.3.

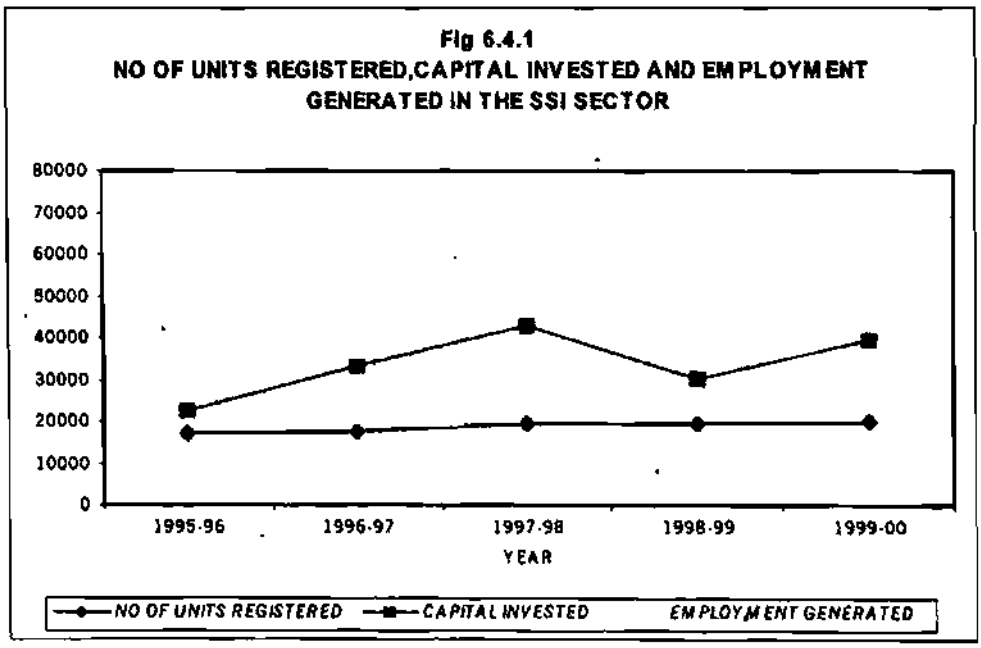
Table 6.3
Total Bank Credit and Share of SSI by Banks in Kerala (1999-2000)

(Rs crore)

Year	*Total Credit*	*Credit to SSI Sector*	*Percentage*
1994	6442	811	12.59
1995	7797	1090	13.98
1996	8961	1222	13.65
1997	10482	1445	13.79
1998	12364	1558	12.60
1999	13577	1783	13.13
2000	15940	1991.2	12.50

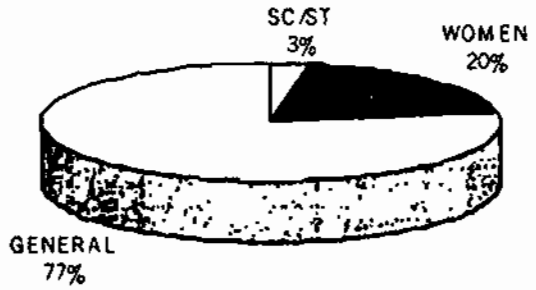
Source: SLBC, various years.

6.32 District-wise details of small scale industrial units registered in Kerala during the year 1999-2000 is given in Appendix 6.20. An analysis of the district-wise performance reveals that Ernakulam District ranked first with 2337 of SSI units (11.7%), followed by Kottayam with 2082 units (10.4%) and Thrissur with 2066 units (10.3%). The districts of Wayanad (1.8%) and Idukki (2.5%) accounted for the lowest number of SSI units. The trend in number of units registered, capital invested and employment generated are shown in Fig. 6.4.1 and category of entrepreneurs promoted in Fig. 6.4.2.



6.33 The cumulative number of SSI units registered in Kerala as on 31.3.2000 was 2.20 lakh, with an investment of Rs.3050.97 crore and employment potential of 10.01 lakh. The value of output of these units amounted to Rs.9770.65 crore. Total number of SSI units promoted by SC/STs and women in 1999-2000 were 9944 and 38,364 respectively. These were, respectively, 4.52% and 17.45% higher than in 1998-99. District-wise details of registered SSI units in Kerala as on 31st March 2000 is given in Appendix 6.21.

Fig 6.4.2
CATEGORY OF ENTREPRENEURS PROMOTED SSI UNITS



6.34 Of the total number of 2.20 lakh SSI units, 4492 units were identified as sick. Of these, 1884 units were registered as sick and 995 units were revived as on 31.3.2000. During 1999-2000, only 18 units could be revived by the DIC. District-wise working status of SSI units as on 31st March 2000 is given in Appendix 6.22.

6.35 A total of 1669 prospective entrepreneurs were trained under Entrepreneurship Development Programme conducted throughout the state during 1999-2000. The participants comprised 483 and 72 trainees respectively from SC and ST communities. Even though there was a decline in the total number of entrepreneurs trained under the programme during the reference year compared to the previous year, there was a significant increase in the number of trained entrepreneurs who started SSI units during the same period. More specifically, this accounted for 11.44% of the total entrepreneurs trained during the current year compared to 2.27% in the previous year. In addition to the above, a total of 12,473 persons were trained under PMRY also, during the period under review, thereby registering an increase of 1432 persons over the previous year. The highest number was in Palakkad district (1369) followed by Ernakulam (1333) and Thrissur (1308). The lowest was in Kasargod (337). Districtwise details of Entrepreneurship Development Programmes (EDP) conducted during 1999-2000 are given in Appendix 6.23.

6.36 Under Self-Employment Programme, the target for 1999-2000 was 24,000 persons. During this period, an amount of Rs.102.88 crore was sanctioned to 18,786 persons and an amount of Rs.51.88 crore was disbursed to 9821 persons. During the previous year, the amounts sanctioned and disbursed were Rs.91.92 crore and 48.88 crore respectively. District-wise details of achievement under self-employment programme are furnished in Appendix 6.24.

6.37 During 1999-2000, 156 industrial co-operative societies were registered afresh. The total number of industrial co-operative societies as on 30.6.2000 was 2447. Of these, 426 (17.4%) societies were promoted by scheduled caste entrepreneurs, 86 (3.5%) by scheduled tribe entrepreneurs and 861 (35.19%) societies by women. Details of Industrial Co-operative Societies in Kerala as on 30.6.2000 are given in Appendix 6.25.

Handloom Industry

6.38 Handloom Industry plays a vital role in the Kerala economy, especially in the traditional sector, by providing employment to about two lakh persons. Most of its development activities are implemented through Primary Handloom Weavers Co-

operative Societies. The total number of these societies as on 31.3.2000 was 755. Procurement and marketing of handloom fabrics in the State are being undertaken by two state level organisations viz., Hantex and Hanveev. Out of the total of 755 societies, 135 were factory type societies and 620 were cottage type societies. The factory type societies consisted of 110 working societies, 17 dormant societies, two societies under liquidation and six not yet functioning. The cottage type societies included 458 working societies, 60 dormant societies, 81 societies under liquidation and 21 new societies not yet functioning. Largest number of societies was in Thiruvananthapuram district (360) and the least in Kozhikode district (4). District-wise details of handloom societies in the State are furnished in Appendix 6.26.

6.39 There was a marginal decrease in the overall production of cloth by Handloom societies in Kerala from 76.12 million meters in 1998-99 to 74.45 million meters in 1999-2000. Production and productivity under Handloom industry in Kerala for the last two years (1998-99 and 1999-2000) are given in Appendix 6.27.

6.40 'HANTEX' is the apex marketing organisation in the handloom sector. The main objectives of the society include distribution of required inputs, procurement and processing of goods produced by the member societies, marketing of products etc. The primary societies registered under HANTEX during 1999-2000 remained at 434. Total sales turnover of HANTEX decreased from Rs. 22.23 crore to Rs.19.21 crore. There was a slight increase in the value of yarn purchased (6.8%) and value of yarn distributed (3.3%) by HANTEX in the year 1999-2000. Working results of HANTEX are given in Appendix 6.28.

6.41 Kerala State Handloom Development Corporation (Hanveev) which started functioning in 1968 is another agency for the development of handlooms. Total paidup capital of the Corporation remained at Rs.737.20 lakh as in the previous year and its sales turnover stood at Rs.18.05 crore. The corporation incurred a net loss of Rs.98.10 lakh against Rs.24 50 lakh in 1998-99. Its accumulated loss increased to Rs.7.78 crore in 1999-2000 from Rs. 6.80 crore in 1998-99. Working results of Hanveev are given in Appendix 6.29.

6.42 The Institute of Handloom and Textile Technology offers various courses in textile technology and advanced training in the field of handloom. A total of 181 persons have undergone various courses/advanced training through the institute during the year under review as against 60 persons in the previous year.

6.43 Kerala Garments Limited is a fully owned subsidiary of Hanveev which was incorporated in July 1974. It mainly concentrates on stitching garments on jobwork and sale of readymade garments. The company produced 1.42 lakh pieces of garments and realised stitching charges of Rs.50.74 lakh. Besides, the company effected sale of readymades to the tune of Rs.28.37 lakh in 1999-2000 as against Rs.12.79 lakh in the previous year. The company's income increased from Rs.96.12 lakh in 1998-99 to Rs.144.51 lakh in 1999-2000.

6.44 During 1999-2000, Kanjirode Handloom Weavers Co-operative Society and Irinavu Handloom Weavers Co-operative Society have made exports to the tune of Rs.120.25 lakh and Rs.28.07 lakh respectively. Export earnings from Handloom and Hantex was estimated at Rs.5.22 lakh and Rs.0.10 lakh respectively.

6.45 Out of 2503 powerlooms in the State in 1999-2000, 1058 were in the Co-operative Sector (41%). The number of societies stood at 38 with 2777 members. Production and productivity of the powerloom industry are shown in Appendix 6.30.

Coir Industry

6.46 Coir Industry is one of the major traditional industries in Kerala, which provides employment to 3,83,394 workers, of whom 3,22,793 are women (84%). Many coir units suffer from the problems of low productivity, low investment and poor management. Coir sector in Kerala as a whole is suffering from scarcity of raw materials. The coir industry consists of two major sectors, namely, spinning sector and manufacturing sector. The former sector accounts for over 3.50 lakh workers while the latter accommodates only 30,000 workers.

6.47 Main thrust of coir development programmes in the Five Year Plan period was on strengthening of coir co-operative sector by bringing more workers into the co-operative fold. As on 31.3.2000, there were 803 coir co-operative societies in the State. Of these, 500 had started production, 74 newly registered societies had not started production, 95 remained as dormant and 134 societies were under liquidation. Details of various types of societies and their activities are given in Appendices 6.31 and 6.32 and the district-wise details of working, new and dormant societies are shown in Appendix 6.33.

6.48 Export of coir and coir products from India increased both in quantity and value during 1999-2000 over the previous year, During 1999-2000, coir export amounted to 61,030 tonnes valued at Rs. 303.05 crore as against 55,490 tonnes valued at Rs. 292.89 crore exported during 1998-99, showing an increase of 10% in quantity and 4% in value over the previous year. The export of coir geotextiles went up by 503 tonnes from 1208 tonnes to 1711 tonnes (42%) and by Rs. 261.50 lakh in value from Rs. 546.91 lakh to Rs. 808.41 lakh (48%) during the period under review. Similarly, the export of coir pith also increased to the tune of 4285 tonnes (193%) in quantity and Rs. 311.51 lakh (124%) in value over the previous year. USA is the largest importer of coir products (23%) from India. Germany, UK, France, Netherlands, Italy etc. and the other European countries together imported 62% of the volume of coir and coir products from India. Item-wise details of export of coir and coir products from India during 1998-99 and 1999-2000 are given in Appendix 6.34.

6.49 As a part of modernisation of coir industry, machines have been developed for spinning of yarn and for extraction of fibre from green husk without retting process. State Government is also implementing Integrated Coir Development Project with assistance from Government of India and the NCDC for setting up of 200 spinning units and 100 defibering mills in the co-operative sector. Financial assistance for the setting up of 125 spinning units and 58 defibering mills have been sanctioned and 80 spinning units and 28 defibering mills have been commissioned. The remaining units are under various stages of implementation.

6.50 Government of Kerala declared the year 2000-01 as "Coir Geotextiles Year" and launched a programme of coir geotextiles development. An amount of Rs. 122.5 lakh were disbursed to COIRFED and Kerala State Coir Corporation Ltd. for the implementation of 100 pilot projects to popularise coir geotextiles.

6.51 COIRFED is the apex federation of primary coir co-operative societies engaged in the manufacture of coir yarn and coir products. The entire output of the yarn societies is marketed by the COIRFED, while the coir products are marketed by concerned societies themselves. Their turnover during 1999-2000 increased by about 43% to Rs. 9.31 crore. The Federation has a network of 100 sales outlets throughout the country including 46 agency showrooms.

6.52 The Kerala State Coir Corporation Ltd and the Foam Mattings (India) Ltd are the two state public sector units in the coir sector. The Corporation exported Rs. 349 lakh worth of coir products during 1999-

2000. The Foam Mattings (India) Ltd. made a profit of Rs. 98.5 lakh. The annual turnover of the company has increased to Rs. 784.26 lakh (including export value of Rs. 338.30 lakh).

6.53 Centre for Development of Coir Technology (C-DOCT) is an R&D organisation engaged in the development of high value items from coir fibre. A high-tech coir park was proposed to be set up at Peruman. This being the major activity undertaken by the C-DOCT, Government allotted 5 acres of land at Perumon to establish the park. Financial assistance was also availed from the District Panchayat, Kollam and MP's Local Area Development Scheme (MPLAD) to establish the Research and Training Institute in the park. The project for establishing a Coir Composite Development Centre in the park is progressing. The research project on coir geotextiles funded by STEC is also continuing.

Cashew Industry

6.54 Among the agricultural products exported from India during 1999-2000, cashew stood second best foreign exchange earner and contributed 1.5% of the total foreign exchange earnings of the country. The export of cashew kernels from India during 1999-2000 was 92,461 MTs valued at Rs. 2451.50 crore as against 77,076 MTs valued at Rs. 1609.90 crore during 1998-99, thereby showing a 20% increase in quantity and 52% increase in value. The export of cashewnut shell liquid from India during 1999-2000 declined by 61% in terms of quantity (754 MTs) and 56% in terms of value (Rs. 1.84 crore). The unit price of cashew kernels went up considerably during the year 1999-2000. The average unit export price received during the year was Rs.265.13 per kg. as compared to Rs. 211.49 per kg. in 1998-99, recording an increase of 25.4%. The unit price of cashewnut shell liquid during 1999-2000 was Rs. 24.40 per kg. as compared to Rs. 22.02 per kg. in 1998-99 recording an increase of 10.8%. Details of foreign exchange earnings and the import of raw cashew nuts into India are given in Appendices 6.35 & 6.36.

6.55 The Kerala State Cashew Development Corporation and Kerala State Cashew Workers Apex Industrial Co-operative Society (CAPEX) are two state agencies engaged in the development of cashew industry. Main activities of the Corporation consist of processing of raw cashew nuts into kernels, exporting them into all over the world and dealing in cashew nut shell liquid and CASHTAN. Total number of employees on the rolls of the Corporation as on 31.3.2000 stood at 20,233, which included 120 newly employed during 1999-2000. Total installed capacity of the Corporation stood at 12,000 MTs of cashew kernels and 900 MTs of tannin. Total quantity of production during the year was 6469.625 MTs of cashew kernels, which was 3763 MTs higher than that of the previous year. Total sales turnover of the Corporation increased from Rs. 80.34 crore in 1998-99 to Rs. 163.21 crore during 1999-2000. The Corporation's total income during the year under review was estimated at Rs. 225.69 crore as against Rs. 86.76 crore in the previous year, while its expenditure was Rs.226.95 crore. The Corporation could reduce its loss substantially from Rs. 1.78 crore to Rs. 1.26 crore. During 1999-2000, the Corporation provided employment for 150 days. Shortage of raw materials and non-availability of working capital have been reported as the major problems. Modernisation programmes are in progress.

6.56 CAPEX is the apex body of cashew workers industrial co-operative societies engaged in the procurement, processing and export of cashew nuts. Main objective of this society is to provide maximum number of working days to the workers in the cashew factories under the society. At present, CAPEX has ten factories taken over by Government from private sector under its control. Around 5500 workers are in their rolls out of whom 90% are women and majority of them belongs to SC/ST

community. Export earnings of CAPEX was estimated at Rs. 12 crore and other income was calculated at Rs.75 lakh. During the year under review, CAPEX provided employment to its employees for 73 days. Various modernisation and welfare activities were also undertaken by the CAPEX.

Khadi and Village Industries

6.57 Khadi and Village Industries Board is engaged in organising, developing and promoting Khadi and Village Industries in the State. Its programmes are implemented through Co-operative Societies, registered institutions, individuals and departmental units. The sources of finance included the assistance from Government of Kerala, Khadi and Village Industries Commission (KVIC) and Nationalised Banks. Table 6.4 gives the performance of the Khadi and Village Industries Board at a glance during the year 1999-2000.

Table 6.4
Performance of KVIB at a Glance 1999-2000

Production (Rs. lakh)	17701.21
Sales (Rs. lakh)	160.00
Sales outlets (Nos)	160.00
Units assisted (Nos)	408.00
Amount disbursed (Rs lakh)	760.48

6.58 Appendix 6.37 depicts the industry-wise details for the year under review. District-wise details on sales outlets and their sales performance are shown in Appendix 6.38. The total number of units assisted by the Board has increased from 20,058 in 1998-99 to 20,369 in 1999-2000. Out of the 20,369 units, 15,681 units are in operation (see Table 6.5).

Table 6.5
No of Units Operating under Khadi Sector As on 31-3-2000

Agency	*Total No.of Units*	*No. of Units Working*
Co-operative Societies	2008	672
Registered Institutions	2159	1355
Individuals	15777	13270
Departmental Unit	425	384
Total	20369	15681

6.59 The schemes implemented by the Board during the year 1999-2000 are

(1) Consortium Bank Credit Scheme of KVIC
(2) Margin Money Scheme of KVIC
(3) State Plan Scheme

6.60 The Board assisted 408 units under the schemes of KVIC, generating employment opportunities to 3993 persons (see Table 6.6). Out of the 300 units assisted under Margin Money Scheme, 98 units were that of women entrepreneurs.

Table 6.6
Assistance under KVIC Scheme: 1999-2000

Schemes	*No.of units*	*Disbursement (Rs.lakh)*	
		Grant	Loan
Consortium Bank Credit	108	–	390.01
Margin Money Scheme	300	370.47	–

6.61 Utilising the Annual Plan allocation of Rs.250 lakh, the Board implemented the schemes such as construction of two worksheds for the departmental Khadi Production Centres at Udyanapuram in Kottayam and Poozhikunnu in Thiruvananthapuram district, repair of 38

worksheds, procurement of 500 charkas for replacement in the spinning units under the Board, acquisition and installation of two motorised charkas at Payyannur Khadi Centre and Thiruvananthapuram on experimental basis. Weaving sector was strengthened to avoid accumulation of yarn, by providing rural grant for the repair of 311 looms and purchase of four warping drums. With the objective of enhancing the earnings of the weavers and increasing cloth production, 53 bobbin winding machines were purchased. Three of these machines were installed at Payannur Khadi Centre and Kozhikkode. The construction work of shopping complex at Kaloor is in progress.

The other activities undertaken during the year 1999-2000 include:

(1) furnishing of 9 sales outlets;
(2) acquisition of land in collaboration with local bodies;
(3) acquisition of vehicles for goods movement;
(4) providing management grant to 5 federations;
(5) acquisition of land and building for Rubber Federation at Pampady, Kottayam; and
(6) training to women in artificial gem cutting and polishing in Alappuzha and Kozhikkode.

6.62 The Board implemented an insurance programme for the khadi workers in the state utilising the savings from Khadi Fest 1998 conducted at Ernakulam. Khadi and Village Industries Commission selected the KVIB as one of the best Khadi Boards in the country in connection with Golden Jubilee celebration of independence.

6.63 Local Governments sanctioned Rs.148.22 lakh for implementation of development programmes to the Board and disbursed Rs.106.75 lakh during the year 1999-2000. In addition to the above an amount of Rs.5.5 lakh was released to Village Industries Co-operative Society in Kozhikode district. This contribution enabled the revival of defunct khadi and village industries units and thereby helped to create employment opportunities to rural women. Out of the Rs.106.75 lakh released for khadi programmes, 86% was for training in khadi spinning and weaving, repair and replacement of charkas and looms, construction and repair work of sheds. The programmes related to village industries were: revival of one hand-made paper unit and one unit at Thrissur; establishment of garment units at Kollam and Alappuzha; bed manufacturing unit at Palakkad; and washing soap units at Kollam. Ernakulam District Panchayat assisted in establishing a sales outlet.

Handicrafts

6.64 Various agencies engaged in the promotion of handicrafts industry are:
(i) The Kerala State Handicrafts Apex Co-operative Society Ltd. (SURABHI); (ii) Artisan's Development Corporation; (iii) Bamboo Development Corporation; and (iv) Handicrafts Development Corporation.

6.65 SURABHI started functioning in the year 1964 with the objective of improving living standards of handicraft artisans by marketing their products and implementing various developmental schemes in consultation with State and Central Governments. At present, about 101 primary co-operative societies are functioning under this apex co-operative society. Their products are marketed through 18 sales emporia inside and outside the state. The sales turnover of the society during the year under review was Rs. 257 lakh. During this period, the society purchased handicrafts products worth Rs. 157 lakh. In the year under review, a new showroom was opened at Kollam. With a view to increase sales turnover, this Apex organisation introduced a hire-purchase scheme for artistic furniture. Besides emporia sales, the society organised exhibitions at Goa and Baroda. A new scheme was also introduced: "Workshed-cum-Housing" for handicraft artisans through which 500 handicraft artisans

became the owners of houses with workshed.

6.66 The main activities of the Kerala Artisans' Development Corporation (KADC) include providing assistance to artisans for establishment of production units, undertaking market promotion activities including financial assistance for setting up of production units under NBCFDC (National Backward Classes Finance and Development Corporation). Total income of the Corporation increased by about 51% from Rs. 50.97 lakh in 1998-99 to Rs. 77.03 lakh in 1999-2000. The expenditure of the Corporation increased by 20%. The performance of the corporation was better in 1999-2000. Loss was reduced from Rs. 18.49 lakh in 1998-99 to Rs. 2.95 lakh.

6.67 Handicrafts Development Corporation of Kerala commenced its operation in the year 1968 and was engaged in the development of handicrafts and handlooms. Craft Development Centre at CFSC, Thiruvananthapuram and export showroom at Head Office compound are under implementation. The project of installation of wood seasoning plant and mechanisation of CFSC was completed and its commercial operation commenced from April 2000. After the full-fledged functioning of the above projects, the Corporation is expected to increase the business and employment among artisans. The Corporation conducted a number of exhibition-cum-sales during 1999-2000 at various places in and outside Kerala. The total sales for the year 1999-2000 was Rs. 9.09 crore as against Rs. 8.69 crore in the previous year; an increase of 4.6%.

Beedi Industry

6.68 Kerala Dinesh Beedi Workers Central Co-operative Society Ltd., was incorporated in the year 1969 and provides employment to 23,249 persons. During 1999-2000, 481.29 crore beedies worth Rs. 81.79 crore were produced. The net profit of the society was Rs. 39.15 lakh, 48% greater than that of the previous year. As a part of its diversification programme, the co-operative society started production of coconut milk, various types of pickles, curry powders, chammanthi powders, squash, jam, umbrellas etc. which were marketed in and outside Kerala fairly well. The labour force required for the diversification programme was selected from among the beedi workers qualified for the same. Government allotted a sum of Rs. 1 crore for this programme in the budget for 2000-01.

Sericulture

6.69 Sericulture is an agro-based industry and it has immense potential for employment generation. Kerala State Sericulture Co-operative Federation is the agency for promoting sericulture activities in the State. In Kerala, mulberry is mostly cultivated as inter-crop in rainfed conditions and practised as a subsidiary occupation. During the Ninth Plan period, thrust has been given for implementing programmes in selected areas.

Table 6.7
Performance of Sericulture Sector at a Glance in 1999-2000

Area newly brought under mulberry Cultivation (acres)	1152
No of additional farmers covered	1187
No of DFLs Supplied	120674
Cocoon Production (kg)	40535
Silk Production (MTs)	248

6.70 During 1999-2000, a total of 1152 acres were newly brought under mulberry cultivation covering 1187 farmers. Thereby, the total area under mulberry cultivation increased to 6584 acres and number of farmers increased to 9650. SERIFED supplied a total of 1,20,674 Disease Free Layings (DFLs) to produce 40,535 kg of cocoons during this period (see Table 6.7). This is an increase of 7 tonnes of cocoons over the previous year. District-wise details of mulberry cultivation, number of farmers, DFLS supplied, and cocoon production are given in Appendix 6.39.

6.71 SERIFED achieved considerable progress in pre-cocoon sector. Necessary steps have been initiated for installation of Silk Yarn Twisting at Uduma, and Silk Reeling Unit for ensuring uninterrupted supply of twisted yarn to the weavers. Providing master reelers service, training of craftsman in silk loom fabrication, training of weavers in silk weaving etc. were the other programmes organised by the SERIFED during the period under review. With the support of Central Silk Board, SERIFED arranged assistance to the master weavers so as to strengthen the weaving activities in the State. SERIFED has supplied twisted silk yarn to the needy weaving societies of Kannur and other districts. As a result, several industrial societies ventured into commercial silk weaving. The raw silk production during the year 1999-2000 was 2477.85 kg, an increase of 892 kg over the previous year. Under the farmers' training programme, 925 farmers were covered and a total of 18 study tours covering 777 farmers were conducted. At present, SERIFED is supporting its 153 affiliated primary co-operative societies by providing managerial grant, furniture and fixture grant etc. as per eligibility. It also has introduced two new schemes during 1999-2000 viz. "Crop Insurance to Bivoltine Cocoons" and "Award to best farmer in the State and District". The overall progress of sericulture development programmes during 1999-2000 is shown in Appendix 6.40

INDUSTRIAL PROMOTION AGENCIES

6.72 State Government is keen to assist the industrial units by providing infrastructure, technical training and financial assistance through various promotional institutions. Important among such promotional institutions are: Kerala State Industrial Development Corporation (KSIDC), Kerala State Financial Corporation (KFC), Kerala Industrial Infrastructure Development Corporation (KINFRA), Kerala State Electronics Technology Parks (TECHNOPARK), Small Industries Development Corporation (SIDCO), Small Industries Service Institute (SISI), Kerala Industrial Products Trading Corporation (KIPTC) etc.

Kerala State Industrial Development Corporation (KSIDC)

6.73 Kerala State Industrial Development Corporation provides financial assistance by way of share capital and loan to manufacturing projects of varying categories. The gross financial sanction comprising share capital and loans for various industries during the year 1999-2000 amounted to Rs.115 crore as against an amount of Rs.111.79 crore in the year 1998-99. As against an amount of Rs.65.71 crore disbursed during 1998-99, Rs.78 crore including share capital and loans were disbursed during 1999-2000, an increase of 19%. The Corporation's total recovery of principal and interest on loans from assisted units amounted to Rs.48 crore as against Rs.49 crore in the previous year. The operating profit of the Corporation during 1999-2000 was Rs.14 crore against Rs.13 crore during the previous year.

6.74 During the year 1999-2000, 42 projects involving a total cost of Rs.243 crore and having direct employment potential of 3673 were completed and commissioned with the assistance of the Corporation, as against 52 projects costing Rs.848.52 crore during 1998-99. The total number of units promoted/assisted by the corporation since its inception as on 31.3.2000 reached 408 with a total project cost of Rs.3512.05 crore. The Corporation took investment decisions pertaining to 65 projects worth about Rs.619 crore during the year. Total direct employment potential of the project is at 5452. During the year, the Corporation signed MoUs with private parties for developing and establishing 40 projects worth about Rs. 897 crore. At the end of March 2000, as many as 72 projects with an aggregate cost of about Rs. 1506 crore were under various stages of implementation providing employment to 8700 persons. During the year KSIDC sanctioned, as already noted, an amount of Rs.115 crore and disbursed Rs.78 crore.

With the financial and promotional assistance of the Corporation, 39 projects could be completed and commissioned in joint sector in the State. Out of these, the Corporation's share holding in as many as 25 companies was partly/fully divested as at the end of March 2000. Thus, only 14 companies are currently on the joint sector of KSIDC with the Corporation's share holding amounting to 26% or more. The particulars of physical and financial achievements of KSIDC are furnished in Appendix 6.41.

Kerala Financial Corporation (KFC)

6.75 Kerala Financial Corporation (KFC) provides term loan assistance to a maximum of Rs.150 lakh per unit and in certain cases upto Rs.240 lakh to promote and develop Small and Medium Scale Industrial Units in the state. It conducted development seminars in 12 districts during 1999-2000 and clientele meetings were conducted at Thiruvananthapuram, Palakkad, Thrissur and Kasaragod.

6.76 The Corporation received 1746 applications for assistance to the tune of Rs.201.50 crore during 1999-2000 and sanctioned loans to the extent of Rs.176.12 crore to 1631 units, as against Rs.191.13 crore disbursed to 1914 units during the year 1998-99. The Corporation has so far sanctioned Rs.1026.88 crore to 21,210 SSI units and Rs.913 crore to 14,408 non-SSI units since its inception. During 1999-2000, the total loan sanctioned to SSI units amounted to Rs.70.73 crore. Non-SSI units received Rs.105.39 crore as loan. Overdues as on 31.3.2000 amounted to Rs.339.95 crore. The total recovery during 1999-2000 was Rs.230.25 crore, which works out to 40.38% of the collectable demand for the year 1999-2000 as against an amount of Rs.203.29 crore in the year 1998-99. The operation of KFC is highlighted in the summary statement furnished in Appendix 6.42. District-wise disbursement of loan by KFC during 1999-2000 is given in Appendix 6.43. Out of a total of Rs.149.72 crore disbursed to 1651 units during 1999-2000 an amount of Rs.60.64 crore (41%) was disbursed to 862 units in backward areas as against Rs.78.26 crore during the previous year. Out of the total amount disbursed during 1999-2000, share of the manufacturing sector was 18.46%; hostels, hospitals etc. 41.02%; and transport sector 28.16%.

6.77 Industry-wise classification of sanctions during the year shows that rubber, mining, leather, food products, hotels and shopping complexes, hospitals and transport were the major beneficiaries. The Corporation continued to support the tiny and small scale units. Loans up to Rs.50 lakh constituted 80.06% of the effective sanction during the year. Total income of the Corporation for the year 1999-2000 was Rs.110.99 crore as against Rs.105.10 crore in the previous year.

6.78 The financial support from Government of Kerala to KFC by way of share capital contribution for the year 1999-2000 amounted to Rs.13 crore and the total amount proposed for sanction of loan for 2001-02 was Rs.350 crore. The projected disbursement was Rs.300 crore for generating employment opportunities to 48,000 persons for the year 2001-02. Progress of the working of KFC at a glance for the period from 1994-95 to 1999-2000 is given in Appendix 6.45.

Kerala Industrial Infrastructure Development Corporation (KINFRA)

6.79 Kerala Industrial Infrastructure Development Corporation (KINFRA) was formed in 1993 for the development of Industrial Parks/Townships/Zones etc. which would provide the facilities required for setting up industries. The total investment made by the State Government as on January 2001 amounted to Rs.133.20 crore as against Rs.110.81 crore as on 31.3.2000. The amount received from Government of India as on January 2001 was Rs.18.36 crore as against Rs.13.43 crore as on 31.3.1999. KINFRA is developing the industrial parks for setting up industrial units

based on availability of raw materials and natural resources of the region. Eleven projects of KINFRA are under various stages of implementation and seven projects have already been completed.

Electronics Technology Parks, Kerala (TECHNOPARK)

6.80 Technopark has completed 10 years on 28th July 2000. The campus covers an area of 152 acres. For further expansion another 56.08 acres were acquired at Aakkulam. The park has by now, built-up space of 4,88,500 sq.ft. By October 2001 the total built-up space in the campus is expected to be 8,20,000 sq.ft. As of January 2001, the campus hosts 54 international and domestic companies with a total investment of Rs.147.51 crore, employing 6795 qualified persons. Of the total investments in this park US accounts for 40% of the companies in the campus while Europe accounts for 30% and Middle East about 5%. Of the remaining 25%, 20% is from Kerala and 5% from the rest of India. Total sales turnover of all the units in Technopark for the year 1999-2000 was Rs. 148.55 crore. From the current year, Technopark is poised to generate an annual surplus of Rs.150-200 lakh. Technopark is holding licenses for distribution of power and manages its own distribution network within the campus providing very high reliability power supply to companies. It also holds ISO-9002 registration for creation and marketing of infrastructure and support services for IT companies. Technopark provides facilities at a competitive rate compared to other software parks in the country (see Table 6.8).

Table 6.8
Major Software Parks Across the Country

Software Park	*Location*	*Promoters*	*Area*	*Rate (Approx.)*
Hi-TECH City	Hyderabad	L&T APIIC	5,00,000 Sq.ft	Rs.2750/- per sq.ft.
INFOTOWER	Ahmedabad	GNFC Ltd.	1,55,000 Sq.ft	Rs.2500-/- per sq.ft. Rs.34/- sq.ft/Month
INTERNATIONAL TECHPARK	Bangalore	Tata's Singapore Consortium & KIADB	12,00,000 Sq.ft	Rs.3800/- per sq.ft.
INTERNATIONAL INFOTECH PARK	Navi Mumbai	CIDCO & DoE	6,00,000 Sq.ft	Rs.2000/- per sq.ft.
MILLENNIUM BUSINESS PARK	Mhape, Mumbai	MIDC	20,00,000 Sq.ft.	Rs.1300/- per sq.ft.
PUNE INFOTECH PARK	Hinjawadi, Pune	MIDC	4,00,000 Sq.ft	Rs.1300/- per sq.ft. Built-up Rs.1000/- per sq.ft. Mtr.land
PUNE SOFTWARE PARK	Pune	Dalamals	45,000 Sq.ft	Rs.28.32 per sq.ft.per month
TECHNOPARK	Trivandrum, Kerala	Govt. of Kerala	7,00,000 Sq.ft	Rs.1050/- per sq.ft. Rental Rs.12/- sq.ft per month Land Rs.22 lakh/acre
TIDEL PARK	Chennai	TIDCO & Elcot	12,80,000 Sq.ft	Rs.2350/- per sq.ft. Rental Rs.35/- sq.ft.
VERNA SOFTWARE PARK	Verna, Goa	Electronics Corpn of Goa	A.7,000 Sq.mtr, B,4,000 Sq.mtr	Rs.10,000/- per sq.meter

Kerala Small Industries Development Corporation Ltd (SIDCO)

6.81 Kerala Small Industries Development Corporation Ltd (SIDCO), is a promotional agency, wholly owned by Government of Kerala, set up in the year 1975. This corporation is rendering all kinds of assistance to SSIs in the State. At present, the activities of SIDCO are: the distribution of raw materials to SSI units, marketing of SSI products, maintenance of 17 industrial estates and 36 mini industrial estates, and civil works for Industries Department and some other governmental agencies. SIDCO is also running 11 production units which undertake various kinds of job works in metal and wood, bus body building, manufacturing bricks, furniture etc. In the light of the new Industrial Policy of Government of Kerala, SIDCO has introduced new schemes such as one Industrial Park in each Assembly Constituency, Factoring Service Scheme for discounting bills of SSIs and consumer products. marketing scheme for strengthening the direct marketing of consumer products of SSIs.

6.82 The main activities of the Raw Material Division is the distribution of various kinds of raw materials such as Iron and Steel materials, Parafin wax, Titanium Dioxide, IOC products, cement, G.I. pipes, Aluminium sheets, Teak poles etc. They have also entered into new tie-ups with IOC, SAIL, MRL, IPCL and others. SIDCO is supplying furnace oil, rubber processing oil etc. required by SSI units in the State. A total of 2400 SSI units benefited by the activity of Raw Material Division during 1999-2000. Turnover for the year 1999-2000 was Rs.2730.87 lakh and profit Rs.3.50 lakh.

6.83 Marketing Division undertakes the marketing of the products produced by SSI units and other public sector undertakings. Activities of this Division generated Rs.1194.46 lakh, with a service income of Rs.90.47 lakh during the year 1999-2000. SIDCO is the sole channelising agent of Government for procurement and supply of 28 items produced in the SSI sector. Civil works and electrical works of Industries Department and other Government Departments/agencies worth Rs.235.96 lakh were also done by SIDCO, for which an amount of Rs.8.50 lakh was collected as centage during 1999-2000.

6.84 Eleven production units are functioning under Production Division. All units depend on job works except SIDCO Tiles, Amaravila. The total turnover of this division came to Rs.392.37 lakh in 1999-2000. There were 859 SSI units in the various Industrial Estates and Mini Industrial Estates under SIDCO. An amount of Rs.61.61 lakh was collected by way of rent, water charges, electricity bill etc. from the Industrial Estates during the year 1999-2000. Under the scheme for setting up of one Industrial Park in each Assembly Constituency sites have been identified for 37 parks in various constituencies. Civil works in these sites are in progress.

6.85 A new division called 'Consumer Products Marketing Division' was formed to strengthen the direct marketing of consumer products viz. curry powder, masala, pickles, confectioneries, detergents etc. manufactured by SSIs. The first phase of the scheme was introduced in Kochi Corporation area in association with Community Development Society (CDS) and Kerala State Women's Development Corporation. This scheme is expected to generate employment opportunities to thousands of educated unemployed women in the state. Under the PMRY Training Programme, SIDCO conducted training classes for 630 unemployed persons during 1999-2000. Selected indicators of activities of SIDCO are given in Appendix 6.46.

Small Industries Service Institute (SISI)

6.86 Small Industries Service Institute (SISI) is a field level agency of Small Industries Development Organisation (SIDO) rendering techno-economic and managerial assistance to entrepreneurs. It

also provides specialised skill development training courses at its workshops. Major services rendered by it include project assistance, modernisation and technology upgradation, ancillary development programme, training/skill development programmes, quality awareness/upgradation programmes, managerial/export assistance, economic research information services, studies on energy conservation and pollution control and motivation programmes. Its services are mainly focussed to help the existing entrepreneurs who start a new own venture. As on 31.3.2000, SISI received an amount of Rs.20.67 lakh under Plan and expended Rs.18.95 lakh. The achievements of SISI for the year 1999-2000 are furnished in Appendix 6.47.

Kerala State Industrial Products Trading Corporation Limited

6.87 Kerala State Industrial Products Trading Corporation is a trading company. The main activity of the Company is confined to the trading of the products manufactured by M/s Travancore Titanium Products Ltd. The entire share capital of the Company is held by the State Government. The total paid-up capital of the company is Rs.33.90 lakh. It has been making profit continuously since 1979. The Company has been paying dividend from 1981-82 onwards. In 1998-99 and 1999-2000, the Company declared and paid 100% dividend to Government of Kerala. The Company recorded an all-time high sales during 1999-2000. The turnover was Rs.127.13 crore as against Rs.118.20 crore in the previous year. The profit for 1999-2000 was Rs.1.14 crore as against Rs.1.09 crore during 1998-99.

Kerala Industrial and Technical Consultancy Organisation (KITCO)

6.88 During the year 1999-2000, KITCO continued to take up a variety of assignments, such as preparation of detailed project reports, asset valuation reports, special studies, detailed engineering works, energy audit, plant betterment services and training programmes. KITCO was quite active with several assignments, which are at various stages of completion, during the year. It completed energy audits for 4 units of NTC mills, kurchumala plantations, Sree Purna roller mill, Sabari flour mills, and Minerva mills, Bangalore. During the year, 230 PMRY training programmes were completed and 10,135 persons trained in business and industrial management. KITCO also conducted 11 entrepreneurship programmes, two technology clinics, and one skill upgradation programme sponsored by State Government, District Panchayat and Kochi Corporation. KITCO was assigned the work of conducting a Skill Development Programme in four sector of activities under Special Central Assistance (SCA) to Special Component Plan (SCP) in Malappuram district. Gross earnings of KITCO for the year 1999-2000 was Rs.247.91 lakh as against Rs.227.12 lakh in the year 1998-99, a growth of 9.15 per cent. Net profit after income tax for 1999-2000 was Rs.10.49 lakh as against Rs.8.25 lakh in 1998-99.

Small Industries Development Bank of India (SIDBI)

6.89 Small Industries Development Bank of India (SIDBI) is a wholly owned subsidiary of Industrial Development Bank of India (IDBI) and it commenced its operation on April 2,1990. SIDBI is operating through its Head Office at Lucknow and a network of five Regional Offices and 33 Branch offices all over the country. The Kerala unit of SIDBI is established at Ernakulam. Various programmes introduced by SIDBI include enterprise promotion programmes viz. Mahila Vikas Nidhi and national equity fund, micro credit scheme, entrepreneurship development programmes, management development programmes, technology/skill upgradation programmes, quality management and environment management. SIDBI has also been extending support for conducting seminars, workshops, exhibitions etc., relevant to the development of SSI sector in Kerala through agencies like SISI, Calicut Regional Engineering College, Cochin University of Science &

Technology, Kerala State Small Industries Association, Confederation of Indian Industry, Centre for Science and Industrial Research and Kerala Artisans Development Corporation. So far around 20 such programmes have been sponsored. Total sanction for Kerala since inception of SIDBI amounts to Rs.2642 crore which forms 5.4% of sanction to all India. The amount disbursed increased from Rs.91 crore in 1990-91 to Rs.2074 crore in 1999-2000 which corresponds to 6.3% of disbursement at all India level. Details of sanction and disbursement are furnished in Appendix 6.48.

Information Technology (IT)

6.90 The IT policy formulated by Government of Kerala articulates a three-fold strategy, namely, the establishment of a vibrant IT Industry, building up a robust infrastructure backbone, upgradation of quality of human resources through IT and IT induction in Government for ensuring transparency and efficiency.

6.91 In Kerala, the IT sector, particularly software and telecom has shown robust growth in the past year. The Technopark at Thiruvananthapuram has emerged as significant hub for software development and IT enabled services – such as medical transcription and content creation – in the region. The park's campus is spread over 180 acres of land. 54 companies employing over 6,000 software and engineering professionals are now operating in the park. To meet immediate future demand, the capacity of the park is proposed to be doubled from its existing capacity of one million sq.ft. within the next two years. The number of software units registered with the STP in Kerala increased from 53 in 1998-99 to 212 in the last year (as on 31-12-2000).

6.92 After Software, the sector that has recorded the highest growth is IT Enabled Services (IT Enabled Services include a broad range of activities such as medical transcription, content creation, animation, call centres, etc.). It is expected that IT Enabled Services would have substantive income and employment potential for Kerala, given the availability of a large pool of educated manpower and good telecom infrastructure in the State. To encourage the development of IT enabled services, Government are setting up an IT Enabled Habitat-cum-Incubation Centre at Kochi. The Incubation Centre would provide requisite infrastructure and facilities for start up units. The Kerala Venture Capital Fund set up with the corpus of Rs.20 crore, jointly by KSIDC and KFC became operational in the last year.

6.93 In the last year, the telecom sector in Kerala recorded strong growth. The major share of this was contributed by expansion in cellular services, equipment manufacturing and capacity addition in creation of networks. To facilitate the creation of a modern telecom infrastructure and a robust information backbone with a view to developing the State into a high bandwidth destination with terabyte connection as, State Government had launched a major policy initiative, permitting Rights of Way access along the State communication highways to investors desirous of setting up broad band Optical Fibre (OF) networks. Pursuant to this policy initiative, investment proposals worth Rs.2,400 crore were received from nine major telecom operators for setting up OF networks. This investment, which is anticipated to flow into the State within the next three years, would not only significantly enhance the level of tele density in the State but also provide a fillip to the development of decentralised and small IT businesses.

6.94 Besides good domestic telecom infrastructure, two major international submarine cables, namely SE/ME/WE 3 and SAFE have their landing points at Kochi, thus facilitating the development of high bandwidth IT activities in the State.

6.95 As a part of the IT Policy of Government, the State offers priority for IT

industries in sanctioning and servicing of power, exemption from sales tax for seven years, exemption from payment of electricity tax/duty for captive generation sets. The State also provides 50% subsidy for installation of captive generation sets and a subsidy of 20% of capital investment subject to the maximum of Rs.2.5 millions. As a result of these liberal concessions, the number of IT units in the State has risen from 45 units in 1998-99 to 102 units in 1999-2000.

6.96 With a view to develop human resources in IT within the State, the Government have set up the IIITM-K, as a world class Centre of excellence for advanced learning in Information Technology. The Institute has started functioning in a temporary campus at Technopark and offers advanced training programmes, cutting-edge curriculum, renowned faculty, strong linkages with the IT industry and affiliations with internationally reputed Universities.

6.97 The IT policy of the Government also seeks to streamline and improve citizen services and create one-stop IT zone for entrepreneurs and enterprises. The opportunities available for citizens are in term of providing a transparent interaction between the citizen and the government, speedy and efficient citizen services, responsive decentralised administration and new employment opportunities. In this regard, special mention may be made of a few citizen-friendly services initiated by this department. The Government have set up a project called FRIENDS, which is a dedicated one-stop service centre powered by 20 high speed computers, with a view to imparting speedy and efficiency services through a single point interface. It promotes easy and fast payment of utility bills of seven major departments/agencies like Civil Supplies, Motor Vehicles, Revenue, KSEB, KWA, Corporation and the University. This project is now poised to be replicated in all the districts of the State.

6.98 The IT department has facilitated computerisation of the Registration Department. With PEARL (Package for Effective Administration of Registration Laws), registration services have gone online which makes them easily accessible, transparent and convenient. This project would be implemented in 100 more sub offices in the current year itself.

6.99 The IT department has also set up the project called Rural Information Centre in joint efforts with Kerala State Library Council and selected grama panchayats. Similarly, Project Grameen has been set up with a view to educating local citizens about IT applications, utilising their skills in conceiving, designing and implementing grass root level programmes and thereby generate employment. With regard to development in the field of tele-medicine, the department has undertaken computerisation of the inpatient, outpatient, drug stores, laboratories and wards on a pilot basis at Kottayam Medical College in the current year.

Software Technology Parks of India

6.100 Software Technology Parks of India – Thiruvananthapuram (STPI-T) came into existence in the year 1992. Subsequently, in association with local bodies, STPI-T has set up centres at Kochi, Kozhikkode, Palakkad, Thrissur, Kottayam, Kollam and Thiruvalla. As on 31.12.2000, 212 companies have been registered out of which 59 companies are exporting software regularly. Total exports during the year 1999-2000 from these centres amounted to Rs.67 crore, which is 26 per cent higher than the previous year. Out of the 212 units, registered under STPI-T, 127 units were registered during the year 1999-2000 recording an increase of 388 per cent over the previous year. There has been a dedicated high-speed data connection to the USA, Germany and Switzerland through the earth station at Technopark. Infrastructure facility as envisaged under the STPI scheme has been provided in the past for the benefit of the entrepreneurs, STPI-T complex at Thiruvananthapuram has 10,000

Sq.ft. of space currently available and there are 15 units, employing about 250 persons, operating in this complex.

Mining

6.101 Mining and Geology Department and the Kerala State Mineral Development Corporation Ltd (KEMDEL) are the two agencies involved in the exploration and development of mineral resources in Kerala. Department of Mining and Geology has two divisions. The Exploratory and Prospecting Division deals with the exploration of minerals. The Mineral Development and Mining Lease Division deals with regulation of mining and movement of minerals. During 1999-2000 the Department generated a revenue of Rs. 14.38 crore (major minerals worth Rs. 4.94 crore and minor Rs. 9.44 crore) as against Rs. 11.62 crore collected during 1998-99 registering an increase of Rs. 2.76 crore (23.75%). The total area covered by mining lease (major mineral) is 2469.77 hectares. The Department has granted 118 mining leases, 396 quarrying leases and 4500 quarrying permits. The total area (item-wise) covered by mining leases during 1999-2000 by the Department and production and sales turnover of mineral sand are given in Appendices 6.49 & 6.50.

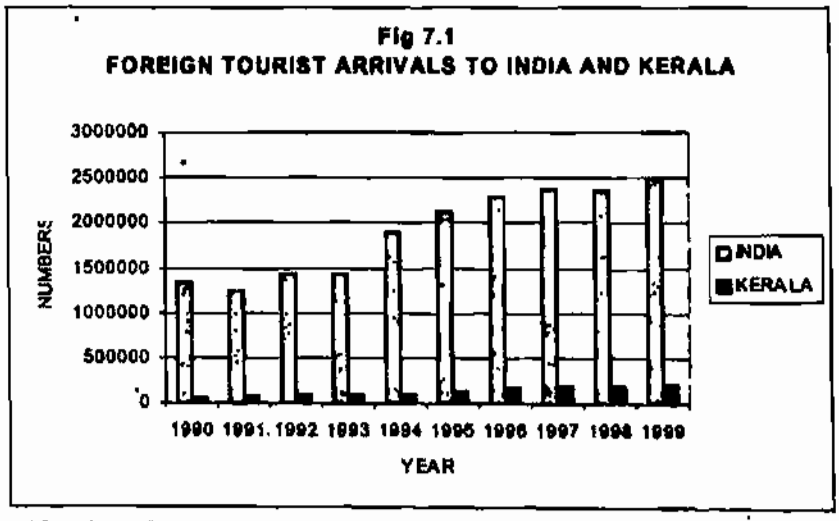
CHAPTER - 7
TOURISM, TRANSPORT AND COMMUNICATIONS

TOURISM

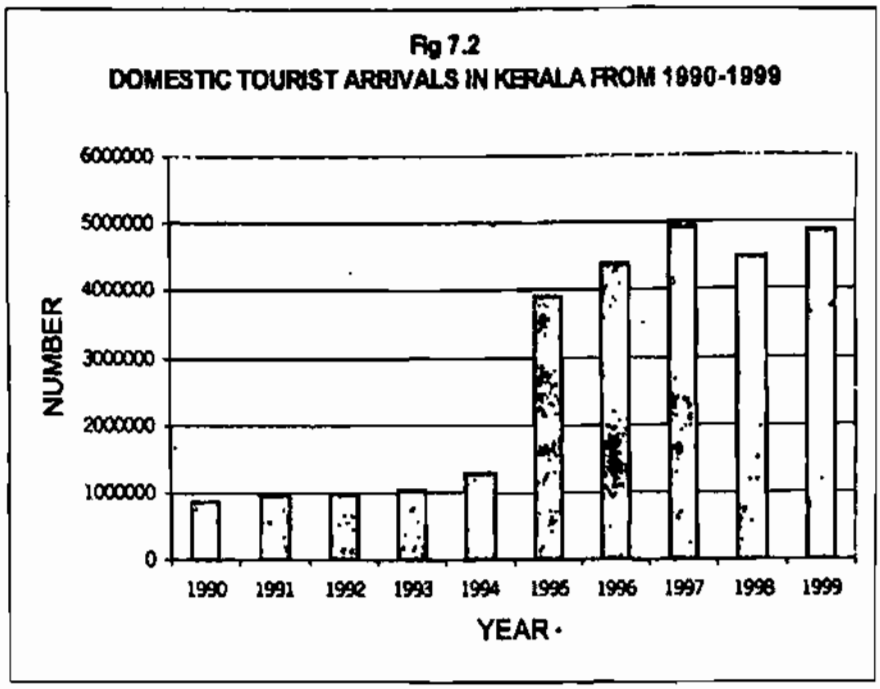
In the recent past, tourism has emerged as Kerala's core competency sector, creating income and employment and contributing significantly towards development of the State. This has been possible on account of Government policy of public - private partnership. The State has focussed on building up of infrastructure, marketing of destination and creation of an environment where private sector could invest and generate wealth for itself and society.

7.2 Kerala emerged as the most acclaimed tourist destination of the country during the year 1999-2000. After two years of research, *National Geographic Traveller* chose Kerala as one of the 50 'must see' destinations of a lifetime. The only other Indian destination that was featured other than Kerala was the Taj Mahal in the 'World Wonders' category. Kerala is one of the ten destinations listed in the 'Paradise Found' category. According to *National Geographic Traveller* "Kerala stands out as the Mount Everest of social development. There is truly no place like it". Kerala has been awarded the best performing State award for the year 1998-99 by Government of India for achieving rapid growth, development and advancement in the tourism sector.

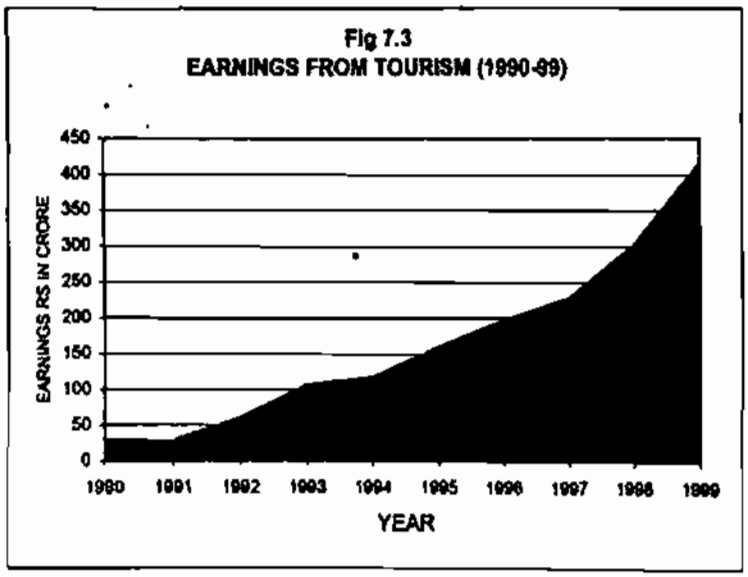
7.3 Kerala could achieve a much higher rate of growth of 6.4 percent in the foreign tourist arrival during the year 1999 compared to 4.12% in the previous year. The number of arrivals increased from 1,89,941 in 1998 to 2,02,173 in 1999. The State could also achieve a higher rate of growth (6.4%) compared to the all India average (5.23%) and could keep up a steady rise in the percentage share in Indian market. The share of Kerala in the Indian tourist market stood at 8.15% in 1999 against 8.05% in 1998. The foreign tourist arrivals to Kerala during 1990-1999 are shown in Appendix 7.1.



7.4 During 1999, Kerala could recover from a slight fall in domestic tourist arrivals that happened in 1998 with a high rate of growth of 9.07%. The number of domestic tourists to the State increased to 4.89 million in 1999 from 4.5 million in 1998. The domestic tourist flow to the State is given in Appendix 7.2.



7.5 Earnings from tourism during the period 1990-99 are presented in Appendix 7.3. In the nineties, earnings from tourism have been consistently growing over the years. It has reached a level of Rs.416.07 crore in 1999 registering 37.7% increase over the previous year.



7.6 The accommodation facility available in Kerala in the category of classified hotels also increased from 6402 beds in 1998 to 6797 beds in 1999. This was mainly on account of the introduction of heritage resorts. The details of accommodation facilities available in the classified category in the State are given in Appendix 7.4.

7.7 The State Plan allocation for tourism has more than doubled from 1995-96 to 1999-2000. It increased from Rs.17.30 crore in 1995-96 to Rs.36 crore in 1999-00. The Central allocation for tourism in the State also increased during this period. It increased from a mere Rs.2.10 crore in 1995-96 to Rs.9.30 crore in 1999-00. For the first time, Government of India took up a

special marketing campaign for Kerala State in Gulf region and Singapore.

7.8 The main public sector agencies involved in the development of tourism consist of the Department of Tourism, Kerala Tourism Development Corporation (KTDC), Tourist Resorts (Kerala) Ltd (TRKL), Bekal Resorts Development Corporation (BRDC), Thenmala Eco-Tourism Promotion Society (TEPS) and District Tourism Promotion Councils (DTPCs). The Departments of Forests, Irrigation and Archaeology support tourism-related activities in their areas of jurisdiction in a limited way. The Kerala Institute of Travel and Tourism Studies (KITTS) and Kerala Institute of Hospitality Management Studies (KIHMS) give necessary manpower training in the field of tourism.

7.9 The activities of the Department of Tourism during the year 1999-2000 are described briefly below.

a. Infrastructure Development

7.10 Development of Veli, Ponmudi and Varkala as attractive tourist centres, development of Thenmala as an international eco-tourism destination, integrated tourism development of Kannur and Fort Kochi, facelifting of Kovalam beach resort, development of Pathiramanal as an international backwater resort, Vagamon as an international hill resort, installation of world class road and backwater signages and intensive backwater development were the main activities of the Department of Tourism during the year under report. The first phase of the Thenmala Project, comprising construction of musical dancing fountain, suspension footbridge, sculpture garden, water supply, horticulture, deer information centre, development of Palaruvi, battery powered road vehicle, entrance gate, interior furnishing and fountains in canals, was commissioned in 2000. Muzhappilangad and Payyambalam beaches have been developed to attract international tourists to these destinations. Development of Meenkunnu, Dharmadam Island, Thalassery Fort and Kannur Fort is being undertaken as part of this project. The Department is executing projects worth Rs. 3 crore at Fort Kochi, for developing it as an international heritage centre. Construction of a tourist complex with luxurious accommodation facilities has been started at Ponmudi with Central assistance. The government have already transferred 751 hectares of land from Kerala Livestock Development Board to Tourism Department to develop Vagamon as an international hill resort with facilities such as golf course, star hotels, helipad etc.

7.11 The Department has been giving thrust to the development of basic infrastructure along the backwaters of the State. Construction of house-boat terminals at major backwater nodes, tourist resorts, introduction of houseboats, waterside amenities at various centres etc. were the activities carried out as part of this development.

7.12 The Department attempted integrated development of museums viz., Napier Museum at Thiruvananthapuram and Hill Palace at Thripunithura with Central assistance. Development of Sooryakanti exhibition ground and landscaping of Kanakakkunnu were also done by the Department during the year under report.

7.13 Another important activity of the Department of Tourism was the development of low budget accommodation facilities and wayside amenities. The Department completed the construction of Yatriniwases at Changanasssery, Kochi, Malayatoor and Peerumedu. Work on those at Kalady, Kozhikode, Guruvayoor, Nelliyampathy, Thirunelly, Kondotty, Munnar and Mannarkad is going on. Construction of wayside amenity at Aranmula was completed.

7.14 During the period under report, the construction of Guest Houses at Alappuzha and Pathanamthitta was completed.

Construction of Kerala House at Mumbai, additional Guest House at Ernakulam and Guest House at Palakkad are in progress. The Guest Houses at Thiruvananthapuram, Kovalam, Kanyakumari, Varkala, Ernakulam, Thrissur, Malampuzha, Kozhikode and Guruvayoour were renovated.

7.15 Construction of tourist reception centre at the international airpot at Nedumbassery and tourist information centre at Varkala were completed. Construction of a tourist reception centre at Thekkady was started. The Department is attending to the development of tourism roads in tourist centres.

7.16 District Tourism Promotion Councils were restructured and assigned new responsibilities. A permanent staff structure also was instituted to professionalise and increase the efficiency of the councils to take up new challenges. Road development along the routes of Thekkady-Munnar, Thekkady-Kumily, Wayanad and Kollam has been started.

7.17 The State Government issued orders for using the potential dam-sites and surroundings for the promotion of tourism in the State. Accordingly, developmental works have been started at Pazhassi, Kannur, Kanjirampuzha , Malampuzha and Neyyar dams for using potential dam-sites and surroundings for the promotion of tourism in the State.

b. Government as a facilitator

7.18 Several concessions/incentives were announced for tourism ventures. Tourism Investment Guidance Cell is functioning in the Department to give guidance to the investors. Innovative schemes such as 'Grihastali' for conserving heritage building, approval for Ayurveda centres and motels, and home stay scheme were introduced to enhance quality.

7.19 Ever since tourism was declared an industry in 1986, several incentives, which were available to investors in other industrial sectors, were extended to the tourism sector. These include investment subsidies, electricity tariff concessions, technical guidance, marketing assistance, publicity through governmental publications, help in availing loans etc. The Plan allocation for promoting private sector investment increased from Rs.15 lakh in 1995-96 to Rs.300 lakh in 2000-01. Major projects in the Tourism sector are now planned with private participation. Amusement park at Veli, tourism infrastructure at Bekal, development of Pathiramanal, Akkulam, Vagamon etc are some of the initiatives undertaken through public - private partnership.

7.20 A Tourism Task Force was constituted with Members from various categories of the tourism trade to assist the Department in formulating strategies and plans for the tourism development.

7.21 For ensuring quality tourism and sustainable development of tourist destinations, Kerala tourism focuses on conservation of ecology to reduce the negative impact of tourism on environment. Carrying capacity studies of the fragile tourist destinations such as Kumarakom and Munnar have been taken up through the Centre for Earth Science Studies (CESS). The destination-level master plans for Kovalam, Munnar, Kumarakom, Fort Kochi and Kannur are also being prepared to streamline the developments in the destinations in a planned way.

7.22 "Grihastali" is a well thought out scheme to preserve our traditional architecture by conserving buildings more than 50 years old into excellent accommodation options with modern facilities. An exclusive package of incentives and financial assistance is arranged for projects which are approved.

7.23 A new system for grading houseboats has been introduced to ensure quality of service and facilities in the

houseboats. A 'Green Palm Certificate' concept has also been introduced as a symbol of adoption of eco-friendliness.

c. Tourism Promotion and Marketing

7.24 The latest developments in information technology are being utilised by Kerala to promote tourism. The CD-ROM 'Kerala - The Green Symphony' has been developed by the Department of Tourism and now translated into French and German. The Kerala Tourism Website is perhaps the only website in tourism in India that is updated every week with new video and music clips that can be activated and downloaded. Within one year, there has been more than one-lakh visitors to the site.

7.25 Tourism Kiosk has been installed at Thiruvananthapuram International Airport. All the information centres and offices of the Department have been computerised to make dissemination of the information fast and effective. A comprehensive database has also been developed.

7.26 The Department has switched on to the television media also for promotion. The advertisement clips developed by the best professionals in the area have been telecast in the major international television channels. Kerala tourism has been participating in all the major international and domestic tourism trade fairs along with the private sector. Kerala Travel Mart 2000, travel and tourism trade meet, organised under Public-private partnership in the country, has recorded an overwhelming response from the international travel community.

7.27 The State is in the process of preparing market-specific and time-specific marketing campaigns. To reduce seasonality in tourist arrivals, major "Monsoon and Ayurveda Campaign" has been launched in the Gulf region. Promotional materials such as brochures and audio-visuals on the potential tourism centres, art and culture, festivals etc. were produced and distributed in association with the private sector.

7.28 The Department of Tourism organised road shows at Ahmedabad and Mumbai to tap new targetted markets. The Department is also promoting the traditional festivals of Kerala. A five-year calendar of the festivals of Kerala has been prepared. Several domestic festivals and fairs such as Onam Week Celebrations, Jalatharangam, Great Elephant March, Gramam, Nishagandhi Dance festival, Flavour Food Festival etc were organised. An Ayurvedic rejuvenation camp was organised exclusively for the promotion and familiarisation of the ayurvedic rejuvenation holidays of Kerala.

d.Kerala Tourism Development Corporation (KTDC)

7.29 The Kerala Tourism Development Corporation (KTDC) is the main public sector agency which provides accommodation and transportation facilities to the tourists, offers innovative tourism products and also various well-researched tour packages like Ayurvedic rejuvenation programmes, backwaters houseboat holidays and leave travel concession tours. The authorised share capital of the Corporation is Rs.40 crore and the paid capital as on 31.3.2000 is Rs.38.65 crore. Other financial resources of the Corporation comprise institutional finance, assistance from government of India and internal resources of the Corporation. During the year 1999-2000, the Corporation could mobilise bank loans worth Rs.10.28 crore.

7.30 'Tea County', a KTDC Hill Resort at Munnar with 4 star facilities and 43 rooms was inaugurated and made functional during 1999. The cost of the project was Rs.5.82 crore. The KTDC also initiated the work of tourism projects at Chennai, Airport Hotel at Nedumbasseri airport, Kochi and conference facilities at Hotel Samudra. During 2000, the Corporation could make functional the hotel project at Kumarakom, Yatrinivases at Changanacherry, Malayattoor and

Peerumedu, Motel Aram at Athirappally and also introduce two Caravans at a total cost of Rs. 63.8 lakh as an added tourist attraction. During this period, the Corporation intensified marketing, publicity and promotional efforts. Marketing tie-ups with national and international marketing agents, special package tour tie-ups with Indian Airlines and Air India for their clients, participation in national and international travel marts and tourism and trade fairs, annual convention of Travel Agents Association, Federation of Hotels and Restaurants Association of India, arrangement of FAM tours for leading journalists, travel writers and tour operators, production of video films on Ayurvedic therapy and introduction of E-mail reservation facilities in all the major KTDC hotels were attempts towards this end.

7.31 The Corporation organised computer, Internet and E-mail and other management training programmes and also on-the-job training facilities and practical training to candidates who passed out from institutes like IHMCT, FCI, KITTS and other recognised catering institutes.

7.32 The accommodation facility in the Corporation's units increased during the year under report. While the number of foreign tourists who visited the hotel units of KTDC went down by 9.36%, the number of domestic tourists rose by nearly 50 percent. The fall in foreign tourists could be that compared to previous years, the Corporation did not get any chartered flights at all during the year under report.

7.33 Four units of KTDC showed an occupancy ratio of more than 50 percent as against three in 1998-99. The income of the Corporation was Rs.34.07 crore in 1999-2000 against Rs.36.98 crore in 1998-99, mainly because of the fall in the number of foreign tourists. The fall in foreign tourists and consequent reduction in income naturally led to a substantial reduction in the profits of the Corporation from Rs.207.26 lakh in 1998-99 to Rs.79.01 lakh in 1999-2000. The details of perform KTDC during 1999-2000 are li Appendix 7.5.

e. Tourist Resorts (Kerala) Ltd (TRKL)

7.34 The Tourist Resorts (Kerala) Ltd (TRKL) was set up as a subsidiary company of the KTDC in 1989 aimed at mobilisation of private sector investment and institutional finance. The authorised share capital of the company is Rs.20 crore and paid up capital as on 31.10.2000 is Rs.16.40 crore. The company invested in joint sector ventures of Taj Kerala Hotels & Resorts Ltd and Oberoi Kerala Hotels and Resorts Ltd. The total investments in these ventures amounted to nearly Rs.6 crore. Other investment projects by the company are Land Bank project, Veli-Akkulam project, Convention Centre, Edayar, Pathiramanal, Hospitality Management Institute, Airline Project., Investment Promotion, Vagamon and Golf course Project at Kochi.

7.35 TRKL has been operating at a profit over the years. It declared a dividend of 2% for the year 1999-00. The net profit earned during the year was Rs.90.15 lakh. The company could so far attract investments of nearly Rs.43 crore from the private sector and financial institutions.

f. Bekal Resorts Development Corporation (BRDC)

7.36 The Corporation was set up in 1995 to develop an integrated tourism project at Bekal. The total cost of the project envisaged is Rs.130 crore. The State Government's contribution is Rs.35 crore of which Rs.34 crore have already been released. An amount of Rs. 2.25 crore has been transferred to the Corporation from the Bekal Development Authority. In addition, the Corporation could also mobilise Rs.2 crore from Government of India during 1999-2000. The Corporation's activities mainly concentrated on the provision of infrastructure and land acquisition for the development of resort sites.

TRANSPORT AND COMMUNICATIONS

Availability of good infrastructure facilities is an essential pre-requisite for the development of economy of a nation. Kerala depends on the three components of surface transport viz. road transport, rail transport and inland water transport for the movement of passenger and goods traffic. The year 1999-2000 witnessed tremendous growth in the transport sector in the State in general and road sector in particular.

7.38 During the period, the total length of the road in the State increased from 1.10 lakh kms to 1.24 lakh kms. The number of motor vehicles in the State stood at 19,10,237 during the reporting period against 17,08,938 in the preceding year, thereby registering an increase of 12%. However, total number of road accidents increased marginally by 3.28% from 33,296 in 1998-99 to 34,387 in 1999-2000. Railway route length as on 31.3.2000 in the State was 1119 kms. Nedumbassery Airport became a full-fledged International Airport during the reporting period.

7.39 During 1999-00, 19 new post offices were opened in the State increasing the number to 5070 against 5051 in 98-99. Telecommunication sector also registered significant development. Equipped capacity was increased to 22,03,954 lines as against 17,04,395 lines in the preceding year through the introduction of 74 new telephone exchanges and by providing 3.5 lakh new telephone connections.

7.40 The major development indicators of transport and communication sector in the state since 1980 are given in Appendix 7.6.

Roads

7.41 Kerala has a comfortable network of roads having a total length of 1,23,889 kms as on 31.3.2000, registering an increase of 12% against last year's length of 1,10,480 Kms. It accounts for 4.13% of total road length in the country. Agencies maintaining roads in the State include State PWD, Panchayats, Municipalities & Corporation, National Highways, Irrigation Department, Forest Department, Kerala State Electricity Board etc.

7.42 Out of the total road length, 81,790 kms were maintained by Panchayats (66%) followed by 21,731 Kms (17.54%) by State PWD. Corporations and Municipalities maintained a road length of 11,373 kms (9.2%) and National Highways covered 1560 kms (1.26%). While Irrigation Department maintained 3798 kms (3%) of road, the share of Forest Department was 3456 kms (2.8%) and that of Kerala State Electricity Board 181 kms (0.15%). Of the total road length of 81,790 kms under Panchayats, 49,467 kms (60%) were gravelled and earthen roads and 19,800 kms (24%) were black topped. District-wise and category-wise length of roads maintained by PWD (R&B) as on 1.4.2000 is shown in Appendix 7.7. Details on district-wise, surface-wise and category-wise length of roads maintained by PWD are given in Appendix 7.8. Of the total length of 21,731 kms of PWD roads, 92% or 19959 kms. were black-topped roads. Details are shown in Appendix 7.9.

7.43 Of the 14 districts in the State, Ernakulam district accounted for the maximum road length of 2172 kms. (9.99%) followed by Kottayam district with 2117 kms. (9.74%) Wayanad district had the lowest PWD road length of 555 Kms. (2.55%). Details are given in Appendix 7.10.

7.44 During the period under review, there were 1976 bridges and 47,812 culverts on PWD roads. Of these, 148 bridges and 821 culverts were unsafe. Details of bridges and culverts on different categories of roads are given in Appendix 7.11.

7.45 Total length of National Highways in the State during 1999-00 was 1560 kms, registering an increase of 210 kms over last

year's 1350 kms. This is only 2.7% of total of 57,737 kms of National Highways in the country. During the reporting period, Kollam-Theni road was declared as National Highway, raising the total number of National Highways in the State and country to 8 and 172 respectively. Details of National Highways in Kerala are given in Table 7.1.

Table 7.1
National Highways in the State

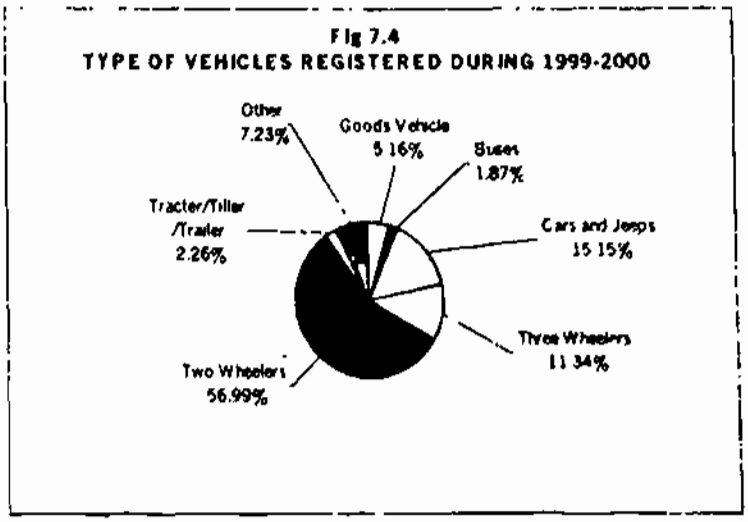
1.	NH 47 – Valayar-Kaliyikkavila	416.80 Kms.
2.	NH 17 – Thalappapdi – Edappally	420.80 Kms.
3.	NH 49 – Bodimettu – Kundannnoor (Cochin-Madurai)	167.60 Kms.
4.	NH 47 A – Kundanoor-Willington Island	5.90 Kms.
5.	NH 208 – Kollam – Aryankavu	81.00 Kms.
6.	NH 212 :/– Kozhikode – Muthanga	117.00 Kms.
7.	NH 213 – Palakkad – Kozhikode	141.00 Kms.
8.	NH 220 – Kollam – Theni	210.00 Kms.
	Total Length	1560.10 Kms.

Road Transport

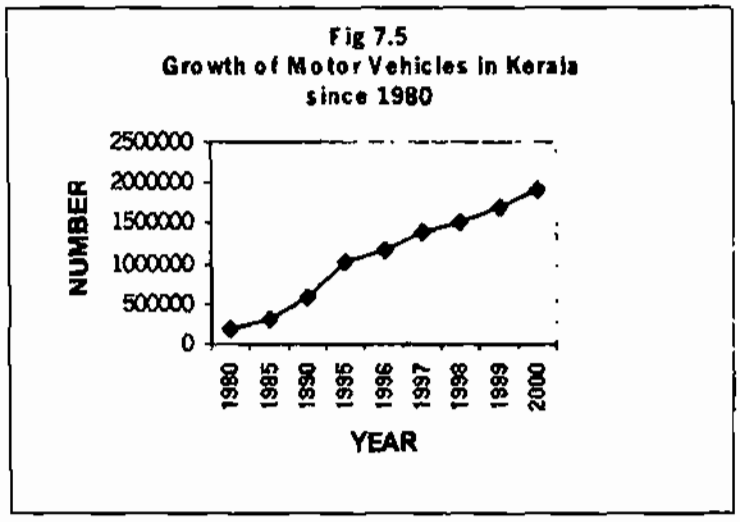
7.46 Motor Vehicles Department, Kerala State Road Transport Corporation and Kerala Transport Development Finance Corporation are the three agencies, which regulate road transport development activities in the State.

Motor Vehicles Department (MVD)

7.47 Motor Vehicles Department is one of the major revenue earning Departments of the State. The main functions of the MVD are registration of motor vehicles, collection of tax on motor vehicles, issuance of permits and licenses for plying the vehicles on roads, regulation and enforcement of Motor Vehicles Rules and Act etc. During 1999-2000, 1,99,115 vehicles were newly registered under different categories (see fig.7.4). District-wise statistics of newly registered vehicles during 1999-00 is given in Appendix 7.13. Total number of vehicles with valid registration as on 31.3.2000 increased to 19,10,237 as against 17,08,938 in the preceding year, registering 12% growth. Details on the number of motor vehicles having valid registration as on 31.3.2000 are given in Appendix 7.14. Highest vehicle population was recorded at Ernakulam district (3,33,022), followed by Thiruvananthapuram (2,66,174) and the least at Wayanad (26,712) Malappuram district recorded the highest growth rate of 24% and Kottayam district the lowest of 7.8%. District-wise details of growth of motor vehicles in Kerala and their index are given in Appendix 7.15



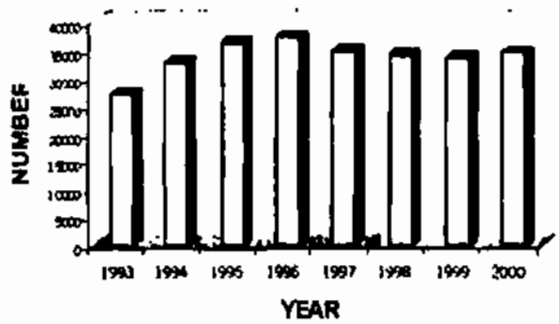
7.48 Of the total vehicle population (19,10,237) in the State, 53.5% (10,21,921) were two wheelers followed by four wheelers (Cars & Jeeps) with a contribution of 20.8% (3,96,874). Buses, cars and two wheelers recorded growth rates of 20%, 14% and 12.8% respectively (see Appendix 7.12). The growth of motor vehicles in Kerala since 1980 is shown in fig.7.5.



Road Accidents

7.49 Number of road accidents recorded in the State for 1999-00 was 34,387 against 33,296 in 1998-99, registering an increase of 3.28%. Among the Southern districts, while Thiruvananthapuram, Kollam and Kottayam recorded a declining trend of road accidents, Pathanamthitta recorded a higher rate of 10.92%. The rate of increase of road accidents in Ernakulam was 6.49% and in Kozhikode 4.39%. While Wayanad recorded a 10% increase, the number of road accidents in Kasaragod showed a lower rate as compared to 1998-99. The number of road accidents in the State since 1993 is shown in fig. 7.6.

Fig 7.6
Number of road accident since 1993



7.50 Number of persons killed in road accidents during 1999-2000 stood at 2590 against 2506 in the preceding year. Similarly, number of persons injured due to road accidents also rose to 47,860 against previous year's level of 46,397. Details are shown in Appendix 7.16. Of the total road accidents (34,387), 33,754 cases viz., 98%, were due to the fault of the drivers. Details are shown in Appendix 7.17. Among the vehicles involved in accidents, two wheelers accounted for 25.3% followed by auto-rickshaws 19%, buses (other than KSRTC) 14%, goods vehicles 13%, Motor car 12% etc. Details are given in Appendix 7.18. Of the road accidents that occurred in 1999-00, 71% happened during day and 25.6% happened in darkness (see Appendix 7.19).

Kerala State Road Transport Corporation (KSRTC)

7.51 KSRTC is the largest public sector transport organisation in the State having 17.8% of the total number of passenger buses (25,537) operated in the State in the year1999-00.

7.52 Total fleet strength of KSRTC increased to 4093 against 3928 in the preceding year. By October 2000, the number rose to 4538. It included 2063 (45%) buses aged below 5 years and 658 buses (15%) aged 10 years and above. Age-wise details of KSRTC buses are given in Appendix 7.24. Major performance indicators of KSRTC, like fleet strength, number of schedules operated, average earning per vehicle, average earning per Km, average kms run per bus, number of passengers carried etc., were all on the increase during the reporting period as detailed in Appendix 7.20. For providing better travelling facilities to the public, the corporation commissioned 273 new buses during 1999-00 and 447 buses up to 31.10.2000. The status of Kasaragod sub-depot was upgraded to major depot. Similarly, the operating centre at Chittoor was upgraded to the status of sub- depot. The Corporation also started sub-depots at Edathwa, Chadayamangalam and Vellanadu during the reporting period. Besides, the Corporation continued to meet its social commitment by operating buses in uneconomic routes as well as giving concessions to students and weaker sections of the society.

7.53 Unit-wise details of operational statistics are shown in Appendix 7.21. The fares charged by KSRTC ranged from 28 Ps. per km in ordinary and city buses to 50 Ps per km in Super Deluxe Service. There are other services like Fast Passenger, Super Fast, Express and Super Express. The fare structure of KSRTC is shown in Appendix 7.22. Operational ratios of the Corporation are given in Appendix 7.23.

7.54 During 1999-00, the Corporation reduced its staff strength to 23,524 from 25,022 in the preceding year. This has marginally reduced the bus-crew ratio compared to that of previous year. Details are given in Appendix 7.25.

Kerala Transport Development Finance Corporation (KTDFC)

7.55 Kerala Transport Development Finance Corporation is a non-banking financial company registered under the Reserve Bank of India and started commercial business in 1992. The authorised capital of the Corporation is Rs. 50 crore and paid up capital is Rs. 42.3 Crore. The Corporation was formed with the objective of providing loans to KSRTC and other Government/Quasi Government organisations/individuals for the purchase of new vehicles. Till date, the Corporation has granted Rs. 142.58 crore to KSRTC, Rs. 85.5 lakh to KTDC, Rs. 25 lakh to KSFDC, Rs. 8.5 lakh to Horticorp and Rs. 15 crore to individuals. Till date, the Corporation has mobilised fixed deposits from public to the tune of Rs. 30 crore. The Corporation has been running on profit since its inception. During 1999-00 also the Corporation expects a profit of Rs. 3.05 crore. During the same period, the Corporation donated Rs. 25 lakh to Kargil Fund and Rs. 10 lakh to Chief Minister's Distress Relief Fund. During 1999-00, the Corporation received Rs. 150/- lakh as Share Capital contribution from State Government. The deposits outstanding with the Company at the end of 1999-00 were Rs. 12.94 crore. During the same period, the Corporation granted Rs. 3.76 crore as loans to individuals for purchasing two wheelers and four wheelers.

Railways

7.56 Thiruvananthapuram, Palakkad and Madurai divisions of Southern Railway control the various railway operations in the state. Out of this, Thiruvananthapuram Division handles lion's share of railway activities in the State. This division has a total route length of 625 kms, of which 624 kms are broad gauge lines. Total number of trains operated from the division has increased from 36,991 in 1998-99 to 38,028, registering an increase of 3%. During the period under review, the number of passengers originating from the division also increased to 496 lakh as against 478 lakh in the previous year and those terminating at the division increased to 546 lakh from 526 lakh in 1998-99. The period under review witnessed considerable increase in both the passenger and goods earnings. Passenger earnings in Thiruvananthapuram division increased to Rs.173.2 crore from Rs.158.75 crore in 1998-99 - registering a growth of 9%. Goods earnings rose to Rs.219.53 crore as against Rs.18.64 crore in the preceding year, recording 18% increase. During 1999-00, two new express trains viz., Trivandrum-Nizamudeen & Ernakulam-Nizamudeen were introduced. There were 92 railway stations functioning under Trivandrum railway division during 1999-2000.

7.57 Madurai division has a total length of 111 KM-all metre gauge line in the state. Number of passengers originating from the division increased to 11.53 lakh against 10.49 lakh in 1998-99. There has been considerable increase in the passenger revenue earnings during the year under review over the previous year, viz. from Rs.137 lakh in 1998-99 to 157 lakh in 1999-00 - registering an increase of 15%. There were 19 railway stations functioning in Madurai railway division network during 1999-00. During the period under review, Guruvayur-Nagarcoil express train was extended up to Madurai and back.

7.58 Palakkad division has a total route length of 383 kms of which 377 kms are broad gauge lines.Number of passengers originating from Palakkad division decreased to 203 lakh as against 214 lakh in 1998-99. However, passenger revenue earnings increased to Rs. 7622 lakh from last year's figure of 7106 lakh. Similarly, goods earnings also increased to Rs. 1424 lakh as against Rs. 1328 lakh in 1998-99.

Number of railway stations functioning in Palakkad division was 76 and number of trains operated was 27,616.

PORTS

7.59 Kerala has a coastal length of 590 KM. There are seventeen ports in Kerala, comprising one major port, three intermediate ports and thirteen minor ports, spread over coastal basin. Kochi is the only major port in the State. State Government has control over 3 intermediate ports and 13 minor ports.

Major Ports

7.60 Kochi Port handled 128 lakh tonnes of traffic in 1999-2000 as against 127 lakh tonnes in 1998-99 registering an increase of 0.8 per cent. Contribution of Kochi port in traffic handled stood at 4.7% of the total traffic handled by ports in the country during the year under review. The total traffic handled by all ports increased to 2719 lakh tonnes as against 2517 lakh tonnes in 1998-99. Container traffic increased to 130 thousand Twenty foot Equivalent Units (TEUS) in 1999-00 from 129 thousand TEUS in 1998-99 showing an increase of 0.8 per cent. The number of ships, which called at the Kochi Port decreased by 1.62%, to 1095 in 1999-00 from 1113 in 1998-99.

7.61 While the total operating income of all ports in the country decreased to Rs.3357.30 crore in 1999-00 from Rs.3412.35 crore in 1998-99, the operating income of the Kochi Port increased to Rs.180.41 crore as against Rs.162.9 crore in the previous year, registering an increase of 10.7%. The operating expenditure of Kochi Port during the year under review increased to Rs.147.26 crore as against Rs.129.49 crore in the preceding year.

7.62 While the operating surplus of all ports decreased during the year under review to Rs.971.81 crore from Rs.1171.48 crore in the previous year, Kochi generated an operating surplus of Rs.33.15 crore in 1999-00 as against Rs.33.41 crore in 1998-99. Net surplus of the port decreased to Rs.2.71 crore in 1999-00 as against Rs.31.25 crore in 1998-99.

7.63 Regarding the operational efficiency of ships, the average turn around time recorded showed a decrease of 3.23 days during the year under review from 3.61 days in the previous year. The average pre-berthing waiting time during the year under review remained at the same level of 0.87 days as in the preceding year. Total staff strength of the port decreased to 5277 in 1999-00 from 5447 in 1998-99. Number of ships called at Cochin Port during 1998-99 and 1999-2000 and their net registered tonnage (NRT) is shown in Appendix 7.26.

INTERMEDIATE AND MINOR PORTS

7.64 The three Intermediate Ports in the state are Beypore, Alappuzha and Neendakara. Beypore Port and Neendakara Port are engaged in cargo transportation. The only item exported through the Neendakara Port is Ilmenite. The Minor Ports are Kovalam-Vizhinjam, Valiyathura, Thankasseri, Kayamkulam, Munambam/ Kodungalloor, Ponnani, Vadakara, Thalasseri, Kannur, Azhikkal, Neeleswaram, Kasargod and Manjeswaram.

7.65 Development activities undertaken during the year under review in various ports include installation of 500 KV DG set and two three-tonne wharf cranes at Beypore, construction of signal station and office building at Azhikkal, launching of 600 HP tug and construction of office building and godown at Vizhinjam and dredging at Neendakara port-basin. New communication equipments like VHF were installed at various ports. Computerisation of offices at various ports were undertaken. Commodity-wise cargo handled at the intermediate and minor ports of Kerala during 1999-2000, Number and tonnage of steamers and sailing vessels which called at the Intermediate and Minor Ports of Kerala during 1999-2000, Number of Harbour

Crafts registered at the Intermediate and Minor Ports of Kerala during 1999-2000 and category-wise break up of revenue collected at the Intermediate and Minor Ports of Kerala during 1999-2000 are given in Appendices 7.27, 7.28, 7.29 and 7.30 respectively.

Inland Water Transport

7.66 Due importance has been given for development of inland water ways with a two- pronged strategy of reduction in the congestion in roadways due to the increasing volume of traffic and for tapping the tourism potential.

7.67 The agencies/organisations engaged in the water transport operations of the state are:

(1) State Water Transport Department (SWTD);
(2) Coastal Shipping & Inland Navigation Department (CSIND); and
(3) Kerala Shipping and Inland Navigation Corporation (KSINC) under the control of Coastal Shipping and Inland Navigation Department.

7.68 SWTD and CSIND rendered transport services to the public in the water logged areas of Alappuzha, Kollam, Kottayam, Kasargod and Kannur districts. The CSIND oriented its activities towards the development of inland water canals and infrastructure facilities. Operational statistics of Inland Water Transport agencies in Kerala is shown in Appendix 7.31.

State Water Transport Department (SWTD)

7.69 SWTD provides water transport services in the water- logged areas of the state. Number of boats owned by the department increased to 86 in 1999-2000 from 81 in 1998-99. Number of boats put into operation decreased to 57 during the year under review from 59 in the previous year. Number of trips operated increased to 865 in 1999-2000 from 399 in 1998-99. Gross route distance operated increased more than four times from 1549.86 km in 1998-99 to 8231.20 km in 1999-2000.

7.70 During the year under review, the number of passengers carried decreased to 219.75 lakh from 240.79 lakh passengers in the previous year. Revenue receipts of the department increased to Rs.420.98 lakh in 1999-2000 from Rs.408.80 lakh in 1998-99. Revenue expenditure of the department increased from Rs.927.10 lakh in 1998-99 to Rs.1105.43 lakh in 1999-2000. The loss incurred by the department stood at Rs.684.45 lakh in 1999-2000. The loss of the department in 1998-99 was Rs.518.30 lakh. The performance indicators like number of trips, route distance and revenue receipts, showed a positive trend. As a result of increase in revenue expenditure, the department had to incur heavy loss.

Kerala Shipping & Inland Navigation Corporation (KSINC)

7.71 KSINC is engaged in transportation of passengers and cargo through the inland waterways of Kerala. The Corporation has been making profit for the last eight years. During the year under review, the fleet strength of the corporation was 12 boats and two Jhankars. There was 14.34% increase in the number of passengers carried, from 55.78 lakh in 1998-99 to 63.78 lakh in 1999-2000. The corporation achieved an all-time record in the movement of cargo by transporting 6.14 lakh metric tonnes cargo in 1999-2000 from 6.01 lakh metric tonnes in 1998-99. Compared to the previous year, number of trips on schedule increased to 45,840 in 1999-2000 from 43,617 in 1998-99. Income of the Corporation during the year under review was Rs.702.60 lakh compared to Rs.668.79 lakh in the previous year. Expenditure stood at Rs.658.21 lakh in 1999-00 up from Rs.618.16 lakh in 1998-99. During 1999-2000, the corporation achieved a profit of Rs.44.39 lakh.

7.72 During the year under review, the corporation completed the construction of

two 150 passenger capacity wooden boats. Out of this, the Corporation put one into service and the other was delivered to the State Water Transport Department. As a part of a diversification programme, the corporation ventured into coastal shipping operation on a trial basis between the minor ports of Kerala like Beypore and Vizhinjam and the West Coast of India like Okha, Porbandar, Mumbai etc. The Corporation opened its Northern Regional Office at Azheekal in Kannur District. A passenger boat was put into service between Thekkumpadam and Valapattanam to cater to the needs of people residing in isolated places like Mattool, Azheekal, Thekkumpadam and Valapattanam.

Air Transport

7.73 During 1999-00, three airports were in operation in the State at Thiruvananthapuram, Kochi and Kozhikode. Among these, Thiruvananthapuram and Kochi are international airports. During 1999-00, 20,317 flights (10,492 domestic & 9825 international) were operated from all the three airports as against 15,752 (6233 domestic & 9519 international) in 1998-99. There was an increase in the number of flights by 29%. Total number of 20,62,833 passengers were carried (7,96,928 domestic and 12,65,905 international) during the reporting period from the three airports as against 16,71,196 (5,34,402 domestic & 11,36,794 international) passengers in the previous year, showing an increase of 23%. Steps were being taken by Kozhikode Airport authorities to extend the runway length to 9300 ft. from the existing length of 6000 ft. Details of operations of flights by various agencies in air transport services and the passenger movement during 1998-99 & 1999-2000 from Thiruvananthapuram, Kozhikode and Kochi airports are shown in Appendix 7.32 (A), 7.32 (B) and 7.32 (C) respectively.

Passports

7.74 During the reporting period, 3,60,747 passports were issued in the State as against 3.33 lakh in 1998-1999, showing an increase of 8%. Details on the number of applications received and passports issued from various passport offices in Kerala from 1988-89 to 1999-2000 are shown in Appendix 7.33. Total number of emigration clearances granted by the Protector of Emigrants, Cochin and Thiruvananthapuram, for 1999-00 was 45,078 (Kochi 26,665 & Thiruvananthapuram 18,413).

Communications

a. Postal Systems

7.75 In the year 1999-00, number of post offices in the State increased to 5070 against 5051 in 98-99. Of these, 3028 are branch offices together with speed post centres, 1991 sub post offices (Departmental & Extra-departmental) and 51 Head Post Offices. Growth of postal system in Kerala since 1990 is furnished in Appendix 7.34. Details of category-wise offices in postal and other services under Kerala Postal Circle are given in Appendix 7.35. Division-wise and category wise statistics of post offices under Kerala circle are furnished in Appendix 7.36.

7.76 During the reporting period, one post office in the State served an area of 7.69 sq. km. and 6492 persons. District-wise details of area and population served by one post office are given in Appendix 7.37.

b. Telecommunications

7.77 Kerala Telecom Circle comprises of 11 Secondary Switching Areas (SSA). Total number of telephone exchanges in the Circle increased to 924 from last year's figure of 850. The equipped capacity was thereby enhanced to 22,03,954 lines from 17,04,395 lines in the preceding year. Number of working connections in Kerala during the

reporting period rose to 17,05,139 against 13,55,084 in 98-99 marking an increase of 26%. All the 924 exchanges in the State are connected to the STD/ISD network. For every 1000 persons under the circle there are 53 telephone connections as against last year's figure of 47. There were 44 telephone connections per sq. km. in the State during 1999-00. Number of public telephone booths functioning in the State during 1999-2000 stood at 27,388 (STD-17544 & Local Call 9844) against 23,485 (STD-14048 & Local call 9437) in the preceding year, registering an increase of 16%. Ernakulam district was having the maximum number of (92) telephone exchange and Wayanad the least with 26 exchanges. District-wise details of telephone network during 1999-2000 are given in Appendix 7.38.

CHAPTER - 8

EXPORT AND IMPORT

Balance of Payments

Although the Balance of Payment of India in 1999-2000 recorded an overall surplus, trade deficit last year amounted to $ 9.6 billion, compared to $ 9.2 billion in the previous year, inspite of the fact that there had been a turn around on the export front. The current account deficit could be contained at the previous year's level with net invisibles posting a higher surplus, and the fall in the price of crude oil.

India's share in Export

8.2 India's exports account for less than one percent of world exports. After reaching a peak of 1.04% in 1966, it dipped to 0.44% in 1981. Since then the share remained around 0.5 percent. In the second half of 1990's India's share improved marginally to 0.6 percent.

8.3 Exports from India registered a gain in 1999-2000 with 13.3% growth as against 5.2% decline in 1998-99. After a high growth of 18 to 20% per annum during 1993-94 to 1995-96, the export growth had slipped to 5% in 1996-97 and 1997-98.

Commodity Composition of India's Exports

8.4 During the second half of 1990's the exports of agricultural and allied products suffered as their share in total exports declined from 20.5 percent in 1996-97 to 14.6 percent in 1999-2000. Subdued international prices of agriculture based commodities, economic problems in South East Asian countries and Japan and lower exports to Bangladesh were the major causes for the decline.

8.5 In 1999-2000 exports of manufactured goods recorded a healthy growth of 14.4% as against 3 percent decline recorded in the previous year. After growing at a rate of 20 percent per annum during 1993-94 to 1995-96, the growth dipped to 4 percent in 1996-97 and 8 percent in 1997-98. Gems and jewellery, readymade garments and cotton yarn, fabrics and made ups are the major manufactured items exported from India.

Commodity Composition of India's Imports

8.6 Import recorded a growth of 11.5 percent in 1999-2000 as against two to six percent growth recorded during the past three years. A substantial fall was registered in the share of the import bill for petroleum and petroleum products in the total import bill from 27.4 percent in 1991-92 to 15 percent in 1998-99. However, this increased to 22.2% in 1999-2000. Import of capital goods recorded 29 percent decline in 1999-2000 as against a modest increase of two percent in 1998-'99. Imports of export related items recorded a higher growth of 26% during 1999-2000 compared with three percent in 1998-'99. The share of food items and manufactured goods especially import of edible oils increased from 1.6% in 1991-92 to 6.5% in 1998-99. However, in 1999-2000 it declined to 5.1 percent.

Cargo handled by Kochi Port

8.7 Total export of cargo through Kochi Port started declining since 1997-98; the decline was from 25.43 lakh MT in 1997-98 to 22.05 lakh MT in 1999-2000. This trend is reflected in both coastal and foreign exports. Total foreign export of cargo through Kochi port steadily declined from 11.9 lakh MT in 1996-97 to 8.93 lakh M.T in 1999-2000. Similarly, total coastal export declined from 15.04 lakh MT to 8.93 lakh MT in 1999-2000.

8.8 Unlike exports, total import of cargo through Kochi port witnessed an upward trend during 1994-95 to 1999-2000. As against an import of 102.51 lakh MT in 1998-99, total import in 1999-2000 stood at 106.36 lakh M.T. However during 1999-2000, there was a sharp fall in foreign import to 34.9 lakh MT from 61.69 lakh MT during 1998-99. At the same time total coastal import witnessed sharp increase from 40.82 lakh MT in 1998-99 to 71.46 lakh MT. during 1999-2000.

Table - 8.1

Cargo Handled at Kochi Port during 1994-95 to 1999-2000

(In Lakh MT)

Traffic	*Export*						*Import*					
	1994-95	*1995-96*	*1996-97*	*1997-98*	*1998-99*	*1999-2000*	*1994-95*	*1995-96*	*1996-97*	*1997-98*	*1998-99*	*1999-2000*
Coastal	5.24	11.94	10.65	15.04	14.78	13.12	42.46	56.03	49.9	43.34	40.82	71.46
Foreign	9.14	11.84	11.90	10.39	9.52	8.93	29.47	35.22	44.97	54.48	61.69	34.90
Total	14.38	23.78	22.55	25.43	24.3	22.05	71.93	91.25	94.87	97.82	102.51	106.36

Source: Kochi Port Trust

Commodity Composition of Kerala's Exports

8.9 Commodity composition of exports from Kerala is presented in Appendix - 8.1. Out of the total quantity of exports in 1999-2000, 77% represents miscellaneous items. While export of Cashew Kernels, Seafood, coir products, spices and Coffee through Kochi Port witnessed increase in 1999-2000, as compared to 1998-99, export of tea steeply declined to 77,342 MT in 1999-2000 from 1,01,466 MT in 1998-99. Similarly miscellaneous items also recorded a decline from 19,80,510 MT in 1998-99 to 17,00,337 MT in 1999-2000. Export of coffee accounted for 7.1%, followed by Seafoods (4.3%), Spices (2.8%), Cashew Kernels (2.6%) and Coir products (2.5%) in 1999-2000.

8.10 Total value of foreign export through Kochi Port also declined from Rs.5673.14 crore, in 1998-99 to Rs. 5380.83 crore during 1999-2000. Out of the total value of export in 1999-2000, cashew kernels accounted for Rs.1479.96 crore followed by seafood with Rs.1062.23 crore and coffee Rs.622.55 crore. The export earnings from Tea was Rs.471.79 crore, pepper Rs.398.4 crore and coir products Rs.375.47 crore during 1999-2000.

Commodity Composition of Kerala's Imports.

8.11 Appendix 8.2 gives commodity wise imports through Kochi Port. The category 'Miscellaneous' mostly consisting of petroleum products accounted for 89.77 percentage of the total imports during 1999-2000. Share of fertilisers and raw materials was 6.2%, which was less than the previous year's share of 7.37%. But Iron, Steel and Machinery's share increased to 1.25% from 0.91% in the previous year. Cashewnut import increased from 0.99%to 1.45%, i.e. from 1,00,989 MT in 1998-99 to 1,54,678 MT in 1999-2000.

Marine Products.

8.12 Export of marine products from India has gone up from 3,02,934 M.T. in 1998-99to 3,43,131 MT in 1999-2000. In value terms, it went up from Rs. 4626.87 crore in 1998-99 to Rs.5116.67 crore in 1999-2000 registering an increase of 10.59% in terms of value and 13.24% in terms of volume over the previous year.

8.13 Marine Products export from Kerala has gone up from 70,641 M.T. valued at Rs.816.55 crore in 1998-99 to 92,148 M.T. valued at Rs.1146.96 crore in 1999-2000. Overall share of marine exports from Kerala was 26.86% in quantity, 22.42% in value during 1999-2000 in the total sea food exports from India. Frozen cuttle fish is the largest item contributing 59.26% in volume and 65.59% in value followed by frozen squid with 45.96% and 47.32% and frozen shrimp with 32.38% and 19.36% frozen fish accounted for 10.11% and 9.78%.

8.14 Main markets for the Sea food products of Kerala are Japan, member Countries of European union, U.S.A., South East Asia and the Middle East countries. Share of Kerala to Japan in the overall exports from India was 19.75% in quantity and 11.47 % in value. But the major share of exports was to European Union 54.15% and 46.37%; USA 42.2% and 32.08%, Middle East 25.23% and 31.52% in terms of quantity and value respectively.

Spices

8.15 During the year 1999-2000, India exported 2,08,825 tonnes of Spices valued at Rs.1861.03 crore. In dollar terms earnings are estimated to be $ 430.23 million. Compared to 1998-99, export has shown a growth of nearly 3% in dollar terms and 6% in rupee terms. This was compared to the export of 2,31,389 tonnes valued at Rs.1758.02 crore in 1998-99, representing a decrease of 10% in volume. In the total Spices export earning, pepper contributed 46% followed by spice oils and oleoresins (15%) and Chilli (13%). Spices are exported to over 150 countries but our main export is to 20 major countries like USA, Canada, U.K, Germany, France, Singapore, Netherlands, Italy, Australia, Russia, Japan, UAE, Saudi Arabia, Egypt, Pakistan, Bangladesh, Malaysia, South Africa, Mexico and Sri Lanka. Export through Kochi Port stood at 57,396 tonnes in 1999-2000, compared to 48,496 tonnes in 1998-99.

Pepper

8.16 Export of Pepper during 1999-2000 was 42,100 tonnes valued at Rs.864.98 crore as against 34,864 tonnes valued at Rs.638.11 crore in 1998-99. The average fob unit price realised during 1999-2000 is Rs.205.46 per kilogram as against Rs.183.03 per kilogram in 1998-99. Total value of pepper exported from Kochi Port went up from Rs. 311.67 crore in 1998-99 to Rs.398.4 crore in 1999-2000.

Cardamom

8.17 India exported 1550 M.T. of Cardamom (both small & large) during 1999-2000 and earned an amount of Rs.43.11 crore as compared to 1899 M.T. valued at Rs.37.12 crore in1998-99. Value of Cardamom exported from Kochi Port during 1999-2000 was Rs.10.5 crore as against Rs.0.68 crore in 1998-99.

Ginger

8.18 India exported 7800 Tonnes of ginger valued at Rs.29.11 crore during 1999-2000, compared to 8778 tonnes valued at Rs.40.64 crore during 1998-99. This was due to higher prices of ginger from India compared to the ginger prices which prevailed in international markets. China and Nigeria sold ginger at prices lower than the price of Indian goods in the markets. Value of ginger export through Kochi Port increased from Rs. 14.3 crore in 1998-99 to Rs.25.8 crore in 1999-2000.

Turmeric

8.19 Turmeric export from India declined from 36,522 tonnes valued at Rs.124.55 crore in 1998-99 to 32,250 M.T. valued at Rs.104.60 crore in 1999-2000. Poor demand from Iran, Middle East and Europe is reported to have affected our exports during 1999-2000. Turmeric export from Kochi Port was 2900 M.T. in 1998-99 which was increased to 3142 M.T. in 1999-2000.

Curry Powder

8.20 Total quantity and value realised from export of curry powder from India declined from 5210 M.T. valued at Rs.35.97 crore during 1998-99 to 4700 M.T. valued at Rs.29.75 crore in 1999-2000.

Spice Oils and Oleoresins

8.21 India exported 2750 tonnes of Spice oils and oleoresins in 1998-99 valued at Rs.300.77 crore which increased to 2825 tonnes. But the value realised declined to Rs.285.46 crore during 1999-2000.

8.22 Production of raw cashew nuts on all-India basis increased from 4,60,000 M.T. during 1998-99 to 5,20,000 M.T. in 1999-2000. In Kerala, production declined from 1,30,000 M.T. during 1998-99 to 1,00,000 M.T. in 1999-2000.

Export of Cashew Kernels

8.23 Export of cashew kernels from India during 1999-2000 stood at 92,461 M.T. valued at Rs.2451.45 crore. It showed a 20% growth in quantity and 50% increase in value over the export of 77,076 M.T. valued at Rs.1630.08 crore during 1998-'99. During 1999-2000 more than 51.6% of the exports of cashew kernels were to the American zone and European zone accounted for 32.7%.

Table 8.3

Export of Cashew Kernels: Kerala and India

(1995-96 to 1999-2000)

(Quantity in M.T. value in Rs. Crore)

Year	Kerala		India		share of Kerala (%)	
	Quantity	Value	Quantity	Value	Quantity	Value
1995-96	33275	606.55	70334	1240.50	47	49
1996-97	38546	731.79	68663	1285.50	56	57
1997-98	39441	746.88	76593	1396.10	52	54
1998-99	43665	940.47	77076	1630.10	57	58
1999-2000(p)	48599	1317.20	92461	2451.50	53	54

Source: Cashew Export Promotion Council of India

P-Provisional

Cashew Exports

8.24 Total all-India export earnings from Cashew and allied products during 1999-2000 amounted to Rs.2453.34 crore, which was an all time record. Out of this Cashew Kernel export earning was Rs. 2451.50 crore. Kerala's share was 54% at Rs.1317.20 crore. (See Table 8.3)

8.25 Export of cashew nut shell liquid from India during 1999-2000 was 754 M.T valued at Rs. 1.84 crore as against 1912 M.T. valued at Rs.4.21 crore exported during 1998-99 thereby recording a decline of 61% in terms of quantity and 56% in terms of value. The major markets were Republic of Korea, Japan and Romania.

Table 8.4

Export of Cashew Nut shell Liquid: Kerala and India
(1995-96 to 1999-2000)

(Quantity in M.T. Value in Rs. Crore)

Year	Kerala		India	
	Quantity	Value	Quantity	Value
1995-96	80	0.15	760	1.45
1996-97	814	0.78	1735	2.77
1997-98	2932	3.59	4181	6.74
1998-99	1185	1.81	1892	4.13
1999-2000(P)	NA	NA	754	1.84

Source: Cashew Export Promotion Council of India

P-Provisional

Import of Raw Cashew Nuts

8.26 Total raw cashew nuts imported during 1999-2000 was 2,26,396 M.T. amounted to Rs. 1054 crore. This was 6% less in quantity and 10% more in value than in 1998-99 where import was 2,41,161 M.T. valued at Rs.958 crore. Apart from African Countries, Indonesia was the major supplier of raw cashew nuts to India during 1999-2000.

Table 8.5

Import of Raw Cashew nuts: Kerala and India
(1995-96 to 1999-2000)

(Quantity in M.T. value in Rs. Crore)

Year	Kerala		India	
	Quantity	Value	Quantity	Value
1995-96	6292	19.13	222819	760.08
1996-97	49169	159.76	212866	687.60
1997-98	70527	237.46	247181	769.60
1998-99	109660	448.82	241161	958.00
1999-2000(p)	97732	485.70	226396	1054.00

Source: Cashew Export Promotion Council of India

P- Provisional

Coffee

8.27 Total Indian Coffee production stood at 2,92,000 M.T. in 1999-2000. Out of this, Kerala's contribution was 20.7% i.e. 60,470 M.T. during 1999-2000. India exported 2,44,744 M.T. of coffee during 1999-2000 valued at Rs.1900.25 crore, while the corresponding figures during 1998-99 were 2,11,622 M.T. and Rs.1751.52 crore.

Table 8.6

Export of Coffee from India

(Quantity in M.T. value in Rs. Crore)

Year	Quantity	Value
1995-96	1,70,991	1527.16
1996-97	1,81,224	1466.33
1997-98	1,79,059	1707.59
1998-99	2,11,622	1751.52
1999-2000	2,44,744	1900.25

Source: Coffee Board

Coir and Coir Products

8.28 Export performance of India's coir and coir products showed an increasing trend from 1993-94 to 1999-2000, except during 1996-97. India exported 55490 M.T. coir and products valued at Rs 292.19 crore during 1998-99. It has increased to 61,031 M.T. and valued Rs.303.05 crore in 1999-2000.

Table 8.7

Export of Coir and Coir Products from India from 1993-94 to 1999-2000

Year	Quantity in M.T.	Value (Rs.Crore)
1993-94	37951	129.37
1994-95	48086	171.64
1995-96	48277	206.84
1996-97	46369	212.58
1997-98	49850	238.93
1998-99	55490	292.19
1999-2000	61031	303.05

Source: Coir Board

CHAPTER – 9
SOCIAL AND COMMUNITY SERVICES

Kerala's Social Development Is Signal

As regards social development, Kerala State has successfully tackled the first generation problems like illiteracy, high infant mortality rate, high maternal mortality rate, low expectation of life at birth, high birth rate and related indicators of under development while other states are still grappling with them. Kerala has the highest human development index (HDI) among Indian states despite relatively low percapita income as compared to states like Punjab, Haryana etc. Kerala State's position is unique in that it has attained 93 percent (1997) literacy and is in the forefront in female literacy, girls' and SC/STs enrolment in schools in India. No gender disparity exists in school enrolment, and at higher levels of education, girls outnumber boys.

9.2 Life expectancy at birth in Kerala is 68.2 for men and 73.6 for women. Kerala has succeeded in reducing IMR to 15.6 (India: 70), MMR to 198 per 100000 live births (India 407), birth rate to 18.2 (India 26.4) and death rate to 6.4 (India 9). In the other spheres of social development, Kerala has introduced a variety of progressive redistribution measures like land reforms, a wider network of public distribution system, free house sites and house construction support to economically weaker sections. There are as many as 35 social security and welfare schemes mainly directed to attaining reduction in income insecurity and deprivation among weaker sections. According to National Sample Survey data, Kerala is one of only two states - the other being West Bengal - to have recorded an increase in per capita nutritional intake between 1972-73 and 1993-94.

9.3 The state has followed a development path whereby rapid strides have been made in extending in education and health care. This is clearly reflected from the Plan and non-Plan expenditure of the State Government. Plan expenditure in the state of Kerala on social services represented 24 percent of the total Plan expenditure from the First Five Year Plan through Eighth Five year Plan. Plan and non-Plan expenditure on social services during 1999-2000 amounted to Rs.4,339.62 crore, which constituted 36 percent of the total government expenditure of the state. It is noteworthy that as can be seen from Table 9.1, despite severe pressures on state government finances, the percentage of expenditure on social services to total expenditure has remained at or above 35 percent.

Table 9.1
Expenditure on Social Services

(Rs. Crore)

Year	*Total Expenditure (Revenue and Capital)*	*Expenditure on Social Services (Revenue and Capital)*	*Percentage of Social Services Expenditure to Total Expenditure*
1	*2*	*3*	*4*
1991-92	3502.00	1382.00	39
1992-93	3934.00	1480.00	37
1993-94	4656.00	1825.00	39
1994-95	6103.00	2196.00	36
1995-96	6390.00	2380.00	37
1996-97	7410.64	2774.06	37
1997-98	8979.99	3162.05	35
1998-99	9897.71	3429.25	35
1999-2000 (RE)	11983.64	4339.62	36
2000-01 (BE)	12880.22	4596.68	36

Source: Annual Financial Statement 2000-01

EDUCATION

Literacy

9.4 According to 1991 Census, Kerala achieved the highest literacy rate of 89.81 percent among the states in India as against the all India average of 52.21 percent. Kerala's female literacy rate at 86.17 per cent and male literacy rate at 93.62 percent in 1991, were well above the corresponding All-India figures of 39.29 percent and 64.13 percent. Among the districts in Kerala, Kottayam achieved the highest literacy rate of 95.72. Palakkad reported the lowest rate of 81.27 percent. The low literacy in Palakkad was largely due to a higher than average proportion of tribal to total population. The relevant details are given in Appendix 9.5. In states like UP, Bihar and Madhya Pradesh, the literacy rates were distinctly lower as shown in Appendix 9.3. The literacy rates for scheduled castes and scheduled tribes in Kerala stood at 69.38 percent and 48.62 percent respectively as per 1991 Census. In order to raise the literacy levels of tribal segments particularly in Palakkad, Wayanad and Idukki districts, special programmes have been introduced. It is expected that the efforts made during the last several years would be reflected in higher literacy rates in the 2001 census.

SCHOOL EDUCATION

Infrastructure

9.5 In Kerala, there were 12,310 schools in 1999-2000 comprising 6748 lower primary (LP) schools, 2966 upper primary (UP) schools and 2596 high schools. Besides, 732 high schools and 2239 UP schools had LP sections, and 2052 high schools had UP sections. Thus the effective LP school education infrastructure consisted of 6748 LP schools and 2971 LP sections which brings out the fact that, for every 3377 persons in the state, there is one LP school/section. Similarly for every 236 children in the LP age group, there is one LP school/section. There are 2966 UP schools and 2052 UP sections, which implies that there is one UP school/section for every 6541 persons in the state. For every 329 UP school going age group population, there is one UP school/section on an average.

9.6 There was phenomenal growth in school education infrastructure during the past three decades as evident from the fact that the total number of schools in Kerala increased from 9359 in 1961-62 to 11102 in 1975-76, 12092 in 1994-95 and further to 12310 in 1999-2000. The present school education infrastructure with area and projected population is shown in Table 9.2. There was an increase of 11 high schools in 2000 whereas LP schools decreased by 4, both as compared to 1999. The growth of educational institutions from 1962 to 2000 is given in Appendix 9. 10. There were also 8 Anglo-Indian High Schools and 35 schools for the disabled in 2000. The state has 102 Teacher Training Institutes, of which 38 are government institutions and 64 aided private institutes, including one Anglo-Indian Institute. District-wise details of number of schools are given in Appendix 9.11.

Table 9.2

Distribution of Schools- District-wise-2000

Sl. N0	*District*	*Area in Sq.Km.*	*Projected Population 2000 (in '000)*	*Number of Schools*			
				LP	*UP*	*HS*	*Total*
1	Thiruvananthapuram	2192	3324	497	215	241	953
2	Kollam	2491	2716	476	208	209	893
3	Pathanamthitta	2642	1340	425	143	169	737
4	Alappuzha	1414	2257	405	148	190	743
5	Kottayam	2203	2062	465	205	241	911

6	Idukki	5019	1216	214	104	134	452
7	Ernakulam	2407	3178	490	210	297	997
8	Thrissur	3032	3088	520	226	246	992
9	Palakkad	4480	2687	546	236	152	934
10	Malappuram	3550	3493	839	351	188	1378
11	Kozhikode	2344	2955	724	328	181	1233
12	Wayanad	2131	758	151	78	63	292
13	Kannur	2966	2540	733	366	168	1267
14	Kasaragod	1992	1209	263	148	117	528
	Total	**38863**	**32823**	**6748**	**2966**	**2596**	**12310**

Spatial Distribution of Schools

9.7 The spatial distribution of schools shows that there were 651 schools in the Corporation areas, comprising 288 LP schools, 144 UP schools and 219 high schools. In the municipality areas, there were 932 schools, which consisted of 457 LP schools, 207 UP schools and 268 high schools. The remaining 10727 schools were in the panchayat areas. Of these, 4724 were under District Panchayats and 6003 under Grama Panchayats. The relevant details are given in Table 9.3

Table 9.3
Schools under Different Tiers of Local Self Govt. Institutions-2000

Sl. No	*Local Body*	*No. of Institutions Transferred*			
		LP	*UP*	*HS*	*Total*
1	Corporations	288	144	219	651
2	Municipalities	457	207	268	932
3	District Panchayats	-	2615	2109	4724
4	Block Panchayat	-	-	-	-
5	Grama Panchayats	6003	-	-	6003
	Total	***6748***	***2966***	***2596***	***12310***

Management-wise Distribution of Schools

9.8 Out of the total number of 12,310 schools, 4490 were government schools (37 per cent), 7305 private aided schools (59 percent) and 515 private unaided schools (4 per cent). Of the total of 6748 LP schools in the state, 2552 (38%) were in government sector, 4035 (60%) in private aided sector and 161 (2%) in private unaided sector. Out of 2966 UP schools, government sector schools consisted of 32.33 percent, private aided sector 63.15 percent and private unaided sector constituted 4.52 percent. Of the 2596 high schools, there were 979 government schools (37.71 percent), 1397 private aided schools (53.81 percent) and 220 private unaided schools (8.48 percent). The proportion of high schools in unaided sector is more as compared to LP/UP schools.

Infrastructure facilities in Government Schools

9.9 According to available statistics, Kerala schools have better physical and basic facilities compared to those in other parts of the country. While 83 per cent of schools are housed in proper buildings, 17 per cent of government schools are still in thatched sheds. In Thiruvananthapuram

district, 207 schools are in thatched sheds. This constitutes 28 percent of the all thatched schools in Kerala. Regarding other basic facilities, 84 per cent of government schools have drinking water facilities and 85 per cent have urinals/latrines facilities. The relevant details are furnished in Appendices 9.12 and 9.13.

School Enrolment – Sharp decline

9.10 School enrolment stood at 52.49 lakh students in 1999-2000 with 19.32 lakh LP students, 17.05 lakh UP students and 16.12 lakh high school students. School enrolment recorded a decline in Kerala from 59.07 lakh in 1992 to 54.37 lakh in 1998 and further to 52.49 lakh in 2000. There was a fall of 6.58 lakh students, a decline of 11.14 percent during the eight-year period 1992-2000. The fall in enrolment between 1999 and 2000 at the LP level was 0.79 lakh and UP level 0.21 lakh, whereas at the high school level there was an increase of 0.13 lakh students. Relevant details are given in Table 9.4. Though total enrolment of students in schools declined by 0.87 lakh between 1999 and 2000, enrolment marginally increased in the unaided sector, from 2.35 lakh to 2.42 lakh. Enrolment of students in govt. schools and aided schools declined by 0.57 lakh and 0.36 lakh respectively, as can be seen in Appendix 9.16.

Table 9.4
Stage-wise School Enrolment during 1992-2000 (in lakh)

Year	*LP*	*UP*	*HS*	*Total*
1992	24.21	19.33	15.53	59.07
1993	23.72	19.08	15.89	58.69
1994	23.25	18.67	16.16	58.08
1995	22.52	18.39	16.26	57.17
1996	21.98	18.13	16.17	56.28
1997	21.41	17.90	16.04	55.35
1998	20.78	17.61	16.98	54.37
1999	20.10	17.26	16.00	53.36
2000	19.32	17.05	16.12	52.49

Enrolment of Girl students

9.11 Kerala has achieved near-equality in school enrolment with regard to gender. Girl students in schools constituted 49.1 percent of all students. Out of 52.49 lakh students in 2000, girls' enrolment was 25.78 lakh. Percentage enrolment of girl students in LP, UP and HS levels stood at 49.07, 48.15 and 50.19 respectively in 2000. Contrary to general belief that girls drop out after upper primary education, in Kerala girl students out-number boys at the high school stage. The percentage of all-India girl students enrolment at LP level (I – V class) was 43.2, UP Level (VI to VIII class) 39 and HS level 35.3. The standard-wise details of girl students in Kerala are given in Appendix 9.15.

Enrolment of SC/ST students

9.12 The enrolment of SC/ST students in schools in 2000 stood at 6.18 lakh, which accounted for 11.77 percent of the total school enrolment. As compared to 1999, enrolment of SC/ST students declined from 6.31 lakh to 6.18 lakh in 2000. Of the total SC/ST students, 2.36 lakh were LP students, 2.01 lakh UP students and 1.81 lakh high school students. Also 43.3 percent of the SC/ST students studied in government schools, 55.5 percent in private aided schools and 11.2 percent in private-unaided schools. The relevant

details are given in Appendices 9.20 and 9.21.

SSLC Examination Results

9.13 There were 4.55 lakh students in the tenth standard in 2000, including private registrants, 5.61 lakh students appeared for SSLC examination, of whom 3.08 lakh (55.03 percent) passed out. The pass percentage in 1998 was 52.23 and that in 1999 52.94. It is also to be noted that there was a marginal improvement in results in rural areas and among SC/ST segments.

Teacher-Pupil Ratio

9.14 There were 1.85 lakh school teachers in Kerala in 2000, of whom 65,286 (35.28 percent) were govt. school teachers, 111878 (60.45 percent) private aided school teachers and 7900 (4.27 per cent) private unaided school teachers. Of the total teachers, 63982 were lower primary section teachers, 58385 upper primary section teachers, 62233 high school teachers and 464 TTI teachers. The teacher- pupil ratio in Kerala was 1:28, a ratio which is relatively better than else where in the country. The details regarding school teachers are furnished in Appendices 9.23 and 9.24.

Uneconomic Schools and Protected Teachers

9.15 An uneconomic school is defined as one which does not satisfy the requirement of para I of Rule 22 (4) of Kerala Education Rules which requires that the minimum strength per standard in LP/UP/HS shall be 25. The rules require that minimum strength per standard in Sanskrit and Arabic schools shall be 15. On this basis, there were 2,244 uneconomic schools in 2000 in Kerala, of which 993 schools were in government sector and 1,251 schools in the private aided sector. The number of uneconomic schools increased from 170 in 1992 to 1950 in 1999 and further to 2,244 in 2000. Of the total uneconomic schools, 1926 were LP schools, 282 UP schools and 36 High Schools. District-wise details of uneconomic schools are given in Table 9.5.

Table 9.5
Uneconomic Schools in Kerala District-wise and stage-wise – 2000

Sl. No	Name of District	Government				Private Aided				Grand Total			
		L.P	U.P	HS	Total	L.P	U.P	HS	Total	L.P	U.P	HS	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	Thiruvananthapuram	70	15	5	90	9	1	1	11	79	16	6 --	101
2	Kollam	74	4	--	78	32	4	--	36	106	8	7	114
3	Pathanamthitta	70	20	4	94	177	19	3	199	247	39	3	293
4	Alappuzha	70	14	1	85	59	10	2	71	129	24	9	156
5	Kottayam	94	33	5	132	110	22	4	136	204	55	6	268
6	Idukki	40	14	3	57	29	8	3	40	69	22	4	97
7	Ernakulam	92	19	2	113	84	16	2	102	176	35	1	215
8	Thrissur	38	9	1	48	56	7	--	63	94	16	--	111
9	Palakkad	39	1	--	40	53	1	--	54	92	2	--	94
10	Malappuram	17	1	--	18	14	--	--	14	31	1	--	32
11	Kozhikode	66	6	--	72	155	10	--	165	221	16	--	237

12	Wayanad	31	3	--	34	3	--	--	3	34	3	--	37
13	Kannur	71	14	--	85	307	26	--	333	378	40	--	418
14	Kasargode	44	3	--	47	22	2	--	24	66	5	--	71
Total:		*816*	*156*	*21*	*993*	*1110*	*126*	*15*	*1251*	*1926*	*282*	*36*	*2244*

9.16 There were 1493 protected teachers in 1994. This figure has increased to 2408 in 2000. Of the 2408 protected teachers, 1405 were Primary Division (P.D) teachers, 634 special teachers and 369 high school teachers. District-wise analysis shows that Kannur district had the largest number of protected teachers followed by Ernakulam. The relevant details are given in Table 9.6.

Table - 9.6
Protected Teachers in Kerala District-wise and Stage-wise –2000

Sl. No.	Districts	H.S.A	Primary Division Teachers	Special Teachers	Total
1	Thiruvananthapuram	17	50	39	106
2	Kollam	53	102	84	239
3	Pathanamthitta	7	--	22	29
4	Alappuzha	46	114	85	245
5	Kottayam	7	18	35	60
6	Idukki	8	26	7	41
7	Ernakulam	66	172	145	383
8	Thrissur	54	124	69	247
9	Palakkad	--	99	36	135
10	Malappuram	3	156	25	184
11	Kozhikode	11	185	24	220
12	Kannur	89	288	53	430
13	Wayanad	7	38	8	53
14	Kasargode	1	33	2	36
Total		*369*	*1405*	*634*	*2408*

Higher Secondary Education

9.17 As of 1994, there were only 84 Higher Secondary Schools (HSS) of which 49 were in the government sector, 33 in the aided private sector and 2 in the unaided sector. Presently, there are 931 higher secondary schools (HSS) of which 417 are in government sector, 506 in aided sector and 8 in unaided sector. The number of schools started from 1991-2000 is shown in Table 9.7. District-wise distribution of schools is furnished in Appendix 9.25. A total of 3483 batches were introduced with 2003 Science batches, 759 Humanities batches and 721 Commerce batches. The relevant details are given in Appendix 9.25. Intake of students in higher secondary schools in 2000 stood at 165,600 with 95,650 (58%) in science group, 36,030 (22%) in humanities group and 33,920 (20%) in commerce group. The Higher Secondary intake increased from 20,092 in 1997 to 1,65,600 in 2000. The Girl students constituted 58 percent. During 2000, the number of students who appeared for higher secondary examination was 56,750 and 31,552 students passed out. The relevant details are given in Appendix 9.26.

Table 9.7
Higher Secondary Schools in Kerala (1994 to 2000)

Year	Government	Aided	Unaided	Total
Till 1994	49	33	2	84
1995	--	--	6	6
1996	--	--	--	--
1997	101	1	--	102
1998	106	226	4	336
1999	--	--	--	--
2000	161	246	(-)4	403
Total	**417**	**506**	**8**	**931**

Note: 4 Nos. of unaided HSS started as per directions of Hon'ble High Court during 1998 have been converted into Aided HSS in 2000.

Vocational Higher Secondary Education

9.18 Vocational higher secondary education (VHSE) was introduced in the State during 1983-84. At present 45 subjects are offered through 374 schools (248 government schools and 126 aided schools). District-wise distribution of schools is given in Appendix 9.28. The intake of students in 2000 was about 25,000. The enrolment of students in Std XI and XII from 1992-93 are furnished in Appendix 9.30.

University Education

9.19 The state has seven universities. They are Kerala University, Mahatma Gandhi University, Calicut University, Kannur University, Sree Sankaracharya University of Sanskrit, Cochin University of Science and Technology and Kerala Agricultural University. Under Kerala, Calicut, Mahatma Gandhi and Kannur Universities, there are 186 Arts and Science Colleges (excluding unaided colleges), of which 38 are government colleges and 148 are in private aided sector. The university-wise and district-wise distribution of colleges are given in Appendices 9.31 and 9.32.

Enrolment at Higher Education Level

9.20 There were 2.9 lakh students in the arts and science colleges in Kerala during 2000, out of whom girl students constituted 61 percent. SC students accounted for 13 percent of all students. Stage-wise details showed that there were 1.3 lakh students at the pre-degree level, 1.45 lakh students at the degree level and 0.15 lakh at the post graduate level. Stage-wise enrolment details are furnished in Table 9.8.

Table 9.8
Enrolment in Arts and Science Colleges in Kerala – 2000

University	Enrolment			
	Pre-degree	Degree	Post graduate	Total
Kerala	40341	49145	5271	94757
M.G. University	45497	39194	4577	89268
Calicut	34301	43658	3663	81622
Kannur	10512	12888	1074	24474
Total	**130651**	**144885**	**14585**	**290121**

9.21 Enrolment of PDC students during 2000 stood at 1,30,651 of whom girl students constituted 56.48 percent. Of the total students, 36208 were first group students (27.72 per cent), 26700 second group students (20.44 percent), 33660 third group students (25.76 percent), 28146 fourth group students (21.54 percent) and 5937 fifth group students (4.54 percent). The relevant details are given in Appendix 9.34.

9.22 At the degree level, 60830 students (40737 girls) were in B.A courses, 62110 (44883 girl students) were in B.Sc. courses and 21945 students (11665 girls) were for B.Com courses. The girl students constituted 67 percent at the degree level. The course-wise details of degree students are furnished in Appendices 9.35, 9.36 and 9.37. An analysis of the BA degree enrolment of 15 subjects shows that the enrolment of students in economics constituted 35.90 percent, history (15.36 %) and English (15.13%). The enrolment of girls outnumbered boys in almost all the BA degree courses. In the case of B.Sc degree enrolment, Mathematics, Physics, Chemistry, Zoology and Botany showed enrolment levels of 15123, 12881, 12451, 10615 and 8541 respectively. In B.Sc degree enrolment, the enrolment of girls was much more than that of boys (72.26% of all B.Sc. students).

9.23 There were 14585 students for post graduation during 2000 of which 73 percent were girl students. Of the total, 46 percent were M.A students, 40 percent M.Sc. students and 14 percent M.Com students. The course-wise details of postgraduate students are given in Appendices 9.38, 9.39 and 9.40.

9.24 During 2000, there were 11643 teachers in the arts and science colleges in Kerala. 3690 teachers were in Kerala University, 3179 in Calicut University, 3898 in Mahatma Gandhi University and 876 in Kannur University. Of the total, 6126 were women teachers constituting 53 percent. The relevant details are given in Appendix-9.41.

Technical Education

9.25 The Technical Education infrastructure witnessed tremendous expansion during the last 3 years. This resulted in significant increase in enrolment both in degree and diploma levels of engineering education. Till the end of Seventh Five Year Plan, there were 8 engineering colleges and 28 polytechnics in the state. By the end of the Eighth Five Year Plan, Kerala had 15 engineering colleges and 38 Polytechnics with an annual intake of 4844 and 6660 respectively in 1997. Between 1997 and 2000, the number of engineering colleges doubled to 30. Currently there are 32 engineering colleges in the state. The number of polytechnics rose by more than 40% from 38 in 1997 to 54 including 7 unaided polytechnics in 2000.

Engineering Colleges

9.26 At present there are 32 engineering colleges in the state, of which 9 are government colleges, 5 private aided colleges, including one college each under the Cochin University of Science and Technology and M.G.University, 16 self-financing engineering colleges, one Regional Engineering college at Kozhikode and one Model Engineering college at Ernakulam. The annual intake of students in engineering colleges at the graduate level increased to 8543 in 2000 as against 5798 in 1999. The relevant data are presented in Table 9.9.

Table 9.9
Engineering Colleges and Polytechnics (1997-2000)

Year	No. of Engineering Colleges	Annual Intake	No. of Polytechnics (Govt. & Aided only)	Annual Intake
1997	15	4844	38	6660
1998	15	4844	42	7080
1999	21	5798	47	8710
2000	30	8543	47	9630

9.27 A branch-wise analysis shows that out of 8543 seats (excluding REC, Kozhikode and Cochin University), 2215 were in Electronics and Communication Engineering, 2005 in Computer Science and Engineering, 981 in Mechanical Engineering, 900 in Electrical and Electronics Engineering, 820 in Information Technology, 602 in Civil Engineering etc. The branch-wise distribution of seats in various engineering colleges are given in Appendix 9.44. The annual intake of post-graduate students stood at 302 in 2000. There were 1,261 teachers in the government and private aided engineering colleges, of whom 848 were male teachers and 413 female teachers. The relevant details are given in Appendix 9.45.

Polytechnics and Technical High Schools

9.28 In Kerala, there were 54 Polytechnics in 2000 of which 41 were in government sector including 7 women's polytechnics, 6 in private aided sector and 7 self financing polytechnics. Annual intake of students in polytechnics excluding self-financing institutions increased from 6660 in 1997 to 8710 in 1999 and further to 9630 in 2000. Out of the total 24769 students in polytechnics, 2014 were SC students and 502 were ST students. Also girl students constituted 39 percent of the total enrolment in polytechnics. There were 1634 teachers in polytechnics in 2000 of which 1239 were male teachers and 395 female teachers. The details of students and teachers in polytechnics are furnished in Appendices 9.47 and 9.48.

9.29 In the 39 technical high schools in the state, the annual intake of students remained at 2085 in 2000. Out of the total 5768 students in technical high schools, girl students constituted only 7 percent. There were 1015 teachers in technical high schools of which 832 were male teachers and 183 women. The relevant details are presented in Appendix 9.50.

Cochin university of Science and Technology

9.30 Cochin University of Science and Technology established in 1972 offers advanced teaching and research in technical education. The University has 27 departments, with an annual intake of 1,864 students in 2000 whereas the number was 1450 in 1999. The major courses are B.Tech, M.Tech, M.Sc., M.C.A, Ph.D., L.L.B, L.L.M, M.Phil, M.A, P.G Diploma and Certificate courses. The department-wise courses of studies offered are given in Appendix 9.43.

9.31 The Institute of Human Resources Development, Lal Bahadur Sasthri Centre for Science and Technology, Kerala State Audio Visual and Reprographic Centre and Kerala State Science and Technology Museum are major autonomous state sector institutions in technical education.

Expenditure on Education

9.32 The total Plan and non Plan expenditure on education (excluding Art & Culture & Sports and Youth services) increased from Rs. 415 crore in 1985-86 to Rs. 1929 crore in 1998-99. During the 14-year period, expenditure on education increased by almost 5 times whereas SDP of the State increased by 10 times. Kerala's education expenditure as a proportion to SDP was 3.6 percent during 1998-99 and increased to 3.97 percent in 1999-2000. The total expenditure on education during 1999-2000 (RE) stood at Rs. 2481 crore of which primary education accounted for 50 per cent, secondary education 31 per cent and university and higher education 14 percent. The remaining went to other miscellaneous sectors under education. The relevant details are given in Table 9.10.

Table 9.10

Expenditure on Education (1992-93 to 1999-2000)

Rs. Crore

Stage	*1992-93*	*1993-94*	*1994-95*	*1995-96*	*1996-97*	*1997-98*	*1998-99*	*1999-2000 (RE)*
Primary Education	591.12	530.46	660.87	675.10	753.40	817.98	905.30	1234.83
Secondary Education	273.41	339.10	406.83	451.94	510.70	542.15	602.47	764.52
University & Higher Education	156.62	214.82	212.80	227.02	256.60	286.62	310.63	340.32
Adult Education	0.43	1.60	1.03	0.60	0.63	0.69	5.68	0.50
Language Development	4.13	4.86	5.40	5.38	7.59	9.05	10.06	15.32
Tech. Education	32.61	59.25	62.23	68.53	78.07	90.85	94.75	125.45
Total:	**1058.32**	**1150.09**	**1349.16**	**1428.57**	**1606.99**	**1747.34**	**1928.89**	**2480.94**

Cost of Education per Pupil

9.33 Cost of primary education per pupil increased from Rs.2466.41 in 1998-99 to Rs.3439.59 in 1999-2000 and that of secondary education per pupil increased from Rs.3842.06 in 1998-99 to Rs.4818.73 in 1999-2000. The apparently large increase in one year reflects two factors: implementation of revised scales of pay for teachers and transfer of pre-degree courses to higher secondary schools. The details are furnished in Table 9.11.

Table 9.11

Cost of Education per pupil in Different stages 1990-91 to 1999-2000

(Rs.)

Year	*Primary Stage*	*Secondary Stage*
1990-91	872.69	1500.00
1991-92	953.48	1600.00
1992-93	1357.65	1760.53
1993-94	1239.68	2134.05
1994-95	1576.88	2517.51
1995-96	1683.12	2796.66
1996-97	1917.05	3183.92
1997-98	2107.00	3449.53
1998-99	2466.41	3842.06
1999-2000 (RE)	3439.59	4818.73

Education and Decentralisation

9.34 Of the total 12310 schools in Kerala, there are 10727 schools in panchayat area, 932 schools in municipalities, 651 schools in corporation areas. As per Kerala Panchayat Raj Act/ Kerala Municipalities Act 1994, primary schools are transferred to panchayats/ municipalities/corporation and UP and high schools to district panchayats. Over and above the state sector projects planned and implemented towards quality improvement and provision of facilities in schools, the local self government institutions formulated 10520 projects in the first two years of the Ninth Five Year Plan and allocated Rs. 64.17 crore. The projects of the local self governments mainly aimed at

improving the amenities in schools, construction of class rooms, compound walls and improvement in quality of education through special efforts like social mobilisation, parental education, training of teachers and so on. During the first three years of the Ninth Five Year Plan, they constructed 93548 sq.m of area of buildings in schools.

HEALTH

9.35 It is widely acknowledged that Kerala has already attained high health standards, in respect of all standard indicators of maternal, infant and child health as well as of the general health of the population. Kerala's achievement are on par with those of many developed countries, and all the more significant given its lower level of economic development. Infant mortality rate in Kerala is 15.6 (India 71.6) and Child mortality rate is 4.6(India 26.3). The peri-natal mortality rate and neo-natal mortality rates of the state are 17 and 10 respectively as compared to all- India rates of 44 and 47 respectively. Kerala's MMR is 1.9 for 1000 deliveries. Birth rate, death rate and infant mortality rates for Kerala & India are given in Table. 9.12.

Table 9.12
Birth, Death and Infant Mortality Rate in Kerala and India

Year	*Birth rate per '000 Population*		*Death rate per '000 Population*		*Infant Mortality Rate*	
	Kerala	*All India*	*Kerala*	*All India*	*Kerala*	*All India*
1970	32.3	36.8	9.2	15.7	61	129
1980	26.8	33.7	7.0	12.6	42.	117
1990	20.3	30.5	3.1	14.2	21	80
1991	19.8	29.5	5.8	10.2	17	80
1992	17.7	29.5	6.3	10.1	17	79
1993	17.4	28.7	6.0	9.3	13	74
1994	17.4	28.7	6.1	9.3	16	74
1995	18.0	28.3	6.0	9.0	15	74
1996	18.0	27.5	6.2	9.0	14	72
1997	17.9	27.2	6.2	8.9	12	71
1998	18.2	26.4	6.4	9.0	15.6	71.6

9.36 Life expectancy at birth in Kerala is 68.23 years for men and 73.62 for women compared to the all India level of 62.3 years for men and 64.2 years for women. The data on life expectancy at birth in Kerala from 1951 to 2000 are shown in Table 9.13.

Table 9.13
Expectation of Life at Birthin Kerala, Years

Period	*Males*	*Females*
1951-60	46.17	50.00
1971-73	60.62	62.08
1979-80	64.70	69.00
1989-90	67.50	72.90
1990-91	69.00	72.00
1991-96	67.23	72.37
1996-2000	68.23	73.62

Health Care Infrastructure - Government Sector

9.37 Kerala health care sector consists of Allopathy, Ayurveda, Homoeo, Unani and Siddha systems of medicine. These sectors together have 2664 institutions in 2000, against 2564 in 1999. While the number of institutions under allopathy remained unchanged in 2000 over 1999, institutions under ayurveda increased by 50 and those under homoeo by 50. There was an increase of 1184 beds in allopathy as compared to the 1999 position. Relevant data are given in Table 9.14

Table 9.14
Health Facilities in Kerala – 2000

Sl. No.	Category	1999		2000	
		Institutions (No)	Beds (No)	Institutions (No)	Beds (No)
1	Allopathy	1317	44500	1317	45684
2	Ayurveda	742	2514	792	2604
3	Homoeo	505	970	555	970
	Total	***2564***	***47984***	***2664***	***49258***

9.38 A major factor which contributed to the present level of health development is the vast health care infrastructure which has facilitated access to institutional care. The infrastructure (allopathy) consists of 143 hospitals with 31819 beds consisting of 5 general hospitals, 11 district hospitals, 8 W&C hospitals, 6 medical college hospitals, 36 Taluk hospitals, 3 leprosy hospitals, 3 mental hospitals, 3 T.B hospitals, 67 other intermediary hospitals and one Ophthalmology hospital (Regional Institute of Ophthalmology), dispensaries, T.B.Clinics and leprosy clinics, community health centres and primary health centres. There are 1317 medical institutions (including grant-in-aid institutions) in the state with 45684 beds. The growth in health infrastructure is brought out in Appendix 9.51 and Appendix 9.52. The current spatial distribution is given in Appendix 9.53.

Accessibility of Rural Health Infrastructure

9.39. There are 105 community health centres, 944 primary health centres and 5094 sub centres in Kerala. Each sub-centre in Kerala serves a population of 4,742 as against 4,600 at the all India level. For every 6.97 sq.kms in the state, there is one sub-centre and for every 37.6 sq.kms, there is one primary health centre. Each primary health centre on an average serves a population of 25,591 and each community health centre a population of 2.30 lakh in Kerala. Details of rural health infrastructure in Kerala for the period from 1986 to 2000 are given in Appendix 9.56.

9.40. Summary statement showing beds under Government, Private and Co-operative sector (allopathy) during 1999 is given in Table 9.15.

Table 9.15
Summary Statement showing beds under Government, Private and Co-operative Sector (Allopathy) during 2000

Category		No. of Beds	Percentage to total
1	*2*	*3*	*4*
A	Government Sector		
(i)	Directorate of Health Services	33492	29.5
(ii)	Medical College Hospitals including Kannur M.C.H.	7970	7.0
(iii)	Directorate of Insurance Medical Services	1274	1.1
(iv)	Regional Cancer Centre	320	0.3
(v)	Sree Chithira Thirunal Institute of Medical Sciences	217	0.2
	Sub-Total	*43273*	*38.1*

B	Co-operative Sector	2740	2.4
C	Private Sector	67517	59.5
	Total	**113530**	**100.00**

Note : Number of beds in private hospitals relate to 1995

ii) Health Infrastructure in Private Sector

9.41. According to a survey conducted by the Department of Economics and Statistics in 1995, there were 4288 private allopathic medical institutions with 67,517 beds. 4922 ayurvedic private institutions with 2595 beds, 3118 homeopathic institutions with 394 beds and 290 other institutions with 418 beds. The number of doctors who worked in the private sector was 19,963.

iii) Co-operative Sector

9.42 At present, there are 57 co-operative hospitals with 2740 beds and 397 doctors, 585 nurses and 708 para medical staff in the co-operative health sector. Details of number of doctors, para medical personnel and beds in the co-operative sector are given institution-wise in Appendix 9.83.

Insurance Medical Service

9.43 There are 13 ESI hospitals with 1274 beds and 136 dispensaries in the state. Details of medical and para medical personnel in various institutions under the Directorate of Insurance Medical Services, Patients treated during the year 1998 etc are given in Appendix 9.80.

Health Manpower - Allopathy

9.44. There are 3421 medical officers and 72 dental surgeons working in various institutions attached to the Directorate of Health Services. In addition, 2271 doctors work in six medical college hospitals. There are 30318 registered medical practitioners in allopathy system, 8,420 under homoeopathy and 15,472 in ayurveda including siddha and unani. The details of registered medical and paramedical practitioners under various systems of medicine are given in Appendix 9.72 and 9.73.

Overall Bed Population Ratio

9.45 The number of beds under allopathy sector including grant-in-aid institutions was 139 per 100,000 population in 2000. District-wise distribution of institutions, beds and beds per lakh population are given in Appendix 9.54. Besides, there are 2604 beds in various ayurvedic institutions, 970 beds in government homoeo hospitals and 1274 beds in ESI hospitals. The overall bed to population ratio in the government sector is 154 beds per lakh population. Taking into account the total number of beds in the government, private co-operative sectors, RCC and Sree Chithra, the number of beds per lakh population in the state is 360.

Institutional Deliveries

9.46 An important reason for the low level of IMR and MMR is the provision of institutional care during peri-natal and ante natal stages of pregnancy and child birth. It is most encouraging that in Kerala near universalisation has been achieved in institutional deliveries whereas for different states and India, the proportion of institutional deliveries to total varies between 50 and 70 percent. During 1999-2000, 512744 deliveries took place in government hospitals. The normal delivery cases attended by medical college hospitals stood at 58656. The widespread availability of infrastructure, high level of health consciousness and adoption of one/two child norm facilitated such a remarkable level of institutional deliveries. This process further contributed to attainment of immunisation goals and better healthcare for women and children.

Immunisation Status

9.47 Kerala has almost attained universalisation of immunisation. The coverage for Polio, BCG and Measles, T.T. for children aged 5 years, and DPT was 100 percent. The coverage of T.T for pregnant women, T.T for children aged 10 years and T.T for persons aged 16 years are 94.5 per cent, 87.7 percent and 91.1 percent respectively.

Blood Collected in Blood Banks - Kerala

9.48. In the state 105 blood banks are functioning, of these 29 blood banks are in the government sector and 76 in the private sector. 170956 units of blood was collected during 1998, out of which, government sector blood banks accounted for 97619 units which represented 57 percent. The six medical college blood banks together accounted for 66492 units, which constituted 39 percent of the total blood collected in Kerala. The Sree Chitra Centre and Regional Cancer Centre collected 5548 units and 4777 units respectively. The private blood banks altogether collected 73337 units during 1998, which represented 43 percent. The institution wise units of blood collected can be seen in Appendix 9.81 and Appendix 9.82.

Major Principal Diseases

9.49 A category-wise analysis of the incidence of different diseases shows that during 1999-2000, 2,66,21,917 cases were reported. As compared with cases of morbidity treated, the mortality reported was on the whole very low. Of the major diseases, the number of cases due to diarrhoeal diseases and acute respiratory infections ranked high. The relevant data on incidence of attack and death due to 24 categories of diseases are presented in Appendix 9.60

Medical Education

9.50 Medical education, training and research infrastructure in the state consists of six medical colleges, two dental colleges and three nursing colleges. Of the six medical colleges, one is in the co-operative sector. The annual intake under different courses is 800 for MBBS, 80 for BDS, 28 for B.Pharm, 24 for B.Sc MLT, 150 for B.Sc Nursing, 186 for various P.G.courses, 40 for super speciality courses, 24 for M.Sc Nursing, 8 for M.Pharm, 30 for MDS etc. Details of intake of students for various courses are given in Appendix 9.66.

9.51 There are 7970 beds in all the six medical college hospitals. Distribution of hospital beds, patients treated and delivery cases attended in medical college hospitals during 2000 are given in Appendix 9.64. During 2000, 397576 inpatients were treated in all the medical colleges. The number of out patients treated stood at 2366014.

Nursing Education

9.52 The annual intake under different nursing courses is 3077.The three nursing colleges attached with medical colleges at Thiruvananthapuram, Kottayam and Kozhikode together have a total annual intake of 150 students for B.Sc Nursing and 60 students for general nursing. There are 24 students for M.Sc nursing in Thiruvananthapuram and Kozhikode nursing colleges.

9.53 There are 15 government nursing schools under the department of health services. Of these 11 schools conduct general nursing (3 year) course and 4 schools impart Junior Public Health Nurses (18 months) course. The annual intake of nursing courses in different categories during 1999-2000 is shown in Appendix 9.67. A total of 2346 nurses- both general nurses and junior public health nurses - are trained every year in the 88 approved institutions.

Ayurveda

9.54. There are 113 ayurveda hospitals with 2604 beds and 679 dispensaries in the state. Out of 679 dispensaries, 26 are visha dispensaries, and there is one dispensary each under Siddha and Unani. Besides,

there are 112 grant-in-aid institutions. The hospitals consist of 14 district hospitals, 30 taluk head quarters hospitals, one marma hospital, two visha hospital, one mental hospital at Kottakal, one panchakarma hospital at Alappuzha, nature care centre at Varkala and 63 other hospitals. The growth of institutions and beds from 1976 to 2000 are given in appendix 9.68. In the ayurvedic institutions, 190.03 lakh persons were treated as outpatients and 21184 persons as inpatients during 2000. The district-wise details of institutions, beds, doctors and patients treated are given in Appendix 9.69. The list of institutions transferred to local bodies is given in Appendix 9.78. There are five ayurveda colleges in the state, of which 3 are in government sector and 2 in private sector. The details of annual intake of students and courses conducted in Ayurveda Colleges are given in Table 9.16.

Table 9.16

Annual Intake of students and courses conducted in Ayurveda Colleges

Sl.No	*Name of College*	*Name of Course*	*Annual Intake*
1	Government Ayurveda College, Thiruvananthapuram	*B.A.M.S*	50
		M.D Course	42
2	Government Ayurveda College, Thrippunnithura	*B.A.M.S*	30
3	Government Ayurveda College, Kannur	*B.A.M.S*	30
	Private Ayurveda College		
4	Ollur	*B.A.M.S*	30
5	Kottakkal	*B.A.M.S*	30

Homoeopathy

9.55 There are 524 homoeo dispensaries and 31 hospitals with 970 beds in the State. The number of institutions and beds in Kerala from 1971 to 2000 are given in Appendix 9.70. During 1999, about 250 lakh patients were treated in the various homoeopathic institutions. District- wise details of institutions, beds, doctors and patients (including repeated cases) treated are given in Appendix 9.71. Out of four homoeopathic colleges in the state, two colleges are in government sector and the other two are in private sector. The details of annual intake of students and courses conducted in homoeopathy colleges are in Table 9.17.

Table 9.17

Annual Intake of students and courses conducted in Homoeo Colleges

Sl. No	*Name of College*	*Name of Course*	*Annual Intake*
1	Government Homoeo Medical College, Thiruvananthapuram	BHMS Degree (5 ½ yr.) M.D (3 yr.)	50 12
2	Government Homoeo Medical College, Kozhikode	BHMS Degree (5 ½ yr.) M.D (3 yr.)	50 12
3	Athurashramam N.S.S Homoeo College, Kurichy	BHMS Degree (5 ½ yr.)	50
4	Dr. Padian Memorial Homoeo College, Ernakulam	BHMS Degree (5 ½ yr.)	50

Family Welfare Infrastructure

9.56 Family Welfare Programme in Kerala is being implemented through a network of 944 PHCs, 105 Community Health Centres and 5094 sub centres. The achievements under family welfare programmes for the last two years are

presented in Appendix 9.75 and district-wise details of family welfare programme relating to 1999-2000 are given in Appendix 9.76. The expenditure on family welfare programmes from 1980-81 to 1998-99 amounted to Rs. 724.97 crore. The expected expenditure during 1999-2000 and 2000-01 are Rs. 84.80 crore and Rs. 57.18 crore respectively. The percentage of couple effectively protected by various methods of family planning in Kerala increased steadily from 15% in 1971 to 30% in 1981 and 55% in 1991. In 1998, the couple protection rate in Kerala was 64.32 as against the all India average of 60. The number of sterilisations rose sharply from 139,718 in 1998-99 to 153,515 in 2000. The number of IUD insertions rose marginally from 81,759 to 83,143. On the other hand, the number of CC users declined from 185,569 to 142,869 between1998-99 and 1999-2000.

Table 9.18

Expenditure on Family Welfare Programme

Rs. in lakh

Year	*Both Plan & Non-plan (in current prices)*
1980-81	590.20
1981-82	687.08
1982-83	785.59
1983-84	1176.47
1984-85	1930.99
1985-86	2510.22
1986-87	3130.33
1987-88	3370.22
1988-89	3157.83
1989-90	4279.08
1990-91	4081.74
1991-92	3949.12
1992-93	3815.97
1993-94	4981.10
1994-95	5950.40
1995-96	6130.67
1996-97	6676.01
1997-98	7209.58
1998-99	8083.74
1999-2000	8480.00 (RE)
2000-01	5718.00 (BE)

Expenditure on Health and Family Welfare

9.57 Table 9.18 provides data on government expenditure on family welfare programme year-wise since 1980-81. Table 9.19 provides data on government expenditure on medical and public health excluding family welfare year-wise, for the period since 1975-76. Table 9.20 provides data on total and per capita state government expenditure on health including family welfare year wise since 1985-86. During 1993-94, per capita health expenditure by state government including family welfare was Rs. 98.53. It increased to Rs. 168.22 in 1997-98, Rs. 177.91 in 1998-99 and Rs. 232.68 in 1999-2000.

Table 9.19

Plan and Non-Plan Expenditure on Medical and Public Health - Excluding Family Welfare Programme – Kerala

Rs. in lakh

Year	*Plan*	*Non-plan*	*Total*
1975-76	230.71	2527.38	2758.09
1976-77	236.87	2678.67	2915.54
1977-78	306.96	2867.83	3174.79
1978-79	525.66	3051.48	3577.14
1979-80	472.51	3647.19	4119.70
1980-81	651.38	4229.27	4880.65
1981-82	905.97	4936.88	5842.85
1982-83	880.10	5058.12	5938.22
1983-84	1044.41	5935.02	6979.43
1984-85	1074.00	6354.81	7428.81
1985-86	1102.50	8754.37	9856.87

1986-87	1799.34	9576.09	11375.43
1987-88	1532.08	10207.12	11739.20
1988-89	1802.43	11408.10	13210.53
1989-90	2040.33	12910.55	14950.88
1990-91	1529.53	16587.77	18117.30
1991-92	1786.23	17445.10	19231.33
1992-93	1775.18	18331.75	20106.93
1993-94	2438.25	22425.78	24864.03
1994-95	3113.42	26597.61	29711.03
1995-96	5767.27	29889.88	35657.15
1996-97	6008.67	39786.69	38766.55
1997-98	6762.09	47445.50	46548.78
1998-99	7429.16	42104.52	49534.48
1999-2000(RE)	9071.83	58822.13	67893.96
2000-2001 (BE)	7189.00	56736.40	63925.40

9.58 The total Plan and non-Plan government expenditure on health including family welfare (Table 9.19) increased from Rs. 576.18 crore in 1998-99 to Rs. 763.74 crore in 1999-2000 (an increase of 32.5%) during 1999-2000. The expenditure on health as percentage to state domestic product stood at 1.40 per cent.

Table 9.20

Per Capita Expenditure on Medical and Public Health

Rs. in lakh

Year	*Population*	*Expenditure on Health including Family Welfare*	*Index of Growth*	*Expenditure per Head*	*Index of Growth*
1985-86	274.05	12681.25	100	46.27	100
1986-87	275.06	14506.88	114	52.74	114
1987-88	288.39	15103.96	119	52.37	113
1988-89	293.58	16368.36	129	55.75	120
1989-90	298.87	19230.44	152	64.34	139
1990-91	290.11	22199.04	175	76.52	165
1991-92	294.91	23180.45	183	78.60	170
1992-93	298.88	23922.90	189	80.04	173
1993-94	302.91	29845.13	235	98.53	213
1994-95	306.99	35661.43	281	116.16	251
1995-96	311.12	41787.82	330	134.31	290
1996-97	315.31	45442.56	358	144.12	311
1997-98	319.56	53758.36	424	168.22	364
1998-99	323.87	57618.22	454	177.91	385
1999-2000	328.23	76373.91	602	232.68	505

9.59 It can be seen that per capita expenditure in current prices on health including family welfare by the state government has become five times what it was in 1985-86. It has doubled between 1994-95 and 1999-2000.

Decentralisation and Health

9.60 There are 1226 allopathic medical institutions transferred to local bodies out of which, 938 are primary health centres, 105 Community health centres, 63

government hospitals, 41 taluk hospitals and 11 district hospitals. Under Ayurvedic system, 792 medical institutions are transferred. Out of it, 679 are dispensaries and 113 are hospitals. Similarly under homoeopathy, 575 medical institutions have been transferred and out of it, 544 are dispensaries and 31 are hospitals. As such there are 2593 health institutions transferred to local bodies as shown below:

Sector	Institutions
Allopathy	1226
Ayurveda	792
Homoeopathy	575
Total	***2593***

9.61 As mentioned above, 2593 medical institutions have been transferred to local bodies as part of decentralisation of powers. Consequently local bodies started construction of buildings for these institutions. During 1997-99, the local self government institutions have formulated 5363 projects and allocated Rs. 38.59 crore. Construction of buildings in backward areas received priority and during 1997-2000, 90021 sq.mtrs of building constructed.

WATER SUPPLY AND SANITATION

Introduction

9.62 The proportion of population in the state with access to protected water supply has been increasing. A substantial portion still remains to be covered. The rural population covered as on 31- 3- 2000 stood at 124.86 lakh, which represented 51 percent of the rural population. The percentage of urban population covered was 69 in 2000. During the period 1993-2000, a total of 44.96 lakh population got additionally covered, of which SC population stood at 8.27 lakh.

9.63 According to 1991 Census, Kerala had 197 towns including three Corporations and 55 Municipalities, with an urban population of 76.86 lakh. Kerala's rural population in 1991 was 214.18 lakh. It is estimated that the urban population had increased to 86.65 lakh and rural population to 241.58 lakh by 2000. Out of the estimated 60.51 lakh households, only 6.34 lakh (10.47 per cent) were connected with house taps in 2000. In addition, there were 1,36,000 stand posts, with each stand post expected to benefit a population of 250 as per Accelerated Rural Water Supply norms.

Problem Villages

9.64 As on 31st October 2000, 1483 villages were partially covered with protected water supply benefiting 115.55 lakh population. As the thrust during Ninth Five Year Plan has been on 100 per cent coverage of urban as well as rural population by 2002 by protected water supply, it is a major area of development concern not only in the state plan sector but also in the development agenda of local self government institutions. The litres per capita per day (lpcd) consumption level in urban areas is targeted to be increased from 70 lpcd to 150 lpcd and that in rural areas from 40 to 55.

Rural Population Covered under Protected Water supply

9.65 There were 1611 rural water supply schemes under implementation in the state in 2000 and 156 schemes including extension schemes were completed during the year. Table 9.21 shows district-wise distribution of water supply schemes and schemes completed in the state with population coverage in 2000. The coverage of rural population increased from 83.36 lakh in 1992 to 121.97 lakh in 1999 and further to 124.86 lakh in 2000.

Table 9.21
Rural Water Supply Schemes in Operation and Schemes completed as on 31.3.2000. (Excluding SCP/TSP Schemes)

Sl. No.	*Name of District*	*Number of schemes in operation during 2000*	*Number of schemes completed during 2000 (This includes extension)*	*Population covered 2000 (in lakh)*	*Population covered (in percentage)*
1	Thiruvananthapuram	111	11	13.11	10.51
2	Kollam	84	9	11.94	9.56
3	Pathanamthitta	31	5	4.89	3.91
4	Alappuzha	102	6	10.56	8.45
5	Kottayam	106	1	8.24	6.59
6	Idukki	167	9	5.50	4.40
7	Ernakulam	120	7	12.37	9.91
8	Thrissur	181	49	15.33	12.27
9	Palakkad	155	20	13.04	10.44
10	Malappuram	136	5	13.44	10.76
11	Kozhikode	150	2	4.65	3.72
12	Wayanad	52	7	3.00	2.40
13	Kannur	125	5	4.54	3.63
14	Kasaragod	91	20	3.88	3.10
	Total	***1611***	***156***	***124.86***	***100***

9.66 Table 9.22 shows that the coverage increased from 121.97 lakh in 1999 to 124.86 lakh in 2000, registering an increase of 2.7 percent. The district-wise rural population covered is also shown in Table 9.22

Table 9.22
District – wise Population covered by Rural Water Supply Scheme – 2000

Sl. No.	*District*	*1992*	*1995*	*1999*	*2000*
1	Thiruvananthapuram	879000	1165278	1284767	1310898
2	Kollam	807000	878900	1186495	193965
3	Pathanamthitta	295000	418564	484081	488726
4	Alappuzha	803000	917105	1037564	1086015
5	Kottayam	674000	743999	822631	824131
6	Idukki	321000	379600	524042	549907
7	Ernakulam	717000	1036495	1183780	1237018
8	Thrissur	1109000	1171027	1491508	1537296
9	Palakkad	1098000	1204790	1295638	1304463
10	Malappuram	591000	646570	1333405	1344416
11	Kozhikkode	379000	257287	464244	464794
12	Wayanad	162000	220730	298391	302237
13	Kannur	220000	315043	404816	453968
14	Kasaragod	261000	328458	383291	387696
	Total	***8336000***	***9685841***	***12196652***	***12485530***

9.67 During the Eighth Five Year Plan and Ninth Five Year Plan periods great stress was made on covering more population under protected water supply as well as increased provision of water. During the period 1993-2000, 50.94 lakh

population were additionally covered as shown in Table. 9.23.

Table 9.23
Additional Population covered with Protected Water Supply during 1993-2000

Year	*Total Population*	*Scheduled Caste Population*	*Scheduled Tribe Population*
1993	499757	101067	11888
1994	378331	70508	6374
1995	543625	106142	11232
1996	1184752	139182	10654
1997	321468	107349	11730
1998	463991	56418	7123
1999	753396	69121	3718
2000	350277	89490	2270
Total	***4495597***	***827011***	***73818***

Urban Water Supply Schemes and Population Covered

9.68 There were 50 urban water supply schemes in operation in the state covering 60.23 lakh population in 2000, which represented 69 percent of the urban population. There was an increase of 1% coverage in 2000 compared to 1999. The urban water supply coverage increased from 49.7 lakh in 1992 to 60.23 lakh in 2000. The relevant data are reflected in Appendix 9.84. There were 9610 stand posts in the three Corporation areas of Kerala as on 31.10.2000 and each stand post served 162 persons on an average. In municipal areas, there were 21,203 stand posts as on 31st October 2000. The relevant information is furnished in Appendix 9.85

Demand – Supply Gap in Water Supply in Corporation/Municipal Areas

9.69 According to 1991 Census, Corporation/Municipal areas in Kerala had a total population of 37.78 lakh. This population was estimated at 42.59 lakh in 1999. As per lpcd norms, the demand for water in these areas stood at 6952.5 million litres as against a supply of 4045.07 million litres of water during 2000. Demand-supply gap of water in Corporation/Municipal areas thus stood at 2902.43 million litres of water in 1999-2000. The details are presented in Appendix.9.86.

Production and Supply of Piped Water

9.70 The production of piped water supply has increased from 3,34,759 million litres in 1992 to 3,79,600 million litres per day in 2000, showing an increase of 44,840 million litres (13.39 per cent) during the period. Similarly, the supply of piped water increased from 2,05,378 million litres to 2,86,525 million litres per day during the above period, showing an increase of 39.51 percent. The leakage in 1992 stood at 1,29,381 million litres amounting to 38.65% of the water produced. This declined to 93,075 million litres in 2000 (24.52 percent) in 2000. The reduction of leakage is a notable achievement. Table 9.24 shows the details on production, supply and leakage of water during the period 1992-2000. Though Kerala's water production amounted to 32.83 litres per capita per day, actual supply was 24.78 litres only, based on the projected population.

Table 9.24
Production and Supply of Water under Piped Water Supply

(in million litres)

Year	*Production*	*Supply*	*Leakage*	*Percentage of column 4 to 2*
1992	334759.40	205378.34	129381.06	38.65
1993	360597.12	247924.46	112672.67	31.25
1994	350962.48	253657.43	97305.05	27.72
1995	382116.77	255946.82	12169.95	33.00
1996	387759.86	269799.29	117960.58	30.42
1997	368177.22	266914.13	101263.09	27.50
1998	379600.00	286525.00	93075.00	24.52
1999	379600.00	286225.00	93075.00	24.52
2000	379600.00	286525.00	93075.00	24.52

9.71 The house tap connections covered 6.34 lakh families which constituted 10.51 percent of the households in Kerala. It increased from 6.32 lakh families in 1998 to 6.34 lakh families in 1999. The stand posts installed increased from 1.21 lakh in 1996 to 1.36 lakh in 1999.

Habitation Wise Coverage of Water Supply Scheme

9.72 According to a survey conducted by Rajiv Gandhi Drinking Water Supply Mission in 1992, out of the 9776 habitations in the state, 2289 were non-covered, 2074 were partially covered (W level less than 10 lpcd) and 5348 ha coverage with 10 – 40 lpcd level. 51 habitations were fully covered and 13 in forest areas not covered. Between 1992 and 2000, the number of non-covered habitations declined from 2289 in 1992 to 880 in 1998 and to 842 in 2000. Fully covered habitations increased to 1994 in the state by 2000. The status of water supply coverage in habitations is given in Table 9.25.

Table 9.25
Status of Water Supply Coverage as on 30.4.2000

Month/ Year	*Habitants*			
	Fully Covered	*Partially covered*	*Non- covered*	*Forest Area*
1997	1474	7141	1148	13
1998	1682	7091	990	13
1999	1962	6921	880	13
2000	1994	6927	842	13

9.73 The position in 2000 was that, among the partially covered habitations, 1620 had below 10 lpcd supply, 1409 between 10 and 25 lpcd, 1778 between 25 and 50 lpcd and 4965 habitations between 50–100 lpcd supply of water. The coverage in terms of percentage of population is furnished in Table 9.26.

Table 9.26
Habitation-wise Distribution of Provision of Drinking Water as on 1/4/2000

Quantity of supply	*Number of Habitations*			
	1997	*1998*	*1999*	*2000*
Less than 10 lpcd	2279	1764	1637	1620
10-25 lpcd	1746	1851	1445	1409
25-50 lpcd	2242	2799	1816	1778
50-100 lpcd	3496	3349	4865	4956
Sub Total	***9763***	***9763***	***9763***	***9763***
Non-covered forest area	13	13	13	13
Total	***9776***	***9776***	***9776***	***9776***

Expenditure

9.74 The expenditure on water supply under plan and non-plan amounted to Rs. 110 crore in 1992-93, which sharply increased to about Rs. 260 crore in 1999-2000(RE). The relevant data are presented in Table 9.27

Table 9.27
Expenditure on water supply from 1992-93 to 2000-01

Year	*Plan*	*Non-plan*	*Total*
1992-93	8131.57	2952.11	11083.68
1993-94	9347.76	3546.36	12894.12
1994-95	10019.22	3550.39	13569.61
1995-96	11194.93	3549.01	14743.94
1996-97	10502.62	3580.36	14082.98
1997-98	16501.86	3578.35	20080.21
1998-99	14859.14	4667.00	19526.14
1999-2000 (RE)	20078.37	5876.56	25954.93
2000-2001 (BE)	22855.00	5965.02	28820.02

9.75 The plan expenditure of KWA stood at Rs. 187.34 crore in 1998-99. Out of it, 64.80 percent was spent for schemes other than ARP/LIC/HUDCO and ARP assisted schemes, 15.64 per cent on LIC/HUDCO assisted schemes and 18.86 per cent on ARP schemes. The non-plan expenditure during 1999-2000 was Rs.235.30 crore as against Rs.79.12 crore in 1993-94, thus registering an increase of 197.5 percent during the period. Among the different components of non-plan expenditure during 1999-2000, expenditure on electricity charges alone constituted 23.07 percent, O&M expenditure 12 percent and salary cost 39.75 percent. Appendix 9.87 provides the details of expenditure.

Financing Water Supply Schemes with LIC/HUDCO Assistance

9.76 Over and above the non-plan and plan expenditure of the state on water supply schemes, institutional finance has been availed of with a commitment to provide drinking water to all within a definite timeframe. During 1999-2000, KWA raised Rs 30 crore from LIC and Rs 6.21 crore from HUDCO as reflected in Table 9.28. As can be seen in the table, there is an accumulated repayment liability of Rs 153.79 crore by KWA to above agencies.

Table 9.28
Year-wise Details of Assistance from LIC and HUDCO

(Rs. in crore)

Year	*LIC*			*HUDCO*		
	Assistance Received	*Repayment made*	*Outstanding Balance*	*Assistance Received*	*Repayment made*	*Outstanding Balance*
Upto 31/3/1992	6.430	1.848	7.863	0.466	–	0.466
1992-93	1.000	0.325	8.528	1.395	0.081	1.780
1993-94	1.230	0.401	9.357	1.174	0.223	2.731
1994-95	2.151	0.436	11.072	1.449	0.336	3.844
1995-96	2.028	0.517	12.583	1.060	0.367	4.537
1996-97	2.266	0.523	14.326	0.294	0.425	4.406
1997-98	2.783	0.605	16.504	1.272	0.567	5.111
1998-99	Nil	0.661	18.543	3.953	0.606	8.458
1999-2000	3.000	0.702	18.141	0.621	0.831	8.240
Total	***20.888***	***6.028***	***114.217***	***11.684***	***3.444***	***39.573***

Per Capita Cost of Providing Water Supply

9.77 The per capita cost of providing water supply in Kerala has been estimated at between Rs.1500 and Rs.2000 in rural areas and Rs.2500 and Rs. 3000 in urban areas. The cost of production of drinking water approximately is worked out as Rs.6 to Rs.7 per 1000 litres in 1999, but the realisation is less than Rs.3/-.

Decentralisation and Water Supply

9.78 The allocation for drinking water projects during the first three years of Ninth

Plan by local bodies amounted to Rs.159.25 crore. The number of projects prepared in this sub-sector during 1997-98, 1998-99 and 1999-2000 were 5089, 5215 and 8706 respectively. The relevant details are presented below in table 9.29.

Table 9.29
Drinking Water Projects Prepared by Local Bodies During 1997-2000

(Rs. in crore)

Sl. No	Item	1997-98		1998-99		1999-2000	
		No. of projects	Grant-in-aid	No. of projects	Grant-in-aid	No. of projects	Grant-in-aid
1	Drinking Water	5089	58.35	5215	47.69	8706	53.21
2	Sanitation	2658	38.50	3860	38	3495	20.29

9.79 The projects prepared by each tier of local body for 1999-2000 is given below:

	Grant-in-aid (Rs. in crore)	No. of Projects
Grama Panchayats	29.44	6490
Block Panchayats	9.29	1261
Municipalities	3.99	305
District Panchayats	10.49	605
	53.21	8706

Sanitation

9.80 According to 1991 Census, 51 per cent (28.05 lakh) of the households in the state had sanitary latrines. The position was that 86 per cent of households were rural households, of which 52 per cent (24.54 lakh) had latrine facilities. In urban areas 53 per cent (4.20 lakh) of total urban households had latrine facilities.

9.81 During 1992-97, 1.25 lakh latrines were constructed by various agencies. 4.13 lakh latrines were constructed during the first three years of Ninth Plan period by local bodies. Another 7.50 lakh private latrines would have been constructed by individuals as part of construction of new houses.

HOUSING

9.82 There were 54.59 lakh houses and 55.13 lakh households in Kerala according to 1991 Census. Difference between households and houses indicates the shortage of houses, which worked out to 0.54 lakh. Out of the total houses, 56 % were pucca, 19% semi pucca and 25% Kutcha houses.

9.83 Housing demand for Kerala in 1991, considering the shortage, the semi pucca and kutcha houses has been worked out as follows:

Housing Demand in 1991

Category	No. in lakh
1. Shortage of houses	0.54
2. Sub-standard houses which are to be reconstructed	5.50
3. Houses which required major repair/reconstruction	2.70
Total	*8.74*

9.84 Kerala's population was 290 lakh in 1991; it has been projected to be 328 lakh in 2001. Family size in Kerala in 1991 was 5.3 and assuming the same family size of 5.3, additional houses required consequent on the increase in population has been estimated at 7.20 lakh in 2001. The total demand for houses in 2001 thus works out to 15.94 lakh against 8.74 lakh in 1991.

Housing Policy and Approach

9.85 In order to tackle the housing problem of the state both State Government through its state sector budgetary allocation and local bodies through their plan allocations have accorded priority to housing.

9.86 In the housing support provided by the State, 79% is for economically weaker sections. Subsidy for economically weaker sections has been increased from Rs.9000 per house in 1996 to Rs.35,000 per house in 1998. The Kerala State Housing Board (KSHB) introduced a major scheme, Maithri Housing scheme, in 1996. Under this scheme, in addition to the subsidy of Rs.9000 per house, an interest subsidy of 8.5 % is also provided by government.

9.87 During the nine year period 1991-1999, the state sector supported agencies assisted construction of 6.86 lakh houses. The relevant details are given in Table 9.30.

Table 9.30
Houses constructed by major Government Agencies in Kerala (1991-2000)

Year	No. of Houses
1991	56845
1992	47172
1993	43776
1994	40648
1995	56946
1996	49915
1997	115424
1998	119518
1999	156705
Total	***686949***

Note : (i) Houses constructed by major State/National institutions also included since 1997
(ii) Does not include houses constructed by local bodies

Houses constructed during 1997-2000

9.88 Review of achievement under various housing schemes shows that 3.92 lakh houses have been constructed in Kerala by different agencies during 1997-2000. The State Planning Board's survey found that during the four-year period (1991-94), 75,000 houses have been constructed in the private sector annually. Based on the survey, during 1997-2000, 2.25 lakh houses would have been constructed in the private sector. Local bodies assisted for the construction of nearly 3.06 lakh houses during 1997-2000. District Panchayats of Thiruvananthapuram, Kollam and Thrissur have formulated housing programmes to provide houses to all houseless families, to be completed in 2 to 3 years. The houses constructed/repaired by local bodies during 1997-2000 is given in Table 9.31. Taking all these aspects, it is estimated that nearly 9.23 lakh houses have been constructed in Kerala during the first three years of the Ninth Plan. Out of it, houses constructed during 1999-2000 stood at 4.79 lakh.

Table 9.31
Houses Assisted and Repaired by Local Bodies

Year	*Houses constructed by Local Bodies (Nos)*	*Houses Repaired (Nos)*
1997-98	54712	44655
1998-99	81739	32513
1999-2000	169837	40851
Total	***306288***	***118019***

Note : Houses constructed by Local Bodies also includes a portion of Maithri Housing Scheme

9.89 The major agencies like Kerala State Housing Board, Kerala State Housing Co-operative Federation and various government departments are engaged in assisting house construction. All the agencies together have constructed nearly 1.56 lakh houses in Kerala during 1999-2000 as against 1.19 lakh in 1998-99 and 1.15 lakh in 1997-98 (Table 9.32). Kerala State Housing Board constructed 43% of the total houses in 1999-2000, followed by

Rural Development and Revenue Departments, 16 percent each. Co-operative Housing Federation assisted in the construction of 8934 houses during 1999-2000.

Table 9.32
Assistance to House construction by Different Agencies/ Government Departments in Kerala (1997-2000)

SL No	*Agencies/Departments*	*No. of Houses*		
		1997-98	*1998-99*	*1999-2000*
1	Kerala State Housing Board	38520	52163	67897
2	Kerala State Co-operative Housing Federation	8228	7348	8934
3	Kerala State SC/ST Development Corporation	360	1584	618
4	Rural development Department	17803	14134	24358
5	Sainik Welfare Department	79	64	61
6	Kerala State Co-operative Agricultural and Rural Development Bank	13919	10721	6614
7	LIC Housing	1176	1105	3268
8	Fisheries Development Corporation	900	900	150
9	Kerala Urban Development Finance Corporation	--	--	3658
10	Land Revenue Department	17803	14134	24358
11	Scheduled Caste Development Department	6215	8485	7163
12	Scheduled Tribe Development Department	820	500	310
13	Police Housing and Construction Corporation	1	267	273
14	Housing Development Finance Corporation	5000	4575	2478
15	Scheduled/Nationalised Banks	4600	3538	6565
	Total	*115424*	*119518*	*156705*

Source : Housing Commissioner

Kerala State Housing Board (KSHB)

9.90 Kerala State Housing Board established in 1971 has assisted construction of 4.17 lakh houses till 1999. During 1999-2000, it constructed 67897 houses under different categories. Thus by the end of 1999-2000, KSHB has constructed 4.85 lakh houses under different categories. The relevant data are reflected in Appendix 9.88. Out of the total houses constructed during 1999-2000, 63467 (93%) were under Maithri Housing Scheme exclusively for the economically weaker sections, 1829 (2.7%) were for low income group and 1593 (2.3%) were under middle income group. From 1996-97 to November 2000, Kerala State Housing Board disbursed loan assistance aggregating Rs. 67488.22 lakh for the construction of 269317 houses, out of which 213354 houses have been completed. The district-wise achievement under Maithri Housing Scheme is shown in Appendix 9.89. The Kerala State Housing Board received budget support from government and institutional funds from HUDCO, HDFC, LIC and Nationalised

Banks. During 1999-2000, it raised Rs. 30194 lakh from HUDCO.

Kerala State Co-operative Housing Federation (KSCHF)

9.91 Kerala State Co-operative Housing Federation is an apex-financing agency in the co-operative housing sector. At present, 207 primary housing co-operative societies (PHCS) are affiliated to the Federation. KSCHF raised a total amount of Rs. 9841 lakh during 1999-2000. Out of it, Rs. 2700 lakh was from LIC of India and Rs. 6800 lakh from HUDCO. Share Capital from state government amounted to Rs. 100 lakh and from member societies Rs. 241 lakh. KSCHF sanctioned Rs. 8618 lakh for 10169 houses during 1999-2000 and disbursed Rs. 7554 lakh. During the first five months of 2000-01, it sanctioned Rs. 4413 lakh for 5638 houses and disbursed Rs. 3866 lakh for 4862 houses. The major achievements of KSCHF are given in Table 9.33.

Table 9.33
Major Achievements of Kerala State Co-operative Housing Federation

(Rs.Lakh)

Year	*Fund raised*	*Amount Sanctioned*	*Amount disbursed*	*Houses sanctioned*	*Houses assisted*
1995-96	2592.85	5510.55	4369.84	8394	7268
1996-97	5095.97	6210.83	6017.26	8065	8360
1997-98	7774.14	6513.16	6519.08	8129	8228
1998-99	3145.35	6724.76	5895.58	8198	7348
1999-2000	9600.70	8618.56	7554.15	10169	8934
2000-01 (30.9.2000)	1000.00	4413.35	3866.32	5638	4862

LABOUR AND LABOUR WELFARE

Industrial Training

9.92 There were 32 Industrial Training Institutes (ITIs) and 375 Industrial Training Centres (ITCs) in Kerala in 2000. This included 8 women ITIs. The other infrastructure consisted of 9 Related Instruction (RI) Centres, 2 Advanced Vocational Training (AVTs) and one Basic Training Centre (BTC). Both ITIs and ITCs have one-year, 2-year and three-year courses, and have a total enrolment of 50496 in 2000 as against 48736 in 1999. ITIs have an enrolment of 12456 students, of whom 3888 (31%) are in one-year course and 8456 (68%) are in 2-year course and 112 (1%) are in the three-year course. There are 18 trades each in the one-year and 2-year courses. The highest enrolment is in the Welder course, with 18 percent of the total. ITCs have a total enrolment of 38040 students. Out of them, 8820 (23%) are in one-year course and 29188 (77%) are in 2-year course. Table 9.34 below shows student strength in ITIs and ITCs

Table 9.34
Student Strength/Enrolment in ITIs and ITCs

	Institute	*Student Strength*	
		1999	*2000*
A	**ITIs**		
	One year course	3980	3888
	Two year course	8484	8456
	Three year course	--	112
	Sub Total	12464	12456
B	**ITCs**		
	One Year course	8292	8820
	Two year course	27980	29188
	Three year course	--	32
	Sub Total	36272	38040
	Grand Total	***48736***	***50496***

9.93 Out of the total students enrolled in ITIs and ITCs, 25% are in ITIs and 75% are in ITCs. Among the 32 ITIs, only 27 are permanently affiliated to NCVT while all the 375 ITC's are affiliated to NCVT. The district-wise details of ITIs and ITCs

with seat strength are given in Appendix 9.90.

9.94 Of the total students enrolled in ITIs, 18 percent are girls and 13 percent belong to the scheduled castes. Similarly in the case of Industrial Training Centres, 18 percent are girls and 10 percent are SCs. Details of girls and SC students in one-year and 2- year courses in ITIs and ITCs are given in Appendix 9.91 and Appendix 9.92.

9.95 In 1999, 3982 students were enrolled in one year ITI course and out of them 2610 students (65.5%) passed the examination in 2000. Out of 1193 girls admitted in 1999, 896 (75%) passed in 2000. Similarly, out of 4760 students enrolled for 2 year ITI course in 1998, 3431 (72%) passed in 2000. The intake and out turn in one-year course in ITCs are such that out of 5061 students admitted in 1999, 2859 (56%) passed in 2000. For two-year course, 12508 were admitted in 1998, and out of them, 7281 (58%) passed in 2000.

9.96 Apprenticeship training is implemented through 9 RI centres. In five districts, Malappuram, Wayanad, Idukki, Kasargod and Pathanamthitta, there are no RICs and in these districts apprenticeship training is arranged through ITIs. During 2000, 5662 apprentices have been trained through the RICs, as against 5297 in 1999. Out of the total apprentices trained during 2000, 592 (10%) were girls. In 1999-2000, government sanctioned a State Institute for Staff Training and Technology (SISTT). The main objective of SISTT is to update and upgrade the technical knowledge of instructors in areas like Computer, Electronics, mechanical technology and electrical work. Similarly, during 2000, an extension centre of ITI, Thiruvananthapuram was started at Central Prison for the benefit of the prisoners. Additional units were also started at ITI Kayyur during 1999-2000.

Kerala Institute of Labour and Employment

9.97 Kerala Institute of Labour and Employment, started in 1978, conducts training, study and research in labour, employment and related subjects. During 1999-2000, the Institute conducted 30 training programmes in which 1362 persons participated. Thirteen research projects undertaken by the Institute in 1998-99 continued during 1999-2000. In 1998-99, Institute conducted 23 programmes and 1402 persons participated. Out of the programmes conducted during 1999-2000, 27 were training programmes, two were workshops and an all India Seminar. Trade Union leaders, workers employees and Officers of Labour, Employment and Training Department, Officers of Welfare Fund Boards etc. participated the programme. Table 9.35 below shows the programmes conducted by the Institute.

Table 9.35
Training Programmes conducted by Kerala Institute of Labour and Employment

Year	*Training Programmes (Nos.)*	*Participants (Nos)*
1995-96	19	480
1996-97	22	797
1997-98	26	1742
1998-99	23	1402
1999-2000	30	1362

Source: Institute of Labour and Employment

CHAPTER - 10
SPECIAL PROGRAMME FOR WEAKER SECTIONS

Rural Development

Government of India introduced certain modifications and changes in the content and approach of Centrally assisted poverty alleviation programmes with effect from 1st April 1999. Accordingly, six self employment programmes namely; Integrated Rural Development Programme, Development of Women and Children in Rural Areas, Training of Rural Youths for Self Employment, Supply of Modern Tool Kits to Rural Artisans, Ganga Kalyan Yojana and Million Wells Scheme have been merged and a new scheme, Swarnjayanthi Gram Swarozgar Yojana, was introduced. Similarly, Jawahar Rozgar Yojana has been restructured and renamed as Jawahar Gram Samridhi Yojana. The funding pattern of poverty alleviation programmes sponsored by Government of India has also been revised as 75:25 between Central and State Governments. Rural Development programmes are essentially anti-poverty programmes and are also partially or fully Centrally assisted schemes, generally benefiting people below poverty line. Important poverty alleviation programmes implemented in the state during 1999-2000 were Swarnajayanthi Gram Swarozgar Yojana (SGSY), Indira Awaz Yojana (IAY), Jawahar Gram Samridhi Yojana (JGSY), Employment Assurance Scheme (EAS), Restructured Central Rural Sanitation Programme etc. All these are being implemented by the Rural Development Department aimed at generating additional employment and income to the identified rural poor.

10.2 According to the survey of Rural Development Department in 1992, there were nearly 17.87 lakh families in the State below poverty line. The list was revised in 1994 and 1995. In 1995 there were 20.73 lakh families below poverty line. During the period 1992-93 to 1995-96, approximately 1.93 lakh families were assisted under various poverty alleviation programmes. According to the list prepared in 1996, there were 18.79 lakh families below poverty line. The list has again been revised in 1998 but the report is yet to be finalised. The details as on 1.4.1996 are given in Table 10.1.

Table – 10.1
Rural Households Below Poverty Line (1996)

Districts	*Households identified in October 1992*	*SC/ST households added in January 1994*	*Households added in July 1995*	*Total Households (2+3+4)*	*Households assissed 1992-93 to 1995-96*	*Balance households as on 1-4-1996 (5-6)*
1	2	3	4	5	6	7
Thiruvananthapuram	203259	460	19871	223590	16722	206868
Kollam	185668	540	14347	200555	17194	183361
Pathanamthitta	69327	1072	13357	83756	11443	72313
Alappuzha	134522	420	10661	145603	14359	131244
Kottayam	109276	602	23007	132885	12471	120414
Idukki	76205	1098	34642	111945	8789	103156
Ernakulam	120690	365	12237	133292	19447	113845
Thrissur	176016	105	27935	204056	20267	183789
Palakkad	152711	531	35885	189127	15585	173542
Malappuram	170926	625	18376	189927	19233	170694
Kozhikode	166537	1687	18240	186464	16142	170322
Wayanad	51759	346	17168	69273	4239	65034
Kannur	106235	203	23147	129585	12480	117105
Kasargod	63743	834	8614	73191	5495	67696
Total	**1786874**	**8888**	**277487**	**2073249**	**193866**	**1879383**

Swarnjayanthi Gram Swarozgar Yojana (SGSY)

10.3 Swarnjayanthi Gram Swarozgar Yojana (SGSY) was launched with effect from 1-4-1999. It aims at establishing a large number of micro enterprises in the rural areas by adopting a group approach. The objective is to bring every assisted families above poverty line within a reasonable time of three years. It is conceived as a holistic programme of micro enterprises covering all aspects of self employment, viz., formation of self help groups, capacity building, planning activity clusters, infrastructure, technology, credit and marketing. The effort is to cover 30 per cent of the rural poor in each block in the next five years. It is a credit cum subsidy programme where credit forms the critical component. The programme emphasises skill development through training. Subsidy under the programme is uniform at 30 per cent of the project cost subject to a maximum of Rs. 7500. In respect of Scheduled Castes and Scheduled Tribes the subsidy is 50 per cent and subject to a ceiling of Rs. 10,000. For group activities the subsidy is 50 per cent of the project cost subject to a maximum of Rs. 1.25 lakh. There is no limit on subsidy for irrigation projects. The programme expects at least 50 per cent of the beneficiaries to be Scheduled Castes and Scheduled Tribes, 40 per cent to be women and 4 per cent to be disabled. An amount of Rs. 25.06 crore was distributed under the programme during 1999-2000. The expenditure is towards disbursement of subsidy to individual beneficiaries and group ventures. The physical achievement of the programme is given in Table 10.2.

Table 10.2
Physical Achievement of SGSY (1999-2000)

Particulars	*No*
1. Self-help Groups formed	6761
2. Self-help Groups assisted	440
3. Members covered	806
4. Individual Swarozgaris assisted	24769

Indira Awaz Yojana (IAY)

10.4 The objective of Indira Awaz Yojana is primarily to help construction of dwelling units by members of Scheduled Castes and Scheduled Tribes, freed bonded labourers etc. A maximum of 40 per cent of the fund can be utilised for construction of houses for other rural poor below the poverty line. Funds to the tune of 3 per cent is earmarked for physically handicapped persons. In April 1999 Government of India introduced a new component for up-gradation of unserviceable kutcha houses. Conversion of unserviceable kutcha houses to semi-pucca or pucca houses at the rate of Rs. 10,000 per unit was introduced in 1999-2000. The expenditure for the scheme during 1999-2000 was Rs. 39.20 crore. 18,212 houses were constructed and 2528 houses were upgraded during the year under review.

Jawahar Gram Samridhi Yojana (JGSY)

10.5 The primary objective of Jawahar Gram Samridhi Yojana (JGSY) is creation of demand driven community infrastructure including durable assets at the village level and assets to enable the rural poor to increase opportunities for sustained employment. The secondary objective is generation of supplementary employment for the unemployed poor. 22.5 per cent of the allocation is earmarked for individual beneficiary schemes for Scheduled Castes and Scheduled Tribes. The wage employment under this programme is given to families below poverty line. During 1999-2000 an amount of Rs. 36.52 crore has been spent. Altogether 31348 works had been taken up under the programme and 16068 works were completed, generating employment of 37.17 lakh man days. The major items of achievements include construction of roads to the extent of 665 kms. construction of 145 wells for irrigation, 28 school buildings, 8591 sanitary latrines, 400 wells for drinking water, 3629 houses etc.

Employment Assurance Scheme (EAS)

10.6 Employment Assurance Scheme was launched first in 21 community development blocks in 1994. The scheme has been extended to all the blocks in 1997-98. The objective of the scheme is to provide 100 days of assured employment during the lean agricultural season at minimum wages on non-farm or allied activities such as construction of roads, culverts, school buildings, play grounds, minor irrigation works etc. During 1999-2000, 42.94 lakh man days of employment were generated under the programme with an expenditure of Rs. 46.88 crore. Out of 5717 works taken up 2834 were completed during 1999-2000.

Kerala Rural Marketing Society (KERAMS)

10.7 Kerala Rural Marketing Society was established in 1986 as an autonomous body to provide marketing support to production unit promoted under rural development programmes and make available raw materials required for the production units. Through "Grama Sree" sales outlet of the organisation, products worth Rs.67.60 lakh were sold during 1999-2000. The society with the co-operation of District Rural Development Agencies organise trade fairs during festival seasons in all the districts. Details of sale value of products through this society are given in Table. 10.3

Table 10.3
Sale Value of Rural Development Products through KERAMS

Year	Sale Value (Rs. Lakh)
1	2
1993-94	33.27
1994-95	37.14
1995-96	49.33
1996-97	54.82
1997-98	60.15
1998-99	67.70
1999-2000	67.60

People's Action for Development-Kerala

10.8 People's Action for Development-Kerala (PAD-K) is a state level agency which co-ordinate voluntary efforts in rural development. This agency helps voluntary organisations in formulation of viable projects for securing assistance from CAPART. CAPART has sanctioned 19 projects costing Rs. 91.39 lakh during 1999-2000 on the basis of the recommendations of People's Action for Development – Kerala.

District Rural Development Agencies

10.9 With the introduction of decentralised planning in Kerala, the poverty alleviation programmes have been entrusted with the different tiers of Local Self Governments. One of the basic approaches to decentralised planning is integration of centrally sponsored schemes with the local projects formulated under people's campaign to avoid duplication, fill gaps and improve the effectiveness of schemes. Keeping this in view, it was necessary to make changes in the organisational structure for the implementation of centrally sponsored programmes. Accordingly, the District Rural Development Agencies have been merged with the District Panchayats from 1999-2000 with provision for separate and rigorous accounting and monitoring of the centrally sponsored programmes.

Kerala Institute of Local Administration

10.10 Kerala Institute of Local Administration, which is an autonomous institution, is the nodal agency of training, research and consultancy for Local Self Governments in the state. Apart from training and policy oriented research activities, the institute organises seminars, workshops and discussions on various issues of local governance and development. Since its inception in 1990, the institute has trained more than 25,000 persons consisting of elected representatives, officials, representatives of non-governmental organisations and social activists. During 1999-2000, 8128 persons were given training on different subjects. The institute has been identified as the nodal agency for implementing the project, Capacity Development for Decentralisation in Kerala (CAPDEK), financed by Swiss Agency for

Development and Cooperation. The project cost is Rs.10.54 crore intended for improving the training capabilities and strengthening the facilities in the training institutions.

Kudumbasree

10.11 Kudumbasree is a woman based participatory poverty eradication project launched by State Government with the financial support of NABARD and Central Government. The mission attempts to empower the Grama Panchayats and Municipalities to form Neighbourhood Groups of women, enable the Neighbourhood Groups to undertake micro savings and credit activities, converge the poverty eradication programmes of the Local Self Governments at the Neighbourhood level and integrate the Neighbourhood Groups with Local governance structures. The objective is to involve the poor actively in planning, managing and monitoring of programmes for their development. Identified poor women from each family are formed into neighbourhood groups. The neighbourhood groups are organised together at the ward level into area development societies and federated as panchayat/ municipality level community development societies which in turn are registered as charitable societies. In the Grama Panchayats outside Malappuram district where Kudumbasree is being currently introduced women from families above poverty line are also permitted to join the Neighbourhood Groups.

10.12 At present, Kudumbasree is implemented in all 58 urban Local Self Governments, entire Malappuram district and 241 selected Grama Panchayats in the State. 7537 neighbourhood groups, 607 area development societies and 58 Community Development Societies have been formed under the project. 58 Community Development Societies have started income generating activities. In Malappuram District alone 4448 neighbourhood groups were formed and the thrift amount collected by them amounted to Rs. 2.68 crore. Around 700 neighbourhood groups in the district were linked to various commercial banks under the linkage banking programme of NABARD. More than 15,000 micro enterprises have been started by the neighbourhood groups in the district. Formation of around 400 neighbourhood groups of the most primitive tribal groups of Koragas in Kasaragod District, Paniyans and Kattunaikans in Wayanad and Malappuram Districts, Kadar in Thrissur District and Kurumbar in Palakkad District is one of the remarkable achievement of the project during 1999-2000. The Swarna Jayanthi Shahari Rozgar Yojana has been merged with the Kudumbrasree project. The physical achievements under this component include starting of 8065 urban self employment units and 305 group units of urban women. 20206 persons have been trained under the programme. Under urban wage employment programme, employment has been provided for 1.43 lakh mandays.

Land Reforms

10.13 The major achievement is distribution of surplus land. An extent of 66,984 acre of land has been distributed to 157841 families as on 30-11-2000. The beneficiaries of land reforms include 67,895 Scheduled Castes and 8074 Scheduled Tribes. The extent of land distributed is 26,260 acre to Scheduled Castes and 5605 acre to Scheduled Tribes. District wise details are given in Table 10.4. Re-Survey in the state is being implemented since 1996-97 onwards. Now 12 re-survey parties, 3 range parties and mapping units are attending the re-survey operation. The re-survey works are in progress in all districts except Kasargod. Out of 38,863 sq.km to be surveyed in the State, an extent of 23139 sq. km under field work and an area of 20,900 sq.km. under office work have been completed as on 31-10-2000. Out of 903 villages taken up for re-survey, field work of 790 villages have been completed, office records of 670 villages have been finalised and the records in respect of these villages have been implemented under revenue administration. To dispose off complaints against survey records, adalaths

(courts) have been organised since 1-8-1995. A total number of 10,65,734 petitions have been received in adalaths of which 10,30,735 have been disposed off.

Table 10.4
District-wise Distribution of Surplus Land upto 30-11-2000

District	*Number of Beneficiaries*				*Land Distributed* (Area in Acre)			
	SC	*ST*	*Others*	*Total*	*SC*	*ST*	*Others*	*Total*
1	2	3	4	5	6	7	8	9
Kasargod	4310	802	7488	12600	3291	675	5852	9818
Kannur	5764	2214	10587	18565	3072	1565	6455	11092
Wayanad	1421	2748	2936	7105	487	1538	1333	3358
Kozhikode	5059	245	6027	11331	1246	102	1288	2636
Malappuram	9545	37	8912	18494	3513	14	4108	7635
Palakkad	14555	1427	15324	31306	5821	1273	6538	13632
Thrissur	7590	67	12346	20003	1411	50	2223	3684
Ernakulam	4094	50	2600	6744	749	6	429	1184
Idukki	2218	360	2411	4989	2042	315	2138	4495
Kottayam	2417	76	2841	5334	1245	60	1232	2537
Alappuzha	4014	48	4372	8434	2182	7	2354	4543
Pathanamthaitta	365	--	429	794	88	--	70	158
Kollam	3444	--	3209	6653	778	--	824	1602
Thiruvananthapuram	3099	--	2390	5489	335	--	275	610
Total	**67895**	**8074**	**81872**	**157841**	**26260**	**5605**	**35119**	**66984**

Western Ghats Development Programme

10.14 The Western Ghats Region of Kerala comprises of 31 taluks covering around 72 per cent of the geographical area and 49 per cent of the population in the State. Out of the total length of 1600 Kms. of hill ranges under Western Ghats, about 450 kms. is in Kerala covering 28 per cent of the geographical area of the region.

10.15 The Western Ghats Development Programme which was originated as part of the Hill Area Development Programme with special central assistance is being operated as an integral part of the State Plan from the Ninth Plan. This programme aims at the ecological and economic improvement of the area and living conditions of the local people. The sectoral plans under this programme are to be designed based on a sub plan approach aiming at the integrated development of the region on a watershed basis. The major schemes implemented under the programme include watershed development, forestry, village and small scale industries, horticulture, soil conservation, minor irrigation, dairy development, agriculture etc. During 1999-00 programmes worth Rs. 1326 lakh have been implemented against those for Rs. 1175 lakh in 1998-99. Details of financial and physical achievements under Western Ghats Development Programme during the Ninth Five Year Plan are furnished in tables 10.5 & 10.6 respectively.

Table 10.5
Financial Achievements under Western Ghats Development Programme during 1997-98 to 1999-00

(Rs. in lakhs)

Sl. No.	*Sector*	*Expenditure*		
		1997-98	*1998-99*	*1999-2000*
1	2	3	4	5
1.	Soil Conservation	244.37	238.12	275.14
2.	Agriculture Development	53.40	57.04	80.43
3.	Animal Husbandry	16.56	34.12	42.57
4.	Dairy Development	62.55	73.10	75.17
5.	Forestry Schemes	179.31	221.48	319.50
6.	Afforestation	1.75	1.90	5.72
7.	Horticulture & Floriculture	--	20.00	31.50
8.	Minor irrigation	235.74	320.76	206.20
9.	Village & Small scale Industries	25.44	16.00	68.20
10.	Foot Bridges	61.99	105.10	104.74
11.	Water supply & Sanitation	10.00	0.50	--
12.	Plantation & Eco-preservation	50.00	61.00	79.83
13.	Survey, Study & Evaluation	6.46	11.90	19.73
14.	Non conventional source of energy	3.32	4.30	4.76
15.	Western Ghat Cell	7.22	9.92	12.06
	Total	***958.11***	***1175.24***	***1325.55***

Source: Western Ghats Cell, Planning & Economic Affairs Dept.

Table 10.6
Physical Achievements under Western Ghats Development Programme during 1997-98, 1998-99 & 1999-2000

Sl. No.	*Sector/Sub Sector*	*Unit*	*Achievements*		
			1997-98	1998-99	*1999-2000*
I	**Soil Conservation**	Ha	1560	1761	2295
II	**Dairy Development**				
1	Supply of milk cows	Nos	903	998	1140
2	Construction of cattle sheds	Nos	775	1024	1100
3	Fodder Development	Nos	22	118	205
III	**Animal Husbandry/Poultry Development**				
1	Poultry Units	Nos	1120	1210	3500
2	Supply of Milk Goat	Nos	1085	2736	2097
3	Supply of Duck rearing units	Nos	-	89	795
IV	**Agriculture Development**				
1	Distribution of Seedlings	Nos	57605	67550	120500
2	Distribution of Pump sets/Sprayers	Nos	745	752	1024
3	Construction of Wells	Nos	374	588	620
4	Renovation of Wells	Nos	253	280	595
5	Water Harvesting Structures	Nos	145	21	--
V	**Minor Irrigation**				
1	Check Dam/Cross bars/Weirs	Nos	30	46	42
2	Wells/Ponds/Tanks	Nos	164	260	224
3	Pump sets	Nos	77	128	141
VI	**Foot Bridges**	Nos	72	110	105

Source: Western Ghats Cell, Planning & Economic Affairs Dept.

Urban Development

10.16 The National Slum Development Programme, a 100 percent centrally funded scheme is being implemented in the slum areas in 58 Municipal areas including the five corporation areas in the State. Physical achievement of the programme up to 31.3.2000 include construction of 2859 houses, upgradation of 3336 shelters, construction of 92 community health centres, installation of 820 drinking water taps, construction of 4928 lowcost latrines, installation of 512 street lights and 1408 other items like improvement of libraries, drains etc.

10.17 Another poverty alleviation scheme under implementation was Swarna Jayanthi Shahari Rozgar Yojana, which replaced the earlier schemes of Nehru Rozgar Yojana (NRY), Urban Basic Service Programme (UBSP) and Prime Minister's Integrated Urban Poverty Eradication Programme (PMIUPEP), with effect from 1-12-1997 implemented in urban towns in Kerala, with 75 per cent financial support from Central Government. From 1999-2000 onwards the scheme is being implemented by integrating with Kudumbasree Project. Majority of the beneficiaries of this project are women. The expenditure for the scheme up to 31.12.2000 is Rs. 4.31 crore for urban self employment programme and Rs. 3.94 crore for urban wage employment programme.

10.18 The Integrated Development of Small and Medium Towns, a 60 per cent centrally sponsored scheme is under implementation in towns having population below five lakhs. In Kerala 32 towns are covered by this scheme.

10.19 Modernisation of slaughter houses is being implemented in Thiruvananthapuram and Thrissur Corporations and Moovattupuzha, Irinjalakuda, Thiruvalla, Malappuram, Manjeri, Kannur, Angamali and Thrippunithura Municipalities. The projects in Thiruvananthapuram, Thrissur and Thrippunithura have almost been completed.

10.20 The scheme for Solid Waste Management provides collection and scientific disposal of urban solid waste by conversion into bio fertilizers by establishing conversion plants. The project is under implementation in Thiruvananthapuram, Kochi, Thrissur and Kozhikode Corporations and Kalpetta, Manjeri, Moovattupuzha and Changanasseri Municipalities.

10.21 The Cochin Urban Poverty Reduction Project assisted by the Department For International Development (DFID), United Kingdom and implemented by Kochi Corporation aims at sustained improvement in the livelihood and living conditions of about 1.95 lakh urban poor in Kochi Corporation area. This project started in April 1998 has four main components namely, infrastructure, human resources, land tenure and environmental improvements. The physical targets and achievements of the project are given in Table 10.7.

Table - 10.7

Physical Targets and Achievements of Cochin Urban Poverty Reduction Project
(1998-99 and 1999-2000)

Sl. No	Item	1998-99		1999-2000	
		Target (No)	Achievement (No)	Target (No)	Achievement (No)
1	2	3	4	5	6
I. Engineering					
1.	Road metalling, lane concreting and drain construction	125	16	377	102
2.	Support to toilet construction	-	-	275	130
3.	Bins for solid waste management	-	-	50	50
II. Community Development					
1	NHG formation	600	469	250	171
2.	Vocational training	400	315	1478	1478
3.	Note book to NHG members	13735	13735	13735	13735
4.	Umbrella to NHG members	486	486	-	-
5	Water bottle to students	175	175	-	-
III. Health					
1.	CHV kit	200	200	500	475
2.	Immunisation to children	1194	1194	3000	2890
3.	Supply of spectacle	677	677	2828	2828
4.	Cataract surgery	140	140	145	145
5.	Support to physically handicapped	1	1	25	7
6.	Financial assistance to super speciality surgery	10	3	25	3320
7.	Financial assistance to vulnerable patients	133	133	400	325
8.	Financial assistance to TB patients	181	181	400	316
9.	Medical supply to chronically ill patients	250	250	400	300
10	Emergency relief	39	39	50	42
11	Awareness classes	100	75	-	-
IV. Training					
1.	Training to NHG members	65	47	45	29
2.	Training to RCV, presidents and ADS chair persons	-	-	20	14
3.	Workshop	10	6	10	5
4.	Exposure visit	15	10	15	11
	V. Land Tenure				
1.	Rehabilitation of street children	-	-	50	11

Social Security and Welfare

10.22 Social Security and Welfare constitute an integral part of the functions of a modern government. Irrespective of the level of economic development, there are people who are unable to participate in economic activities and in mainstream society for reasons of old age, disability etc. and those who have no other independent means of livelihood. In India, the Preamble and Directive Principles of State Policy of the country's constitution enjoin the creation of a social order, which provides for some level of social security and welfare to all its citizens.

10.23 Recognising that, social security measures are an imperative need, State Government, over the years, have introduced as many as 35 schemes with a

view to reducing income insecurity and providing protection to people living in economic and social distress. The various schemes in Kerala are implemented through Government Departments, Statutory Boards and Non-statutory Boards and now by local self government institutions with the coming to force of the Kerala Panchayats Act and Kerala Municipalities Act. During the period 1997-2000, Government have introduced new schemes for marginalised groups, established the Commissionerate for the Disabled, a National Institute for the Speech and Hearing Impaired and assistance to the Old Age Poor and Victims Relief Fund. More recently, in order to co-ordinate the major social security measures, Government have constituted the Kerala Labour Authority. Towards social security and welfare schemes, the government expenditure during 2000 amounted to about Rs.186 crore, up from Rs.166 crore in 1998.

Institutional Social Security Care

10.24 The social security measures are broadly categorised into institutional security and security through pension and other schemes. Kerala has organised a wide security net through a variety of institutions such as orphanages, beggar homes, homes for the aged and infirm, after care homes, homes for the disabled, homes for cured mental patients, juvenile homes, fondling homes etc. Through a network of more than 400 orphanages in the state, about 44,428 children are benefited and 4920 aged/infirm benefited in 2000. The district-wise coverage of beneficiaries under major institutional social security measures is provided in Appendix 10.1.

Major Pension and Welfare Schemes

10.25 The major pension schemes implemented in the state are: Agricultural Workers Pension Scheme, Widow Pension Scheme, Destitutes Old Age Pension scheme and Special Pension for the Physically Handicapped. The four major pension schemes benefited 8,63,037 persons in 2000, accounting for 94 percent of the total pension beneficiaries in the state. The beneficiaries under special pension scheme for the disabled constituted 31 percent of the estimated disabled population of 3.87 lakh in Kerala. Of the total beneficiaries, 47 percent were agricultural workers, 33 percent widows and destitutes/aged persons and 13 percent physically handicapped. The details of state level and district-wise coverage of beneficiaries under major pension schemes are presented in Appendix 10.2. The details regarding rate of assistance etc. given to the beneficiaries are given in Appendix 10.3 with eligibility conditions indicated for each welfare scheme. The District Panchayats implemented the widows pension, destitute pension, special pension to physically handicapped, pension to leprosy and cancer patients, agricultural workers' pension etc.

Major Welfare Fund Initiatives

10.26 The major landmark in social security in Kerala is the introduction of welfare fund/pension schemes for the unorganised segments like coir, cashew, handloom, khadi, toddy workers, building construction workers etc. The major welfare schemes implemented by statutory boards include monthly pension to retired members, family pension, disability pension, ex-gratia financial assistance, death relief to dependents, educational grant to children, interest-free loan, funeral expenses, maternity benefit, marriage assistance, disablement benefit, house building advance, medical assistance etc. Out of 12 statutory boards in Kerala, nine have pension schemes along with other welfare benefits. These schemes benefited 9.3 lakh persons in 2000. The non-statutory boards implemented several schemes which benefited 0.45 lakh persons. The district-wise coverage of beneficiaries and relevant details are furnished in Appendix 10.4.

Prisoners' Welfare

10.27 The infrastructure under Jail department consisted 3 Central Prisons, an open prison, one prison for women, one district jail, one special sub jail, one Borstal school and 32 sub jails. In 2000, there were

4985 short-term prisoners and 1740 long-term prisoners. The various schemes benefited about 5000 inmates in prisons. The details of prisoners are shown in Table.10.8. During 2000, financial assistance given to the released prisoners for their rehabilitation has been increased from Rs. 5000 to Rs. 10,000 per prisoner.

Table 10.8
Details of Short Term and Long Term Prisoners

Name of Jail	Number of Short Term Prisoners								Number of Long Term Prisoners							
	Confined				Released				Confined				Released			
	As on 31-12-1999		As on 1-12-2000		As on 31-12-1999		As on 1-12-2000		As on 31-12-1999		As on 1-12-2000		As on 31-12-1999		As on 1-12-2000	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1.Central Prisons	2496	263	2208	171	1704	159	1110	105	1481	27	1382	45	94	9	60	-
2.Sub Jails	1986	64	2070	47	1311	47	672	24	4	-	11	-	-	-	-	-
3.Women's Prison, Neyyattinkara	-	21	-	41	-	9	-	10	-	22	-	19	-	8	-	-
4.Open Prison, Nettukaltheri	-	-	-	-	-	-	-	-	100	-	220	-	82	-	20	-
5.Special Sub Jail, Viyyur	215	-	-	-	202	-	-	-	3	-	-	-	3	-	-	-
6.District Jail, Kozhikode	34	10	425	20	20	5	25	10	46	10	60	3	6	2		-
7.Borstal School, Trikkakara	3	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	4734	358	4706	279	3237	220	1807	149	1634	59	1673	67	185	19	80	

10.28 The major activities of the Kerala State Physically Handicapped Persons Welfare Corporation are summarised in Table 10.9.

Table 10.9
Kerala State Handicapped Persons Welfare Corporation- Details of Self Employment Programme and Distribution of Aids and Appliances –1991-92 to 2000-01

Year	No. of Applicants	No of Applications forwarded to Banks	No. of Applications sanctioned	Amount released by Bank	Amount released by Corporation	No. of aid and appliances distributed
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1991-92	510	510	55	85000	29000	484
1992-93	486	486	177	996500	88500	326
1993-94	385	385	159	1325000	307500	751
1994-95	1378	1378	741	2912500	1482000	2635
1995-96	782	782	306	2332200	611500	2331
1996-97	1492	1492	762	6525000	1524000	2271
1997-98	1664	1664	424	3852100	848000	1588
1998-99	2329	2329	497	6282249	988500	2677
1999-2000	2397	2397	369	4830666	736000	3861
2000-2001	2935	2935	568	7961677	1126500	2053

Nutrition

10.29 The Integrated Child Development Services (ICDS) was started in Kerala in 1975. There were 120 ICDS projects in the state with 17146 anganwadi centres. As a part of universalisation of ICDS in the country, 43 new projects and strengthening of 37 existing coastal projects are planned for implementation with World Bank assistance as ICDS III programme. Twenty new projects have been started during 1999-2000 and the remaining 23 are to be started during 2000-2001. Thus in the state at present 163 ICDS projects are in operation. Though government sanctioned 24886 anganwadi centres, only 20034 are functioning. The project-wise/district-wise details are furnished in Appendix 10.5.

10.30 The education department is implementing the mid day meals programme in government and private aided primary schools. There were 11568 centres which benefited 28.5 lakh children during 2000-01 accounting for 82 percent of the LP/UP children. The expenditure incurred was Rs. 29.50 lakh.

Development of Scheduled Castes and Scheduled Tribes

National Status of Population

10.31 Some select indicators pertaining to general population and Scheduled Castes for India and Kerala are given in Table 10.10. It can be seen that whereas population of Scheduled Castes in the whole country was 1382 lakh, as per 1991 Census, constituting 16.32 per cent of the total population in the country, in Kerala, Scheduled Caste population was 28.87 lakh constituting 9.94 per cent of the total population in the State. The all India sex ratio among Scheduled Caste was 922, in Kerala it was 1029. The literacy rate of Scheduled Caste was 37.40 per cent and 79.70 per cent in India and Kerala respectively.

10.32 The gross enrolment ratio of Scheduled Caste students in classes I – V shows only marginal difference between India and Kerala. However, the enrolment ratio of Scheduled Caste students in classes VI- VIII for India is 62.10 whereas it is 97.80 for Kerala. While the school dropout rate of Scheduled Castes in classes I-VIII in India is 66.60%, this is only 3.10% in Kerala. The work participation rate of Scheduled Castes in Kerala is higher compared to all India level. The percentage of rural Scheduled Caste Population below poverty line in the State is 36.43 as compared to 48.10 for India during 1993-94.

Table 10.10

Select Indicators of General Population and Scheduled Castes in India and Kerala

Sl. No	Indicators	Period	India		Kerala	
			Total	SC	Total	SC
1	2	3	4	5	6	7
1	Population (Million)	1991	846.30	138.20	29.10	2.89
2	Sex Ratio	1991	927	922	1036	1029
3	Literacy Rate (per cent)	1991	52.20	37.40	89.80	79.70
4	Gross Enrolment Ratio					
	(a) I- V Classes	1998-'99	92.10	87.60	87.90	88.20
	(b) VI- VIII Classes		57.60	62.10	95.20	97.80
5	School Dropout Rates (I-VIII Classes)	1993- '94	52.80	66.60	0.90	3.10
6	Work Participation Rate (per cent)	1991	37.50	39.30	31.40	41.20
7	Below Poverty Line (Rural - per cent)	1993-'94	37.27	48.10	25.76	36.43
8	Members of Parliament (Lok Sabha)	1991	543	79	20	2
9	Members of Legislative Assembly	2000	4072	562	140	13
10	Members in PRI's (No)	1995-2000	2647257	365479	17086*	1848*

Note: ** As on 01-10-2000.*

Source: " Scheduled Castes in India" – (A Data Sheet) Planning Commission, 2000

10.33 The sex ratio of Scheduled Castes in Kerala is the highest compared to other states in India. The literacy rates of total population of Scheduled Castes and female literacy are also high in Kerala. Also, the dropout rates of Scheduled Caste children in Standard I-VIII is the least in Kerala when compared to other States and Union Territories in India.

10.34 Even though work participation rate of Scheduled Castes in the State is higher than the all India level, majority of the main workers are engaged in primary sector. The percentage of cultivators among Scheduled Castes is the lowest in Kerala while the percentage of agricultural labourers is high. State-wise details of development indicators of Scheduled Castes in respect of demographic features, literacy and education, work participation and economic status and elected representatives are given in Appendices 10.6 to 10.9.

10.35 Select indicators of development of Scheduled Tribes in India and Kerala are given in Table 10.11. The population of Scheduled Tribes in India was 67.76 lakh in 1991, representing 8.01 per cent of the total population in the country. In Kerala, the Scheduled Tribe population was 3.20 lakh which constituted 1.10 per cent of the total population in the State. The sex ratio of Scheduled Tribes in the State was 996, while it was 972 at the all India level. The literacy rate of Scheduled Tribe was 57.20 per cent when compared to 29.60 per cent among Scheduled Tribes in the country. The enrolment ratios of Scheduled Tribe students in Kerala in classes I-V and VI – VIII are higher than the all India levels. The dropout rate of Scheduled Tribe students in the State is 31.40 per cent while the rate for India is 77.70 per cent.

10.36 The work participation rate of Scheduled Tribes in Kerala is lower when compared to the Scheduled Tribes in other parts of the country. The proportion of Scheduled Tribes below poverty line in rural areas is 37.34 per cent in Kerala during 1993-94 while the corresponding figure for India is 51.94 per cent.

Table 10.11

Select Indicators of General Population and Scheduled Tribes in India and Kerala

Sl. No	Indicators	Period	India		Kerala	
			Total	ST	Total	ST
1	2	3	4	5	6	7
1	Population (Million)	1991	846.30	67.76	29.10	0.32
2	Sex Ratio	1991	927	972	1036	996
3	Literacy Rate (percent)	1991	52.20	29.60	89.80	57.20
4	Enrolment Ratio					
	(a) I- V Classes	1997-'98	89.70	90.70	90.00	107.50
	(b) VI- VIII Classes		58.50	43.20	95.40	84.50
5	School dropout Rates (I-VIII Classes)	1993- '94	52.80	77.70	0.90	31.40
	(a) Primary Health Centres (No.)	1996	21853	3258	959	62
	(b) Health Sub Centres (No.)	1996	132778	20355	5094	268
	(c) ICDS Projects	1998- '99	4200	750	120	1
7	Work Participation Rate (per cent)	1991	37.50	49.30	31.40	46.00
8	Below Poverty line (Rural – per cent)	1993-'94	37.27	51.94	25.76	37.34
9	Members of Parliament (Lok Sabha)	1999	543	41	20	--
10	Members of Legislative Assembly	1999	4072	530	140	1
11	Members in PRI's (No.)	1991-'97	1792332	225096	17086 *	193 *

Note: *As on 1.10.2000*

Source: "Tribes in India" (A Data Sheet) Planning Commission, 2000

10.37 Among the major States of India (defined as those with a population exceeding 10 million as per 1991 Census), Kerala reports the highest literacy rate for Scheduled Tribe population. Its sex ratio for Scheduled Tribes at 998 is exceeded only by

Orissa (1002) among major States. It also has the highest gross enrolment ratio and the lowest drop out ratio for Scheduled Tribes among all major States. The proportion of Health Sub Centres and Primary Health Centres serving Scheduled Tribes in Kerala is greater than the proportion of Scheduled Tribes in the State's population. Scheduled Tribes in Kerala have a significantly higher workforce participation rate than the general population. A higher proportion of the Scheduled Tribe workforce consists of agricultural labourers as compared to the general population.

10.38 State-wise details of development indicators of Scheduled Tribes with respect to demographic features, literacy and education, health and child care, work participation and economic status and the elected representatives are given in Appendices 10.10 to 10.14 respectively.

District-Wise Distribution of Scheduled Castes and Scheduled Tribes

10.39 The Scheduled Castes and Tribes population is not evenly distributed across the State. The Scheduled Castes is highest in Palakkad District and the lowest in Wayanad District. The four districts of Palakkad, Thiruvananthapuram, Thrissur and Kollam together account for nearly 50 percent States' Scheduled Caste Population.

10.40 The Scheduled Tribe population is even more unevenly distributed in the districts. Among the districts Wayanad alone accounts for nearly 36 per cent of the tribal population. Idukki and Palakkad account for another 26 per cent. The lowest representation of tribal population is in Alappuzha District. The details of Scheduled Caste and Scheduled Tribe population in Kerala is given in Table 10.12.

Table 10.12

District-wise Distribution of Scheduled Castes and Scheduled Tribes in Kerala

Sl. No.	*District*	*Total Population (Lakh)*	*Scheduled Castes (Number)*	*Scheduled Tribes (Number)*
1.	2	3	4	5
1.	Thiruvananthapuram	29.46	343439	16181
2.	Kollam	24.07	305727	3884
3.	Pathanamthitta	11.88	158033	6922
4.	Alappuzha	20.01	190355	2801
5.	Kottayam	18.28	135876	17996
6.	Idukki	10.78	156922	50269
7.	Ernakulam	28.17	241719	4941
8.	Thrissur	27.37	334524	4051
9.	Palakkad	23.82	378548	35465
10.	Malappuram	30.96	255731	10555
11.	Kozhikode	26.19	184620	5407
12.	Wayanad	6.72	27835	114969
13.	Kannur	22.51	91223	18243
14.	Kasaragod	10.71	81970	29283
	Total	**290.98**	**2886522**	**320967**

10.41 The tribal communities with pre agricultural stage of development and very low literacy rate are recognised as primitive tribal groups by Government of India. In Kerala, Cholanaikans, Kattunaikans, Kurumbas, Kadars and Koragas are identified as primitive tribes and they constitute nearly 4.8 per cent of the total Scheduled Tribe population in the State.

According to a survey conducted by the Forest Department in 1992, 17156 Scheduled Tribe families are living in the interior forest in 671 settlements. Majority of them are engaged in the collection of minor forest produce and forest protection work.

Economic Status

10.42 The occupational pattern of persons belonging to the Scheduled Castes and Scheduled Tribes would reveal their relative economic backwardness. Among Scheduled Castes, agricultural labourers constitute 53.78 per cent. Among Scheduled Tribes, the proportion is 55.47 per cent. The land reform measures implemented in the State have ensured ownership of homestead land to the Scheduled Caste families and thus reduced the incidence of landlessness among them. The percentage of cultivators among Scheduled Castes, however, is only 3.10 as against the State average of 12.24 for all castes.

10.43 Most of the Scheduled Tribe agricultural labourers, particularly in the southern districts, have been victims of tribal land alienation caused by immiserisation process or outright cheating. Even now, about 17 percent of the Scheduled Tribe workforce are cultivators. Outside the agricultural sector, Scheduled Castes and Scheduled Tribes are employed mostly in other agricultural related activities, livestock etc or in various types of rural wage employment.

10.44 The work participation rate among the Scheduled Castes is 41.21 per cent and that among Scheduled Tribe 46.04 per cent as against State average of 31.43 per cent for the whole population. The major reason for the higher participation rate is the relatively higher participation of women among Scheduled Castes and Scheduled Tribes. While the average workforce participation rate of women in the State is 15.85 per cent, the rates for Scheduled Caste and Scheduled Tribe women are 31.73 and 36.90 percent respectively. The male workforce participation rates for Scheduled Castes and Scheduled Tribes are also higher than for the non Scheduled Caste and Scheduled Tribe population. Details are given in Table 10.13.

Table 10.13
Selected Characteristics of Scheduled Castes and Scheduled Tribes Population (1991)

Sl. No.	*Description*	*Units*	*Scheduled Castes*	*Scheduled Tribes*	Total Population
1	*2*	*3*	*4*	*5*	*6*
1	Households	No	593676	69441	5513200
2	Population	"	2886522	320967	29098518
3	Literates	"	2002786	156061	22686461
4	Main Workers	"	1062922	129297	8301087
5	Marginal Workers	"	126488	18474	855031
6	Non Workers	"	1697112	173196	19952400
7	Size of Households	%	4.90	4.60	5.30
8	Decadal Growth Rate	"	13.22	22.75	14.32
9	Sex Ratio	No	1029	996	1036
10	Total Literacy Rate	%	79.66	57.22	89.81
11	Male Literacy	"	85.22	63.38	93.62
12	Female Literacy	"	74.31	51.07	86.17
13	Work Participation Rate (i) Total	%	41.21	46.04	31.43
	(ii) Male	"	50.96	55.14	47.58
	(iii) Female	"	31.73	36.90	15.85
14	Cultivators	"	3.10	16.66	12.24

15	Agricultural Labourers	"	53.78	55.47	22.54
16	Livestock, Forestry, Fishing, Hunting, Plantations etc.	"	10.87	15.47	9.24
17.	Mining and Quarrying, Manufacturing and Processing, Servicing & Repairing	"	1.88	0.33	0.99
18	(i) Household Industry	"	2.44	0.47	2.58
	(ii) Other than Household Industry	"	7.08	2.96	11.60
19	Construction	"	3.60	0.48	4.00
20	Trade and Commerce	"	2.83	1.38	12.64
21.	Transport, Storage and Communication	"	2.72	1.50	5.99
22.	Other Services	"	10.70	5.28	15.18

10.45 Despite the high work participation rate of Scheduled Castes and Scheduled Tribes the incidence of poverty is relatively higher among them indicating their low earnings and lack of assets.

10.46 Employment among Scheduled Caste and Scheduled Tribe people in the organised sectors is relatively low. However, due to the reservation policy there has been significant improvement in employment in Government. Between 1988 and 1994, the percentage of Scheduled Castes and Scheduled Tribes in Government employment increased from 9.96 to 11.56. It has further increased to 12.04 per cent in 1996. The details of Scheduled Castes and Scheduled Tribes registered in the employment exchanges are given in Appendix 10.15.

Social Indicators

10.47 The literacy rate among Scheduled Castes has shown significant improvement from 24.4 percent in 1961 to 79.66 per cent in 1991. Yet it is 10 percentage below the general literacy rate. Among the tribals, the literacy rate is even lower at 57.22 per cent.

10.48 The proportion of Scheduled Caste and Scheduled Tribe students in schools as on 1.6.2000 constitute 10.63 percent and 1.14 per cent respectively, i.e. relatively higher than the population share. It can be seen that drop out ratio beyond class VIII is relatively high in the case of Scheduled Tribes. Among college students, 12.50 per cent belong to Scheduled Castes and 0.78 per cent belong to Scheduled Tribes. Details of Scheduled Caste and Scheduled Tribe students in schools and Arts and Science Colleges are given in Table 10.14 and 10.15 respectively.

Table 10.14
Scheduled Caste and Scheduled Tribe Students at School Level
(As on 1.6.2000)

Section	*Total*	*Scheduled Castes*	*Percentage to Total*	*Scheduled Tribes*	*Percentage to Total*
1	2	3	4	5	6
Lower Primary Section	1932326	207712	10.75	28392	1.47
Upper Primary Section	1705002	182814	10.72	17631	1.03
High School Section	1611719	167267	10.38	13813	0.86
Total	**5249047**	**557793**	**10.63**	**59836**	**1.14**

Table 10.15
Scheduled Caste and Scheduled Tribe Students in Arts and Science Colleges

Course	*Total Strength*	*Scheduled Castes*	*Percentage to Total*	*Scheduled Tribes*	*Percentage to Total*
1	*2*	*3*	*4*	*5*	*6*
Pre-Degree	130651	19774	15.13	1109	0.85
Degree	144885	14923	10.30	1022	0.71
Post-Graduation	14585	1569	10.76	134	0.92
Total	**290121**	**36266**	**12.50**	**2265**	**0.78**

10.49 The enrolment of Scheduled Castes and Scheduled Tribes in technical institutions during 1999-2000 was 1882 and 471 respectively. Details are given in Table 10.16.

Table 10.16
Scheduled Caste and Scheduled Tribe Students in Technical Institutions

Institutions	*Total*	*Scheduled Castes*	*Scheduled Tribes*
1	*2*	*3*	*4*
Engineering Colleges	8543	683	171
Polytechnics	9630	770	193
Technical High Schools	5361	429	107
Total	**23534**	**1882**	**471**

10.50 During 1999-2000 altogether 322 students including 291 Scheduled Castes and 31 Scheduled Tribes have been enrolled for various medical and paramedical courses. Of them, 50 Scheduled Caste and 12 Scheduled Tribe students were admitted to MBBS course. Further details are given in Appendix 10.16 and 10.17.

10.51 It is estimated that only 40 percent of the Scheduled Caste families live in identified habitats or colonies. The tribal population has much higher degree of clustered settlement pattern. Despite various habitat development programmes, the basic amenities in these settlements are far from satisfactory. Housing is the most serious felt basic need. Unfortunately there are no State level reliable data regarding housing requirements. According to an estimate provided by the Department, the housing requirements of Scheduled Caste and Scheduled Tribe people would be around1.5 lakh houses.

Special Component Plan

10.52 The initial Five Year Plans did not have a separate component for the development of Scheduled Castes except for certain social welfare programmes undertaken by the Scheduled Caste Development Department. As a result, detailed guidelines for the preparation of a Special Component Plan for Scheduled Castes were issued as part of Fifth Five Year Plan.

10.53 The outlay for Special Component Plan was fixed as a percent of the total plan outlay to the State, in proportion to the Scheduled Caste population. A review of the programme revealed that the funds earmarked were significantly lower than the

population share and the schemes often not relevant to the local needs. There was a high degree of leakage. It was in this background that in Kerala it was decided to decentralise the Special Component Plan to the district from 1983-84 onwards.

10.54 District Level Working Groups for Scheduled Castes and Scheduled Tribes Development were formally constituted with the District Collector as Chairman and District Planning Officer as Convenor. The Working Group was responsible to ensure that each scheme was properly coordinated with the rest of the plan and that the habitat level and family level integration were properly ensured.

10.55 The responsibility for implementation of schemes rest with the departments concerned and responsibility for achieving coordinated targets rest with the District Collector who was to be assisted by the Working Group. The District Officers of Scheduled Castes and Scheduled Tribes Departments were also given charge of monitoring Special Component Plan and Tribal Sub Plan.

10.56 The practice followed for providing Special Component Plan outlay till 1996-97 was to set apart certain percentage of plan provision under the respective head of account of the department concerned. Despite repeated guidelines issued regarding the formulation and implementation of schemes, the needs of the Scheduled Caste/Scheduled Tribe population did not get translated into feasible working models. The gap between outlay and expenditure was also causing great concern. To correct this anomalous situation the Government introduced the system of pooling of funds with effect from 1996-97.

10.57 Pooling of funds meant that henceforth the Special Component Plan and Tribal Sub Plan allocation would fall under one head of account (ie, that of Scheduled Caste and Scheduled Tribe Development) rather than be distributed among the various heads of account. This gave greater freedom in deciding sectoral priorities indicating sectoral schemes and allocating funds correspondingly. It also enabled more flexibility in the handling of the Special Component Plan and Tribal Sub Plan funds and made it possible to effect re-allocation based on mid-term assessment of expenditure patterns and the demands of various sectors. Pooling of funds thus lent greater flexibility and greater responsiveness to Special Component Plan and Tribal Sub Plan.

Tribal Sub Plan

10.58 Special programmes are being formulated under Tribal Sub Plan for the benefit of the tribal people in the State. The main objective of the plan is to promote the socio-economic conditions of the Scheduled Tribes and free them from exploitation. To achieve this objective, Integrated Tribal Development Projects were started in the State during the Fifth Five Year Plan. Group as well as family oriented programmes were implemented under this approach. Special projects like Sungandhagiri Cardamom Project, Pookot Dairy Project, Priyadarshni Tea Estate, Attappady Co-operative Farming Society, Vattachira Tribal Collective Farm etc. have been started to rehabilitate bonded tribals in the State. Various economic and infrastructural development programmes are under implementation in these projects. In addition to plan funds, financial assistance from other sources are also mobilised for implementing the schemes in these projects. These five projects could rehabilitate 1089 tribal families in 3295 hectare of land. These families have been given houses with other facilities and employment opportunities in the plantations raised in the project area.

10.59 As part of the Tribal Sub Plan strategy, five Integrated Tribal Development Projects were started in the State between 1975 and 1980. In 1989, the number of these projects was raised from five to seven

to bring 75 per cent of the tribal population within these project areas..

10.60 The Tribal Sub Plan concept could never be fully operationalised within the State, because in an administrative area, non-tribals constituted majority of the population. Opening up of the tribal settlements through development schemes and their integration without sufficient protective safeguards led to many undesirable results. District level decentralisation of Tribal Sub Plan was introduced from 1983-84 onwards. From 1997-98, as in the case of Special Component Plan, a major portion of Tribal Sub Plan funds have been devolved to the Local Self Governments.

Decentralisation

10.61 The decentralisation of Special Component Plan and Tribal Sub Plan in 1997-98 resulted in an improvement in the allocation of plan funds and project implementation. There was also an improvement in the quality of schemes undertaken. In the absence of effective beneficiary participation, the decentralisation of Special Component Plan and Tribal Sub Plan tended to be increasingly bureaucratic. In Ninth Five Year Plan (1997-2002), a decisive step was taken towards democratic decentralisation by devolving the planning of Special Component Plan and Tribal Sub Plan to the Local Self Governments. The greater direct participation of the people facilitated by this was expected to bring about a significant improvement in the effectiveness of the programme.

10.62 In the Ninth Five Year Plan, the plan funds for Special Component Plan and Tribal Sub Plan are earmarked proportionate to the Scheduled Caste and Scheduled Tribe population and the system of providing notional flow is discontinued. Re-appropriation of funds from Special Component Plan to Tribal Sub Plan and vice-versa is totally disallowed. District Level Committees consisting of officials and social activists were constituted for formulation, implementation and monitoring of projects at district level by abolishing the system of District Level Working Groups. About 65-70 per cent of plan funds under Special Component Plan and Tribal Sub plan is being earmarked to Local Self Governments for implementation of projects under decentralised planning and People's Campaign. Accordingly, separate task forces have been constituted in all the Local Self Governments for preparation of projects under Special Component Plan and Tribal Sub Plan. Special training programmes are being arranged for the elected representatives of Scheduled Castes and Scheduled Tribes on formulation and implementation of projects. Instead of Grama Sabhas, "Oorukuttams" were convened in Tribal Settlements for identification of projects under Tribal Sub Plan, selection of beneficiaries etc. Social activists from Scheduled Tribes and coordinators from Scheduled Castes were selected and deployed in tribal settlements, Grama Panchayats and Municipalities for coordinating activities of People's Campaign at field level. The administrative machinery of the Scheduled Caste Development Department was re-structured by re-deployment of staff at Block Panchayats and Municipalities for monitoring the implementation of Special Component Plan at lower levels. Emphasis is given under People's Campaign for providing total housing for Scheduled Castes and Scheduled Tribes by the end of Ninth Five Year Plan. Besides, more stress is given for providing drinking water, sanitation, education etc to Scheduled Caste and Scheduled Tribe people.

10.63 During the first four Annual Plans of the Ninth Five Year Plan, a total amount of Rs. 967 crore has been earmarked to Local Self Governments as plan grant under Special Component Plan and Tribal Sub Plan. The details are given in Table 10.17.

Table 10.17
Plan Grant to Local Self Governments for Special Component Plan and Tribal Sub Plan (1997-98 to 2000-2001)

Annual Plans	*Plan Grant to Local Self Governments (Rs. Crore)*		
	Special Component Plan	Tribal Sub Plan	Total
1	*2*	*3*	*4*
1997-98	194.00	39.00	233.00
1998-99	195.00	39.00	234.00
1999-2000	200.00	40.00	240.00
2000-2001	217.00	43.00	260.00
Total	**806.00**	**161.00**	**967.00**

10.64 The physical achievements of Local Self Governments under Special Component Plan and Tribal Sub Plan during the first three Annual Plans are remarkable. The number of Scheduled Caste and Scheduled Tribe beneficiaries of agricultural development projects is estimated at 3.04 lakh. Approximately 32,000 acre of land belonging to them was brought under additional cultivation. Altogether 7167 pumpsets and 666 tractors and tillers were distributed to these communities. Besides, 97, 312 milch animals and 3.35 lakh poultry were distributed to Scheduled Castes and Scheduled Tribes. 383 co-operative societies were formed for promoting industrial activities. More than 1.17 lakh houses have been constructed for Scheduled Caste and Scheduled Tribe beneficiaries during the period. The Thiruyananthapuram and Kollam District Panchayats have undertaken projects for providing total housing to all people in the districts. Besides, total housing scheme has been taken up by 520 Grama Panchayats for Scheduled Castes and 111 Grama Panchayats for Scheduled Tribes. The scheme is under implementation in another 157 Grama Panchayats for Scheduled Castes and Scheduled Tribes.

10.65 The physical achievements under other sectors include construction of 90,508 latrines, 21,285 wells, renovation of 818 ponds, installation of 7563 water taps, improvement of roads to the extent of 3954 km. and construction of school, hospital and marketing complexes to the extent of 20,100 sq.m. More details of physical achievements for Scheduled Castes and Scheduled Tribes are given in Table 10.18 and 10.19 respectively.

10.66 The district-wise details on physical achievements of Local Self Governments under Special Component Plan and Tribal Sub Plan during the first three Annual Plans are given in Appendix 10.18 and 10.19 respectively.

Table 10.18
Select Physical Achievements of Local Self Governments under Special Component Plan (1997-2000)

Sl. No.	Items	Units	Achievements			Total (1997-2000)
			1997-98	1998-99	1999-2000	
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Additional area under cultivation	Acre	8051	6914	5618	20583
2	Beneficiaries of seeds/ fertiliser/ pesticides	No.	136802	70769	53983	261554
3	Tillers supplied	"	320	107	16	443
4	Cattle distributed	"	55563	23930	7299	86792
5	Chicken distributed	"	237831	50179	22643	310653
6	Cattle-sheds	"	3939	5051	2580	11570
7	Sewing machines	"	12750	2545	469	15764
8	Persons trained	"	5888	6962	6953	19803
9	Houses constructed	"	24633	28355	50052	103040
10	Plots allotted	"	3291	2675	4113	10079
11	Houses repaired	"	24318	11424	15769	51511
12	Toilets constructed	"	35598	26231	19112	80941
13	House wiring	"	19892	13427	7819	41138
14	Wells	"	6407	7069	6161	19637
15	Water taps installed	"	1691	2153	2588	6432
16	Ponds desilted	"	163	254	186	603
17	Pumpsets	"	2086	2718	1496	6300
18	Roads constructed	"	1084	1315	1267	3666
19	Length of roads	KM	873	881	786	2540
20	Culverts	No.	75	109	130	314
21	Bridges	"	109	45	46	200
22	Cooperatives formed	"	50	156	134	340
23	New schools built (area)	M. sq	862	414	390	1666
24	Hospital Building (area)	"	1063	157	147	1367
25	Offices built (area)	"	357	1605	1109	3071
26	Marketing complexes (area)	"	0	5880	111	5991

Table 10.19
Select Physical Achievements of Local Self Governments under Tribal Sub Plan (1997-2000)

Sl. No.	Items	Units	Achievements			Total (1997-2000)
			1997-98	1998-99	1999-2000	
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Additional area under cultivation	Acre	5510	3076	2673	11259
2	Beneficiaries of seeds/ fertiliser/ pesticides	No	12835	13991	15913	42739
3	Tillers supplied	"	161	62	0	223
4	Cattle distributed	"	4015	5088	1417	10520
5	Chicken distributed	"	14414	7844	2047	24305
6	Cattle-sheds	"	254	560	233	1047
7	Sewing machines	"	344	333	55	732

8	Persons trained	"	404	590	359	1353
9	Houses constructed	"	3324	4707	6102	14133
10	Plots allotted	"	197	175	343	715
11	Houses repaired	"	1867	2577	2190	6634
12	Toilets constructed	"	3497	3356	2714	9567
13	House wiring	"	1637	1967	973	4577
14	Wells	"	344	793	511	1648
15	Water taps installed	"	251	437	443	1131
16	Ponds desilted	"	80	89	46	215
17	Pumpsets	"	178	351	338	867
18	Roads constructed	"	209	203	253	665
19	Length of roads	KM	230	931	253	1414
20	Culverts	No.	34	38	58	130
21	Bridges	"	31	17	13	61
22	Cooperatives formed	"	14	15	14	43
23	New schools built (area)	M. sq	3112	629	421	4162
24	Hospital Building (area)	"	550	1282	310	2142
25	Offices built (area)	"	130	951	613	1694
26	Marketing complexes (area)	"	7	0	1	8

State Schemes and State Sponsored Schemes

(a) Development of Scheduled Castes

10.67 The schemes implemented by Scheduled Castes Development Department during 1999-2000 cover a wide area comprising education, health, housing and other social welfare activities. The department is implementing educational development programmes including distribution of lumpsum grant, stipend, pocket money etc. and accommodation facilities to students. Pre-matric concessions have been extended to 5.19 lakh students during 1999-2000. Cash awards are given to students who obtain first class in SSLC, Pre-degree, Degree and Post Graduate courses. 2217 students have benefited under the scheme during 1999-2000. 2540 Students are admitted in pre-matric hostels while accommodation has been given to 1112 post-matric students. There are 97 pre-matric hostels and 18 post-matric hostels for providing accommodation facilities to the students. A scheme called "Bharat-Dharshan" is intended to take group of students for tour to other parts of the country. All India tour for boys and South India tour for girls are being conducted every year. During 1999-2000, 53 Scheduled Caste students were benefited under the scheme. Special coaching is also imparted to students having talents in sports and games by admitting them in sports hostels. 52 students were benefited by the scheme during 1999-2000. Library facilities have been provided in all the pre-matric hostels to enable the students to develop their reading habits. Three production- cum-training centres and 41 industrial training centres are functioning. The sanctioned strength in the centres is 1356. Under the book bank scheme, 69 technical and professional institutions are given assistance to purchase books for the use of Scheduled Caste students during 1999-2000.

10.68 Three pre-examination training centres are working under the Department. Payment of boarding grant to Scheduled Caste students in subsidised hostels, tutorial system in pre-matric hostels and better education facilities to the bright students are the other educational programmes that are being implemented. Under better education scheme, students are admitted in standard V in English medium residential schools. The expenses covering fees, boarding charges, special tuition, uniform etc are being given

to the students till they complete SSLC or Plus Two. During 1999-2000, 241 students were benefited under the scheme. Two Model Residential Schools, one in Palakkad for girls and one in Ernakulam for boys have started functioning since 1998-99 with standard V. 60 students were admitted in these schools. A scheme for providing stipend for additional apprenticeship to ITC-passed candidates is being implemented. The apprenticeship will be given to the candidates for one year or till they get employment whichever period is less. 143 students have benefited during the year 1999-2000. The rate of education concessions for pre-matric, post-matric and professional and technical courses payable to Scheduled Caste and Scheduled Tribe students have been revised moderately with effect from 12th January 2001. Details are given in Appendix 10.20.

10.69 Under the Prevention of Atrocities Act, financial assistance is provided to victims of atrocities. During 1999-2000, 4 beneficiaries were given assistance under the scheme. Financial assistance to intercaste married couple is another welfare programme and 400 couples were benefited during the period under review. A distress relief scheme to help the poor who are undergoing costly treatment, who lost their properties in natural calamities or fire was started in 1998-99. 1325 persons got assistance during 1999-2000. An intensive drive for providing houses to the houseless people has been taken recently. Accordingly, 2000 families under rehabilitation housing, 300 families under rehabilitation of puramboke dwellers, 208 beneficiaries under development programmes for vulnerable group and 4100 beneficiaries under Maithri housing were benefited. Besides, 2843 families have been benefited through the scheme for repair of houses during 1999-2000. The details on physical achievements of major schemes implemented for Scheduled Castes are given in Appendix 10.21. The details on the institutions managed by the Scheduled Castes Development Department are given in Appendix 10.22.

(b) Development of Scheduled Tribes

10.70 Education being the most effective instrument for promoting economic and social advancement, prime importance is given to educational schemes for Scheduled Tribes. Educational concessions, scholarships and other kinds of assistance to the Scheduled Tribe students from pre-primary to post graduate level are given under various plan schemes. The educational programmes of Scheduled Tribes have benefited 63,752 students during 1999-2000. To provide better educational facilities and high standard of education, nine Model Residential Schools and three Ashram Schools (primary) for primitive tribes have been functioning during 1999-2000. The Model Residential Schools could achieve 100 per cent success in the SSLC examination, 2000. A scheme for providing financial assistance to SSLC and PDC failed students to continue their studies in private tutorial institutions is under implementation. Similarly, provision of better education facilities to brilliant students is another scheme, the objective of which is to impart high standard of education from standard V to standard X or Plus Two by admitting them in well known public schools. Every year, 50 students are admitted and all expenses connected with their study are met under this scheme. 109 pre-matric hostels are functioning for providing free boarding, lodging and tuition facilities to Scheduled Tribe students. The Scheduled Tribe students admitted in the subsidised hostels managed by voluntary organisations are also eligible for assistance. In order to provide pre-primary education, 58 nursery schools are maintained for the benefit of Scheduled Tribes. The nutritional requirements of the children are taken care of to a great extent in these institutions.

10.71 Housing is a critical problem for Scheduled Tribes. During 1999-2000, housing schemes for Scheduled Tribes were implemented both under "maithri" housing

scheme and by Scheduled Tribes Development Department. During the year under review, primitive tribes housing scheme was implemented for 221 beneficiaries.

10.72 Schemes have been implemented for providing better medical facilities to Scheduled Tribes. 17 Ayurveda dispensaries, one Ayurveda hospital, 5 primary health centres and two mobile medical units are functioning for their benefit. The Manathavady Health Project is one of the projects established for them to provide modern medicine. The Health Services Department conducts periodical medical camps in tribal areas to detect diseases and provide free medicines. Patients with various diseases detected during the camps are referred to hospitals.

10.73 The details of institutions managed by Scheduled Tribes Development Department are given in Appendix 10.23.

10.74 Under food support programme, employment for the tribals during the rainy season is ensured with a view to ameliorating poverty among them. Soil conservation and flood control works, cleaning of premises etc are certain indicative items of work taken up under the programme. The programme is in operation in Wayanad, Idukki, Malappuram, Kasaragod, Palakkad, Thrissur, Kozhikode and Pathanamthitta districts. During 1999-2000, about 12642 tribal families were benefited under the programme. District and State level festivals of Scheduled Tribes, assistance to mahila samajams, assistance for marriage of girls, scheme for implementation of Prevention of Atrocities Act etc are the other major schemes implemented for the benefit of Scheduled Tribes during 1999-2000.

10.75 The poverty alleviation and employment generation programmes and development activities under other sectors for the benefit of Scheduled Castes and Scheduled Tribes are being implemented under pooled funds. The major physical achievements are given in Appendix 10.24.

Kerala Institute For Research, Training and Development Studies

10.76 The institute is an agency mandated to conduct research and studies on Scheduled Castes and Scheduled Tribes in Kerala. During 1999-2000, a consolidated report of court judgements and Central Government directions regarding Scheduled Caste and Scheduled Tribe people who had migrated permanently or temporarily from one State to another has been prepared. Twenty seven enquiry reports have been furnished to the committee set up to scrutinise the issue of bogus community certificates. The institute has conducted 11 programmes including archery competition and social and cultural programmes of Scheduled Tribe communities as part of "Keraleeyam". Training programmes have also been conducted for tribal extension officers and block extension officers. "A study on Decentralised Planning with Specific Emphasis to Scheduled Castes and Scheduled Tribes Development in Palakkad District" and "Study on Scheduled Caste Development Programme in the context of three tier system- Kozhikode District" are the evaluation reports prepared by the institute.

Kerala State Development Corporation For Scheduled Castes And Scheduled Tribes

10.77 This Corporation is implementing about 60 types of schemes under various sectors of development for asset creation and employment generation for Scheduled Castes and Scheduled Tribes. The major schemes among them are: assistance for agricultural land purchase, foreign employment, margin money, Ambedkar rural housing, income generation linked housing, professional service centres, tailoring unit, mini hotel, piggery unit, concrete building materials, laterite tone cutting, mobile ironing, ready made garments etc.

10.78 Under foreign employment scheme, the Corporation is providing loan upto Rs.25,000 to an individual @ 5 per cent interest. 16 persons have been benefited by the scheme during 1999-2000. Under Ambedkar rural housing scheme, income generation linked housing scheme etc., 618 beneficiaries were given assistance during 1999-2000. Margin money deposit scheme is being implemented by utilising Special Central Assistance to Special Component Plan. Under this scheme, financial assistance upto Rs. 35,000 is given for economically and technically viable projects. 715 persons were benefited by the scheme during 1999-2000. The Corporation has imparted various training programmes for the skill upgradation for undertaking self-employment ventures. The areas of training given are mainly related to computer, entrepreneurship development, autoriskshaw driving, desk top printing, watch assembling and servicing, footwear manufacturing, fruit preservation, software, four wheeler driving etc. Financial assistance is also given to promote units of traditional occupations like cane works, carpentry, poultry, handicrafts, handloom, tailoring, smithy works etc. The maximum assistance of the scheme is Rs. 10,000 per project of which 50 per cent of the cost limited to Rs. 5,000 is subsidy. The schemes have benefited 71 persons during 1999-2000. During 1999-2000, the Corporation has started units for concrete building materials and laterite stone cutting. The Corporation has extended financial assistance to 2516 beneficiaries by providing assistance of Rs. 1407.86 lakh during 1999-2000 as against 2783 beneficiaries and Rs. 698.62 lakh during 1998-99. The scheme-wise details of physical and financial achievements of the Corporation are given in Appendix 10.25.

Development of Other Backward Classes

a. Kerala State Development Corporation for Christian Converts from Scheduled Castes and the Recommended Communities.

10.79 The Corporation was registered in 1980 with the objective of upliftment of the targeted group of Christian converts from Scheduled Castes and the eleven recommended communities in the State. The Corporation is providing assistance for foreign employment, agricultural land purchase, house construction, house repair and incentive grant to students. The Corporation is implementing the schemes with the financial assistance of National Backward Classes Finance and Development Corporation and has received loan assistance of Rs. 100 lakh from that institution during 1999-2000. The number of beneficiaries of the schemes implemented by the Corporation during 1999-2000 was 363 as against 121 during the previous year. During 1999-2000, the Corporation has disbursed Rs. 51.88 lakh as against Rs. 0.89 lakh during the previous year. This rose to Rs. 136.13 lakh during 2000-2001 and the number of beneficiaries increased to 565 by the end of December 2000. Steps have been taken to construct an own building for the Corporation.

b. Kerala State Backward Classes Development Corporation

10.80 The major objective of the Corporation, registered in 1995, is to promote schemes for the socio-economic upliftment of the backward classes and minorities in the State. The Corporation provides assistance to individuals or groups belonging to backward classes by way of loan and advance for viable schemes and projects and extend financial assistance by way of loan to backward classes for pursuing general, professional, technical education or training at graduate and higher levels. The Corporation mobilises funds from the National Backward Classes Finance and Development Corporation (NBCFDC), National Minorities Development and Finance Corporation (NMDFC), Housing and Urban Development Corporation (HUDCO) and from Government. The Corporation is giving loan for starting self employment ventures, marriage assistance, purchase of computer for students and schools, foreign employment etc. During 1999-2000, the

Corporation has disbursed an amount of Rs. 2676.93 lakh to 7415 beneficiaries as against Rs. 1661.55 lakh to 3808 beneficiaries during the previous year. The source-wise expenditure and physical achievements of the Corporation are given in Table 10.20.

Table 10.20
Source-wise Expenditure and Physical Achievements of Kerala State Backward Classes Development Corporation

Source	*Expenditure (Rs. Lakh)*		*Physical Achievements (No. of Beneficiaries)*	
	1998-99	*1999-2000*	*1998-99*	*1999-2000*
1	2	3	4	5
NBCFDC	697.31	1191.59	1194	3273
NMDFC	428.80	817.49	1127	2279
HUDCO	382.62	254.89	819	66
Own Fund	152.82	412.96	668	1797
Total	**1661.55**	**2676.93**	**3808**	**7415**

10.81 Scheme-wise details of financial and physical achievements of the Corporations through different sources of funding assistance are given in Appendix 10.26.

CHAPTER - 11
INSTITUTIONAL AND BANK FINANCE

Introduction

It is widely recognised that financial institutions play an important role in development by mobilising widely scattered savings for productive investment. To this end, a number of financial institutions have been set up in the public sector in independent India, and mandated to play a developmental role rather than act as purely commercial institutions. Financial sector reforms pursued by the Centre over the last ten years have tended to weaken the developmental role of financial institutions and promote an exclusively commercial orientation. At the same time, the policies of the Centre have led to a squeeze on financial resources on State Governments. "Freeing" the financial sector in various ways has also led to greater inequality in access to institutional finance among various States. In such a context, it becomes important to analyse the contribution made by various financial institutions to the development of Kerala during 1999-2000.

NABARD and NCDC

11.2 Given the relative importance of agriculture and agro processing in Kerala's economy and also relatively stronger presence of the Co-operative sector in the State, NABARD and NCDC naturally play a significant role in provision of institutional finance in Kerala. During 1999-2000, NABARD disbursed a total of Rs. 5,215.31 crore of which Kerala received Rs. 212.84 or 4.10%. NCDC disbursed a total of Rs. 463 crore in 1999-2000 of which Kerala's share was Rs. 56.10 crore, amounting to 12.10%. Overall, taking NABARD and NCDC together, Kerala got a total of Rs. 268.94 crore amounting to 4.7% of the total disbursements by the two institutions. (see Appendix 11.1)

11.3 The details of state-wise cumulative disbursements by NABARD and NCDC as at the end of March 2000 are given in Appendix 11.2 Out of the cumulative disbursement of Rs.49731.7 crore by these two institutions as at the end of March 2000, the major share of Rs. 44723.9 crore (89.93%) was accounted for by NABARD and Rs.5007.8 crore (10.07%) by NCDC. Uttar Pradesh was on top in credit absorption by availing of Rs. 7405.9 crore (14.89%) followed by Maharashtra, Rs.5624.3 crore (11.31%) and Andhra Pradesh, Rs. 5005.5 crore (10.07%). Kerala received an amount of Rs.2241.5 crore from these two institutions, which is only 4.51% of the total disbursement.

11.4 All India financial institutions such as IDBI, ICICI, IFCI, LIC, GIC, NCDC, UTI and NABARD disbursed an aggregate amount of Rs.52275.3 crore during the year 1998-99. This amount was higher by Rs.3433 crore than that in 1997-98. Share of Kerala during this period increased by Rs. 120.40 crore (3.5 per cent of the total increase) from Rs. 488.30 crore in 1997-98 to Rs. 608.7 crore in 1998-99. Details of state-wise financial assistance disbursed by all India financial institutions during 1998-99 and disbursement as at the end of March 1999 are given in Appendix 11.3 and 11.4 respectively. The per capita assistance disbursed by all the above institutions except NABARD and NCDC for the periods 1996-97 to 1998-99 are shown in Appendix 11.5.

Bank Finance

11.5 Since the nationalisation of banks in 1969, there had been steady growth in the branch expansion of banks in India, particularly in rural and semi urban areas. The number of branches, which stood at 8262 at the time of nationalisation, grew rapidly year after year. In March 2000, it

was 65521, a nearly eight fold increase. Out of the total number of 65521 branches, 32719 (49.94%) are in rural areas, 14301 (21.83%) in semi-urban areas, 10176 (15.53%) in urban areas and 8325 (12.71%) in metropolitan areas. Regarding the geographical spread of bank branches, as many as 61226 (93.4%), branches are in the fifteen major states. The largest number of branches are in Uttar Pradesh, 8905 branches (13.6%), followed by Maharashtra with 6216 (9.5%) branches and Andhra Pradesh with 5111 (7.8%) branches. Kerala stands eleventh with 3233 branches (4.9%). During the period from July 1999 to June 2000, 703 branches were newly opened in the country, of which the highest number was in Andhra Pradesh (88) followed by Karnataka (86). The number of new branches opened in Kerala during the period was 71. The largest number of rural branches are in Uttar Pradesh, with 5403 branches (17.6%) followed by Bihar with 3506 branches (11.4%) and Madhya Pradesh with 2677 branches (8.7%). Kerala has the lowest number of rural branches. Out of the total number of 3233 branches in Kerala, 347 branches (10.7%) are in rural areas, 2301 branches (71.2%) are in semi-urban areas and 585 branches (18.1%) in urban areas. The average population served by a bank branch in the whole country declined from 65000 in 1969 to 14000 in 1995 and slightly moved upto15000 in 1996. It remained at the same level in subsequent years and upto June 2000. The corresponding figures with respect to Kerala was 35000 in 1969 and 10000 since 1995. Assam and Bihar are the two states with large population per branch, with about 21000 and 20000 respectively. State-wise growth of bank offices in the country is presented in Table 11.1 and Appendix11.6.

Table 11.1
State-wise Distribution of Scheduled Commercial Bank Offices as at the end of March – 2000

Sl. No	*State*	*Rural*	*% to total*	*Semi Urban*	*% to total*	*Urban*	*% to total*	*Metro-politan*	*% to total*	*Total No.of Branches*	*% to total*
1	Andhra Pradesh	2443	7.5	1180	8.3	971	9.5	517	6.2	5111	7.8
2	Assam	819	2.5	254	1.8	159	1.6	–	–	1232	1.9
3	Bihar	3506	10.7	905	6.3	597	5.9	–	–	5008	7.6
4	Gujarat	1547	4.7	809	5.7	452	4.4	827	9.9	3635	5.5
5	Haryana	697	2.1	351	2.6	443	4.4	–	–	1491	2.3
6	Karnataka	2216	6.8	1001	7.0	763	7.5	730	8.8	4710	7.2
7	Kerala	347	1.1	2301	16.1	585	5.7	–	–	3233	4.9
8	Madhya Pradesh	2679	8.2	911	6.4	584	5.7	318	3.8	4492	6.9
9	Maharashtra	2309	7.1	1074	7.5	863	8.5	1970	23.7	6216	9.5
10	Orissa	1614	4.9	308	2.2	297	2.9	–	–	2219	3.4
11	Punjab	1120	3.4	655	4.6	533	5.2	196	2.4	2504	3.8
12	Rajasthan	1905	5.8	730	5.1	452	4.4	230	2.8	3317	5.1
13	Tamil Nadu	1830	5.6	1211	8.5	971	9.5	750	9.0	4762	7.3
14	Uttar Pradesh	5403	16.5	1509	10.6	1479	14.5	514	6.2	8905	13.6
15	West Bengal	2274	7.0	562	3.9	581	5.7	974	11.7	4391	6.7
	Total	**30709**	**93.9**	**13761**	**96.2**	**9730**	**95.6**	**7026**	**84.4**	**61226**	**93.4**
	All India Total	**32719**	**100**	**14301**	**100**	**10176**	**100**	**8325**	**100**	**65521**	**100**

Source: Banking Statistics – Quarterly Handout - March, 2000. (RBI publication)

11.6 After nationalisation of banks, the volume of deposits and credit has grown rapidly. The volume of business of nationalised banks which was Rs. 6932 crore in 1969 increased to Rs.1014334 crore in 2000, registering an increase of 146 times. During this period, the deposits increased by 166 times but credit only by 120 times. Credit disbursements were thus not keeping pace with deposit mobilisation. The CD ratio at all India level in respect of public sector banks which was 99.7% in June, 1969 declined drastically to 53.4% in June 1999 and increased slightly to 56.4% in June, 2000. Among the fifteen major states, those with credit-deposit percentage above the all India level were: Maharashtra (88.7),Tamil Nadu (83.6). Andhra Pradesh (67.3) and Karnataka (62.0). The CD ratio of Kerala was 40.7%, less by 15.70 percentage points, when compared with all India level. The CD ratio of Kerala, which has declined between 1997 and 1999, showed a slight improvement during 1999-2000, reaching 40.7% as of June 2000. Improvements in CD ratio were also noted in respect of Maharashtra, Gujarat, West Bangal, Uttar Pradesh, Assam etc. As on June 2000, out of aggregate credit disbursement of Rs.365662 crore, by the public sector banks at all India level, the share of Kerala was Rs.10768 crore, amounting to 2.94% only. Tamil Nadu accounted for Rs.33518 crore (9.17), Karnataka, Rs. 20873 crore (5.71) and Andhra Pradesh, Rs.24743 crore (6.77). Details of state-wise deposits, credits and credit-deposit ratios are presented in Table 11.2.

11.7 Over the period from 1990 to 2000, bank deposits in Kerala increased at an average annual growth rate of 19 per cent. But during the same period, the annual average growth rate of advances was only 14 per cent, reflecting the declining trend of CD ratio in the State over the years. Taking all banks together the credit-deposit ratio, which was 62.20% in 1990, steadily declined to 43.11% in 1994 and slightly moved up and touched 45.22% in 1998. The CD ratio declined to 43.10% in March 1999 and 41.28% in March 2000. However, by the end of September 2000, the ratio moved upto 42.53. Among the various groups of banks, the highest CD ratio was recorded by the Gramin Banks (116.47) followed by the State Bank group (44.23), other nationalised banks (38.36), private banks (37.69.) and foreign banks (26.50). Public sector banks including Gramin banks put together recorded a CD ratio of 43.01% in March 2000. The total deposits, mobilised as at the end of March 2000 by all the banks functioning in the State increased by Rs. 7087 crore (22.48%), from Rs. 31532 crore in 1999 to Rs. 38619 crore in 2000. Out of the total deposit of Rs. 38619 crore mobilised as at the end of March 2000, the largest share of Rs. 13536 crore (35.05%) was mobilised by the group of other nationalised banks (excluding State Bank group), followed by the State Bank group with Rs. 12617 crore (32.63%), Private banks with Rs. 11442 crore (29.62%), Gramin Banks with Rs. 649 crore (1.70%) and foreign banks with Rs. 373.90 crore (1%).

11.8 Appendix 11.7 gives the details of deposits, advances and CD ratios of various groups of banks. Figure 11.1 shows the percentage share of various groups of banks in the total advances disbursed in the State as at the end of March 2000. The performance of the banks with respect to advances is very different from that with respect to deposit mobilisation. The relevant figures are given in Appendix 11.7. As of September 2000, while the State Bank group accounted for 32.5% of deposits, it accounted for 24.5% of advances. Other nationalised banks as a group did somewhat better accounting for 34.3% of deposits and 31.4% of advances. Gramin Banks, on the other hand, accounted for only 1.7% of deposits but 4.9% of advances. Private sector banks accounted for 28.5% of advances, while their share of deposits was higher at 29.7%.

Table 11.2

Deposits, Credits and Credit-Deposit Ratios of Public Sector Banks

(Rs. crore)

	Deposits						Credits						Credit-Deposit Ratios					
States	*Jun-69*	*Jun-96*	*Jun-97*	*Jun-98*	*Jun-99*	*Jun- 2000*	*Jun-69*	*Jun-96*	*Jun-97*	*Jun-98*	*Jun-99*	*Jun-2000*	*Jun-69*	*Jun-96*	*Jun-97*	*Jun-98*	*Jun-99*	*Jun-2000*
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*	*15*	*16*	*17*	*18*	*19*
Andhra Pradesh	121	19055	26513	27358	31295	36780	122	15657	20160	19153	21531	24743	100.8	82.2	76.0	70.0	68.8	67.3
Assam	33	4067	5301	5435	6271	7474	13	1547	1820	1741	1991	2477	39.4	38.0	34.3	32.0	31.8	33.1
Bihar	169	16658	21370	23179	27185	32464	53	5031	6398	6110	6660	7582	31.4	30.2	29.9	26.4	24.5	23.4
Gujarat	401	24902	29762	33354	38251	43392	195	12205	14094	14799	16798	20637	48.6	49.0	47.4	44.4	43.9	47.6
Hariyana	49	8732	10610	11653	13343	15701	23	3651	4210	4678	5239	6192	46.9	41.8	39.7	40.1	39.3	39.4
Karnataka	188	19238	26527	24263	28505	33653	143	13187	18525	16191	18122	20873	76.1	68.5	69.8	66.7	63.6	62.0
Kerala	117	14144	23506	18893	22739	26482	77	6177	10561	7705	8570	10768	65.8	43.7	44.9	40.8	37.7	40.7
Madhya Pradesh	107	14371	18628	19820	23772	27330	63	8017	9467	10282	11459	13476	58.9	55.8	50.8	52.0	48.2	49.3
Maharashtra	903	61150	103919	79989	91109	100674	912	46781	69100	57795	69041	89314	101	76.5	66.5	72.3	75.8	88.7
Orissa	29	5335	7176	8035	8845	10831	15	2845	3517	3374	3662	4289	51.7	53.3	49.0	42.0	41.4	39.6
Panjab	185	20077	23787	27094	31453	37071	50	8213	8794	10359	11897	14441	27.0	40.9	37.0	38.2	37.8	39.0
Rajasthan	74	10251	14370	13894	16583	19463	38	4650	6293	6437	7506	9029	51.4	45.4	43.8	46.3	45.3	46.4
Tamil Nadu	233	23678	33971	29934	34320	40113	311	22286	32799	25636	28626	33518	133.5	94.1	96.5	85.6	83.4	83.6
Uttar Pradesh	337	37353	49240	52359	61521	71786	154	12107	15114	14235	16592	20394	45.7	32.4	30.7	27.2	26.9	28.4
West Bengal	456	26643	39829	36032	42271	47984	526	13509	17975	15788	17961	21377	115.4	50.7	45.0	43.8	42.5	44.6
Total	3402	305654	434509	411292	477463	551198	2695	175863	238827	214292	245655	299110	79.2	57.5	55.0	52.1	51.5	54.3
Total All India	*3897*	*356637*	*507533*	*480714*	*560030*	*648672*	*3035*	*211058*	*282702*	*259504*	*299274*	*365662*	*99.67*	*59.2*	*55.7*	*54.0*	*53.4*	*56.4*

Source: *Economic Survey-1999-2000/Banking Statistics –Quarterly Handout- June 2000.*

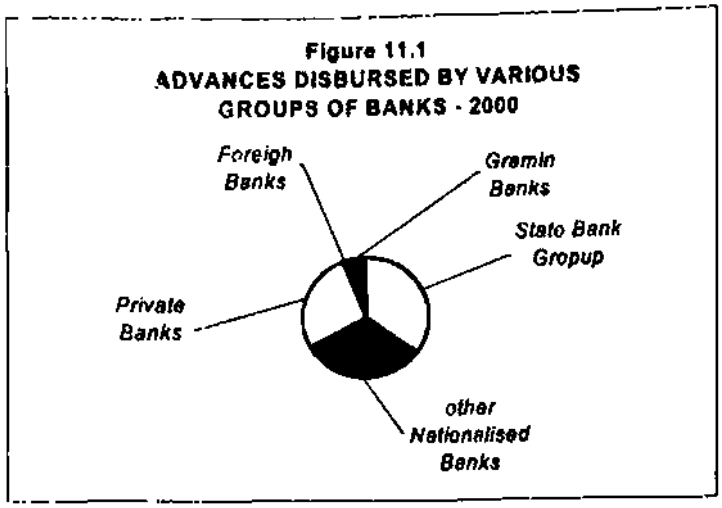


Figure 11.1
ADVANCES DISBURSED BY VARIOUS GROUPS OF BANKS - 2000

11.9 Credit deposit ratios of ten major banks operating in Kerala presented in Table 11.3 for the period 1991 to 2000 show wide variations among various banks. The CD ratio of State Bank of India declined from 67.50% in 1991 to 39.80% by March 2000. Similarly, the CD ratio of State Bank of Travancore declined from 60% to 45.97% during the same period. The CD ratio of Canara Bank, the lead bank of the State, has been very low over the years. Significantly, in all the years from 1991 to 2000, the CD ratios of Canara Bank had been lower than that of the CD ratios at the State level. In March 2000, while the State level CD ratio was 41.28%, that of Canara Bank was 36.95%. Inspite of the recommendations of the D.D. Avari Committee to the banks in Kerala to re-orient their credit operations in such a way as to achieve a CD ratio of 60% by 2000-2001, it was only 41.28% in March 2000, far below the target.

Table 11.3
Credit-Deposit Ratios of Selected Major Banks Operating in Kerala

Name of Bank	*Credit-Deposit Ratio (March end)*										
	1991	*1992*	*1993*	*1994*	*1995*	*1996*	*1997*	*1998*	*1999*	*2000*	*2000 Sept.*
1	*2*	3	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*
1. State Bank of India	67.50	59.90	54.20	45.30	44.70	47.00	48.00	47.53	41.95	39.80	46.34
2. State Bank of Travancore	60.00	50.60	49.50	44.50	48.00	43.50	45.20	44.82	44.93	45.97	43.96
3. Canara Bank	49.40	41.50	37.10	29.00	28.00	30.40	35.10	40.37	39.05	36.95	38.09
4. Indian Overseas Bank	35 60	28.00	25.20	21.80	24.00	25.80	25.00	25.22	26.03	26.25	27.34
5. Syndicate Bank	48 60	37.30	33.70	27.90	26.40	3.00	29.20	31.25	33.13	34.94	34.02
6. Indian Bank	74.90	72.00	69.70	61.00	51.50	61.30	47.50	41.13	34.21	32.59	40.14
7. Bank of Baroda	36.90	36.00	39.30	37.30	35.90	39.20	34.00	34.21	28.80	32.83	33.38
8. Central Bank of India	62.60	58.00	58.80	46.00	53.00	50.30	44.00	42.38	42.84	35.48	36.56
9. Union Bank of India	69.70	57.00	47.60	44.50	45.00	45.70	47.30	47.30	51.47	51.36	42.20
10. Vijaya Bank	54.50	46.00	40.30	38.00	35.00	41.60	36.00	38.78	44.89	31.05	41.33
State Average	**59.00**	**51.00**	**48.00**	**43.10**	**44.70**	**44.40**	**45.50**	**44.88**	**43.06**	**41.28**	**42.53**

Source: Banking Statistics of Kerala. Reported by State Level Bankers' Committee

NRE Deposits

11.10 NRE deposits mobilised by the banks in the State showed an appreciable growth rate in recent years. During the year 2000, the NRE deposits have recorded a growth rate of 40.48%. The deposit amount has increased by Rs. 5395 crore from Rs. 13329 crore in March 1999 to Rs. 18724 crore in March 2000, an increase of 40%. Domestic deposits however grew only by 9.3% increasing from Rs. 18,203 crore to Rs. 19,895 crore. Out of the total NRE deposit of Rs. 18724 crore mobilised by all banks as on March 2000, the major share of Rs.6756 crore (36.08%) was accounted for by State Bank group followed by the other nationalised banks with Rs. 6708 crore (35.83%) and private banks with Rs. 4948 crore (26.43%). Table 11.4 gives details of growth in bank deposits for the period from 1988 to 1999.

Table 11.4

Growth of Bank Deposits in Kerala

(Rs. Crore)

Year	Total Deposits		NRE Deposits		Domestic Deposits	
	Amount	Annual Growth(%)	Amount	Annual Growth(%)	Amount	Annual Growth(%)
1	2	3	4	5	6	7
1988	4811	-	1369	-	3442	-
1989	5667	17.8	1584	15.7	4083	18.6
1990	6620	16.8	2012	27.0	4608	12.9
1991	7858	18.7	2304	14.5	5554	20.5
1992	9671	23.1	3039	31.9	6632	19.4
1993	12112	25.2	4499	48.0	7613	14.8
1994	14941	23.4	6015	33.7	8926	17.3
1995	17458	16.9	6886	14.5	10572	18.4
1996	20171	15.5	8103	17.7	12068	14.2
1997	23354	15.8	10178	25.6	13176	9.2
1998	27552	18.0	12735	25.1	14817	12.5
1999	31532	14.45	13329	4.66	18203	22.85
2000	38619	22.48	18724	40.48	19895	9.30
1999 Sept.	35143	20.16	16805	23.71	18338	17.08
2000 Sept.	41217	17.28	20045	19.28	21172	15.45

Source: Banking Statistics of Kerala Reported by State Level Bankers' Committee

Priority Sector Advance

11.11 The priority sector advance which had shown some uptrend in 1999, recorded a decline in 2000. Its share in the total advances was 44.2%in 1999, but declined to 42.9% by the end of March 2000. Out of the total bank advances of Rs. 15941 crore as at the end of March 2000, Rs. 6840 crore was to the priority sector. The priority sector advance as a proportion of total deposits was only 17.71%, the total deposit being Rs. 38619 crore.

11.12 Out of the total advances of Rs. 15941 crore, an amount of Rs. 2231 crore (14%) was for agriculture sector and Rs. 1991 crore (12.49%) for SSI sector. The details are given in Table 11.5.

Table 11.5
Priority Sector Advance Disbursed by Commercial Banks- Kerala

(Rs.Crore)

Year (March)	*Total Advance*	*Total Priority Sector Advance*		*Out of which, Advance to*			
		Amount	*% to total advance*	*Agricultural Sector*		*SSI Sector*	
				Amount	*% to total*	*Amount*	*% to total*
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*
1992	5003	2151	43.0	821	16.41	-	-
1993	5818	2380	40.9	914	15.71	-	-
1994	6442	2590	40.2	953	14.79	811	12.59
1995	7797	3407	43.7	1199	15.38	1090	13.98
1996	8961	3994	44.6	1364	15.22	1223	13.65
1997	10482	4539	43.3	1597	15.24	1445	13.79
1998	12364	5214	42.2	1814	14.67	1558	12.60
1999	13577	5997	44.2	1951	14.37	1783	13.13
2000	15941	6840	42.9	2231	14.00	1991	12.49

Source:- Banking Statistics of Kerala Reported by State Level Bankers' Committee

CHAPTER 12
STATE FINANCES OF KERALA: AN ASSESSMENT

Various State governments have taken several policy initiatives during the fiscal year, 2000-01. towards fiscal restructuring aimed at reducing revenue and fiscal deficits and also the stock of their outstanding debt. In 2000-01, the gross fiscal and revenue deficits of all States are expected to be 4.9 per cent and 2.1 per cent of GDP respectively (State Finances: A Study of Budgets of 2000-01, Reserve Bank of India). The gross fiscal deficit of Kerala in absolute terms is expected to decline from Rs. 3,510.3 crore in 1999-00 to Rs. 2,923.2 crore whereas in 2000-01 the revenue deficit is expected to remain the level reached in 1999-00.

Overview

12.2 An overview of the Kerala State Finance is presented in Table 12.1. It can be seen from the table that revenue-GSDP (Gross State Domestic Product) ratio is expected to increase from 11.72 per cent in 1998-99 to 12.31 per cent in 1999-00. This improvement in the revenue-GSDP ratio is expected from higher own tax and non-tax effort of the State compared to the last year. The increased tax and non-tax efforts are reflected in the higher tax and non-tax - GSDP ratio in the year 1999-00 compared to the year 1998-99. The tax devolution to the State as a percentage of GSDP also expected to increase from 2.31 to 2.63 per cent. It is to be noted, however, that tax devolution to the State as a percentage of GSDP had declined steadily during the 1990s. The tax devolution to GSDP ratio was as high as 2.87 per cent in 1993-94, but declined steadily to 2.31 per cent by 1998-99. The transfer of grants as a percentage of GSDP is to increase from 0.74 per cent in 1998-99 to 0.93 per cent in 1999-00. However, like tax devolution, grants also as a percentage of GSDP had declined from 1.89 per cent in 1993-94 to as low as 0.98 per cent in 1998-99.

Table 12.1

State Finance of Kerala: An Overview

(per cent to GSDP)

	1998-99	*1999-00*
Revenues	11.72	12.31
Own Tax Revenues	7.69	7.71
Own Non-Tax Revenues	0.74	0.93
Share in Central Taxes	2.31	2.63
Grants	0.98	1.04
Expenditures	16.80	17.34
Revenue Expenditure of which	15.07	15.81
Interest Payment	2.39	2.41
Pension	1.91	2.15
Capital Expenditure (net) of which	1.74	1.53
Capital Outlay	1.08	1.08
Net Lending	0.55	0.37
Revenue Deficit	3.34	3.50
Fiscal Deficit	4.97	4.95

Sources: Finance Accounts of the Govt. of Kerala.
RBI Bulletin December 2000 : State Finances- A Study of Budgets of 2000-01.
Note: Figures for 1999-2000 are based on Revised Estimate for the year, as actuals have not become available.

Expenditure

12.3 The interest payment-GSDP ratio increased marginally during this period. The revised estimate for 1999-00 expects the revenue expenditure-GSDP ratio to be 15.81 per cent which is higher by 0.74 percentage points compared to that of 1998-99. Between 1998-99 and 1999-00, pension, which is a committed liability of the State government, increased sharply from 1.91 per cent of GSDP to 2.15 per cent with an increase in its growth from 26.43 to 32.34 per cent (see Table 12.5). The capital outlay to GSDP ratio is expected to remain at the level reached in 1998-99 at 1.08 per cent of GSDP. The net lending as a percentage of GSDP is expected to decline from 0.55 per cent to 0.37 per cent. Thus, it is the decline in net lending-GSDP ratio which contributed to the decline in the capital expenditure (net of repayment) to GSDP ratio from 1.74 to 1.53 per cent. It can thus be seen that while the profile of receipts and expenditures taken in totality resulted in the increase in the revenue deficit from 3.34 to 3.50 per cent, there was a marginal decline in the fiscal deficits from 4.97 to 4.95 per cent from 1998-99 to 1999-2000.

Own Tax Revenues

12.4 Like other States, the major own tax source of Kerala is sales tax and its share in total tax revenues has remained high, being 66.52 per cent in 1998-99 and 65.65 per cent in 1999-00. The share of central sales tax has declined sharply from 5.89 to 4.71 per cent during this period. State excise duties and stamp duty and registration fees are expected to increase their shares from 11.39 to 12.51 per cent and 6.48 to 7.60 per cent respectively

Table 12.2
Structure and Growth of States' Own Tax Revenues

(per cent)

State's Own Tax Revenues	*Structure*		*Growth*	
	1998-99	*1999-00*	*1998-99*	*1999-00*
Sales Tax (Excluding CST)	66.52	65.65	5.89	16.15
Central Sales tax	5.89	4.71	67.75	-5.86
State Excise Duties	11.39	12.51	-2.54	29.26
Taxes on Vehicles	6.95	7.04	7.18	19.08
Stamp Duty & Registration Fees	6.48	7.60	-9.12	38.18
Other Taxes	2.77	2.49	-46.43	5.92
Total	100	100	3.30	17.69

Sources: Finance Accounts of the Govt. of Kerala.
RBI Bulletin December 2000: State Finance- A Study of Budgets of 2000-01.
Note: Figures for 1999-2000 are based on Revised Estimate for the year, as actuals have not become available

12.5 The growth of various components of own tax revenues shown in Table 12.2 shows that the fiscal year, 1999-00, was a year of buoyant revenue generation as reflected in the growth rates of individual taxes. Among the various taxes, the most buoyant were the state excise duties and stamp duty and registration fees. High growth of these taxes resulted in the overall increase in the rate of growth of own tax revenues from 3.30 per cent in 1998-99 to as high as 17.69 per cent.

Non-Tax Revenues

12.6 The structure of the non-tax revenues is shown in Table 12.3. During

1999-00, there is an improvement in the non-tax revenue mobilisation (see Table 12.1). The major source of the non-tax revenues are the economic services but its share in total non-tax revenues declined from 50.39 per cent in 1998-99 to 42.53 per cent in 1999-00. The contribution of social services also declined from 14.87 to 13.12 per cent during this period. However, the contribution of general services increased sharply from 20.69 to 32.53 per cent during this period. The share of interest receipts and dividends and profits also declined during this period. The growth of total non-tax revenues was also significantly higher in 1999-00 compared to 1998-99.

Table 12. 3
Structure of Non-Tax Revenues

(per cent)

	Structure		Growth	
Non-Tax Revenues	1998-99	1999-00	1998-99	1999-00
Interest receipts	12.44	10.61	47.49	26.63
Dividends & Profits	1.60	1.21	20.44	12.34
General Services + Fiscal Services	20.69	32.53	-9.37	133.00
Social Services	14.87	13.12	6.40	30.87
Economic Services	50.39	42.53	-5.36	25.27
Total	100	100	0.18	25.27

Sources: Finance Accounts of the Govt. of Kerala.
RBI Bulletin December 2000 : State Finance-A Study of Budgets of 2000-01.
Note: Figures for 1999-2000 are based on Revised Estimate for the year, as actuals have not become available

Central Transfers: Revenue Account

12.7 The revenue accounts transfers from the Centre to the States comprise of tax devolution and grants. The structure of revenue account transfers is shown in table 12.4. It is evident from the table that the share of tax devolution in total revenue account transfers increased marginally from 70.10 per cent in 1998-99 to 70.91 per cent in 1999-00 with a corresponding decline in the share of grants. The share of Article 275(1) grants declined sharply from 6.14 per cent to 1.82 per cent during this period. The share of plan grants increased from 23.21 per cent in 1998-99 to 26.80 per cent in 1999-00. The decline in the share of Article 275(1) grants, which are purely statutory, is indicative of the fact that transfers through these grants were mostly tied and the State had hardly any discretion in the use of such funds according to its own expenditure priorities.

Table 12. 4
Composition of Central Transfers

(per cent)

Central Transfers	*1998-99*	*1999-00*
Share in central Taxes	70.10	70.91
Article 275(1) Grants	6.14	1.82
Plan Grants	23.21	26.80
Other Non-Plan Grants	0.56	0.47
Total Grants	29.90	29.09
Total Transfers	100.00	100.00

Sources: Finance Accounts of the Govt. of Kerala.
RBI Bulletin December 2000: State Finance-A Study of Budgets of 2000-01.
Note: Figures for 1999-2000 are based on Revised Estimate for the year, as actuals have not become available

12.8 In terms of growth, whereas during the period, 1993-94 to 1999-00, the total central transfers grew at a trend growth rates of 12.39 per cent the own tax revenues grew at a trend rates of growth of 14.71 per cent.

The lower growth of central transfers, has resulted in the overall decline in the growth of total revenues during this period. During this period, the tax devolution and grants grew at the rate of 14.94 and 7.82 per cent. During the same period, the growth of grants under Article 275(1) and other non-plan grants had negative trend growth rates of -2.70 per cent and -4.27 per cent respectively.

Recommendation of EFC and its Impact on Kerala State Finances

12.9 As was noted above, overall, there had been a decline in the revenue account transfers from the Centre to the State government of Kerala during the 1990s, especially during the later half of 1990s. In fact, the growth of tax devolution and grants was much lower than that of own tax revenues of the State during this period. The Eleventh Finance Commission (EFC), instead of reversing the trend of declining revenue account transfers to the State, compounded Kerala's problem by recommending lower vertical transfers in the aggregate pool. The recommended formula of horizontal distribution of resources also resulted in much lower devolution to Kerala compared to that of Tenth Finance Commission.

12.10 The choice of criteria, and the weights used are extremely unfavourable to Kerala. The criteria used by EFC are population (10 per cent); income (62.5 per cent), area (7.5 per cent), index of infrastructure (7.5 per cent), tax effort (5 per cent) and fiscal discipline (7.5 per cent). The State government in its memorandum to the EFC argued for not using area as one of the criteria for the distribution of resources because it is not correct to assume that a State with a larger area will have larger non-developmental expenditure. In fact, it may be the case that a larger State will have lower per-capita non-developmental expenditure compared to that of States smaller in terms of area. Secondly, construction of index of infrastructure, which is a mix of social and economic infrastructure, is not free from arbitration. Also, as Kerala has to its credit spectacular achievement in social sector, higher weights to infrastructure index (which is a composite index of social and economic infrastructure) would go against the State. The EFC not only retained those criteria but also increased the share of each of these from 5 per cent (as per Tenth Finance Commission) to 7.5 per cent. Reduction in the share of Population from 20 per cent in TFC to 10 per cent by EFC also adversely affected the State.

12.11 The estimated revenue share in the aggregate pool got considerably reduced on account of the EFC's award. In fact, Kerala's share of Central tax revenues has been reduced from an average of 3.859 per cent (based on actual devolution during 1995-2000) to 3.057 per cent. The share of Kerala in discretionary grants also has been reduced drastically from 2.49 per cent to 1.39 per cent. Thus, out of total transfers of Rs. 434905 crore from the Centre to the States, Kerala's share is fixed at Rs. 12,316.72 crore which is 2.83 per cent of the total devolution to the States recommended by EFC. The estimated loss of transfers from the Centre to the State government of Kerala works out to Rs.3,664 crore for the period 2000-05.

12.12 Finally, despite, the massive decentralisation effort made by the State government of Kerala to devolve functions and finances to the local bodies, the EFC restricted itself to determine the level of decentraliation in a State on the basis only of the implementation of State Finance Commission's recommendations. EFC over looked that actual decentralisation taking place in Kerala would have been much less if the State Government had only gone by the State Finance Commissions recommendations.

12.13 It is noteworthy, however, that while Kerala stands to suffer substantially in its share of total central devolution fixed by EFC, the ranking, Kerala gets in terms of the

Index of Fiscal Self Reliance measured in terms of improvement between early and later half of 1990's is the third best among twenty-five states leaving behind all other major states.

Expenditure Pattern: Emerging Trend

12.14 The structure of revenue expenditure presented in Table 12.5 shows that between 1998-99 and 1999-00, the share of expenditures on general services in total revenue expenditure increased from 37.48 to 39.45 per cent. This increase in their share was mainly because of the increase in the share of pension and other general services. However, the share of expenditure on interest payment in total revenue expenditure declined marginally compared to last year. The growth of pension was significantly higher than last year. This increase in the committed liability of Kerala is higher compared to other States can be linked to the higher life expectancy achieved in Kerala in relation to other States.

12.15 It should be noted that, between 1998-99 and 1999-00, the share of expenditure on social services increased from 37.11 to 38.28 per cent but that of economic services declined from 24.86 to 21.56 per cent. Increase in the share of expenditure on social services was mainly due to the increase in the share of expenditure on education and medical and public health including family welfare.

Table 12.5
Structure of Revenue Expenditure

(per cent)

Items	Structure		Growth	
	1998-99	1999-00	1998-99	1999-00
General Services	37.48	39.45	14.72	28.56
Interest Payment	15.88	15.37	12.45	18.19
Pension	12.68	13.74	26.43	32.34
Others	8.92	10.34	4.69	41.65
Social Services	37.11	38.28	8.96	25.98
Education	21.50	22.76	11.18	29.27
Medical & Public Health	5.99	6.44	10.99	35.77
Water Supply & Sanitation	1.64	1.69	3.16	25.65
Other Social Services	7.97	7.39	2.88	13.25
Economic Services	24.86	21.56	18.22	5.91
Irrigation	1.44	1.49	38.36	25.88
Roads and Bridges	2.18	2.42	19.03	35.88
Others	21.24	17.65	16.98	1.48
C. A. to Local Bodies	0.55	0.71	-61.03	57.13
Revenue Expenditure	100	100	12.14	22.13

Sources: Finance Accounts of the Govt. of Kerala.
RBI Bulletin December 2000 : State Finance- A Study of Budgets of 2000-01.
Note: Figures for 1999-2000 are based on Revised Estimate for the year, as actuals have not become available

12.16 If one looks at the finances of the Central governments as well as various States, it can be observed that their revenue deficits are increasing in absolute term as well as in relation to their income. The state government of Kerala is also no exception to this trend of increasing revenue deficits. The revenue deficit as a percentage of GSDP of State government of Kerala increased from 3.34 per cent in 1998-99 to 3.50 per cent in 1999-00. This increase in revenue deficit in

turn resulted in the further decline in the capital expenditure, viz., capital outlay and net lending. However, the growth of capital outlay, which was negative during 1998-99, grew at a positive rate of 3.58 per cent in 1999-00 (see Table 12.6). The growth of loans and advances remained negative during the last two years. Though the growth of repayment obligation declined in the year 1999-00, that was due to the drastic decline in the growth of repayment of internal debt. But, the growth of repayment of Central loans increased from 12.05 per cent in 1998-99 to 17.03 per cent in 1999-00. Regarding the growth of capital outlay, one has to keep in mind that actual growth of developmental capital outlay must have been much higher than what is reflected in the State budget as large scale resources were given as grants to the local bodies to finance their developmental plans which are, by nature, directed largely towards capital expenditure.

Table 12.6
Growth of Capital Expenditure

(per cent per annum)

	1998-99	*1999-00*
Capital Outlay	-11.81	3.58
Loans and Advances	-32.41	-34.78
Rep. of Loans & Advances	33.78	10.05
i) Central Loans	12.05	17.03
ii) Internal Debt	102.16	-2.12

Sources: Finance Accounts of the Govt. of Kerala. RBI Bulletin December 2000:State Finance- A Study of Budgets of 2000-01.

Note: Figures for 1999-2000 are based on Revised Estimate for the year, as actuals have not become available

Structure of Outstanding Debt

12.17 The structure of outstanding debt of the State government shown in Table 12.7 shows that between 1993-94 and 1999-00, State government of Kerala had been forced to move towards a high- cost debt structure, due to the decline in loans and advances from the Centre to Kerala. The share of loans and advances from the Centre as percentage of total outstanding debt declined from 44.55 per cent in 1993-94 to 35.10 per cent in 1999-00 with a corresponding increase in the share of internal debt which is mostly high -cost in nature. If the share of loans and advances from the Centre had not declined, the State would have been able to make higher allocations for non-interest expenditure in revenue account as the growth of interest payment would have been much lower than observed during this period. The decline in the debt-GSDP ratio particularly in the later half of the 1990's is noteworthy. Debt-GSDP ratio in1999-00 is still lower than in 1994-95.It is also noteworthy that Kerala has been able to maintain its debt liability at reasonable levels, as borne out by the fact that the State ranks ninth among the fifteen major States and eleventh among the twenty five States in regard to Debt/SDP ratio in 1998-99.

Table 12.7
Structure of Outstanding Debt

(per cent)

	1993-94	*1994-95*	*1995-96*	*1996-97*	*1997-98*	*1998-99*	*1999-00*	*TGR*
Internal Debt	24.94	26.90	24.09	23.57	27.86	28.18	27.63	27.01
Loans & Adv. From the Centre	44.55	43.21	43.26	42.24	38.78	35.97	35.10	19.37
Provident Funds etc	30.52	29.89	32.65	34.18	33.36	35.85	37.27	29.01
Total	100	100	100	100	100	100	100	
Debt (Rs. Crore)	**5466**	**6297**	**7198**	**8820**	**12868**	**15700**	**19015**	**24.56**
Debt-GSDP Ratio	27.34	27.67	26.09	25.69	24.81	25.98	26.80	

TGR: Trend Growth Rate

Source: State Finances (RBI Bulletin-various issues)
Economic Review (Govt. of Kerala –1998)

Note: Figures for 1999-2000 are based on Revised Estimate for the year, as actuals have not become available

CHAPTER - 13
LOCAL SELF GOVERNMENTS

During the year under review the focus of efforts in the area of local self-government was mainly four fold: (a) to review critically the past three year's experience in decentralised planning and introduce necessary modifications in the fourth year's planning process through formulation of district plans (b) to formulate and implement fourth year's annual plan (c) carry out administrative reforms as recommended by the Sen Committee and (d) initiate measures to formulate micro-watershed programmes and organise women neighbourhood groups. The previous Economic Reviews had discussed the People's Plan Campaign initiated in August 1996 in order to empower the local bodies in the state to function as local development institutions of self-government. Until then, their role as institutions of local self-government were rather limited, restricted, as it tended to be, principally to traditional civic functions. We are still in a period of transition. The year 1997-98 was one of experimentation. The subsequent years were largely one of rectification of weaknesses. We have now embarked on the road of institutionalisation.

13.2 But for a brief period in the beginning of the 1990's when the District Councils were in place, the State has had a single tiered panchayat system in the rural areas. The three-tier Panchayathi Raj system came into existence in the State on October 2, 1995 following the 73rd and 74th Constitutional Amendments. In addition to the 990 grama panchayats, 152 block panchayats and 14 zilla panchayats were formed. In September 2000 19 grama panchayats were merged with urban local bodies and 20 new grama panchayats were created by bifurcating large grama panchayats. Thus there are 991 grama panchayats in the state today. Besides these rural local bodies, there are 53 municipalities and 5 municipal corporations including two municipalities that were upgraded to municipal corporations in September 2000. As a result of the reorganisation the share of the urban population in the state with reference to 1991 census have gone up from 14.22 percent to 16.87 percent.

Grama Panchayats

13.3 A key feature of Kerala's grama panchayats is their relatively larger size when compared to those in other States. An average grama panchayat in Kerala has a population of 25199 (1991 census). The grama panchayats are often even larger than the revenue villages. There are 1384 revenue villages in the State. Many panchayats cover more than one revenue village and in some cases the villages fall in more than one panchayat. As per the 1991 census, the least populous panchayat of Vattavada in Idukki district had a population of 4588 while the most populous panchayat of Munnar in the same district had a population of 70816. In terms of area Valapattanam in Kannur district, with 2.04 sq. kms, is the smallest and Kumily in Idukki with an area of 795.28 sq. kms is the largest.

Municipalities

13.4 The average population of a municipality in 1991 was 48785. After the reorientation of localbodies the smallest is Guruvayoor in Thrissur district with a population of 20216and the largest is Alappuzha in Alappuzha District with a population of 174606. In terms of area, Thalassery in Kannur District (110.28 sq. km) is the largest and Guruvayoor in Thrissur district is the smallest (6.49sq km). Among the five Corporations, the most populous is Thiruvananthapuram (704375) followed by Kochi (564589), Kozhikode (419831), Kollam (346013) and Thrissur (296788). In 1993-94, 14 municipalities had an annual income of Rs.70 lakh, 21 municipalities had an annual revenue between Rs.40 to 70 lakh and 20 municipalities had an annual revenue of less than Rs.40 lakh.

Development Authorities

13.5 Thiruvananthapuram Development Authority, Greater Cochin Development Authority and Kozhikode Development Authority are the three major Urban Development Authorities in the state.

Their roles have been mainly concentrated on development of infrastructure facilities like shopping complexes, markets, road, drainage, stadium, bus stand, development of residential plots and housing schemes. They avail of financial assistance from the Central and State Governments, Housing and Urban Development Corporation and Kerala Urban Development Finance Corporation.

13.6 The major projects implemented byTRIDA during 1999-2000 include widening of Karamana-Killippalam road, Vellayambalam-Thycaud road, Palayam-Pattoor road and PMG-Mascot Hotel road, market projects at Palayam and Chalai, flats and Vishram Sangeth near Medical College etc. The Greater Cochin Development Authority taken up the Edathala housing scheme, widening of Kaloor-Kadavanthra road, Subhash Chandrabose road, Chilavannur Bund road, Panampally Nagar-Ananthuruthy road, new Mattanchery bridge and market complex at Kaloor. The EEC aided agricultural markets at Sultan Batheri and Vengeri are the two major projects implemented by CDA during the year.

Kerala Urban Development Finance Corporation

13.7 Kerala Urban Development Finance Corporation Ltd. Provides financial assistance in the form of loan to urban local bodies for implementing developmental activities. The Corporation has rendered financial assistance to 699 schemes of various urban local bodies upto 31.3.2000 amounting to Rs.58.27 crore. The cumulative achievement of 688 schemes up to 31.3.1999 amounted to Rs.76.87 crore. Plan assistance to the Corporation during 1998-99 and 1999-2000 was rupees one crore each. In addition to it the corporation has availed a loan of Rs.15 crore from commercial banks under consortium agreement.

Town Planning

13.8 The Town Planning Department in the State is concerned with planned development of settlements in the state, the enforcement of building rules, preparation of spatial plans for urban and rural areas and for fast growing regions such as agro industrial centres, pilgrim centres and tourist centres. The local bodies and other development agencies are responsible for implementing the development plans prepared by the department. The department is also involved in the survey of urban and rural areas, collection and analysis of data, preparation of urban plans etc. As part of its role in urban development, it provides financial assistance by way of grant and loan to minor development authorities for implementing statutory town planning schemes. It also extends financial assistance to municipalities and townships for implementing town-planning schemes. The Town Planning Department with the technical assistance of Kerala Remote Sensing Agency implements geographical information system to build up adequate database on land, aerial photography, satellite imagery and mapping for all statutory towns.

Local Finance

13.9 As in the rest of India, the Local Self Government Institutions (LSGI) in Kerala are also heavily dependent on fiscal transfers from the State Government. Only the grama panchayats and municipalities have the powers of taxation. The main sources of revenue of the LSGIs in Kerala are given below:

Own taxes i.e.; Taxes assigned by statute to the local bodies and which are levied by them;
Assigned Taxes i.e., Taxes which are statutorily assigned to local bodies but collected by State Government and made over to local bodies;
Shared Taxes i.e., Taxes which are assigned to the State Government and collected by them but a share of the proceeds is disbursed among local bodies;
Non-Tax Revenue i.e., income from sources such as property, license fees, etc.
Grants from Government, which may be either tied or untied.

Loans from Government and other financial institutions. These comprise *capital receipts*.

13.10 Own taxes and the non-tax revenues together constitute the total own revenue of the local bodies. In 1993-94, the own revenue of the grama panchayats in Kerala was around 44% of their total receipts. For India, the ratio was only around 10% in the case of the rural local bodies. The share of own revenues in the total receipts of the urban local bodies in Kerala was around 68% in 1993-94. Obviously, the urban local bodies enjoy much higher fiscal autonomy in Kerala as well as the other States. The share of own revenues to the total receipts of the LSGIs has sharply gone down in recent years due to unprecedented fiscal transfers from the annual plans of the State Government, which we shall be discussing in detail later.

Tax Revenue

13.11 The Tax on Buildings accounts for around 50% of the own tax revenues of the rural and urban local bodies in Kerala.(1993-94) The revenue from the Building Tax has also been relatively more buoyant given the building boom in the State. A decade back its share in the own tax revenue of the grama panchayats was around 42%. The next most important tax in terms of own revenue is Professional Tax, accounting for 29% of the own tax revenues of grama panchayats and 6% of that of the urban local bodies.(1993-94) For the urban local bodies Entertainment Tax is a major source of tax revenue, with a share of 41%. For the rural local bodies, it is relatively less important and accounts for only 15% of the own tax revenues. The assigned taxes of the State Government consist of Land Revenue, Surcharge on Stamp Duty and shared taxes in the Motor Vehicle's Tax. The per capita receipt of these taxes for the year 1998-99 are as follows: Property Tax Rs.20.4, Profession Tax Rs.11.3, Entertainment Tax Rs.3.2, Surcharge on Stamp Duty Rs.16.5, Land Revenue Rs.0.6, Motor Vehicles Tax Rs.16.3

13.12 A number of tax revenues collected at the State level are passed on to the local bodies, partially or wholly and they constitute a significant part of the receipts of the local bodies. The surcharge on Stamp Duty and Basic Tax are the two assigned taxes that account for 23 and 7 per cent of the total receipts of the rural and urban local bodies respectively. The Motor Vehicle Tax is the only tax collected by the State Government and shared with the local bodies.

Non Tax Revenues

13.13 An important trend in the receipts of the local bodies in the State is the decline in the share of non tax revenues. In 1993-94, they accounted for only 11.3% of the total receipts of the rural local bodies and 18.3% in the urban local bodies. Income from properties is the most important component of the non tax revenues, accounting for 50 to 60 percent of the sub-total. Various license fees come next in importance.

13.14 Loans do not constitute an important source of financing of the rural local bodies. In 1993-94 the share of loans in the total receipts of rural local bodies was only 3.5 per cent whereas it was 14.6 per cent for the urban local bodies. The loans are taken from the State Government or institutional agencies. A special mention must be made in this context of Kerala Urban Development Finance Corporation (KUDFC) and the Kerala State Rural Development Board. (KSRDB).

State Finance Commission

13.15 The first State Finance Commission was constituted in May 1994 and submitted its report on February 1997. The State Finance Commission's recommendation attempted to remove arbitrariness in the fiscal transfers to the local bodies from the State Government and enhance their own resource base. It has pointed out that the potential of own revenues of the local bodies is not yet fully being exploited, particularly, in the case of Building Tax and Professional Tax. It is also important that the local bodies attempt to enhance their non tax revenues through the introduction and enhancement of user charges and service fees. The main recommendations of the

Finance Commission accepted by the State Government are the follows;

(i) The basis of calculation of property tax, which was hitherto relatively subjective assessment of rental value, has been changed to the transparent system based on the plinth area of the building assessed.

(ii) A provision has been made for assessing entertainment tax based on tickets sold or on gross collection capacity.

(iii) The profession tax slabs have been rationalised and enhanced.

(iv) The licence fees prescribed in various rules have been enhanced. Cable television has been brought under entertainment tax. A new provision for service tax as an independent tax has been suggested. In order to ensure prompt payment of dues to LSGIs penal interest at 2% per month has been stipulated for overdues.

(v) The Land Revenue has been doubled and the additional revenue generated is being divided among the Block Panchayats and District Panchayats. The Vehicle Tax Compensation has been fixed at 20% of the net collection.

A rural pool has been constituted by merging various grants in aid formerly given to the village panchayats and adding 25% of the surcharge on Stamp duty to it. Objective criteria have been laid down for allocation of tax. Arbitrariness in the inter-local body distribution of grants has been virtually abolished. The non plan grant-in-aid is to be distributed to the local bodies based on a formula with 90 per cent weightage for the population and 10 per cent for the area. This has been accorded a statutory basis through amendments to the Kerala Panchayathi Raj Act and Kerala Municipality Act. The local bodies have also been given greater flexibility through pooling of several specific purpose grants into rural and urban pools.

13.16 The State Government, on 23rd June, 1999 has appointed the Second Finance Commission with Prof.Prabhat Patnaik as Chairman. The terms of reference of the Second Finance Commission are the following:

"The Finance Commission shall review the financial position of the panchayats and the municipalities and make recommendations as to:-

a. The principles which should govern:

(i) the distribution between the state, panchayats and municipalities of the net proceeds of the taxes, duties, tolls and fees leviable by the state, which may be divided between them under Part IX and Part IX A of the Constitution and the allocation between the panchayats at all levels and the municipalities of their respective share of such proceeds.

(ii) the determination of the taxes, duties, tolls and fees which may be assigned to or appropriated by the panchayats and municipalities.

(iii) the grant-in-aid to the panchayats and the municipalities from the Consolidated Fund of the State.

b The measures needed to improve the financial positions of the panchayats and municipalities with reference to ;

(i) the scope for local bodies to raise institutional finance, and suggest a framework for local self governments to take recourse to such sources along with procedures to be followed and limits, if necessary, to raising such resources;

(ii) need for sharing the cost of maintenance of assets and institutions transferred to local self-governments, and evolving criteria for it, with due regard to the fiscal

position of the State Government and the local self governments;

(iii) steps necessary for efficient financial management with particular reference to efficiency in resource mobilisation and economy in expenditure.

(iv) settlement of claims and dues of panchayats and municipalities vis-à-vis Government and Governmental agencies;

(v) procedures to be followed for smooth flow of funds to local self governments and for ensuring proper financial accountability."

13.17 The second finance commission submitted its report to the government on 9 January 2001. The Finance Commission recommendations have covered both plan and non plan accounts of the LSGIs, rationalisation and enhancement of non-plan resource devolution from the state government, measures to augment own revenue mobilisation by the LSGIs and strengthen to audit and accounting mechanisms. The report is under the consideration of the Government.

Pattern and Trend in Expenditure

13.18 In the traditional pattern of expenditure of the local bodies in Kerala, the establishment charges were a major claimant of the income of the grama panchayats accounting for 42 percent of their total expenditure in 1993-94. For the urban local bodies the corresponding ratio was only 16 percent. Public works such as roads and buildings constituted the main developmental activity of the local bodies. Small wonder, they were the biggest component of expenditure both for rural local bodies (42%) and urban local bodies (33%). Unlike many other States, the local bodies in Kerala, but for Malabar District Board of the fifties, did not traditionally play any important role in education. Historically, educational sector was financed either by various communities and organisations aided by the State Government or directly by the State Government itself. Therefore, the proportion of expenditure on education by the local bodies in Kerala was relatively low. The low expenditure on drinking water particularly grama panchayats is also partly a reflection of the centralisation of water supply function under Kerala Water Authority. Public health and sanitation is an important item of expenditure in the urban areas accounting for as much as one-fifth of their total expenditure.

Plan Schemes

13.19 The share of plan expenditure by the local bodies was not very significant. Their involvement in the plan has been confined to the utilisation of the untied plan grants and the implementation of schemes, particularly, the centrally sponsored schemes that are implemented through the local bodies. (See Chapter 10). With the initiation of decentralised planning, the entire scenario has undergone a dramatic change. The plan grant-in-aid became the single most important receipt of the local bodies accounting for more than three times the sum of all other receipts put together. The expenditure pattern of the local bodies came to have an unparalleled development orientation with an astounding rise in the share of development expenditure and comprehensive involvement in every sector of relevance to local level development.

Devolution of Plan Funds

13.20 The first time a direct role in planning was sought to be given to the local bodies was when in 1989-90 the State Government, following the recommendations made by Shri S.B.Sen, decided to provide every village panchayat with an untied plan grant which they could utilise according to their own priorities. The provision for this untied grant was Rs. 30 crore in 1995-96.

13.21 The next major milestone was laid in the State Budget of 1996-97 when Rs.69 crore was provided for the urban local bodies and Rs.143 crore for the rural local bodies as untied plan grants. Of the untied funds to the rural local bodies, Rs.100 crore was allocated to village panchayats, Rs.15 crore for block panchayats and Rs.28 crore to the district panchayats. Out of the provision for the urban local bodies Rs.15 crore was for

the three corporations and Rs.54 crore for the municipalities. These allocations were in addition to the schematic transfers that were made in respect of the functions that were delegated to the Panchayati Raj institutions. Such transferred schemes totalled Rs.109.20 crore.

13.22 The above significant enhancement of the untied funds to the local bodies in 1996-97 was made "inorder to enable panchayats to initiate the preparation and implementation of local level need based plan programmes for development." But it must be admitted that a review of the utilisation of this substantial amount of untied funds revealed a number of disquieting trends. None of the local bodies prepared any plan. The most common method adopted was to divide funds equally between ward members for various works, mostly roads, selected by them.

13.23 Despite the above not so encouraging experience, the State Government resolved to provide even higher plan allocation for the local bodies for the year 1997-98, the first year of the Ninth Plan. In July 1996 the State Government decided to earmark 35-40 per cent of the State Plan outlay for projects and programmes drawn up by the local bodies. It also resolved to launch a "People's Campaign for Ninth Plan" in order to ensure that the local bodies, starting from the grama panchayats prepare their local plans in a scientific, participatory and time bound manner. The campaign was to bring together government officials in the various departments, retired officials and non-official experts, volunteers and the mass of people under the leadership of local representatives in an effort to empower the local bodies for genuine grassroot planning. Before we take up in detail the planning process and the different phases of the Campaign an overview of the devolution of plan funds to the LSGIs is given.

13.24 The grant in aid to the LSGIs from the plan have two components; (a) grant in aid viz., untied funds and (b) state sponsored schemes. It may be noted that the above two are in addition to the centrally sponsored schemes that are implemented through the LSGIs and the State Government guaranteed institutional finance made available to the LSGIs. As can be seen from Table 13.1 a remarkable feature of the plan devolution in the state is the high proportion of the untied grant in aid component giving the LSGIs maximum autonomy in the planning process. It is also seen that the share of the grant in aid component has also tended to rise reaching 88.5% during 1999-2000.

Table 13.1
Share of LSGIs in the State's Plan

(Rs. crore)

Year	*Grant-in-aid*	*State Sponsored Schemes*	*Total*
1997-98	749	276	1025
1998-99	950	166.50	1116.50
1999-00	1020	134.40	1154.40
2000-01	1045	224.27	1269.21

13.25 The budgetary provision for grant-in-aid to the local bodies h. . three components; Tribal Sub Plan (TSP), Special Component Plan (SCP) and General Sector Plan. Between urban local bodies again, funds were distributed on the basis of the population share. From 1998-99 rural population has been given slightly greater weightage (1.25:1) in the distribution of SCP and TSP. As for the rural local bodies, the total general sector allocation is distributed to the Grama Panchayats, Block Panchayats and District Panchayats in the ratio of 70:15:15. For the Special Component Plan the share of 20 per cent each was fixed for the higher tiers. With respect to Tribal Sub Plan, during 1997-98, while 60 per cent of the plan funds was allocated to the District Panchayats, the Grama Panchayats and the Block Panchayats received 20 per cent each. During 1998-99, greater weightage was assigned to the grama panchayat and the ratio adopted was 40:20:40. Table 13.2 gives a

comprehensive picture on the allocation of grant-in-aid among different tiers of local bodies.

Table 13.2
Distribution of Plan Grant-in-aid to the Local Bodies
(1997-98, 1998-99, 1999-2000)

(Rs in crore)

Local Body	*No. of local bodies*	*General*	*SCP*	*TSP*	*Total*
		1997-98			
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
Grama Panchayats	990	307.02	105.85	7.62	420.49
Block Panchayats	152	65.79	35.28	7.62	108.70
District Panchayats	14	65.79	35.28	22.87	123.94
Municipalities	55	49.54	12.15	0.65	62.34
Corporations	3	27.86	5.44	0.24	33.53
Total	***1214***	***516.00***	***194.00***	***39.00***	***749.00***
		1998-99			
Grama Panchayats	990	426.02	108.21	15.31	549.54
Block Panchayats	152	91.29	36.07	7.66	135.02
District Panchayats	14	91.29	36.07	15.31	142.67
Municipalities	55	71.18	10.17	0.54	81.90
Corporations	3	36.22	4.48	0.18	40.87
Total	***1214***	***716.00***	***195.00***	***39.00***	***950.00***
		1999-2000			
Grama Panchayats	990	464.10	111.03	19.88	595.01
Block Panchayats	152	99.45	37.01	7.95	144.41
District Panchayats	14	99.45	37.01	11.93	148.39
Municipalities	55	77.51	10.38	0.24	88.13
Corporations	3	39.49	4.57	-	44.06
Total	***1214***	***780.00***	***200.00***	***40.00***	***1020.00***
		2000-2001			
Grama Panchayats	990	467.08	120.47	21.37	608.91
Block Panchayats	152	100.09	40.16	8.55	148.79
District Panchayats	14	100.09	40.16	12.82	153.06
Municipalities	55	78.00	11.26	0.26	89.53
Corporations	3	39.75	4.96	0.00	44.70
Total	***1214***	***785.00***	***217.00***	***43.00***	***1045.00***

13.26 Within the different tiers of local bodies the distribution of the grant in aid during 1997-98 was made using population criteria alone. From the next year a major change was introduced with respect to the intra-tier distribution instead of a mere population criterion a composite index of entitlement was evolved, taking into consideration, in addition to population, the geographical area of the local body, area under paddy and a composite index of backwardness based on houses without latrines and houses without electricity. The details are presented in Table 13.3.

Table 13.3
The Criteria for Intra Tier Distribution of Plan Grant-in-Aid

Indicators	*Weightage (percentage)*			
	Grama Panchayat	*Block Panchayat*	*District Panchayat*	*Municipalities / Corporations*
1. Population (excluding SC/ST)	65	65	55	75
2. Geographical area excluding area under forests	5	10	15	5
3. Area under paddy	5	--	--	--
4. Own Income of Grama Panchayat	10	--	--	--
5. Composite Index of Agricultural Labourers, Persons Engaged in Livestock, Fisheries etc. and Marginal Workers	15	25	20	--
6.Composite index of backwardness/ houses without latrine and houses without electricity.	--	--	10	20
Total	**100**	**100**	**100**	**100**

13.27 In order to ensure the overall thrust of the State plan, certain broad guidelines were given regarding sectoral allocation in the plans of the local bodies. It must be emphasised that these guidelines did not impinge in any serious manner on the autonomy of local level planning. Certain broad bands of minimum and maximum percentage share of investments were indicated for the three broad development sectors, namely; productive, service and infrastructure sectors (see Table 13.4). The 40 to 50 % of the grant in aid to be spent on productive sector, 30 to 40 % on service sectors and 10 to 30 on infrastructure. The urban LSGIs were permitted to higher share for infrastructure. The guidelines were applicable only to the general sector grant-in-aid from the State Government and not to the investment outlay proposed to be financed from other sources. As for SCP and TSP the minimum share in the productive sector is not insisted upon.

Table 13.4
Guidelines on Sectoral Allocation Indicated to the Local Bodies 1997-98

Sector	*Rural Local Bodies*	*Urban Local Bodies*
Productive	40-50	20-30
Service	30-40	40-50
Infrastructure	10-30	10-35

13.28 During 1998-99 the sectoral investment guidelines were slightly modified. Rural LSGIs were to continue to invest minimum of 40 per cent of their grant-in-aid for the productive sector and maximum of 30 per cent for the infrastructure sector. For the urban bodies, the minimum share of productive sector was fixed at 30 per cent. For SCP and TSP portion of grant-in-aid the ceiling on investment in the infrastructure sector only was applicable; otherwise there were no restrictions on the sectoral choice. The allocation of 10 per cent of grant-in-aid for Women Component Plan was made mandatory. Urban LSGIs were also to earmark 5 percent of the grant in aid for slum development.

13.29 A limited functional division was introduced with regard to the nature of

projects that may be undertaken by the different tiers of the local bodies, from 1998-99 onwards, so as to avoid duplication of programmes. The individual beneficiary oriented asset distribution programmes were to be taken up by grama panchayats, municipalities and corporations. Only housing, well, and latrine programmes were exempted. Restrictions were imposed on the minimum width of the roads to be undertaken by blocks and district panchayats. The guidelines also highlighted certain priorities to be observed by the higher tiers in order to ensure complementarity of their programmes to those of the lower tiers. The grassroot tiers were to earmark sufficient funds for nutrition programmes in the Anganwadis.

13.30 Frivolous asset distribution programmes undertaken by some of the local bodies had been a subject of serious criticism during the implementation of the first year's plan. In response, projects such as free distribution of umbrellas, chappals, cloths, tools and cooking vessels were banned. They could be considered only as components of an overall integrated programme. Subsidy norms were also modified. In asset distribution for self employment 75 per cent subsidy could be given for SC/ST, 50 per cent for below poverty line families and 25 per cent for others. Limits were also imposed on the maximum subsidy for a family and for an individual. The input subsidy in agriculture was limited to marginal and small farmers.

13.31 The only major change in the plan guidelines during 1999-2000 was the incentives provided for housing development. It was permitted upto 10% of the allocation in the general sector could be diverted by the LSGIs for the productive sectors subject to the condition that an equivalent amount is earmarked by them for these purposes from their plan grant-in-aid for the service sectors. Besides it was also decided that 25% of the outlay for total housing programme for SC/ ST communities would be given as special assistance. Funds for this purpose were kept as unallocated budget provision.

Review of the Planning Process

13.32 The funds earmarked from the plan for LSGIs were to be "utilised to finance the projects prepared as per the procedure laid down for formulation of local plans under 'People's Campaign for Ninth Five Year Plan' and approved through due process by the District Planning Committees concerned." The approach paper approved by the Government through a formal order envisaged a five stage planning process. We shall first review the experience of these different phases of the People's Campaign during 1997-98 and then briefly touch upon the modifications that were introduced during 1998-99.

Phase I Grama Sabhas (August-October 1996)

13.33 Identification of the felt needs of the people was the first step in the decentralised planning exercise. It was accomplished by convening the Grama Sabhas, ensuring maximum participation of people, especially, women and other weaker sections of the society in order to discuss the local development problems. In the urban areas Ward Conventions were organised for the purpose. In order to ensure maximum participation; the Grama Sabhas were convened on holidays; squads of volunteers visited households and explained the programme; preparatory meetings of mass organisation were held; and an active propaganda using posters, advertisements, and involving all branches of the media was resorted to. It is estimated that around 3 million persons participated in these Grama Sabhas/Ward Conventions and of the participants about 27 per cent were women.

13.34 One of the major achievements of the People's Campaign has been in dispelling the general attitude of scepticism towards the Grama Sabhas. It was generally feared that, given the settlement pattern in Kerala, absence of strong village assembly tradition and large size of an average Grama Sabha in the State, the effective functioning of these bodies as instruments of participative planning might not be feasible. But the first phase of the campaign, thanks to careful preparation, mass enthusiasms and organisational innovations, proved in practice the

viability of the grama sabhas. The discussions in the Grama Sabhas were organised in groups of 25-50, one for each development sector in addition to one group for SC/ST development and one for women's development. Given the large size of Grama Sabhas in the State, the organisation of sector- wise group discussion made it possible for maximum number of people to participate in the deliberations in a meaningful manner. Around one lakh resource persons at the local level were mobilised and given training to act as facilitators in the discussion groups. A semi-structured questionnaire was also distributed to help the flow of discussions.

13.35 The major gains in the success of the special grama sabha meetings were:

(i) The felt needs, their priorities and development perceptions of the people in every localities were listed;

(ii) A general awareness was created among various sections of people regarding the decentralisation programme; and

(iii) The basic organisational structure of the Campaign was laid.

13.36 The review undertaken by the State Planning Board of the special grama sabhas convened in connection with the plan campaign also revealed some weaknesses. The extent of participation varied widely not only between districts but also within districts. In some panchayats like Pathiyoor more than one thousand persons participated in grama sabhas, whereas in the same Alappuzha District there were grama sabhas that barely met the quorum requirement of only 50. The inter panchayat differences cannot be explained in terms of political affiliations of the Panchayat Committees alone. Generally, the participation was found to be negatively correlated to the extent of urbanisation. However, the determining factor seems to have been the commitment and the interest of the elected representatives themselves.

13.37 The average participation in the grama sabhas was only 159. Although it was much higher than the legal quorum of 50, the fact remains that the majority of the people did not attend the grama sabhas. Further, women were only around one-quarter of the participants. Also the representation of SC and ST population was not satisfactory. Discussions in many of the grama sabhas were confined to the listing of demands rather than analysing the problems and prioritising the needs.

Phase II Development Seminars (October-December 1996)

13.38 The development seminars were organised in every grama panchayat and municipality. The discussions in the development seminars were centered around the Panchayat/Municipal Development Reports. Development Reports were to be drafted on the basis of the following exercises;

(i) consolidation of Grama Sabha reports

(ii) review of ongoing schemes

(iii) collection of secondary data

(iv) geographical study of the area, and

(v) a brief survey of local history

13.39 The Development Reports were to make an objective assessment of the resource potential and problems of each development sector with a historical perspective. On the basis of such an objective analysis and with explicit consideration of the problems identified by the grama sabhas, a list of recommendations for development action for each of the sectors was to be drawn up. The focus of group discussions in the development seminars was on these recommendations. The State Planning Board has undertaken a systematic review of the Development Reports. The majority of the reports was of high quality, even in an academic sense, and easily qualified to be the best available benchmark studies on the development of respective areas.

Output of the second phase included;

(i) generation of an extensive local data base;

(ii) a comprehensive survey of all development sectors for all panchayats and municipalities;

(iii) a list of plausible solutions to the development problems, and

(iv) formation of task forces to prepare development projects for each development sector.

13.40 It has been estimated that around 5 lakh persons, consisting of representatives from grama sabhas, elected representatives, local leaders of political parties, line department officials, local experts, etc., participated in the development seminars.

Phase III Task Forces (December 1996-March 1997)

13.41 Sector-wise task forces constituted at the grassroot level were supposed to projectise the recommendations and suggestions, which emerged from the development seminars. On an average, 12 task forces were constituted in each local body to cover various development sectors. As many as 12,000 task forces were organised at the village level alone with a total participation of at least 1.2 lakh persons. The task forces prepared around one lakh projects for the consideration of the Panchayats.

13.42 The task of project preparation demanded participation of more officials and technically qualified people than the earlier phases. Accordingly, special efforts were made to ensure participation of officials and local level experts. While the chairperson of the task force was an elected representative, an officer from the concerned line department was its convenor. A simple and transparent format was proposed for the projects to be prepared by the task forces. In order to ensure uniformity, it was suggested that the project reports should generally have the following components:

Introduction	Explaining necessity and relevance of the project.
Objectives	In well defined (as far as possible in quantitative/ measurable) terms.
Beneficiaries	Criteria proposed to be followed in selecting beneficiaries or benefiting areas.
Activities	Technical analysis and time frame of all project activities
Organisation	Agencies and their role in implementing the project activities
Financial Analysis	Investment needed for each activity and identification of source of funds.
Achievements	Preliminary analysis of all direct and indirect benefits and costs.
Monitoring	Details of the proposed monitoring mechanism.

13.43 A separate set of guidelines for the preparation of SCP and TSP projects was also given. Further, it was recommended that the local bodies earmark minimum 10 per cent of the plan assistance for projects meant for the development of women. Special care was also taken to see that the task forces prepared projects with an integrated approach.

13.44 A review by the State Planning Board showed that the task forces did not function as effectively as was expected. The main weakness was that adequate number of experts could not be attracted to the taskforces. The participation of officials was also far from satisfactory. The training given to the task force members was also inadequate. An interim review of the projects prepared revealed numerous weaknesses, particularly with respect to technical details and financial analysis. Accordingly, a number of rectification measures like project clinics, re-orientation conferences etc. were organised. All these created unforeseen delays in the final plan preparation.

Phase IV Annual Plan Finalisation (March-May 1997)

13.45 At the end of the third phase, every grama panchayat and municipality had a shelf of projects corresponding to the development problems identified by the people. By then the grant-in-aid allocated to each local body by the State Government was also made known. This set the stage for the fourth phase, wherein the projects prepared by the task forces were prioritised and incorporated into the five-year plans of the panchayats. For finalising the plan, the panchayats had to;

(i) Make a clear assessment of their capacity to mobilise additional resources from

various sources to finance the plan;

(ii) Evolve a development strategy on the basis of problems identified and resource potential of the locality, prioritise and select projects to be implemented, and

(iii) Decide on a monitoring mechanism for successful implementation of each project selected.

13.46 On the basis of the above analysis, each panchayat was to prepare a plan document comprising of eight chapters, viz., introduction, the development strategy, resource mobilisation, sectoral programmes, integrated development, welfare of Scheduled Castes and Scheduled Tribes, women's development programmes, and monitoring. In order to ensure that the local plans were sensitive to the development challenges and priorities at the State level, certain broad guidelines on sectoral allocation of plan funds, programmes were given.

13.47 The delays and problems in project preparation had an adverse impact upon plan finalisation. The drawing up of the plan document proved to be more difficult than was anticipated. One reason for this situation was that the training programme for the fourth phase focussed only on the elected representatives and in many areas adequate voluntary help failed to come forth.

Phase V Annual Plan of Higher Tiers (April-October 1997)

13.48 The Blocks and District Panchayats were supposed to start preparation of their annual plans only after grama panchayats had drafted their plans. The sequential ordering of the processes was made in order to ensure that the plans of the various tiers are integrated and the plans of the higher tiers are complementary to those of the lower tiers. A simple method of integrating the analysis and programmes of the grama panchayats at block and district level was also proposed. The block and district panchayats also organised seminars to discuss their draft plans.

13.49 Because of the delay in the preparation of the grama panchayat plans, the integration of the plans of the different tiers could not be effectively undertaken. As a result, there were many instances of duplication of planning activities and also critical gaps between the various tiers.

Phase VI Plan Appraisal (May-1997)

13.50 When the plan campaign was launched, only the above five phases were visualised. However, it was later found that a significant proportion of the projects prepared at the village level had to be examined for their technical soundness and viability and corrected before they were implemented. Realising that the District Planning Committees did not have the technical manpower or infrastructure to undertake such a thorough scrutiny of the projects, a major improvisation in the original programme of the campaign was called for. A new (Sixth) phase was added for the technical and financial appraisal of the projects and plans.

13.51 This is how the concept of Voluntary Technical Corps (VTC) and formation of Expert Committees emerged. Retired technical experts and professionals were encouraged to enrol themselves as volunteers to appraise the projects and plans of the local bodies in order to rectify the weaknesses in technical details and financial analysis.

13.52 Expert committees were formed at Block (BLEC), Municipal (MLEC), and District levels (DLEC) drawing upon the VTC members along with certain categories of mandatory officers. The District Planning Committees approved the Plan on the recommendations of these expert committees. The expert committees had no right whatsoever to change the priorities set by the local bodies. Their tasks were clearly confined to technical and financial appraisal of the projects and to suggest such modifications as would make the proposed projects viable and feasible.

The Planning Process during 1998-2000

13.53 As during the initial year, in the subsequent years also the planning process involved organising gramasabhas, seminars, task forces, project preparation, plan formulation,

appraisal and approval. However, the sequence of events was altered and task forces at the local level were given greater importance. They were made the key organisational link in the preparation of the second year's annual plan.

13.54 As was noted, weaknesses of the task forces were a major stumbling block in the preparation of the first year's plan. It was hoped that the presence of VTC members and greater involvement of officials would rectify the weaknesses of the functioning of the task forces during the second year. The task forces were not merely for the preparation of the projects. They were to help the local bodies at every stage of the plan preparation. Unlike in the previous year, when the task forces were formed at the conclusion of the development seminars, the planning process in the second year started with formation of task forces.

13.55 A semi-structured programme of self study was designed in order to give orientation to task force members regarding the different phases of plan preparation. There were to be at least four general body meetings of the task forces, one before each phase. A general body meeting of the task forces was to draw up a draft list of proposals to be included in the annual plan by the local body. The modified recommendations as finalised by the grama panchayat and municipal council were to be discussed in grama sabhas/ward conventions. The organisation of grama sabhas was broadly the same as in the previous year. Major difference was in the focus of discussion, instead of general discussion on local development needs the grama sabhas were to attempt to prioritise the recommendations submitted to them

13.56 The task forces were to help the local body to examine and revise the plan proposals taking into consideration the suggestions made at the grama sabhas. A draft plan document was to be prepared for discussions in the development seminars. The general body meeting of the task forces was to collate the recommendations of the development seminars and also place their own considered judgements before the elected samithis/councils for final decision. The structure of the plan document was more or less the same as that of the previous year except for the review of the annual plan of 1997-98 which was to be included in the introductory chapter.

13.57 In the light of this experience with regard to project appraisal, the appraisal procedure was formalised and made more stringent. The plan appraisal by the expert committees involved five steps : (a) verification of the planning procedures (b) appraisal of projects and issuing of technical sanctions (c) verification of statistical annexures (d) appraisal of the plan write up and (e) submission of recommendations to District Planning Committees. In a major departure from the previous year every project required technical and financial appraisal and subsequent formal technical sanction. Any project that required detailed examination were to be separately listed and submitted for conditional approval from the District Planning Committees.

Training Programmes

13.58 Elaborate preparation had to be made to ensure that each phase was successfully completed. The most important among them was the training programme that preceded every phase. There is no parallel for the training/empowerment programme in terms of its scale i.e., the number of participants, or the diversity of issues and topics that were covered in a time bound manner.

13.59 In the first phase, a three tier programme of state, district, and block/local level training covering more than one lakh resource persons was undertaken. The State level Key Resource Persons (KRP) trained District Level Resource Persons (DRP) who in turn trained Local Level Resource Persons (LRP). It was also ensured that all the elected representatives would participate in the training programme at one level or another in each of the rounds. As can be seen from the Table 13.6, composition of the participants in the training programme changed from phase to phase, depending upon the tasks. Initially, the focus was on the resource

persons and the elected representatives. At the fourth and fifth stages, the focus was entirely on the elected representatives. In a later phase, the focus was on officials and experts. In the seventh round of the training programme where issues regarding plan implementation were taken up, the officials were majority of the participants. The distribution of participants at different levels in each of the seven rounds of the training that were undertaken are given in Table 13.5 and Table 13.6.

Table 13.5
Classification of Participants in Training/ Empowerment Programme

Phase	*State Level*	*District Level*	*Block Level*	*Grama Panchayat / Municipality Level*
I	KRP	DRP	-	LRP
II	KRP	DRP	-	LRP
III	Faculty	KRP, Officials	DRP, Task Force, Elected Representatives	
IV	Elected Representatives, KRP	-	-	-
V	Eleeted Representatives, KRP	-	-	-
VI	Faculty	VTC	VTC	-
VII	Elected Representatives, Officials	-	KRP,DRP, VTC, Members, Officials	-

Table 13.6
Number of Participants in Training/ Empowerment Programme

Phase	*State Level*	*District Level*	*Block Level*	*Panchayat /Municipalities*
I	375 (5)	11716 (3)		100000 (1)
II	660 (3)	11808 (2)		100000 (1)
III	300 (4)	1146 (3)	1500000 (2)	
IV	3014 (3)		10000 (2)	
V	1186 (3)			
	304 (2)			
VI	150 (2)	6000 (2)	6000 (1)	
	300 (3)		6000 (1)	
VII	2890 (2)		25000 (2)	
	3360 (2)			

* *Number in parenthesis represents number of days*
Do not include one day conference: like 3 state level conferences of presidents and chair persons, numerous regional conferences of KRPs, VTCs, DLEC members, Block Panchayat Secretaries and District Conferences of DRPs etc.

13.60 The content of the training programme was also different from one round to another. Each round focussed upon the immediate task that had to be undertaken as part of the campaign. Thus Grama Sabhas, besides the general philosophy of campaign were the focus of the first round, the different planning techniques and development report preparation were the focus of the second round and the project preparation that of the third round and so on. The philosophy of decentralisation informed the introduction of every round of training. Similarly, the problems of Scheduled Castes and Scheduled Tribes and gender constituted yet another constant theme.

Subject Specialisation in Training

13.61 The success of the campaign, no doubt, depended to a large extent on to the effectiveness of the training programme. Whatever be the weaknesses and problems, the fact remains that a plan did emerge from below. Though with a certain amount of delay, every local body prepared its plan and that too in a participatory and transparent manner. While the campaign mode of training continued to characterise the preparation of the second year's annual plan, three major departures from the past year may be noted. (a) the task forces were the focuses of the training programme (b) a conscious attempt was made to involve departmental officials and non-official experts in the training programmes right from the beginning and (c) subject wise specialised training was given.

13.62 The training programmes for the second year's annual plan started with a general orientation programme for all task force members. It was to be a programme of self-study, structured around one full to half day local workshops, spread over the months of April to June. For this purpose a handbook was prepared outlining the nodal events and the revised guidelines titled, Aasoothrana Sahayi 1. More than one lakh copies of hand book were printed to provide a copy for every member of the task force. Key Resource Persons (KRP) and selected VTC memoers were given training to act as facilitators.

13.63 Besides the general orientation programme regarding planning procedures, sector specific training workshops for members of task forces were also organised at the block/municipality level. For successful conduct of the sectoral workshop 13 sectoral handbooks (Aasoothrana Sahayi/Plan Guides) were prepared and published. Each handbook had distinct characteristics being produced by separate teams of specialists. Broadly the pattern adopted was as follows: review of planning experience in the particular sector in the previous year, discussion of the sectoral development problems and suggestions for improving project planning and performance in the relevant sector. Table 13.7 presents the distribution of the participants at the state/district level faculty training programmes and the participants in the local level workshops.

13.64 Special attention was given to the sectoral training programmes for Women Development and Special Component Plan and Tribal Sub Plan. One day district conventions of all the elected women representatives were organised. A number of experimental pedagogic techniques were successfully utilised in these conventions for effective interaction. A highlight of the conventions was the performance by a women theatre group focussing upon challenges before women in panchayats. With regards to SCP and TSP a series of workshop spread over a month were held at Thiruvananthapuram with the Minister for Welfare of Backward and Scheduled Communities participating in all the key sessions. All the SC/ST elected members, key office bearers of local bodies, key resource persons and chairpersons of SC/ST expert committees participated in these workshops. As a follow up district level conventions were organised to review the implementation of SCP and TSP.

Table 13.7
Distribution of Faculty Members and Participants in The Sectoral Training Programme (1998-99)

Sl. No	*Sector*	*State/Core Faculty Members*	*District Faculty Members*	*Participants in the Workshops*
1	Agriculture	75	600	15,000
2	Animal Husbandry	60	350	5,000
3	Fisheries	40	300	3,000
4	Education	50	500	5,000
5	Health	50	300	10,000
6	Anganawadi	40	300	10,000
7	Drinking Water	30	300	5,000
8	Women	40	500	10,000
9	Energy	30	300	5,000
10	Co-operation	30	300	5,000
11	Public Works	30	600	10,000
12	Sanitation	40	300	5,000
13	SC/ST	30	300	5,000

13.65 Yet another initiative was an attempt to strengthen the linkage between the co-operative sector and local level planning. With the help of State Co-operative Union, joint conventions of co-operatives and elected representatives were organised in all districts where a draft programme was presented and discussed. These discussions were useful in initiating certain key changes in the cooperative law and a number of important initiatives to link cooperative credits to the local plans.

Institutionalisation of Training

13.66 During 1999-2000 also the emphasis was on training the task force members. However, a major departure was made from the Campaign mode of training to institutional training. A number of academic institutions and voluntary agencies such as Kerala Agricultural University, State Institute of Rural Development, Kerala Institute of Local Administration, Institute of Management in Government, Medical College, Thiruvananthapuram, State Council of Educational Research and Training, Centre of Science and Technology for Rural Development and Integrated Rural Technology Centre were identified to provide training for the task force members in their area of specialisation. The broad curriculum of the courses is as follows; the course would start with a critical assessment of projects and experience of their implementation during the initial years of the Campaign. The faculty members would respond to the issues that emerge from the group discussions. Certain model projects and programmes would be presented either through case presentations or through field visits. Finally, the participants will be given orientation for the preparation of the third year's plan. In table 13.8 a summary list of the training programmes that have been completed or are currently going on and the agencies responsible for the training is given.

Table 13.8
Institutional Training for Task Force Members

Organisation/ Institution	*Training*	*July – December, 1999*		*January – March, 2000*	
		No. of batches	*Partici pants*	*No. of batches*	*Partici-pants*
Campaign Cell	Panchayats' Experience Sharing	10	3500	10	2500
KILA	Public Works/ Housing	15	1131	14	1120
SIRD	Integration of Centrally Sponsored Schemes, in Panchayat Plans	3	78	25	1000
SIRD	Watershed Master Plan Formulation	19	915	75	4875
IMG	Decentralised Plan Implementation	29	3371	–	–
IMG	New Approaches to Women Projects	1	132	15	3800
IMG	New Approaches to SC/ST Projects	8	965	22	3000
C-DIT	Computer Training to Panchayats	0	0	1	65
IRTC	Energy Project Formulation	8	300	5	200
IRTC	Education Project Formulation	11	420	9	360
Campaign Cell	Progress and Fourth Annual Plan Formulation	–	–	14	420
Campaign Cell/Medical College	Health Project Formulation	7	600	7	600
Total		**111**	**11412**	**197**	**17940**

13.67 In addition to the above a number of orientation programmes were conducted for resource persons, expert committee members and panchayat functionaries. Yet another stream of training programmes that were initiated during the third year is the experience sharing workshops organised by the LSGIs which have planned and implemented innovative programmes. A list of such workshops that have been organised during 1999-2000 is given in table 13.9.

13.68 As part of the institutionalisation process, a project known as Capacity Development for Decentralisation in Kerala (CapDecK) was commissioned with the financial support of Swiss Agency for Development and Co-operation (SDC). The Swiss contribution will be approximately Rs. 1054 lakh over a period of three years. Kerala Institute of Local Administration (KILA) has been identified as the designated lead organisation. The Swiss support is entirely in grant form. The project aims to support the democratic decentralisation process in Kerala by contributing to the conceptualisation, development and implementation of a capacity building strategy and programme that will strengthen local participation and enable rural and urban local bodies to effectively perform their duties and responsibilities. The representatives of KILA and SDC signed the agreement on 24th January, 2000 at Thiruvananthapuram. Currently KILA is closely collaborating with the State Planning Board in organising, coordinating and financing numerous training programmes that are being organised as part of the People's Plan Campaign. As during 1999-2000 other training institutes particularly Institute of Management in Government and State Institute of Rural Development were also actively involved in the programme. It is expected that from 2001-02 KILA would become the nodal agency responsible for the training programmes connected with democratic decentralisation.

Table 13.9
Panchayat/Municipality Level Experience Sharing Workshops

Local Body	*Topic*	*Duration*	*Dates*
Ulloor G.P	Neighbourhood Groups	2 days	1999October 23,24
Onchium G.P	Labour Contract Society	"	1999October 30,31
Corporation of Trivandrum	Beneficiary Committees	"	1999November 6,7
Kanjikkuzhy G.P	Vegetable Production	"	1999November 13,14
Kunnathukal G.P	Labour Bank	"	1999December 4,5
Chellanam G.P	Rain Water Harvesting	"	1999December 7,8
Thrissur District Panchayat	Integrated Programme for Drinking Water	1 day	1999December 10
Chottanikkara G.P	Pest Control and Integrated Farming	2 days	1999 December 13, 14
Chapparappadavu G.P	Micro Hydel Projects	"	1999December 19,20
Kumarakom G.P	Panchayat Administration and Computerisation	"	1999 December 22,23
Kumily G.P	Development Problems of Plantation Panchayats	"	2000 January 3,4
Ittiva G.P	Library Movement and Decentralised Planning	"	2000 January 4,5
Alappad G.P	Total Sanitation Village	"	2000 January 9,10
Kaipparambu G.P	Sports Development	"	2000 January 22,23
Madakkathara G.P	Rabbitry	"	2000 January 25,26
Mattathur G.P	People's Vigilance Movement	"	
Vithura G.P	Transparency & Social Auditing	"	2000 January 29,30
Vaniyamkulam G.P	Check Dams: K.Madhavan Memorial Seminar	"	2000 February 7,8
Kayyoor-Cheemeni G.P	Pre-Primary Education	"	2000 February 16,17
Ponnani Block Panchayat	Mental Health Programme	"	2000 February 22,23
Manjeri Municipality	Small Scale Industries	"	2000 February 26,27
Olavanna G.P	Drinking Water Programme	"	2000 February 27,28

Training Programmes during 2000-01

13.69 The training programmes during 2000-2001 may be divided into six broad streams (see table 13.10). The most important among them was the training of new elected representatives. 6589 office bearers of the LSGIs and their secretaries were given three days orientation programme at the state level in 26 batches between October 2000 and January 2001. The other elected members numbering 10360 were given two days orientation at district level. 99 percent of the elected representatives had expressed urgent need for such an orientation programme. It may be noted that only around 25 percent of the elected representatives had any previous experience in elected office. 25000 copies of a text book on People's Planning was printed for distribution among the elected representatives and resource persons.

Table 13.10
State Level Training Programmes February 2000 – February 2001

Period	Programme	Batch	Duration (No of Days)	Participants
Panchayat Staff				
June 26- Aug 12.2000	Training for Panchayat Staff	13	2	2493
Watershed				
July 19- Aug1.2000	Watershed Training	6	2	593
Nov 28-29.2000	Nodal Preraks	1	2	153
Nov 17-18.2000	Faculty Watershed development programme	1	2	191
	Total	**8**		**937**
Women				
July 3 – July 27.2000	Manaveeyam Stree Pathavi Padanam	12	2	3984
Nov 17-18.2000	Fauculty Training of elected women representatives	1	2	67
Nov 26.2000	Fauculty Meeting for former elected women representatives	1	1	77
Nov 27-Dec 22.2000	Training for elected women representatives	8	3	2701
Dec 13.2000	Training for former elected women representatives	3	1	287
	Total	**25**		**7116**
Newly Elected representatives				
Oct 28.2000	Fauculty training of Elected representatives	1	1	101
Oct 29-Nov 15.2000	Training of Elected representatives	6	3	1851
Oct 28-Nov 21.2000	Training of Elected representatives	8	3	1162
Oct 16-Nov 22.2000	Training of Elected representatives	4	3	1898
Dec 14-17 2000	Municipality	2	2	312
Jan 24 – 25 2001	District Panchayats	1	2	205
Jan 3 – 18.2001	Block Panchayats Elected Representatives	4	2	1060
	Total	**26**		**6589**
Resource Persons/Co-ordinators				
Aug 19 –Aug 26.2000	KRP Training	4	2	657
Nov 30 –Dec 5.2000	KRP	3	2	585
Dec 6.2000	Block Co-ordinators	1	1	160
Jan 29 – Feb 5 2001	State Resource Persons	3	4	867
	Total	**11**		**2269**
SCP Co-ordinators / Tribal Social Activists				
Feb 17-21.2000	Tribal Social Activists	1	5	200
March 20-24 2000	Tribal Social Activists	1	5	231
Aug 30-Sep 3.2000	Tribal Social Activists	1	5	226
Sep 4 - 7.2000	SCP - Co-ordinators	2	2	837
Feb 15 to March 2	SCP Co-ordinators and Social Activists	7	2	1700
	Total	**12**		**3194**

District Level Trainings				
October 2000-January 2001	Elected representatives	62	2	10360
	DRP Training (Mobile team)	43	2	6773
	Saksharatha pretaks	15	1	2335
	Angaawadi workers	105	1	15089
	Block level Workshop	108	1	17392
	SC/Tribal	14	1	2905
	Total	**347**	**8**	**54854**

13.70 The second major stream was the Women Empowerment programme. 3984 women representatives and activists from selected panchayats were given 2 to 3 days training at state and regional levels for undertaking the preparation of Panchayat Women Status Reports. The preparation of these reports was the activity of Manaveeyam Sthree Padavi Padanam Project undertaken by the participating panchayats and municipalities as part of their local plans. It was to be a year long programme of self-study on gender and development to be undertaken by a team of women with active participation of mass of women in every locality. In this manner, it was expected that the preparation of local women's status reports would also become a mass programme of conscientisation on issues related to gender and development. A special handbook on Status of Women in Kerala was prepared for the purpose of training. It was followed by a state level training programme for 2701 women elected representatives. A handbook summarising the gender experience of People's Campaign titled 'Women Empowerment and People's Campaign' was prepared for this purpose. An important outcome of these interventions has been the preparation of a preliminary note on status of women in each panchayat and municipality which were taken up for discussion in the gramasabhas that were organised during January – February months of 2001.

13.71 The third stream was the orientation programmes organised for tribal social activists and SCP coordinators. A scheme for appointing tribal social activists from educated tribal youth for every tribal hamlet was introduced in 1999-2000. Similarly, a special coordinator for SCP for every panchayat and municipality from the educated SC youth was appointed during 2000-2001. The expectation was that these young educated community organisers would facilitate greater indepth participation of dalits in the local level planning and implementation of development schemes. 656 tribal social activists were provided 5 days training and 837 SCP coordinators 2 days training at Thiruvananthapuram. In February 2001 all the tribal social activists and SCP coordinators were brought together for two days review of their activities.

13.72 The fourth major stream of training was related to watershed development programme. During 1999-2000 all the block panchayats undertook a project to prepare a watershed master plan for their area. For this purpose Watershed Development Councils (WDC) were formed that were to give leadership in delineating the micro-watershed boundaries in each block and prepare a review report for each watershed. During July-August, 593 WDC members were given indepth training. Periodic workshops were held to monitor the progress of the programme and to undertake corrective measures. Watershed maps and review reports have been prepared for all the blocks in Kerala. A popular version of these reports, with reference to the watersheds in each panchayat, have been printed and placed for discussion in the gramasabhas that were convened during January – February 2001. These gramasabhas elected study groups to undertake indepth analysis and draw up an action plan for each of the micro-watersheds. These watershed based action plans would be integrated at the block level into a master plan and is expected to form the basis for the preparation of the 10th five year plan.

13.73 The fifth major stream has been the training programme for government

employees. 2493 panchayat employees were given training during June-August 2000. Besides, periodic training for resource persons, block coordinators and members of mobile service teams were also carried out.

13.74 The sixth and perhaps the largest of the training exercises were related to Integrated Development Gramasabhas that were convened during January-February 2001. These gramasabhas were to discuss the watershed development report and women status report that we have already referred to. A report on status of weaker sections prepared by the tribal social activists and SCP coordinators were also to be discussed in these gramasabhas. Preparation of these printed reports and the explanatory presentations of them in the gramasabhas required that 50 to 100 resource persons in every panchayats. For giving orientation to these local resource persons, besides the elected representatives, 6773 district level resource persons, 2335 literacy workers and 15089 Anganawadi workers were given training at district level. 17392 resource persons attended block level workshops. A local level workshop was organised in every panchayat and municipality. Besides, orientation programmes were organised for around 30000 graduate and postgraduate students as part of Compulsory Social Service Scheme. As a result the Integrated Development Gramasabhas and Wardsabhas have proved to be the most successful of the gramasabhas so far held in Kerala. It is estimated that around 3.5 to 4 million persons attended these gramasabhas.

Plan Formulation 1998-99 and 1999-2000

13.75 The preparation of the first year's annual plan had been a great learning experience. People were learning by doing. The lessons thus learned proved to be a source of strength in the preparation of the second year's annual plan. While it required more than a year's preparations to draw up the first year's annual plan, it took only around four months for the local bodies to formulate their second year's annual plan. However a major drawback was that the plan preparation could not be undertaken simultaneously with the implementation process. And, as we shall see later, for reasons beyond the control of the local bodies the implementation of the first year's annual plan could not be completed before the end of June 1998. Even though efforts were made from December, 1997 to initiate the process of preparing the second year's annual plan the preparatory activities started in earnest only in July 1998, after the completion of the implementation of the first year's annual plan.

13.76 The grama sabhas were spread over the month of June and July. A detailed analysis of the grama sabha data shows that there has not been any decline in the participation of citizens when compared to first year's grama sabha. September 30th was stipulated as the cut off date for the approval of local plans to the VTCs. Almost all the LSGIs were able to submit and get their plans approved before the cut off date. Eventhough this delay was unexpected, there was an improvement with respect to almost all aspects of local level planning; viz., compliance with the procedures and guidelines, the quality of plan documents and project proposals, pattern of financing, sectoral allocation strategy, mode of selection of beneficiaries, procedures for implementation and monitoring etc. The preparations for the Annual Plan 1999-2000 were started in earnest from the start of the new financial year. The process was completed by the end of July. The expectation is that it should be possible in the very near feature to make the planning and the general budgeting process coterminous and have the plans approved along with the budgets of the LSGIs.

District Plans

13.77 Preparation of district plan is constitutionally mandated responsibility of the District Planning Committees (DPC). Article 243 ZD (1) lays down that "there shall be constituted in every state at the district level a District Planning Committee to consolidate the plans prepared by the Panchayats and Municipalities in the district and to prepare a draft development plan for the district as a whole." The primary responsibility of the preparation of the plans is with the different tiers of LSGIs. The District Planning Committee is

visualised only as a coordinating agency and the whole responsibility is to integrate the local plans prepared by the LSGIs. A close reading of the Constitutional provisions also makes it abundantly clear that the functional role of the district plan is to ensure the mechanism for integration of the multi-level plans within the district. Despite the wise acclaim to the Constitutional status accorded to the District Planning Committee, only in a few states have any serious attempts been made to empower the District Planning Committees and only in rare instances have the district development plans been actually drawn up. One of the most important events in 1999-2000 has been the formulation of district plans by the District Planning Committees.

13.78 The annual plans of the LSGIs have been basically prepared on the basis of local development perspectives. An important weakness of the process has been the absence of a systematic feed back from above, from a macro district development perspective. This has been responsible for gaps and duplications in the development programmes and insufficient integration between the programmes of different local bodies and also inadequate attention being given to the spatial dimension of the planning process. Formulation of the district plan would be an important step to overcome the above weakness.

13.79 The district plan is conceived not merely as a consolidated list of projects and plans of different tiers of LSGIs but as a comprehensive document providing a macro perspective for the development of the district. It should guide the preparation of future local plans within the district. The local plans at every level would be prepared henceforward with simultaneous feed back from both above and below. The functions of the district plan may be defined as follows:

a. To make an objective assessment of the district and an assessment of the problems of resources use and provide a macro perspective for sustainable development of the district.
b. To analyse the consolidated plan of the local self governments in the district so as to identify contradictions, duplications and gaps and also link the local plans with the macro perspective.
c. To formulate guidelines for the preparation of future local plans, so that the weakness identified can be avoided in future and the local plans are better integrated with the state level planning.

13.80 *Accordingly a district plan would have three parts:*

a. Part I Perspective for district development, consists of 22 chapters and constitute bulk of the plan document. After an assessment of the resource base of the district, the development problems of each of the productive sectors, service sectors and infrastructure sectors is to be made. Separate analysis is envisaged for the problems faced by women and weaker sections. The sectoral analysis draws heavily from the methodology proposed by the earlier official guidelines. However, there is also an important departure. While utilising the district level database, secondary studies and expertise, the proposed methodology emphasises importance of integrating local level perceptions of the development problems at the district level. The spatial plan is given explicit consideration in three chapters. Besides, the discussions on the sectoral problems are also to be carried out with clear reference to the spatial dimensions.
b. Part II Consolidated plans of the local self governments : It is unnecessary to give the summary of the plans of each local body in the district. Instead, the relevant information with respect to the pattern of plan finance, sectoral investment, Special Component Plan (SCP) and Tribal Sub Plan (TSP) and Women Component Plan (WCP) by different tiers

alone needs to be presented. The sectoral investment pattern in terms of broad natural regions may also be undertaken. Finally, the consolidated plan of the local bodies have also got to be juxtaposed with the state and central plan schemes proposed for the district.

c. Part III Guidelines : To what extent do the local plans correspond to the district macro development perspective outlined in Part I. What are the reasons for the divergence and how could they be rectified? To what extent do the local plan proposals correspond to the local problems identified? To what extent are the local plans integrated and consistent with each other? On the basis of questions such as these, the guidelines for preparation of future local plans may be formulated.

Part II and III of the district plan will have to be prepared every year while Part I needs to be prepared only once in five years, at the beginning of the five year plan. The Constitution lays down that "the Chairperson of every District Planning Committee shall forward the development plan as recommended by such Committees, to the Government of the State" (Article 243 ZD (4)). The formal discussion with each District Planning Committee and the State Government on the basis of the district plan document were organised. The conclusions of these discussions were presented at the State Development Council.

Review of Annual Plans

13.81 We shall now undertake an analysis of the annual plans of the LSGIs during the past four years. We shall begin with an analysis of pattern of plan finance and then examine the investment pattern.

13.82 Table 13.11 gives a comparative statement of the total outlay of local level plans and financing pattern with respect to different categories of projects during 1999-2000. The grant-in-aid to the LSGIs constitutes only 44.16% of the total outlay of the local plans i.e., the outlay was more than double of the grant in aid given by the State Government. This was possible by (i) integrating state and centrally sponsored schemes with the local plans; (ii) drawing upon the non-plan surplus from the own funds of the local body and (iii) mobilising additional local resources from financial institutions and beneficiaries.

13.83 A brief clarification with regards to the term additional resource mobilisation' used here is necessary. The term is used in a wider connotation than in the conventional usage in vogue with respect to State and Central plan finance. Even if the conventional narrow definition is adopted excluding beneficiary contribution and institutional finance made available to the beneficiaries, the additional resource mobilisation proposed by the local bodies was remarkable. The non-plan surplus from own funds, voluntary labour and beneficiary contributions paid to the local bodies alone together came to 14.25 percent of the proposed total outlay or around a quarter of the grant-in-aid given by the State Government. It is indeed a significant pointer to the untapped potential of local resource mobilisation.

13.84 The expected contribution from the state sponsored and centrally sponsored schemes to the plans was 5.90 percent and 10.83 percent respectively. There is an obvious under estimation of these sources of plan finance particularly the state sponsored schemes. There has been serious delay in communicating the share of state sponsored schemes to the LSGIs by the concerned departments. It resulted in lack of clarity regarding the share of the sponsored schemes that a local body could have expected from such schemes. Yet when compared to the first two years, there has been a remarkable improvement. The share of state sponsored schemes and centrally sponsored schemes in the local plans outlay had been 4.1 percent and 6.82 percent respectively during 1997-98.

Table 13.11
Financing Pattern of Annual Plan 1999-2000 of the LSGIs

(Percentage)

Item	*No. of Projects*	*Grant-in-aid carried over*	*Grant-in-aid*	*Own Fund*	*State Sponsored*	*Centrally Sponsored*	*Loan from Co-op insti*	*Loan from fin. Inst.*	*Voluntary Contribution*	*Beneficiary Contribution*	*Beneficiary Contribution (directly spent)*	*Others*	*Total*
Grama Panchayats	118931	14.45	36.59	12.79	5.23	3.65	1.19	3.63	3.05	2.84	10.95	5.62	100
Block Panchayats	22665	10.64	22.91	0.0	8.55	37.43	.0.48	11.98	1.68	0.20	1.49	4.63	100
District Panchayats	6521	14.18	25.26	0.0	6.13	3.31	0.56	30.91	5.00	0.17	1.32	13.17	100
Municipalities	9949	10.02	27.00	24.59	6.15	8.36	0.28	12.81	2.22	0.84	5.71	2.02	100
Corporations	1784	10.96	32.24	19.73	1.58	8.11	0.60	17.12	1.62	0.95	5.46	1.63	100
Total	**159850**	**13.07**	**30.85**	**9.27**	**6.31**	**10.83**	**0.83**	**11.37**	**2.97**	**1.60**	**6.72**	**6.18**	**100**
General	131724	11.39	29.12	11.34	5.57	11.48	0.85	12.07	2.87	1.82	7.35	6.14	100
SCP	22892	19.13	37.54	2.08	7.71	8.24	0.72	9.16	3.54	0.62	4.22	7.04	100
TSP	5234	29.99	45.68	2.62	5.51	5.80	0.75	2.74	2.79	0.26	1.47	2.38	100
Women	11783	12.83	40.00	1.90	2.68	3.14	1.74	14.71	3.64	3.14	9.65	6.56	100
Productive Sector	44435	20.40	32.75	1.99	4.26	11.71	1.09	5.42	2.81	3.70	14.07	1.80	100
Service Sector	55813	9.63	30.08	4.74	6.86	10.33	0.64	17.59	3.63	1.02	5.53	9.95	100
Infrastructure Sector	59602	12.01	30.33	29.65	5.73	10.87	0.95	5.08	1.78	0.43	0.94	3.23	100

13.85 The share of own funds in total outlay was around 9.68 per cent, an improvement from 5.8 percent and 7.81 percent during the previous years. There is still not sufficient synchronisation of the normal budgeting process of the local bodies and the preparation of their annual plans. As a result, a significant portion of new developmental work initiated at the local level continued to be implemented without integrating them with the local plan. This meant multiple systems of implementation, which tended to undermine the transparent and participatory system, sought to be ushered in by the People's Campaign. The guidelines from the second year's annual plan have laid great emphasis on integrating the non-plan revenue surplus of the local bodies with their annual plan.

13.86 The contribution by financial institutions leaves considerable scope for improvement in the coming years. It is of utmost importance that the credit plans of the banks are integrated into the plans of the local bodies, an objective, which can be realistically achieved if the bank personnel are also directly involved in the planning process. In this matter, initiative as well guidance will have to come from National Bank for Agriculture and Rural Development and Reserve Bank of India. A disturbing trend had been the reduction in the share of loans from financial institutions from 10.58 per cent in 1997-98 to 8.14 per cent in 1998-99. Most of the local bodies had to revise their plan as they failed to mobilise the targeted level of resources from the financial institutions. During 1999-2000 the expected share of the local plan outlay from financial institutions has shown a definite improvement to 11.37 percent. This improvement is largely accounted for by substantial loans made available by HUDCO for the housing programme and NABARD assistance for rural infrastructure. As mentioned earlier, there is considerable scope for improving the contributions of financial institutions for local level development programmes. However, it requires a major change in the attitude of the financial institutions.

13.87 Despite for the steps initiated to improve the linkage for cooperative sector the over all contribution of the cooperative sector to financing the local plans declined from 1.57 percent to 1.15 percent between 1997-98 and 1998-99 and further to 0.83 in 1999-2000. The expected contribution of the co-operative sector is much lower than the share expected of the commercial banks. The co-operative credit system, it is pertinent to note here, plays much larger role than the commercial banks in financing the agricultural and small scale production sectors in the state.

13.88 The share of beneficiary contribution in total outlay was as high as 20.59 per cent in 1997-98. This could possibly have been the result of exaggeration resorted either to camouflage the rate of subsidy or to artificially inflate the plan outlay. In fact, only complementary additional investment undertaken by the beneficiary must be included under the source. The plan appraisal revealed many cases of deviation from the norms laid. In 1998-99, the share beneficiary contribution declined to12.99 percent and further to 9.17 percent in 1999-2000. Only 1.82 percent of the outlay was the beneficiary contribution that was paid into the local body authority. This, however, cannot be taken as a sign of declining enthusiasm for additional resource mobilisation. It may be interpreted as a positive movement towards a more realistic estimate of beneficiary contribution, as against the tendency for exaggeration noted during the first year.

13.89 The financing pattern also exhibit significant variation between different tiers of local self-governments. The share of state plan assistance is lowest in the block panchayat and highest in the grama panchayat. The district and block panchayats have virtually no own funds of their own. The block panchayats on the other hand has large amount of funds routed through it by various centrally sponsored schemes. They are also able to make better use of the credit linkage. 30.91 percent of the district panchayat plan outlay is from financial institutions, primarily for the housing programme. The contribution from internal resources is significant only for the grass root tiers

and relatively higher for the urban bodies.

13.90 Financing pattern by development sectors also reveal significant differences. Beneficiary contribution and voluntary labour are most significant among the productive sector and then for service sector. The credit linkage is relatively higher in the service sector, primarily due to housing loans. There is a definite preference for deploying the own funds of the LSGIs for infrastructure development.

Pattern of Investment

13.91 Table 13.12 is a comparative statement of the distribution of plan grant-in-aid and the total outlay among different development sectors for the years 1997-98, 1998-99 and 1999-2000. The total number of projects has increased from 67766 and 99554 during the first two years respectively to 159850 in 1999-2000, reflecting the larger size of the plan and also an undesirable tendency to take up larger number of smaller projects. It is also the reflection of increase in the number of spill-over projects in the local plans. Our discussion here after will be with reference to the distribution of the grant-in-aid component. The distribution of the total outlay would be different in as much as the distribution of additional resources mobilised differs from the distribution of the grant-in-aid component.

Table 13.12
Sectoral Investment Pattern of State Plan Assistance Component of Local Plans

		1997-98			1998-99			1999-2000		
	Items	*No. of Projects*	*Grant-in-aid*	*No. of Projects*	*Grant-in-aid*	*Total Outlay*	*Total Outlay*	*No. of Projects*	*Grant-in-aid*	*Total Outlay*
			%		%	%	%		%	%
1.1	Paddy	1433	2.80	2021	3.47	3.57	4.34	3073	3.15	2.73
1.2	Other Crops	5372	6.10	4333	4.83	5.82	10.48	4547	2.65	2.83
1.3	Other Agricultural Programme	1303	1.35	1086	1.21	0.96	1.12	2573	1.79	1.55
1.4	Animal Husbandry	6961	7.57	6475	6.76	6.94	10.04	7248	3.85	3.69
1.5	Fisheries	933	1.06	1334	1.32	1.45	1.55	1778	0.84	0.99
1.6	Afforestation	96	0.04	53	0.02	0.01	0.04	92	0.01	0.03
1.7	Co-operation (Agri & Allied)	135	0.16	261	0.50	0.38	0.46	183	0.15	0.14
2.1	Soil & Water Conservation	1860	2.65	4206	3.96	4.03	2.43	6545	2.33	3.06
2.2	Minor Irrigation	3888	7.05	6783	9.19	6.80	5.07	11056	6.32	5.58
2.3	Flood Control	145	0.36	794	0.88	0.68	0.60	1553	0.70	0.59
3.1	Small Scale Industries	1991	3.64	3510	5.45	5.20	4.64	4228	4.24	3.73
3.2	Handicrafts	243	0.25	431	0.30	0.19	0.23	180	0.06	0.08
3.3	Handloom	46	0.22	140	0.25	0.22	0.21	140	0.18	0.11
3.4	Coir	111	0.17	202	0.33	0.36	0.30	185	0.22	0.16
3.5	Khadi	109	0.08	153	0.18	0.13	0.10	83	0.09	0.05
3.6	Sericulture	25	0.01	10	0.01	0.00	0.07	4	0.02	0.01
3.7	Other Industries	161	0.24	279	0.88	0.78	0.28	472	0.91	0.72
3.8	Co-op. Societies in Industrial Sector	120	0.20	514	1.06	0.74	0.36	495	0.80	0.62
	Productive sector - Total	**24932**	**33.93**	**32585**	**40.66**	**38.34**	**42.32**	**44435**	**28.31**	**26.67**
4.1	Environment Protection	29	0.04	31	0.02	0.02	0.03	63	0.04	0.05
5.1	Primary Education	3901	2.80	4411	1.70	1.44	2.27	5292	1.29	1.09
5.2	High School	870	1.44	1064	1.29	0.98	0.95	1401	1.33	0.93
5.3	Tech. Education	122	0.28	152	0.20	0.18	0.18	440	0.34	0.19

5.4	Sports	469	0.36	967	0.51	0.47	0.45	1055	0.37	0.30
5.5	Arts & Culture	1563	1.25	2588	1.27	0.88	0.92	3261	1.06	0.99
6.1	Health	2144	2.54	3219	2.06	1.83	1.98	4303	1.81	1.67
6.2	Drinking Water	5089	7.79	5215	5.02	3.79	5.61	11408	7.43	4.51
6.3	Sanitation	2658	5.14	3860	4.00	4.73	5.37	4905	2.85	3.76
7.1	Housing Awareness	3	0.00	12	0.07	0.05	0.00	75	0.10	0.11
7.2	Housing	3546	14.48	5279	13.80	14.21	11.77	9587	23.91	28.12
7.3	Slum Development	99	0.66	233	0.73	0.65	0.48	698	0.80	0.77
7.4	Housing co-operative Societies	10	0.01	6	0.01	0.01	0.21	15	0.03	0.02
8.1	Anganawadi'	1144	0.93	2859	1.19	0.92	0.76	4484	1.53	1.06
8.2	Food & Nutrition Programmes	78	0.08	1284	1.66	1.00	0.06	1642	1.92	1.04
8.3	Employment & Labour Welfare	1610	1.75	2033	1.48	3.08	4.10	1853	0.75	1.34
8.4	Other Social Welfare	1407	1.08	1912	1.13	3.40	2.10	2676	1.44	2.40
9.1	Tourism	63	0.12	75	0.18	0.14	0.11	98	0.07	0.08
9.2	Public Distribution	232	0.37	383	0.50	0.63	0.56	330	0.21	0.33
9.3	Burial Ground	125	0.18	212	0.12	0.13	0.12	289	0.12	0.11
9.4	Planning Surveys, Studies	261	0.14	171	0.09	0.08	0.13	1877	0.92	0.67
9.5	Consumer co-operative Societies	117	0.16	79	0.16	0.19	0.25	61	0.03	0.03
9.6	Plan Expenses	78	0.04	1431	0.76	0.38	0.03			
	Service Sector - Total	**25618**	**41.63**	**37476**	**38.06**	**39.30**	**38.44**	**55813**	**48.35**	**49.59**
10.1	Power Production	14	0.09	43	0.17	0.69	0.47	93	0.10	0.25
10.2	Power Distribution	2704	2.29	3474	2.35	1.48	1.56	451	2.20	1.20
10.3	Development of Non-conventional Energy	187	0.20	74	0.03	0.12	0.25	45	0.01	0.04
10.4	Energy Conservation	784	0.43	330	0.11	0.14	0.67	184	0.03	0.03
10.5	Integrated Energy Planning	61	0.03	70	0.02	0.01	0.09	56	0.03	0.01
11.1	Roads & Bridges	12752	19.80	23643	16.71	16.76	13.80	5091	18.28	18.34
11.2	Inland Water Transport	15	0.10	25	0.01	0.01	0.05	98	0.04	0.03
11.3	Other Modes of Transport	9	0.02	107	0.03	0.13	0.02	681	0.10	0.12
11.4	Waiting Sheds/Bus Stands	205	0.36	425	0.38	0.68	0.57	673	0.28	0.46
12.1	Public Buildings	485	1.12	1302	1.43	2.30	1.75	3066	2.27	3.24
	Infrastructure Sector - Total	**17216**	**24.44**	**29493**	**21.28**	**22.35**	**19.24**	**59602**	**23.33**	**23.74**
	Grand Total	**67766**	**100.00**	**100.00**	**99554**	**100.00**	**100.00**	**159850**	**100.00**	**100.00**

13.92 33.9 percent and 40.66 percent of the grant-in-aid are invested in the productive sector in 1997-98 and 1998-99 respectively. In 1999-2000 it declines to 28.31 percent. For the state as a whole the outlay on the infrastructure sector was only 24.44 per cent and 21.28 percent of the grant-in-aid in 1997-98 and 1998-99 respectively. In 1999-2000 also the infrastructure sector remained well within the ceiling imposed at 23.33 percent. The decline in the share of production sectors in 1999-2000 is primarily accounted by the sharp rise in the service sector due to the expansion of investment in the housing programmes. The sectoral investment guidelines were relaxed to permit local bodies that took up total housing programme to shift up to 10 percent of the grant-in-aid from the funds earmarked for the production sectors.

13.93 Among the productive sector, crop husbandry has the highest share of both grant-in-aid as well as total outlay. Crop husbandry accounted for 8.9 percent and 8.3 percent of the grant-in-aid during the first two annual plans. Among the crops, emphasis was placed however on garden crops rather than paddy. In 1999-2000 the share of crop husbandry declined to 5.8 percent. The decline was mostly the share

of other crops. The allocation for animal husbandry projects came to a close second to crop husbandry. The share of animal husbandry has tended to steadily decline. It was 7.57 percent in 1997-98, 6.76 percent in 1998-99 and 3.85 percent in 1999-2000. Minor irrigation was also given its due importance. Total share of soil and water conservation and flood control has been between 9 to 14 percent.

13.94 Industry did not receive the due attention in 1997-98. The inherent difficulties including non-availability of expertise at the local level in formulating viable industrial projects seem to have been the major factor responsible for the relative neglect of this vital sector. However, there has been a remarkable improvement in 1998-99, the share of industrial sector rises from 4.81 percent in 1997-98 to 8.48 percent in 1998-99. In 1999-2000 the share of industrial sector has declined to 6.52 percent.

13.95 The service sector appears to have got due weightage both in terms of the number of projects and allocation of funds. Notably, housing is one of the leading sub sectors with more than 14 per cent of the grant-in-aid earmarked for its projects during the first two years. As we have already noted that the share of housing sector sharply rose to 23.91 percent during the third year. The projects in this sub sector include, apart from new housing programmes, projects for repair and improvement of existing houses and distribution of housing plots for the weaker sections. The share of drinking water projects came second in rank in the service sector, with 7.79 per cent of the grant-in-aid in 1997-98. Its decline to 5.02 during the second year has been rectified during 1999-2000 with the share rising to 7.43 percent. The share of sanitation on the other hand has exhibited a steady decline from 5.14 percent during the first year to 2.85 percent during the third year. A major gainer in the service sub-sectors was Anganawadis where there has been a remarkable increase in the number of projects. As we had noted earlier it is mandatory for every local body to prepare a project for the supplementary nutrition programme. Share of the sub sector increased from 1.01 percent in 1997-98 to 2.86 percent in 1998-99 and further to 3.45 percent in 1999-2000.

13.96 Understandably roads and bridges claimed nearly 80 percent of the investment among the infrastructure sector. However, this worked out to only between 17 to 20 percent of the grant-in-aid, though the local bodies could, following the guidelines, have set apart as much as 30 per cent of the grant-in-aid for this purpose. The projects in the energy sector were mostly for rural electrification. Adequate consideration was not given to the non-conventional energy projects which is perhaps a reflection of the need for further awareness of the potential in non-conventional energy.

13.97 A serious limitation of the first annual plan was lack of co-ordination and integration of the plans of the different tiers resulting in instances of duplication and critical gaps. This has been particularly so in the case of agricultural and animal husbandry projects. It may also be pointed out that sufficient consideration was not given to the forward and backward linkages in the preparation of the projects. The extent of duplication and gaps between the programmes of the different tiers have tended to decline over time.

Special Component Plan and Tribal Sub Plan

13.98 A remarkable feature of the Special Component Plan and Tribal Sub Plan during 1997-98 – 1999-2000 is that, as much as around 65 to 70 per cent of these plans stand devolved to the LSGIs. If the state-sponsored schemes were also taken into consideration, the ratio would be around 80 percent. The experience of past three years have confirmed the correctness of adopting democratic decentralisation to make the plans of the weaker sections more effective.

13.99 In the past it was left to each development department to determine appropriate schemes for the weaker sections in their area as part of SCP and TSP. This practice led to considerable notional flow in the calculation of the outlay for SCP and TSP. Instead of first allocating plan funds to each department and letting the departments

earmark schemes and funds for weaker sections, now 11 percent of the plan outlay is pooled together and set aside for SCP and TSP. As a result there has been a significant step up of the real funds available to the SCP and TSP.

13.100 Fears of local bodies illegally diverting Special Component Plan and Tribal Sub Plan grant-in-aid for general sector projects have been found to be baseless. Instead, it was seen that many of the local bodies made provisions from their own funds for SCP and TSP and even diverted a portion of the general funds, even though small, for SCP and TSP. The plan grant-in-aid for SCP of all the LSGIs in 1997-98 was Rs.194.00 crore. But it was seen that the grant-in-aid component of their SCP projects totalled Rs.191 crore. There was a marginal shortfall, a large proportion of which is explained by the misclassification of the projects. Besides, more than 7 crore was provided by the LSGIs towards SCP from their own funds. In 1997-98 grant-in-aid for TSP of the LSGIs was Rs.39.00 crore. The grant-in-aid provision in the TSP projects prepared by them totalled Rs.38.5 crore. Here again an additional amount of Rs.0.55 crore was provided for TSP from the own funds of the LSGIs. Similarly, in 1998-99 in the LSGIs provided Rs. 7 crore to SCP and Rs 0.7 crore towards TSP from their own funds. During 1999-2000 the additional provision made by the LSGIs from their own funds for SCP and TSP were Rs.10.04 crore and Rs. 2.15 crore respectively. It must be admitted that there were some exception to this general trend and stringent measures have been taken to ensure that such deviations are rectified.

13.101 Additional local resources have been mobilised for SCP/TSP projects also. But as can be seen from table 13.11 the financing pattern of the SCP/TSP projects is significantly different from the general sector projects. Given the low asset and income base of these weaker sections, it was only right that the local bodies provided much higher share of the grant-in-aid in the formulation of SCP/TSP projects.

13.102 There is also significant difference in the sectoral priorities of SCP/TSP from the general sector plan. The distribution of the grant-in-aid in SCP and TSP for the years 1997-98-1999-2000 is given in tables 13.13, 13.14 and 13.15 respectively. It is seen that much higher weightage is given for the service sector when compared to the general sector projects. The share of service sector ranged between 52 percent to 58 percent in the two years as against around 35 per cent for the general sector projects. During the third year the share of service sectors in SCP was 71.63 percent and TSP 59.77 percent. Housing is the major claimant with a share of 30 – 32 percent of the grant-in-aid during the first two years. During the third year 51.98 percent of the SCP and 38.39 percent of the TSP was earmarked for housing programme. Next in importance comes drinking water claiming around 10.27 percent of both SCP and TSP in 1997-98. During the subsequent years the share of drinking water sector rises to around 9.43 percent. In the productive sector animal husbandry programmes are given much higher priority than crop husbandry.

13.103 A general fear that has often been expressed in public forums is the danger of diversion of SCP/TSP funds for infrastructure projects of common benefit to all. The data show that while in 1997-78, 17.76 percent of the SCP and 22.22 percent of the TSP were earmarked for road and bridge projects. The data also shows that the share of road infrastructure in SCP and TSP have tended to decline in the subsequent years. Bulk of the outlay are individual or family oriented from which the chances of diversion are relatively low.

13.104 The democratic decentralisation of SCP/TSP creates opportunity for the weaker sections to directly participate in planning for their own well being. If these opportunities are properly utilised this could very well be a turning point to the development of the weaker sections in our state.

Table 13.13
Distribution of Grant-in-aid in SCP, TSP, WCP and General Sector Plan by Development Sectors 1997-98 *(in percent)*

	Total	*General*	*SCP*	*TSP*	*WCP*
Paddy	2.80	3.72	0.64	0.76	0.59
Other Crops	6.10	7.86	1.79	3.36	9.80
Other Agricultural Programme	1.35	1.54	0.92	0.84	0.47
Animal Husbandry	7.57	7.64	7.88	4.98	27.81
Fisheries	0.92	1.22	0.25	0.09	0.85
Forestry	0.04	0.04	0.01	0.19	0.00
Co-operation (Agri.& Allied)	0.16	0.23	0.02	0.01	0.30
Soil & Water Conservation	2.65	3.24	1.10	2.35	0.84
Minor Irrigation	7.05	8.67	2.71	6.29	0.60
Flood Control	0.36	0.46	0.14	0.03	0.00
Industry	4.80	5.28	3.84	2.94	18.14
Productive Sector – Total	***33.93***	***40.09***	***19.35***	***21.83***	***60.48***
Environment Protection	0.04	0.04	0.02	0.00	0.00
Primary Education	2.80	3.06	1.99	3.31	1.14
High School	1.44	1.57	0.96	2.02	0.24
Technical Education	0.28	0.15	0.71	0.06	0.57
Youth Service	0.36	0.46	0.13	0.13	0.22
Arts & Culture	1.25	1.47	0.76	0.64	0.53
Public Health	2.54	3.16	0.97	1.73	1.30
Drinking Water	7.79	7.32	9.22	7.22	1.31
Sanitation	5.14	5.55	4.60	2.21	0.76
Housing Awareness	0.00	0.00	0.00	0.00	0.00
Housing	14.48	6.93	32.11	30.50	4.05
Slum Development	0.66	0.30	1.74	0.22	0.00
Housing Co-operative Societies	0.01	0.01	0.01	0.08	0.00
Women & Children Welfare	0.93	1.11	0.53	0.54	4.00
Food & Nutrition Programmes	0.08	0.10	0.01	0.02	0.73
Employment & Labour Welfare	1.75	1.27	3.07	1.69	11.93
Other Social Welfare	1.08	1.09	1.17	0.45	7.09
Tourism	0.12	0.14	0.02	0.19	0.02
Public Distribution	0.37	0.52	0.03	0.00	0.23
Burial Ground	0.18	0.13	0.31	0.05	0.03
Planning and Surveys & Studies	0.14	0.21	0.01	0.00	0.22
Consumer Co-operative societies	0.16	0.10	0.27	0.45	0.54
Plan Expense	0.04	0.05	0.02	0.05	0.02
Service Sector – Total	**41.63**	**34.73**	**58.67**	**51.56**	**34.91**
Power Production	0.09	0.13	0.00	0.08	0.00
Power Distribution	2.29	2.14	2.75	2.10	0.87
Development of Non-Conventional Energy	0.20	0.17	0.25	0.32	0.03
Energy Conservation	0.43	0.52	0.26	0.02	0.68
Integrated Energy Planning	0.03	0.04	0.00	0.00	0.15
Roads, Bridges	19.80	20.37	17.76	22.22	1.68
Inland Water Transport	0.10	0.03	0.15	0.70	0.00
Other Modes of Transport	0.02	0.02	0.00	0.09	0.00
Waiting Sheds/Bus Stands	0.36	0.51	0.01	0.00	0.77
Public Buildings	1.12	1.24	0.79	1.08	0.43
Infrastructure Sector – Total	***24.44***	***25.17***	***21.98***	***26.61***	***4.61***
Grand total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

Table 13.14
Distribution of Grant-in-aid in SCP, TSP, WCP and General Sector Plan by Development Sectors 1998-99 *(in percent)*

		Total	*General*	*SCP*	*TSP*	*WCP*
1.1	Paddy	3.47	3.63	3.47	0.59	0.86
1.2	Other Crops	4.83	5.80	1.84	3.14	4.45
1.3	Other Agricultural Programme	1.21	1.24	1.14	1.06	1.01
1.4	Animal Husbandry	6.76	6.84	7.00	4.01	18.96
1.5	Fisheries	1.32	1.67	0.39	0.04	1.51
1.6	Forestry	0.02	0.02	0.01	0.00	0.01
1.7	Co-operation (Agri. & Allied)	0.51	0.45	0.73	0.40	0.59
2.1	Soil & Water Conservation	3.97	4.42	2.23	5.04	0.24
2.2	Minor Irrigation	9.20	10.31	5.58	8.06	0.34
2.3	Flood Control	0.89	0.79	1.39	0.04	0.00
3.1	Small Scale Industries	5.45	5.84	4.66	2.57	22.95
3.2	Handicrafts	0.31	0.17	0.80	0.17	1.26
3.3	Handloom	0.25	0.23	0.38	0.00	1.31
3.4	Coir	0.33	0.41	0.13	0.02	1.60
3.5	Khadi	0.19	0.20	0.11	0.27	1.00
3.6	Sericulture	0.01	0.02	0.00	0.00	0.09
3.7	Other Industries	0.88	1.09	0.31	0.11	1.33
3.8	Co-op. Societies in Industrial Sector	1.06	0.76	1.93	1.93	4.56
4.1	Environment Protection	0.02	0.03	0.00	0.00	0.00
5.1	Primary Education	1.71	2.02	0.56	2.05	0.07
5.2	High School	1.30	1.47	0.68	1.44	0.36
5.3	Technical Education	0.21	0.15	0.34	0.50	0.23
5.4	Youth Service	0.51	0.67	0.06	0.03	0.20
5.5	Arts & Culture	1.28	1.45	0.78	0.68	0.34
6.1	Public Health	2.06	2.57	0.43	1.56	1.42
6.2	Drinking Water	5.02	4.32	6.96	7.54	0.38
6.3	Sanitation	4.00	4.46	2.81	2.05	0.66
7.1	Housing Awareness	0.08	0.00	0.03	1.73	0.00
7.2	Housing	13.81	8.06	30.01	32.22	10.96
7.3	Slum Development	0.74	0.60	1.28	0.33	0.07
8.1	Women & Children Welfare	1.20	1.42	0.53	0.77	5.67
8.2	Food & Nutrition Programmes	1.66	2.15	0.15	0.85	4.09
8.3	Employment & Labour Welfare	1.49	1.24	2.38	1.27	7.41
8.4	Other Social Welfare	1.14	1.21	0.93	0.83	4.61
9.1	Tourism	0.19	0.22	0.10	0.16	0.10
9.2	Public Distribution	0.51	0.64	0.14	0.00	0.33
9.3	Burial Ground	0.12	0.06	0.35	0.13	0.00
9.4	Planning, Surveys and Studies	0.09	0.12	0.01	0.05	0.05
9.5	Consumer Cooperative Societies	0.17	0.07	0.52	0.12	0.34
9.6	Plan Expense	0.00	0.00	0.00	0.00	0.00
10.1	Power Production	0.18	0.22	0.03	0.23	0.00
10.2	Power Distribution	2.36	2.41	2.30	1.69	0.01
10.3	Development of Non Conventional Energy	0.03	0.03	0.04	0.03	0.01
10.4	Energy Conservation	0.12	0.14	0.06	0.00	0.27
10.5	Integrated Energy Planning	0.02	0.03	0.00	0.00	0.01
11.1	Roads and Bridges	16.72	17.24	15.28	14.81	0.02
11.2	Inland Water Transport	0.01	0.02	0.00	0.01	0.00
11.3	Other Modes of Transport	0.03	0.03	0.00	0.14	0.00
11.4	Waiting Sheds/Bus Stands	0.38	0.46	0.17	0.04	0.02
12.1	Other Housing Sector	1.43	1.60	0.90	1.18	0.26
	Grand Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

Table 13.15
Distribution of Grant-in-aid in SCP, TSP, WCP and General Sector Plan by Development Sectors 1999-2000 *(in percent)*

		All projects	*General*	*SCP*	*TSP*	*WCP*
1.1	Paddy	3.15	4.00	0.27	0.14	0.47
1.2	Other Crops	2.65	3.26	0.60	0.34	2.15
1.3	Other Agricultural Programme	1.79	2.09	0.63	1.62	0.52
1.4	Animal Husbandry	3.85	4.53	1.45	1.82	10.27
1.5	Fisheries	0.84	1.06	0.10	0.01	0.98
1.6	Forestry	0.01	0.01	0.01	0	0.00
1.7	Co-operation (Agri. & Allied)	0.15	0.18	0.08	0.00	0.33
2.1	Soil & Water Conservation	2.33	2.60	1.16	2.72	0.05
2.2	Minor Irrigation	6.32	7.35	2.05	6.44	0.00
2.3	Flood Control	0.70	0.89	0.07	0.07	0.00
3.1	Small Scale Industries	4.24	4.71	2.71	2.26	22.77
3.2	Handicrafts	0.06	0.05	0.03	0.18	0.31
3.3	Handloom	0.18	0.21	0.07	0.29	0.66
3.4	Coir	0.22	0.26	0.09	0.01	1.18
3.5	Khadi	0.09	0.11	0.02	0.00	0.52
3.6	Sericulture	0.02	0.03	0.00	0.00	0.22
3.7	Other Industries	0.91	1.10	0.29	0.07	2.18
3.8	Co-op. Societies in Industrial Sector	0.80	0.76	1.00	0.55	3.96
	Productive Sector	**28.31**	**33.20**	**10.63**	**16.53**	**46.58**
4.1	Environment Protection	0.04	0.05	0.01	0	0.00
5.1	Primary Education	1.29	1.52	0.40	1.09	0.27
5.2	High School	1.33	1.41	0.82	2.13	0.80
5.3	Technical Education	0.34	0.36	0.28	0.12	1.04
5.4	Youth Service	0.37	0.45	0.11	0.01	0.17
5.5	Arts & Culture	1.06	1.16	0.67	0.94	0.18
6.1	Public Health	1.81	2.15	0.37	1.94	1.59
6.2	Drinking Water	7.43	6.64	10.27	9.43	0.13
6.3	Sanitation	2.85	3.20	1.79	1.13	0.61
7.1	Housing Awareness	0.10	0.10	0.09	0.15	0.00
7.2	Housing	23.91	16.37	51.98	38.39	25.29
7.3	Slum Development	0.80	0.83	0.84	0.02	0.00
7.4	Cooperatives for Housig	0.03	0.02	0.07		0.13
8.1	Women & Children Welfare	1.53	1.78	0.58	1.07	8.48
8.2	Food & Nutrition Programmes	1.92	2.41	0.16	0.63	5.25
8.3	Employment & Labour Welfare	0.75	0.70	0.91	0.83	4.35
8.4	Other Social Welfare	1.44	1.31	1.94	1.55	4.06
9.1	Tourism	0.07	0.09	0.03	0.00	0.00
9.2	Public Distribution	0.21	0.26	0.02	0.02	0.10
9.3	Burial Ground	0.12	0.10	0.23	0.06	0.00
9.4	Planning, Surveys and Studies	0.92	1.18	0.03	0.17	0.03

9.5	Consumer Cooperative Societies	0.03	0.02	0.03	0.08	0.08
	Service Sector	**48.35**	**42.13**	**71.63**	**59.77**	**52.58**
10.1	Power Production	0.10	0.09	0.04	0.62	0.00
10.2	Power Distribution	2.20	2.29	1.86	2.06	0.04
10.3	Development of Non Conventional Energy	0.01	0.01	0.01	0.09	0.00
10.4	Energy Conservation	0.03	0.04	0.01	0.00	0.03
10.5	Integrated Energy Planning	0.03	0.03	0.00	0.02	0.00
11.1	Roads and Bridges	18.28	19.02	14.99	19.48	0.00
11.2	Inland Water Transport	0.04	0.05	0.00	0.06	0.00
11.3	Other Modes of Transport	0.10	0.09	0.10	0.16	0.00
11.4	Waiting Sheds/Bus Stands	0.28	0.35	0.01	0.00	0.00
12.1	Other Housing Sector	2.27	2.69	0.72	1.21	0.77
	Grand Total	**23.33**	**24.67**	**17.74**	**23.70**	**0.85**
	Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

Women Component Plan

13.105 Gender issues have been given a special emphasis in the Campaign. Firstly, special instructions were given as part of the Campaign to ensure greater participation of women. Secondly, gender and development was an important theme in the training programmes. Thirdly, in the cost benefit assessment of the projects a gender impact statement was made mandatory. Fourthly, the local bodies were advised to set apart 10 per cent of the plan funds for projects directly targeting women.

13.106 Almost all the local bodies did prepare special projects for women. However, during the first year in no district the target of 10 per cent was met. The grant-in-aid set apart for special programmes for women, added up to only 4.26 per cent. As can be seen from table 13.11, a significant proportion of the grant-in-aid in Women Component Plan (WCP) were for the creation of common physical facilities like housing (4.05 percent), roads (1.68 percent), power distribution (0.87 percent), drinking water (1.31 percent), minor irrigation (0.6 percent) soil and water conservation (0.84 percent), and sanitation (0.76 percent). Many others were in the traditional mould of women development projects such as kitchen gardening (9.8 percent), backyard poultry and animal husbandry (27.81 percent) and garment making (3.87 percent). There were only few projects that addressed the strategic gender needs of women. On the basis of a systematic review, special measures were undertaken to ensure greater participation of women in the preparation of second Annual Plan. A special training programme addressing Women Component Plan was also implemented.

13.107 The Women Component Plan of 1998-99 bears the positive results of the above conscious intervention. Firstly, the share of WCP in the total grant-in-aid rose to 11.25 percent. Secondly, there has been a perceptible improvement in the quality of projects. The share of vegetable projects and animal husbandry declined from 36.6 percent in 1997-98 to 22.4 percent in 1998-99. The share of housing sector rose from 4.05 in 1997-98 to 10.96 in 1998-99. The share of other common facilities that we referred to earlier declined from 6.06 percent to 1.65 percent. The share of industrial projects in the WCP has increased from 18.1 percent to 22.95 percent. Thirdly, the gender consideration in the general projects, particularly in the selection of beneficiaries also has shown a remarkable increase.

13.108 The above positive trends that we identified in the WCP got further strengthened during 1999-2000. The share of vegetable projects and animal husbandry projects further declined to 12.42 percent. The share of industrial projects continued their ascendancy by claiming a share of 31.80 percent. Despite a major shift in the focus of local plans to the housing sector

that occurred in 1999-2000, the increase in the share of housing in WCP was only marginal. There was strict adherence to the guideline that only housing meant for the female headed households could be included in the WCP. The year 1999-2000 was also remarkable for the rapid spread of women self-help groups.

Plan Implementation (1997-98 - 1999-2000)

13.109 Plan is not an end in itself. Success of the plan lies in its successful implementation. The ongoing experiment in decentralised planning cannot be sustained unless the plans prepared are also implemented effectively. At the same time, the transparent and participatory approach adopted in the planning process have to be extended also to the implementation stage. The budgetary provision for as much as 36 per cent for the annual plan for 1997-98 for the local bodies was made with the full realisation that all the essential preconditions for such a large devolution to come into effect might not have been met. It was a conscious break with a tradition of postponing devolution in the name of preparing the conditions. The People's Planning Campaign had reversed the sequence: First, devolve the resources and powers and, then, clear the obstacles for implementation as they arise. It was expected that the mass of people mobilised in the planning campaign would generate the pressures from below and create a political will to clear the obstacles. This being the logic of the Campaign, it was only inevitable that numerous problems croped up during the implementation stage. Our attempt here in this section is to give a brief narrative of how some of the major problems were faced.

Financial Procedures

13.110 The first issue that had to be addressed was related to the flow of funds and utilisation of budget provisions to the local bodies. Appendix IV of the Budget – Details of Provisions Earmarked to Panchayat Raj/ Nagarapalika Institutions in the Budget for 1997-98 – was itself a remarkable document. It clearly spelt out the provisions for the schemes (both plan and non plan) that had been transferred to the local bodies as grants under the concerned functional revenue expenditure major/sub major heads of departments. This included funds for centrally sponsored schemes also. More importantly, this document clearly stated the general sector, SCP and TSP grant-in-aid provided to each individual grama panchayats, block panchayats, district panchayats, municipalities and corporations.

13.111 Besides the above mentioned funds for transferred schemes and grant-in-aid for the plan, the local self-governments also received a number of non-plan grants which were distributed on the basis of recommendations of State Finance Commission as accepted by the Government. This last mentioned constituted the traditional source of fiscal transfer to the local bodies and could continue to follow the traditional route of allotment. But new procedures for allotment had to be prescribed for allotment of funds for transferred schemes and grant-in-aid. In the case of transferred schemes the concerned administrative department was to decide the norms of devolution soon after the budget was presented and to communicate entitlement to each local body. The heads of departments were to issue appropriate allotment to the local bodies through authorised senior officers. The funds for the rural development schemes were to be routed through District Rural Development Agency to the panchayats. This system had already been introduced during the financial year 1996-97. Therefore, the real innovation was with respect to the plan grant-in-aid component.

13.112 There are designated officers authorised to issue allotments of grant-in-aid to the different types of local bodies. The release of funds is to be in quarterly instalments. First instalment is made once the District Planning Committee approves the local plan. The second release is made automatically on request by the local body and on submission of an utilisation certificate. The third instalment is to be released on a certificate of utilisation that 30 percent or more of the allotments of the first two instalments had been utilised. The condition for claiming the fourth instalment

is that atleast 60 per cent of the allotments received till then are actually utilised. If a local body does not utilise 90 per cent of the total grant-in-aid by the end of the financial year the unutilised amount is to be deducted from the first quarterly instalment of the next year.

13.113 The Secretary of the local body is to present a separate grant-in-aid bill to the treasury for transfer crediting it to the account of the local body. As soon as the local body receives an allotment under grant-in-aid it should formally decide the plan schemes on which the funds are to be utilised. Each of the schemes shall have an implementation officer. In case of schemes which are to be implemented by officers transferred to a local body, the funds earmarked for such schemes would also have to be allotted to concerned officers and agencies and transfer-credited to their PD Account. Funds from other schemes would have to be transferred from the general PD Account to a separate plan PD Account in the name of the Secretary of the local body. In short, all plan expenditures from the grant-in- aid would have to be through one of the plan PD Accounts. Expenditure from the plan PD Accounts may be incurred by the implementing officers only for implementation of approved projects and with authorisation from the head of the elected body. Funds may be transferred to other Government departments for deposit work or beneficiary committees for implementation of the scheme on the basis of written agreements.

13.114 At first sight the above procedures look cumbersome and time consuming. Objections were raised that the bureaucratic set-up was being strengthened. There was considerable confusion and delay. But the above procedures laid down through G.O (P) No.676/97/Fin. dt.6 Aug 1997 created a financial system in which the flow of grant-in-aid funds in general and its project wise utilisation could be systematically monitored and, thereby, chances of diversion and misuse of funds are eliminated. It also ensured that the plan funds would not get accumulated in suspense accounts indefinitely. Given the limited capability of grama panchayat secretary and his office, if all the plan grant-in-aid accounts were to be maintained by him the system would have broken down. For the first time, the different officers transferred to the grama panchayats were being integrated into the panchayat system in a manner that direct responsibility could be fixed and the officers made accountable to the panchayat. The above procedures laid down in 1997-98, with certain modifications, continued to provide the basic framework for fund allocation and utilisation in the subsequent years also.

Implementation of Public Works

13.115 Implementation of public work by any genuine beneficiary committee or public committee was very difficult in the administrative set up that existed. Following are the key stages of implementation of a public work: (a) preparation of estimate, (b) technical sanction, (c) tendering process or authorising beneficiary committee and (d) supervision, measurement and preparation of bills. The system of estimates prepared on totally unrealistic PWD or centrally determined rates made it impossible for a beneficiary committee to implement a work without fudging the accounts. The technical sanction was not a transparent process and corruption was rampant. Since mobilisation advance was not provided and there was no provision for appointing a supervisor, a beneficiary committee would be forced to nominate a contractor to raise the finance and to actually implement the work. Measurement and check measurement were yet other hurdles that were difficult to cross without corruption.

13.116 A series of steps were taken to create a new environment in which a genuine beneficiary committee can effectively function: First step was the adoption of local market rate for estimation of cost of works so that the beneficiary committees may execute the works in a transparent manner maintaining actual records of purchase and payments. Many local bodies had prepared projects with cost estimates based on their local market rates. But such a plethora of rates could easily be misused and therefore it was necessary to have officially ratified local rate. In the

work rules issued as G.O (P) No.216/97/LAD dt. 23/9/97 a provision was made for fixing schedule of rates every year by a district level committee of experts. For the year 1997-98, an interim arrangement was made for a subgroup of District Level Expert Committee to finalise the market rates. The committee could fix different regional rates even within a district on the basis of actual prevalent rates. But a provision was made that the total estimate of the work using the market rate should not exceed the estimate of the same work prepared using the 1996 PWD schedule by more than 50%. Simulation exercises showed that only in rare cases would it exceed the ceiling. In such cases the excess would have to be met through voluntary labour or public contribution. However, in some districts the local rates were fixed at 50 per cent of the PWD rate or no individual 'market rate' was allowed to exceed 50 per cent of the PWD rate. It required considerable discussions and revisions before the concept could be clarified fully and appropriate rates were fixed.

13.117 After a thorough review of the experience of the implementation of the annual plan of 1997-98, it was decided to introduce certain major changes in the procedure adopted for preparation of estimates. It was decided to discontinue a system of local rates. For the sake of technical sanction, the estimate must be prepared using the PWD schedule of rates, norms and specifications. The actual beneficiary committee that was to undertake the project or the local body could prepare an independent estimate based upon the actually prevailing local rates and local norms of labour output. PWD specifications still would have to be maintained. Instead of a uniform percentage of excess such as 50% limit fixed in 1997-98, the review concluded that differential limits must be fixed for different types of work (Circular No.47753/P3/98/LAD dt. 12-11-1998). Thus, for example, while tile building using wood the permissible excess limit for the official PWD estimate was 45%. For other types of buildings, the limit was fixed at 40%. For road works with tarring the limit was 30% while roadwork's without tarring it was to be 25%. These rates were arrived out by an empirical study of the sample of construction projects undertaken by genuine beneficiary committees in 1997-98. Any excess expenditure over the outer limit would have to be raised by the local body, or beneficiary committee in local contribution in cash or kind. The limit suggested should be considered outer limits. It was expected that genuine and efficient beneficiary committees would be able to execute the work at much below the legally permissible excess limit. In July 1999 the PWD substantially revised the rates upwards and it was decided to discontinued the provisions for excess from the PWD rate based estimates in the local projects.

13.118 Normally, department officials on the basis of their delegated powers issue the technical sanction. Under the new procedures adopted for the plans of the local bodies the technical sanctioning process is made a function of the block/ municipal and district level expert committees (BLEC/ MLEC and DLEC). As we had explained earlier these committees had been constituted (G.O (MS) No.8/97/plg dt.16-5-1997) primarily for the purpose of project appraisal. The expert committees were reconstituted with more mandatory officers and additional responsibility of granting technical sanction. (G.O. (MS) No 21/97/Plg dt. 7-11-97) The technical sanction is to be given by the concerned subject committee through a due process. Since it is a committee rather than a single expert taking the decision, the limit to the power of technical sanction is not the delegated power enjoyed by the convenor but that of the next higher category officer to the convenor of the sub committee. Thus, for example, if an Assistant Engineer is the convenor, the sub group would have powers of the Assistant Executive Engineer and so on.

13.119 Next stage is the implementation of the work. In a significant departure from the past, permission is granted to give up to Rs.50000 or 25 per cent of the cost, as mobilisation advance to the beneficiary committee. During 1998-99 it was decided to raise the limit of advance to Rs.1 lakh. In the case of local bodies that do not have the

service of engineers, the estimates of the works can be prepared by any engineer from a panel approved by the local body and payment upto 0.5 percent of the estimated amount subject to a maximum of Rs.2000 is also permitted (G.O (MS) No.31/97 LAD dt. 13-2-98). Grama panchayats without engineers of their own can utilise the services of other government engineers or engineer members of BLEC/MLEC/CLEC/DLEC for supervision, measurements or preparation of work. The payment of remuneration up to 1.5 per cent of the cost is also permitted. Strict time limits were also prescribed for measurement, check measurement, preparation of bill and the final payment.

13.120 If beneficiary committee is not found feasible for implementation of a project, the work may be given to a contractor. But the cost estimate will have to be made at the PWD rates and normal procedures for tendering the work will have to be adhered to.

Selection of Beneficiaries

13.121 Perhaps, the most radical of the new procedures being laid down is the guidelines prepared for selection of beneficiaries under plan schemes.(G.O(p) No.220/97/LAD dt 2-10-1997). This Government order has at one stroke undermined substantially the local political patronage system using the beneficiary oriented plan schemes. Grama sabha has been made the agency for selection of beneficiaries of all plan schemes of all tiers of local bodies and also of centrally sponsored schemes. The role of the elected bodies is confined to fixation of criteria for the selection of beneficiaries, invitation of applications and finalisation of the grama panchayat level list by integrating the priority lists supplied by the grama sabhas. They may also take steps to verify the information given in the application forms.

13.122 The list of applications from a ward will be examined by its grama sabha to identify the eligible and prepare a priority list. The eligibility criteria and prioritisation criteria should be explained to the members of the grama sabha. The sector wise subject group may take up the processing of applications. In addition to the criteria set by the panchayat, the grama sabha may also include sub criteria for prioritization according to local perceptions. If there is no rational method of discrimination then lots can be drawn if commonly agreed.

13.123 Integration of the priority lists from the wards should be made by the grama panchayat on the basis of clear norms. Representatives of public and local press can have access to the proceedings of this final selection. The draft list shall be exhibited prominently and the objections considered and reason for rejection stated. The selection of beneficiaries for block and district panchayats also is to be made from the grama sabhas using grama panchayats as agents.

13.124 In the case of municipalities, the ward committees undertake the functions of grama sabha. In the ward committee meeting for the selection of beneficiaries, all the eligible applicants should be invited and prioritisation done in their presence. It is also stipulated that for selection of beneficiaris under the TSP either "oorukoottams" or special grama sabhas consisting of only tribal families are to be convened.

13.125 After reviewing the experience of beneficiary selection during 1997-98 plan the guidelines were modified to further reduce the chances of manipulation and simplify the process. Instead of the grama sabhas directly processing the applications, verification, allotting of marks on the basis of objective criteria and preparation of the priority list would be completed before the grama sabha. It is this list along with the grading that is scrutinised by the grama sabha. Much of the manipulation occurred while integrating the ward wise priority list into common priority list of the panchayat. Therefore it was decided that no such common list need to be prepared. Instead, ward wise target of beneficiaries would be fixed in proportion to the eligible number of applicants in each ward. Certain items like housing, house repair and latrine etc. a comprehensive list would be prepared that would be used for selection of beneficiaries of all tiers of LSGIs. The new order also

insisted that a final list would have to be printed and made available to all the implementation officers (G.O.(P) No.138/99/LAD dt.2/9/1998). During the third year certain other minor modifications were introduced to further plug loopholes that remained and link the beneficiary selection process to the neighbourhood groups.

Against Corruption

13.126 There is always a danger that decentralisation may degenerate into decentralisation of corruption. The best check against such an eventuality is to ensure total transparency in the proceedings. This is a concept that has been held paramount in all transactions of People's Campaign. Thus for example all documents of beneficiary selection, such as, verification of application forms, reports and minutes of meeting are all public documents. Even more importantly, all documents with respect to the works undertaken by the local bodies through contractors, beneficiary committees or directly by itself, including the bills and vouchers, are public documents with access to any member of the public. Copies of these documents may be had on payment of a fee. Essential facts about any public work in common language should be exhibited on a notice board at the work site. The right to information has been one of the key themes of the Campaign.

13.127 Besides the normal Local Fund Departmental Audit, a performance audit has also been initiated. (G.O.(P) No.185/97LAD 26.7.1997). An important development during 1999-2000 has been the formation of a group headed by a senior officer of Audit and Accounts service to train, co-ordinate and monitor the Performance Audit Teams. There is also the social audit to be undertaken by the grama sabhas. Grama sabhas would have to be made more effective through organising neighbourhood groups of 25 to 50 families below the grama sabha. In more than 100 panchayats in Kerala today, neighbourhood groups have been organised as part of the People's Campaign and their demonstration effect is expected to have a positive influence on the functioning of the grama sabhas.

13.128 Unfortunately, there is a tendency to misuse the liberal opportunities provided for the beneficiary committees by setting up binami committees with some contractor or other as the convenor. To discourage corruption wide publicity is given against the above tendency through newspaper advertisements etc. Grievance Enquiry Committees have been setup at the district and the state level. These committees are authorised to receive complaints and can enquire into the complains using any method deemed appropriate and report to the Government wherever statutory action is required. The grievance committee may also take up complains regarding beneficiary selection. A technical audit panel has been created consisting of not more than 15 senior engineering professionals who would test check implementation of public works. The above is supposed to be an interim arrangement till Government takes a decision in the recommendations by the Sen Committee to set up Ombudsman for the local bodies. (G.O (p) No 54/98/LAD dt. 17-3-1998).

13.129 Besides a number of other measures were improvised or instituted to facilitate smooth implementation of the plan. They include, procedures for purchase of materials and land, implementation of water supply schemes linked to Kerala Water Authority and rural electrification schemes linked with Kerala State Electricity Board, revision of approved plans, subsidy rates, interim budgetary procedures and apprenticeship schemes for civil engineers in grama panchayats. Despite these measures, the utilisation of plan funds by the local self governments was tardy during the year 1997-98.

The Outcome

13.130 During the first year, serious delays and problems in implementation were only to be expected. Some of the problems have already been referred to. Eventhough the release of funds to grama panchayats was inaugurated at the end of May, 1997, majority of the grama panchayats could finalise their plans and receive their first instalment of the grant-in-aid only by the

month of August and majority of the municipalities, blocks and district panchayats could make it only in the months of September-October. There was inordinate delay in the transfer-credit mechanism. It took ,at times, as much as a month or more for the plan funds to be actually credited to the PD Accounts of the implementing officers after the allotment was received. Only in November the guidelines for local rates were cleared. The technical sanction procedure also took some time before it could stabilise. Thus, it was January by the time the implementation system was fully in position.

13.131 Just as the implementation of the plan was accelerating, disaster struck in the form of elections to the Parliament. Not only was the attention of the people including the elected representative diverted from the plan, but also, there were a number of restrictions on plan implementation imposed by the Election Commission. Convening of grama sabhas were prohibited and a number of schemes, particularly beneficiary oriented projects had to be postponed. A comprehensive plan review undertaken in the month of February made it amply clear that plan implementation could take off only after the elections and that majority of the local bodies would not be able to claim the fourth instalments i.e., spent 60 per cent of the first three instalments. According to the new Financial Procedure Rules, substantial proportion of the grant-in-aid would lapse. Such an outcome at the end of more than a year's planning process, and that too largely as a result of factors beyond the control of the local bodies, would have had a demoralising impact. And therefore, Government decided to release the third and fourth instalments by relaxing the conditionalities and transfer-credit them to the PD accounts of the secretaries of local bodies. The application of the 90 per cent expenditure clause was postponed to 30-6-98. (G.O (p) No.101/6/98/Fin dt. 17-3-98). It was proposed that any unspent amount below the 90 per cent limit as on 30-6-98 would be adjusted against first instalment of plan funds for the year 1998-99.

13.132 For most of the local bodies, actual plan implementation consisted of four months from March to June. As per the financial statements provided by the local bodies, the state level financial achievement exceeded the 90 percent minimum limit fixed by the financial procedure rules. However, there were few local bodies, which failed to achieve the target of 90 per cent. Even though, formally the expenditure of the local bodies as a whole was 95.70 per cent, several of the local bodies are reported to have achieved this level of expenditure by depositing their funds with various agencies. Under the pressure to spent the money so as to avoid the political embarrassment of funds lapsing some of the local bodies took recourse depositing their funds with unauthorised agencies and made even unauthorised changes in projects. Therefore, each local body was asked to make a detailed statement of its outstanding deposits and advances as on June 30, 1998. Table 13.16 gives the percentage of the outstanding deposits and advances in the total expenditure of the different tiers of local bodies as on 30th June,1998.

Table 13.16
Outstanding Deposits and Advances in Total Plan Expenditure
(As on June 30, 1998)

Local bodies	Deposits (%)	Advances (%)
Grama Panchayats	12.77	7.38
Block Panchayats	20.68	8.01
District Panchayats	34.61	4.80
Municipalities	17.53	6.77
Corporations	14.55	4.25

Source: Statistical Statements of Local Bodies.

13.133 A careful examination of the data shows that the bulk of deposits and advances have been with authorised agencies viz. Kerala State Electricity Board and Kerala Water Authority. Similarly, most of the advances have gone to the beneficiary committees. Irregularities related to deposits and advances cannot be fully identified unless the case of each individual local body is separately processed. A small committee headed by the District Collector was entrusted with the job of identifying not only irregular deposits and advances but also expenditure. The Performance Audit Team has been assisting these committees. It was decided except in the case of financial embezzlement, the penalty would be to disallow irregular deposits or advances from the statement of expenditure as on 30th June, 1998. A total of Rs.43.39 crore has thus been disallowed. A major proportion of this expenditure consists of deposits or advances given to public sector or cooperative agencies without authorisation from the government for expenditure on projects that did not have formal approval of the District Planning Committees. Appeals on the disallowance decisions are still under consideration.

13.134 The speed also adversely affected the quality of implementation. Proper attention could not be paid to monitor the plan implementation. The audit reports of the Performance Audit Teams, Local Fund Audit, Accountant General and Inspection Wing of Finance Department have revealed numerous instances of procedural lapses. The Local Self Government Department has carefully examined these cases and found that in most of the cases these lapses were not motivated by corruption, but caused by inexperience and pressures to complete the plan by June 30th 1998.

13.135 The bunching of projects and the emphasis on spending the grant-in-aid also prevented them from mobilising the expected voluntary labour and beneficiary contribution while implementing the projects. As a result the share of grant-in-aid increased from 45.13 per cent as per the budget of Plan Outlay to 75.62 per cent of the final expenditure of the plan. The major shortfall has been in the centrally sponsored schemes. The share of internal funds also sharply declined. The credit linkage envisaged in the plan had been materialised. It is a redeeming feature that the short fall in voluntary contribution has been very small and the share of beneficiary contribution has increased in the overall plan finance.

13.136 The implementation of the second year's annual plan has also been constrained by the delay in finalising the annual plan. As we noted the second year's annual plan could be completed only by the end of September. In the light of experience of previous year, certain modifications were made in the beneficiary selection rules and also the procedure to be adopted for preparing estimates for works. The transparent system of beneficiary selection has been successfully institutionalised and the complaints from the public has drastically come down. The efficiency of technical appraisal and issuing of technical sanction has also improved. Nearly half the projects were issued technical sanction during September-October at the time of approval of the plans. By December about 75 per cent of the projects were granted technical sanction. By the end of January, nearly 90 per cent of the projects were granted technical sanction. The government decided to raise the minimum limit for financial expenditure from 10 percent to 25 percent. 25 percent of the grant-in-aid could be carried over to the next financial year. Yet on March 31st the expenditure fell short by 13.66 percent.

13.137 A major defect of the first two Annual Plans have been the delay in finalising the plan document resulting in a squeeze of time left for plan implementation. It was possible to solve this problem during the third year. The plan formulation was completed by the month of August. The average expenditure of the local bodies came to around 70 percent of the grant-in-aid and therefore the shortfall in expenditure was less than 5 percent.

13.138 Needless to explain the success of the outcome cannot have to be measured in terms of physical achievement rather than

financial expenditure and it is here that their local level planning been making perceivable difference. In table we are presenting the physical achievement for certain selected items for the first three annual plans of 1997-98, 1998-99 and 1999-2000. The data has been taken from the review report of the first three annual plan presented by each grama panchayat and muncipality at the block / municipal level seminars as part of the fourth year's annual plan preparation. To this extent, the data has been subjected to public scrutiny and may be accepted with the high degree of reliability. The information is available for each of the three years for all the LSGIs in the state. For the sake of brevity we are presenting here only the summary estimate for all the LSGIs for the entire three years period.

Table 13.17
Selected Physical Achievements in Annual Plans of LSGIs (1997-98 to 1999-2000)

Sl. No	*Items*	*Unit*	*General*	*SCP*	*TSP*	*Total*
1	Additional area under cultivation	Acre	284039.55	20584.09	11258.18	315881.81
2	Number of beneficiaries of seeds/fertiliser/pesticides	No	3268371	261554	42739	3572664
3	Tillers	No	3765	443	223	4431
4	No of Cattles	No	177260	86792	10520	274572
5	Number of chicken distributed	No	1532559	310653	24305	1867517
6	Cattle-sheds	No	62019	11570	1047	74636
7	Sewing machines	No	36976	15764	732	53472
8	Number of persons trained	No	63761	19803	1353	84917
9	Houses	No	189115	103040	14133	306288
10	Number of plots allotted	No	4305	10079	715	15099
11	No of houses repaired	No	59874	51511	6634	118019
12	No of toilets constructed,	No	322666	80941	9567	413174
13	House wiring	No	62002	41138	4577	107717
14	No of wells	No	66306	19637	1648	87591
15	No of water taps	No	24940	6432	1131	32503
16	No of ponds desilted	No	26625	603	215	27443
17	No of Pumpsets	No	52044	6300	867	59211
18	No of roads	No	19623	3666	665	23954
19	Length of roads	Km	13234.43	2540.21	1413.54	17188.18
20	No of culverts	No	3566	314	130	4010
21	No. of bridges	No	1464	200	61	1725
22	No of cooperatives formed	No	3421	340	43	3804
23	New schools built (area)	M. sq	87720.95	1665.80	4162.09	93548.84
24	Hospital Buildings	M. sq	86512.96	1366.62	2142.06	90021.64
25	Offices built (area)	M. sq	107035.36	3071.39	1693.33	111800.09
26	Marketing complexes (area)	M. sq	50329.60	5991.00	8.00	56328.60

13.139 When compared to the physical achievements during the 8th five year plan the achievements of LSGIs are stunning, particularly, in the social sectors. During the first year 54712 houses and during the second year 81739 houses were built .During the third year the number more than doubled to 169837 giving a total 306288 houses. In contrast, all the housing agencies of the state government had together constructed 269988 houses only during the course of the entire 8th five year plan. As against 1.25 lakh latrines built during the 8th Five Year plan the LSGIs constructed

413174 latrines during the first three years of the 9th Five Year plan. During the 8th five year plan the total village roads constructed was 7991 kms and 1009 kms other district roads. On the other hand the gramapanchayats and municipalities constructed 11863 kms of roads and block and district panchayats 4873 kms of roads over the last three years. Similarly, the plinth area of additional facilities built in hospitals, schools and other public buildings during the past three years has out done the achievements of the entire 8th Five Year plan. Avoiding duplication on an average 6 lakh farmers have benefited from the plan schemes and the gross area cultivated increased by 315881 acres. There has been a visible improvement in vegetable and milk production in the state. The women and weaker sections have been the main beneficiaries of the decentralised planning. To cite an example, while the achievement of the 8th five year plan was only 18023 houses for the weaker sections, 117173 houses were built as part of the SCP and TSP during the first three years of the 9th five year plan. The estimate is that women constitute majority of the individual beneficiaries in the local plans.

The Process of Institutionalisation

13.140 The primary objective of the People's Campaign has been to empower the local bodies to prepare and implement their own development plans given the various constraints within which they are operating today. As we have seen the Campaign has succeeded to a great extent in achieving this objective. In the process it has also generated a new set of values and style of public functioning that emphasise transparency and public participation. These have got now to be institutionalised if the decentralised planning process is to be made sustainable and the local bodies are transformed into units of local self-governments as envisioned in the Constitution. The year under review has been remarkable for certain decisive steps undertaken by the Government in this direction. The Campaign has contributed to create an environment conducive for effective institutionalisation.

13.141 The Government of Kerala accepted with some minor modifications, the recommendations of Committee on Decentralisation of Powers (popularly known as Sen Committee after its late Chairperson Dr.Satya Brata Sen). The Committee on Decentralisation of Powers gave two interim reports to the Government – one in August 1996 laying down the broad approaches and recommendations and another in April 1997 on Performance Audit and transfer of files and documents to LSGIs. The final report structured in four volumes was submitted to the Government in December, 1997. Prof. Sen passed away before the Committee could finalise the report but the interim report, which was prepared under his personal guidance in a record time of three weeks by August 1997, laid down the basic principles on which the Committee was to draw up its final report. These basic principles of the vision on decentralisation are worth quoting:

1 Autonomy: The local self governments are to be autonomous, functionally, financially, and administratively. The different tiers of local self governments should be seen as complementary units rather than hierarchically organised.
2 Subsidiary: It means that what can be done best at a particular level should be done at that level and not at higher levels. All that can optimally done at the lowest level should be reserved to that level. Only the residual should be passed on to the higher levels.
3 Role Clarity: There should be clarity regarding the roles of each tier in the development process and clear division of functions between the tiers.
4 Complementarity: The functions of different tiers should not be overlapping, but should be complementary to each other.
5 Uniformity: There should be uniformity of norms and rules.
6 People's Participation: The functioning of the local self government should be such that it facilitates maximum direct participation of people in the development process.
7 Accountability: The elected representative accountability is not to be confined to the periodic electoral

verdicts. There should be continuous social auditing of the performance.

8 Transparency: People should have the right to information regarding every detail of the administration.

13.142 The Committee was guided by the above principles. It held detailed discussions with all the concerned groups related to the local self governments such as senior government officials, organisations of government employees, representatives of all tiers of local bodies, and also eminent academics and social leaders. It might be worthwhile noting that the decision to appoint a committee to make suggestions for a comprehensive overhauling of the legislation on local self governments and related administrative matters was taken along with the decision to launch the Campaign. Many members of the Committee closely interacted with the Campaign in their personal as well as official capacity. In most of the rounds of state level training related to the Campaign invariably contained a question/answer session with the participants and a panel for the Committee. There was a close correspondence between the approach of the Campaign and that of the Committee in vision and spirit. The commitment of the Government to implement the recommendations of the Committee guarantees that the process initiated by the Campaign will be institutionalised.

13.143 The Committee in its multi-volume reports has given clause by clause amendments that had to be made in the existing laws, a scheme for redeployment of the staff, a system for auditing of the accounts of local bodies, and guidelines for revision of the rules. The Government have already comprehensively amended the existing Kerala Panchayathi Raj Act 1994 and Kerala Municipality Act 1994 as per the recommendations of the Sen Committee.

13.144 The amendments have reduced the scope for Government interference in the day to day functions of the local bodies. The resolutions can be cancelled only in extraordinary circumstances. Dissolution of a local body would have to follow a due rigorous process and that too after obtaining opinion from an independent authority like Ombudsman. Even appellate functions in respect to statutory matters are to be shifted to quasi judicial authorities. The autonomy of the local self Government also implies control over the staff transferred to it. The Committee had recommended that local self governments should have the power to allocate work to the staff transferred to it on a functional basis cutting across departments even when the transferred officials continued in their original parent cadres.

13.145 The amendments have also redefined the powers and functions of different tiers on the principles of subsidiarity, complementarity and role clarity. The overlapping of functions have been reduced to the minimum. While assigning the functions of the different tiers, the Committee had adopted service area approach in the case of infrastructure programmes. With respect to productive and social sectors, it adopted the approach of subsidiarity.

13.146 Every ordinary citizen irrespective of his/her membership in political or non-political social formation has the right and opportunity to intervene in the planning process by participating in the grama sabhas. The amendments have also enhanced the powers and functions of grama sabhas and also to raised the minimum number of grama sabha meetings from two to four per annum. In urban areas, with the exception of large municipalities and corporations, ward sabhas, similar to the grama sabhas in the panchayats, have been introduced. Special ward conventions for planning purposes may be convened even in the larger municipalities and corporations.

13.147 The function of the role of grama sabha as an institution for social audit is very vital. Review reports of the plan implementation and local administration have to be placed before the grama sabha. It has been provided that all plan documents including those related to beneficiary selection, bills and vouchers of works etc. are public documents which any citizen can access. Essential facts about any public

works should be exhibited in a notice board at the work site in common language. Effective functioning of grama sabha has been accepted to be essential for enforcing transparency in local level administration.

13.148 Yet another major function of the grama sabha is the selection of beneficiaries for various plan schemes. The role of elected representative is confined to fixation of criteria for the selection of beneficiary and invitation of applications. The identification of the eligible and preparation of priority lists are to be undertaken by the grama sabha. The draft list is to be publicly exhibited and the objections considered. Provisions of the Act itself have now sanctified the procedure that we have already discussed earlier. The Committee had recommended that the beneficiary committees and such other participatory community structures, like neighbourhood groups, are to be encouraged. The necessary enabling provisions have been added the law to encourage local bodies to experiment with such participatory structures.

13.149 The Committee has recommended that many of the existing quasi Governmental and Governmental authorities and committees such as Development Authorities and Advisory Committees that tend to be parallel structures to the LSGIs are to be abolished. Wherever certain structures are required for carrying out functions which are not restricted to the boundaries of any single one local body, the appropriate method would be to form joint committees of the affected local bodies. District Rural Development Agency has been merged with District Panchayat. District Development Council is to be merged with District Planning Committee. All the smaller Town Development Authorities have been dismantled. An exercise is being undertaken to dismantle Fish Farmers Development Agencies and Brackish Water Fish Farmers Development Agencies also.

13.150 Another major effort to enlarge the legal entitlement of local government is the decision of Government to amend 44 Acts which deal with the subjects related to the functions allotted to local self governments. The significance of these amendments is best explained in the words of the Committee of Decentralisation of Powers. "In sum, the objectives governing the proposed amendments which essentially create the necessary legal frame work for the smooth functioning of the third tier of governance are the following:-

(i) Demarcating functional domains more clearly;
(ii) Increasing autonomy;
(iii) Harmonizing by removing contradictions;
(iv) Updating to meet present requirements;
(v) Facilitating a supportive legal framework for exercise of local government functions; and
(vi) Creating new institutions and systems
(vii) Dropping anachronistic legislations

13.151 With these amendments it is expected that the local self governments would emerge as a well defined tier in Government working more as a partner than as a subordinate functionary. It is also hoped that this legislative exercise would be a trend setter for the future when the local self government implications of most of the legislations would be significant and would have to be taken into account in the legislative process."

13.152 Two major tasks that are currently being undertaken are the framing of the rules and redeployment of staff. On the basis of the experience of the last three years, comprehensive rules for the budgeting, planning and beneficiary selection, functioning of District Planning Committee and so on have to be framed. The government has extended the period of the Sen Committee up to March 31st, by the time it is hoped that the process would be largely completed.

13.153 The Government had asked the Committee on Decentralisation of Powers to identify staff in different departments

who are rendered surplus due to the transfer of functions to the local self governments. The Committee after studying the functioning of various departments and interacting with heads of departments and employees organisations prepared a comprehensive proposal for redeployment. The Government has accepted the proposal with certain modifications and the process of redeployment has already started. In August 2000, 1302 posts of clerks were redeployed to local governments from different departments. [G.O. (P) No.187/2000/LSGD dt. 4-7-2000] Through yet another order the posts of 1 chief engineer, 6 superintending engineers, 14 executive engineers, 167 assistant engineers and 1511 oversears and draftsmen were redeployed. [G.O. (P) No.186/2000/LSGD dt. 4-7.2000] The orders also laid down general conditions that would govern the administration of the redeployed staff. Along with the transfer of district level staff orders were also issued for rationalisation of departmental structure below the state level. [G.O. (P) No.188/2000/LSGD dt. 4-7-2000] It is hoped that by the end of the current financial year that the redeployment procedures would be completed and the redeployed staff would assume their new post with the local self-government.

13.154 In order to reduce governmental control and in order to foster the concept of loal self-government, the Act provides for creation of independent institutions to deal with various aspects of local self-government functioning. They are listed below:

1 ***The State Election Commission***. The Election Commission has been given powers, which go beyond those required for the conduct of elections. It is empowered to delimit wards which were formerly done through the executive and it has been given powers to disqualify defectors. The State Election Commission has successfully carried out delimitation of the wards and the conduct of elections to the LSGIs. The newly elected LSGIs assumed office in October 2000.

2 ***The State Finance Commission***. This has been given the mandate as required by the Constitution. As we have already noted, the Second Finance Commission has submitted its final report to the state government and the recommendations are under the consideration of the Government.

3 ***Ombudsman for Local Self Governments***. This is a high power institution consisting of seven members including one High Court Judge, two District Judges, two Secretaries to Government and two eminent public men selected in consultation with the Leader of Opposition. This institution has been given vast powers to check malfeasance in local self governments in the discharge of developmental functions. The rules for the functioning of the Ombudsman were issued in January 2000 and the Ombudsman constituted on 29/05/2000.

4 ***Appellate Tribunals***. These are to be constituted at the Regional/District level to take care of appeals by citizens against decisions of the local self government taken in the exercise of their regulatory role like issue of licence, grant of permit etc. The rules for the appellate tribunal have been framed and discussions are going on with the High Court regarding the appointment of judges to the tribunals.

5 ***Audit Commission***. Though this has not yet been legislated a policy has been taken to set up an Audit Commission which would be independent of governmental control and would function on the lines of Comptroller and Auditor General of India and would be able to set its own standards of audit.

6 ***State Development Council***. This is headed by the Chief Minister and consists of the entire Cabinet, Leader of Opposition, Vice Chairman of the State Planning Board, the Chief Secretary, all the District Panchayat Presidents who are also Chairpersons of District Planning Committees and

representatives of other tiers of local self governments. This institution is expected to take the lead in policy formulation and in sorting out operation issues. The State Development Council was constituted in April 2000 and the first meeting convened in August 2000 at Thiruvananthapuram. The conference was presided by a two day workshop for detailed examination of the district plans. On the basis of these deliberations it was decided to modify some of the existing guidelines for preparation of local plans and a frame work for DPCs for actively guiding the preparation of the local plans.

Information Kerala Mission

13.155 A major weakness of the decentralised planning process has been in the sphere of systematic monitoring due to lack of an information network. The Planning Commission, Government of India has agreed to generously fund the project submitted by the State Planning Board for computerised information networking of the local bodies in Kerala. The Commission sanctioned Rs.10 crore each for the years 1998-99, 1999-2000 and 2000-01 for the purpose. Implementation of this scheme would facilitate smooth and timely flow of information and systematic monitoring and evaluation of the local plans.

13.156 The Information Kerala Mission (IKM) was established in June 1999 in order to implement the project to link up 1215 local bodies with the District Planning Offices and the State Planning Board. The specific objectives of IKM includes;

(i) the development of a mechanism for monitoring the plan targets achieved by the local bodies
(ii) establishment of a mechanism for automating the various administrative operations at the local bodies like accounting, finance, project management, public services, statutory functions and general administration to this is to improve the accountability, transparency and efficiency in providing various public services
(iii) development of a integrated micro level based developmental information system to facilitate meaningful decentralised planning
(iv) training of adequate man-power including people's representatives and staff members of local bodies to operationalise the network and the software and
(v) providing continued technical support to ensure that the network applications are functional and they perform throughout.

13.157 Information Kerala Mission aims at developing a new model for computerisation and electronic governance. This involves a distinct methodology for software development where end users and local entrepreneurs participate actively at various stages, a unique training programme with emphasis on demystification of technologies and mass empowerment, and a participative support mechanism which attempts releasing unprecedented synergies by utilising the strengths of academic institutions, professional societies, entrepreneurial groups, and vendors. In short, Information Kerala Mission is an attempt in developing a model for holistic information technology project in the context of decentralised planning, by opening new vistas in electronic governance.

13.158 So far, the mission has developed two software applications, one for monitoring the targets accomplished by the people's plan programme, and the other for IT enabled services covering issue of certificates, handling of pensions and social welfare schemes and establishing an integrated citizen data base for faster delivery system. Three more applications- an application for establishment operations in the local body, a community portal for web enabled value added services and an application for a water shed based decision support system using a Geographic Information System Technology are in

advanced stages of development. Three data products – an encyclopaedic repository on the Kerala Panchayat Act Rule, Allied Acts and Rules, Government Orders and notifications, a directory of small IT enterprises in the state and a compendium on the Panchayat-Nagar Palika elections 2000 are in the final stages.

13.159 Around 1400 professionals have been identified to man the mission activities in different parts of the state and a network of institutions and freelance professionals have been also identified for synergic interactions with the IKM activities. Installation of the computer network has been completed in five panchayats in Thiruvananthapuram district on a pilot basis. Training on the fundamentals of computers and the software application has been imparted to the Presidents, Secretaries and two staff members of these Panchayats. All Block Level Expert Committee Co-ordinators have been trained on the software applications developed by IKM. Deployment of technical personnel to various local bodies has been initiated. Senior Technical Assistants have been trained for deployment at the Block level. A series of books and training manuals for popularising the application of IT have been prepared.

International Conference on Democratic Decentralisation

13.160 One of the events related to People's Campaign in 2000 was the International Conference on Democratic Decentralisation held from May 23 to 27. Since the Campaign had entered a critical phase of the institutionalisation of the decentralised planning process, it was considered that time has come to self-critically review the experience during the past four years, taking into account the experience in other states and abroad. The Conference was inaugurated by His Excellency the Vice President of India Shri.Krishan Kant on the evening of 23rd which was followed by a public seminar. The Conference was divided into three parallel streams namely Conference of officials, Public seminars and Academic seminars.

13.161 The most important stream of the Conference was the public seminars where the selected case studies of local bodies in Kerala were presented. In 32 seminars organised at 6 venues, 225 papers were presented. 2758 delegates of whom 1584 were elected representatives from different parts of the state participated in these seminars. The papers presented were printed in 9 volumes of 2441 pages. The Conference had helped to document the best of the innovative programmes and practices that have been developed by the local self-governments during the past four years.

13.162 The second stream was the official Conference, which was attended by the delegations of different state governments. 15 states were represented by the ministers and other states by secretaries of local administration. 17 Mayors from different parts of the country also attended the Conference. The experience of different states were discussed in 5 thematic sessions which dealt with legislative enactment, administrative reforms, financial devolution, decentralised planning and capacity building. The official conference helped to highlight the achievements of Kerala in the arena of decentralisation. There was widespread appreciation of the legal and administrative design of our decentralisation programme. Some of the experiences of other states would also be very useful for the creation and strengthening of appropriate institutions in our state.

13.163 The third stream was the academic seminar which was organised at the Technopark. There were 130 participants including delegates from Brazil, Canada, China, Cuba, Haiti, Mexico, Netherlands, South Africa, Sri Lanka, Sweden, United States of America, Vietnam and Korea. 50 papers on the following themes were presented and discussed over 12 sessions:. Globalisation and decentralisation, general principles of decentralised planning; overview of the People's Campaign, gender health and education; innovative practices; participatory organisational forms and comparative studies of decentralisation in India and abroad.

13.164 There were 538 women delegates i.e., 17.7 percent of the total delegates. 337 government officials i.e., 11.1 percent attended the Conference. The total number of participants from other states was 126 and foreign participants 26. There were representatives from 23 NGO groups. 14 foreign universities were represented in the Conference. The Conference was tremendous success and helped to highlight the achievements of the state in decentralised planning and strengthening of local self-governments. The lessons drawn from the comparative analysis of the experience within the state and outside would be useful for us in improving our efforts to strengthening our local self-government institutions. The Conference has also succeeded in documenting the experience of the past four years. The occasion was also useful for collating the physical achievements of the Campaign so far. It helped to strengthen the popular consensus at the grass root level in favour of the People's Campaign.

13.167 The achievements of the Campaign and the successful initial steps already undertaken to institutionalise the process gives much scope for optimism regarding the future. If the process that has already been successfully initiated is allowed to continue and strengthen, it would no doubt have very significant impact not only on the economy but also in the society of Kerala. With local level mobilisation of resources and people and support from the State Government it should be possible for the State of Kerala in the initial years of the 21st century itself to provide housing to all, potable drinking water to all households within reasonable distance, high level of sanitary conditions throughout the State, eradicating many of the visible indicators of poverty, achieving perceptible improvement in production in the agriculture sector particularly in vegetable cultivation and a significant step up of quality of our health and educational infrastructure.

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Appendix 2.1

Gross National Product at Factor Cost - All India

(Rs. crore)

Year	At Current Prices		At Constant Prices	
	Amount	% change	Amount	% change
Old Series (Base 1980-81)				
1970-71	39424	6.4	89465	5.1
1980-81	122772	19.7	122772	7.3
1981-82	143256	16.7	129928	5.8
1982-83	158761	10.8	133299	2.6
1983-84	185779	17.0	143861	7.9
1984-85	207109	11.5	149256	3.8
1985-86	232370	12.2	155365	4.1
1986-87	258225	11.1	161535	4.0
1987-88	292232	13.2	168121	4.1
1988-89	348210	19.2	185226	10.2
1989-90	402931	15.7	198082	6.9
1990-91	470269	16.7	208481	5.2
1991-92	542691	15.4	209621	0.5
1992-93	618969	14.1	220461	5.2
New Series (Base 1993-94)				
1993-94	769265	16.4	769265	6.2
1994-95	901111	17.1	822649	6.9
1995-96	1053736	16.9	884388	7.5
1996-97	1224208	16.2	953667	7.8
1997-98	1371241	12.0	1002500	5.1
1998-99 (P)	1601065	16.3	1071073	6.5
1999-2000(Q)	1771028	10.6	1140389	6.5

P- Provisional, Q- Quick Estimates

Source: - Central Statistical Organisation

Appendix 2.2

Net National Product at Factor Cost - All India

(Rs. crore)

Year	At Current Prices			At Constant Prices		
	Rs.Crore	% change	Per Capita NNP (Rs.)	Rs.Crore	% change	Per Capita NNP (Rs.)
Old Series (Base 1980-81)						
1970-71	36503	6.0	674.7	82211	5.2	1519.6
1980-81	110685	19.9	1630.1	110685	7.5	1630.1
1981-82	128797	16.4	1861.2	117140	5.8	1692.8
1982-83	141875	10.2	2003.9	119704	2.2	1690.7
1983-84	166550	17.4	2303.6	129392	8.9	1789.7
1984-85	185018	11.1	2503.6	133808	3.4	1810.7
1985-86	206133	11.4	2730.2	139025	3.9	1841.4
1986-87	228402	10.8	2962.4	144242	3.8	1870.8
1987-88	258891	13.3	3285.4	149787	3.8	1900.9
1988-89	309289	19.5	3842.1	165750	10.7	2059.0
1989-90	357285	15.5	4346.5	177315	7.0	2157.1
1990-91	418074	17.0	4983.0	186446	5.1	2222.2
1991-92	479612	14.7	5602.9	186191	-0.1	2175.1
1992-93	546023	13.8	6261.7	195602	5.1	2243.1
New Series (Base 1993-94)						
1993-94	685912	17.0	7698.2	685912	6.1	7698.2
1994-95	803090	17.1	8844.6	732651	6.8	8068.8
1995-96	936548	16.6	10103.0	785990	7.3	8478.9
1996-97	1089563	16.3	11554.2	847511	7.8	8987.4
1997-98	1220716	12.0	12729.1	889102	4.9	9271.1
1998-99 (P)	1434456	17.1	14712	948982	6.5	9733
1999-2000(Q)	1590301	10.9	16047	1011224	6.6	10204

P- Provisional, Q- Quick Estimates

Source: - Central Statistical Organisation

Appendix 2.3

Gross Domestic Product at Factor Cost by Economic Activity-All India

(Rs crore)

At Current Prices			Industry	At 1993-94 Prices	
1993-94	1998-99@	1999-00*		1998-99@	1999-00*
1	2	3	4	5	6
241967	459900	484221	**1. Agriculture, Forestry & Fishing**	288401	290334
221834	423247	443923	1.1 Agriculture	265991	266848
11454	18574	19916	1.2 Forestry & Logging	12247	12542
8679	18079	20382	1.3 Fishing	10163	10944
20092	35105	38164	**2. Mining & Quarrying**	25995	26446
125493	251793	274603	**3. Manufacturing**	184260	196763
81873	161155	178895	3.1 Registered	120139	129765
43620	90638	95708	3.2 Unregistered	64121	66998
18984	42481	47528	**4. Electricity, Gas & Water Supply**	26832	28225
40593	91922	105418	**5. Construction**	54342	58728
99369	224727	246967	**6. Trade, Hotels & restaurants**	156034	168355
93206	209905	230555	6.1 Trade	145666	157141
6163	14822	16412	6.2 Hotels & Restaurants	10368	11214
51131	111311	122590	**7. Transport, Storage and Communication**	77985	84477
9648	14051	15559	7.1 Railways	11577	12616
31429	71897	81389	7.2 Transport by other means	45097	48329
634	1113	1197	7.3 Storage	652	669
9420	24250	24445	7.4 Communication	20659	22863
90084	181575	215078	**8. Financing, Insurance, Real Estate & Business Services**	133130	146546
41665	95812	113226	8.1 Banking & Insurance Real Estate, Ownership of Dwellings & business	71635	80427
48419	85763	101852	8.2 Services	61495	66119
93632	217219	251890	**9. Community, Social & Personal Services**	136068	152117
43636	99294	116340	9.1 Public Administration & defence	62041	70227
49996	117925	135550	9.2 Other Services	74027	81890
781345	1616033	1786459	**10. Total Gross Domestic Product at Factor Cost**	1083047	1151991

*@- Provisional, *- Quick Estimates*
Source: - Central Statistical Organisation

Appendix 2.4

Gross Domestic Product at Factor Cost by Economic Activity-All India

(Per cent)

At Current Prices		Industry	At 1993-94 Prices	
1998-99@	1999-00*		1998-99@	1999-00*
1	2	4	5	6
18.8	5.3	**1. Agriculture, Forestry & Fishing**	7.1	0.7
19.7	4.9	1.1 Agriculture	7.9	0.3
14.3	7.2	1.2 Forestry & Logging	1.1	2.4
4.7	12.7	1.3 Fishing	-4.8	7.7
5.0	8.7	**2. Mining & Quarrying**	1.3	1.7
8.5	9.1	**3. Manufacturing**	2.5	6.8
7.2	11.0	3.1 Registered	1.9	8.0
11.0	5.6	3.2 Unregistered	3.7	4.5
20.4	11.9	**4. Electricity, Gas & Water Supply**	6.4	5.2
18.1	14.7	**5. Construction**	6.1	8.1
15.5	9.9	**6. Trade, Hotels & Restaurants**	7.0	7.9
15.3	9.8	6.1 Trade	6.6	7.9
19.2	10.7	6.2 Hotels & Restaurants	12.5	8.2
14.2	10.1	**7. Transport, Storage and Communication**	7.3	8.3
-2.7	10.7	7.1 Railways	1.8	9.0
17.0	13.2	7.2 Transport by other means	4.2	7.2
10.1	7.5	7.3 Storage	1.9	2.6
18.2	0.8	7.4 Communication	18.9	10.7
15.8	18.5	**8. Financing, Insurance, Real Estate & Business Services**	8.4	10.1
14.1	18.2	8.1 Banking & Insurance Real Estate, Ownership of Dwellings & business	10.5	12.3
17.7	18.8	8.2 Services	6.1	7.5
23.6	16.0	**9. Community, Social & Personal Services**	9.9	11.8
24.2	17.2	9.1 Public Administration & Defence	10.3	13.2
23.1	14.9	9.2 Other Services	9.5	10.6
16.3	10.5	**10. Total Gross Domestic Product at Factor Cost**	6.6	6.4

*@- Provisional, *- Quick Estimates*

Source: - Central Statistical Organisation

Appendix 2.5

Gross Domestic Product (Kerala) at Factor Cost by Industry of Origin
(At current prices) For the Years From 1994-95 to 1999-2000

(Rs.in lakh)

Sl.No	Industry of Origin	94-95	95-96	96-97	97-98	98-99@	99-2000*
1	2	3	4	5	6	7	8
1	Agriculture	802544	989987	1105224	1279746	1449436	1641626
2	Forestry and Logging	94950	95636	102011	108744	115921	123572
3	Fishing	74805	93449	113754	130817	150440	173007
4	Mining and Quarrying	8086	9016	8647	9424	9939	10482
	Sub Total: Primary	**980385**	**1188088**	**1329636**	**1528731**	**1725736**	**1948687**
5	Manufacturing	393498	497372	532231	632936	735960	856381
5.1	Registered	199506	259683	271161	303700	343181	387795
5.2	Un-registered	193992	237689	261070	329236	392779	468586
6	Electricity, Gas & Water Supply	36171	40513	53587	61587	70797	81502
6.1	Electricity	30781	35041	47520	55218	64163	74557
6.2	Gas	905	946	1013	1084	1145	1205
6.3	Water Supply	4485	4526	5054	5285	5489	5740
7	Construction	241845	297225	359539	432525	525042	637348
	Sub total : Secondary	**671514**	**835110**	**945357**	**1127048**	**1331799**	**1575231**
8	Transport,Storage & Communication	246899	305388	348477	432239	518053	619180
8.1	Railways	10949	12328	13570	15225	15814	16426
8.2	Transport by other means*	187379	230802	268153	339826	411105	492992
8.3	Communication	47938	61424	65854	76250	90138	108706
8.4	Storage	633	834	900	938	996	1056
9	Trade, Hotel & Restaurants	579432	721414	840334	1010716	1215458	1486747
10	Banking and Insurance	139085	178521	239207	226967	250284	287576
11	Real estate ownership, Business, legal	192842	219618	248062	278011	319163	370229
12	Public Administration	140789	162304	182682	219761	254734	308008
13	Other Services	236717	265789	312235	363761	428836	499604
	Sub Total:Tertiary	**1535764**	**1853034**	**2170997**	**2531455**	**2986528**	**3571344**
	Gross State Domestic Product	***3187663***	***3876232***	***4445990***	***5187234***	***6044063***	***7095262***
	Mid Year Population('000)	*30424*	*30805*	*31186*	31539	31856	32145
	Per capita Income (Rs.)	**10477**	**12583**	**14256**	**16447**	**18973**	**22073**

* - Subject to change as and when final results are available

@ - Provisional Estimate

Source : *Department of Economics & Statistics*

Appendix 2.6

Gross Domestic Product (Kerala) at Factor Cost by Industry of Origin

(At Constant prices) For the Years From 1994-95 to 1998-99

[Base year 1993-94] *(Rs.in lakh)*

Sl.No	Industry of Origin	94-95	95-96	96-97	97-98@	98-99@
1	*2*	*3*	*4*	*5*	*6*	*7*
1	Agriculture	718215	727338	740236	746158	774677
2	Forestry and Logging	81736	72013	75030	78031	81152
3	Fishing	76358	66884	73305	76970	80819
4	Mining and Quarrying	5676	8163	7110	7462	7687
	Sub Total: Primary	**881985**	**874398**	**895681**	**908621**	**944335**
5	Manufacturing	358391	398351	384286	389774	402877
5.1	Registered	178769	209709	201502	204979	216050
5.2	Un-registered	179622	188642	182784	184795	186827
6	Electricity, Gas & Water Supply	32586	32702	39700	45543	52276
6.1	Electricity	27730	28259	35200	41156	48119
6.2	Gas	815	763	756	742	718
6.3	Water Supply	4041	3680	3744	3645	3439
7	Construction	209245	208462	213757	216215	218615
	Sub total : Secondary	**600222**	**639515**	**637743**	**651532**	**673768**
8	Transport,Storage & Communication	220248	251916	264992	306963	341029
8.1	Railways	10974	11753	12653	12141	12356
8.2	Transport by other means	164355	183091	192669	226120	247036
8.3	Communication	44331	56366	58958	68001	80923
8.4	Storage	588	706	712	701	714
9	Trade, Hotel & Restaurants	494732	523803	538751	572037	608427
10	Banking and Insurance	126422	145112	184382	173241	184112
11	Real estate ownership, Business, legal	184014	190439	197585	207740	216387
12	Public Administration	127677	133848	137665	154980	160952
13	Other Services	214809	219770	232204	253648	270305
	Sub Total:Tertiary	**1367902**	**1464888**	**1555679**	**1668609**	**1781212**
	Gross State Domestic Product	***2850109***	***2978801***	***3089003***	***3228762***	***3399315***
	Population('000)	*30424*	*30805*	*31186*	31539	31856
	Per capita Income (Rs.)	**9368**	**9670**	**9905**	**10237**	**10671**

@ - Provisional Estimate

Source : *Department of Economics & Statistics*

Appendix 2.7

Net Domestic Product (Kerala) at Factor Cost by Industry of Origin (At Current Prices) For the Years From 1994-95 to 1999-2000

(Rs.in lakh)

Sl.No	Industry of Origin	94-95	95-96	96-97	97-98@	98-99@	99-2000@@
1	2	3	4	5	6	7	8
1	Agriculture	706607	870793	974337	1128190	1307244	1514715
2	Forestry and Logging	94561	95168	101481	108179	115319	122930
3	Fishing	66853	83515	102436	116777	133126	151764
4	Mining and Quarrying	5789	6371	6139	6588	6890	7206
	Sub Total: Primary	**873810**	**1055847**	**1184393**	**1359734**	**1562579**	**1796615**
5	Manufacturing	357673	441924	472480	540898	605384	679054
5.1	Registered	173906	216999	226908	263894	294585	328845
5.2	Un-registered	183767	224925	245572	277004	310799	350209
6	Electricity, Gas & Water Supply	20515	22590	32824	43362	48942	55099
6.1	Electricity	16246	18210	28219	38445	43816	49731
6.2	Gas	905	946	1013	1084	1145	1205
6.3	Water Supply	3364	3434	3592	3833	3981	4163
7	Construction	230912	284128	343518	432857	491682	556781
	Sub total : Secondary	**609100**	**748642**	**848822**	**1017117**	**1146008**	**1290934**
8	Transport,Storage & Communication	166724	207727	235240	279221	333223	398492
8.1	Railways	4985	6090	7253	8233	8489	8817
8.2	Transport by other means*	129958	160177	186098	221920	268468	321944
8.3	Communication	31200	40689	41057	48205	55349	66759
8.4	Storage	581	771	832	863	917	972
9	Trade, Hotel & Restaurants	566227	707354	824432	991030	1195275	1462060
10	Banking and Insurance	135337	174179	233927	221209	243776	280099
11	Real estate ownership, Business, legal	141543	161506	184811	211557	243948	283224
12	Public Administration	120368	140247	158079	190663	221063	267296
13	Other Services	224407	251463	295926	347270	409395	476955
	Sub Total:Tertiary	**1354606**	**1642476**	**1932415**	**2240950**	**2646680**	**3168126**
	Net State Domestic Product	***2837516***	***3446965***	***3965630***	***4617801***	***5355267***	***6255675***
	Population('000)	*30424*	*30805*	*31186*	31539	31856	32145
	Per capita income (Rs.)	**9327**	**11190**	**12716**	**14642**	16811	19461

@ - Provisional Estimate
@@ - Quick Estimate
Source : *Department of Economics & Statistics*

Appendix 2.8

Net Domestic Product (Kerala) at Factor Cost by Industry of Origin
(At Constant Prices) For the Years From 1994-95 to 1998-99

[Base year 1993-'94] *(Rs.in lakh)*

Sl.No	Industry of Origin	94-95	95-96	96-97	97-98@	98-99@
1	2	3	4	5	6	7
1	Agriculture	632364	639766	652572	657792	682933
2	Forestry and Logging	81401	71661	74640	77626	80731
3	Fishing	68241	59774	66012	69313	72778
4	Mining and Quarrying	4064	5768	5048	5226	5341
	Sub Total: Primary	**786070**	**776969**	**798272**	**809957**	**841783**
5	Manufacturing	325889	353751	340550	347411	360208
5.1	Registered	155733	175239	168617	172039	181329
5.2	Un-registered	170156	178512	171933	175372	178879
6	Electricity, Gas & Water Supply	18482	18240	24320	27825	31788
6.1	Electricity	14636	14685	20903	24440	28575
6.2	Gas	815	763	756	742	718
6.3	Water Supply	3031	2792	2661	2643	2495
7	Construction	199786	199276	204232	206744	209122
	Sub total : Secondary	**544157**	**571267**	**569102**	**581980**	**601118**
8	Transport,Storage & Communication	148948	172976	181348	202925	225995
8.1	Railways	5403	6320	7402	6549	6650
8.2	Transport by other means*	113989	127065	133497	147665	161324
8.3	Communication	29016	38938	39790	48066	57361
8.4	Storage	540	653	659	645	660
9	Trade, Hotel & Restaurants	483457	513594	528555	562538	598324
10	Banking and Insurance	122968	141407	180090	168681	179098
11	Real estate ownership, Business, legal	135063	140048	147185	157287	165104
12	Public Administration	109158	115657	119124	134495	139678
13	Other Services	203638	207924	220075	242148	258050
	Sub Total:Tertiary	**1203232**	**1291606**	**1376377**	**1468074**	**1566249**
	Net State Domestic Produ	***2533459***	***2639842***	***2743751***	***2860011***	***3009150***
	Population('000)	*30424*	*30805*	*31186*	31539	31856
	Per capita Income (Rs.)	**8327**	**8570**	**8798**	**9068**	**9446**

@ - Provisional Estimate
Source : *Department of Economics & Statistics*

Appendix- 2.9

District wise Distribution of Net State Domestic Product and Per Capita Income of Kerala at Factor Cost by Industry of Origin for the year 1997-98 (at Current Prices) *

(Rs. in Lakh)

Sl.No	Industry of Origin	TVM	KLM	PTA	ALPA	KTM	IKI	EKM	TSR	PLKD	MLPM	KKD	WYD	KNR	KSD	STATE
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	Agriculture	102326	99619	56410	43096	96009	85857	97702	78410	77281	91383	68224	49978	100748	61147	1128190
2	Forestry and Logging	4986	8147	18625	0	812	26092	812	10361	13627	10342	4143	7886	4879	567	108179
3	Fishing	5300	25130	140	10569	663	59	22886	7368	443	10732	23295	0	4542	5450	116777
4	Mining and Quarrying	354	328	140	221	238	79	667	479	379	724	1174	97	1288	420	6588
	Sub Total: Primary	**112966**	**133224**	**72215**	**53886**	**97922**	**112087**	**122067**	**86618**	**91730**	**113181**	**116836**	**57861**	**111457**	**67584**	**1359734**
5	Manufacturing	48897	56590	10385	62852	25809	6869	71292	71236	38999	26775	39161	3191	45056	31696	540695
5.1	Registered *	23856	26580	5067	30664	12641	3351	34781	34755	19027	13063	19106	1557	21982	15464	263894
5.2	Unregistered	25041	30000	5318	32188	13268	3518	36511	36481	19972	13712	20055	1634	23074	16232	277004
6	Electricity, Gas & Water supply	7481	4058	2091	3610	3862	3426	5149	3917	2736	1551	3164	303	1409	635	43362
6.1	Electricity	5979	3825	1930	3260	3529	3368	4494	3564	2564	1284	2718	258	1153	619	38445
6.2	Gas	111	93	47	79	72	41	108	105	87	102	96	24	82	37	1084
6.3	Water Supply	1371	140	114	271	261	17	547	248	85	165	340	21	174	79	3833
7	Construction	48446	27680	13202	25971	24630	6181	51420	45969	23894	33783	48047	5021	35711	12942	432857
	Sub total : Secondary	**102804**	**90298**	**25678**	**92433**	**54401**	**16476**	**127861**	**121122**	**65629**	**62089**	**90362**	**8515**	**82176**	**45273**	**1017117**
8	Transport,Storage & Communication	36188	20235	13045	17671	22908	5379	43946	30077	16333	24116	23052	3957	14162	6132	278221
8.1	Railways	756	722	62	563	502	0	769	585	1229	846	735	0	714	730	8233
8.2	Transport by other means *	30380	16222	11562	13981	19373	4460	35174	24145	11163	19530	16533	3374	9853	6170	221920
8.3	Communication	4974	3205	1412	3032	2868	902	7863	5312	3871	3688	5775	550	3543	1210	48205
8.4	Storage	78	86	9	95	165	17	120	35	70	52	9	33	72	22	883
9	Trade, Hotel & Restaurants	93057	72842	29137	69669	67192	23290	125969	110202	76013	79679	105842	15658	87111	35579	991030
10	Banking and Insurance	22782	13804	12854	15330	17476	7366	32053	23692	17168	13715	17409	4911	15109	7762	221209
11	Real estate ownership, business & lease	23694	18798	9921	15549	13898	8949	21346	20034	17073	18299	17538	5184	14241	7045	211557
12	Public Administration	45302	16150	8446	12946	14051	3168	20573	14796	12564	10334	14986	2231	12336	2782	190663
13	Other Services	42502	25451	11413	27491	25170	8886	35226	34932	26794	34003	32939	6973	25400	11068	347270
	Sub Total:Tertiary	**263505**	**187068**	**84616**	**158656**	**180695**	**57036**	**279106**	**233733**	**184943**	**180146**	**211766**	**38914**	**168379**	**72388**	**2240960**
	Net State Domestic Product	***479275***	***390590***	***182509***	***304975***	***313018***	***187599***	***538033***	***451473***	***322302***	***355416***	***418964***	***105390***	***362012***	***185245***	***4617801***
	Population('000)	*3194*	*2609*	*1288*	*2169*	*1862*	*1168*	*3054*	*2957*	2862	3356	2840	726	2441	1161	31539
	Per capita Income (Rs.)	**15005**	**14971**	**14170**	**14061**	**16793**	**16062**	**16305**	**15276**	**12483**	**10590**	**14752**	**14477**	**14830**	**15956**	**14642**

* *Provisional Estimate*

Source : *Department of Economics & Statistics*

Appendix- 2.10

District wise Distribution of Net State Domestic Product and Per Capita Income of Kerala at Factor Cost by Industry of Origin for the year 1997-98 (at Constant Prices) *

Base Year 1993-94 **(Rs. in Lakh)**

Sl.No	Industry of Origin	TVM	KLM	PTA	ALPA	KTM	IKI	EKM	TSR	PLKD	MLPM	KKD	WYD	KNR	KSD	STATE
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*	*15*	*16*	*17*
1	Agriculture	59661	58083	32890	25127	55978	50059	56965	45717	45059	53281	51439	29140	58741	35652	657792
2	Forestry and Logging	3578	5846	11140	0	583	18723	583	7435	9778	7421	2973	5659	3501	406	77626
3	Fishing	3146	14916	83	6273	512	35	13584	4373	263	6370	13827	0	2696	3235	69313
4	Mining and Quarrying	281	260	111	175	189	63	529	380	301	574	931	77	1022	333	5226
	Sub Total: Primary	**66666**	**79105**	**44224**	**31575**	**57262**	**68880**	**71661**	**57905**	**55401**	**67646**	**69170**	**34876**	**65960**	**39626**	**809957**
5	Manufacturing	31406	37624	6670	40369	16641	4413	45788	45756	25049	17196	25153	2049	28939	20358	347411
5.1	Registered *	15552	18632	3303	19991	8241	2185	22674	22658	12404	8516	12456	1015	14331	10081	172039
5.2	Unregistered	15854	18992	3367	20378	8400	2228	23114	23098	12645	8680	12697	1034	14608	10277	175372
6	Electricity, Gas & Water Supply	4821	2593	1337	2315	2473	2181	3309	2508	1749	1000	2028	193	909	409	27825
6.1	Electricity	3800	2432	1227	2073	2244	2141	2857	2266	1630	816	1728	163	733	330	24440
6.2	Gas	76	64	32	55	49	28	75	71	60	70	65	16	56	25	742
6.3	Water Supply	945	97	78	187	180	12	377	171	59	114	235	14	120	54	2643
7	Construction	22184	13211	6306	12404	11764	3907	38889	21956	11412	16126	22949	2398	17056	6182	206744
	Sub total : Secondary	**58411**	**53428**	**14313**	**55088**	**30878**	**10501**	**87986**	**70220**	**38210**	**34322**	**50130**	**4640**	**46904**	**26949**	**581980**
8	Transport,Storage & Communication	25834	14628	9157	12845	16273	3880	31963	21854	12318	17384	17351	2818	10711	5909	202925
8.1	Railways	601	574	49	448	399	0	628	465	978	673	585	0	568	581	6549
8.2	Transport by other means *	20215	10794	7693	9303	12891	2968	23405	16066	7428	12995	11001	2245	6556	4105	147665
8.3	Communication	4960	3196	1408	3023	2860	899	7840	5297	3860	3677	5758	548	3533	1207	48066
8.4	Storage	58	64	7	71	123	13	90	26	52	39	7	25	54	16	645
9	Trade, Hotel & Restaurants	52822	41234	16539	39546	38140	13220	71498	62554	43147	45228	60079	8888	49447	20196	562538
10	Banking and Insurance	17357	10526	9649	11690	13326	5617	24442	18066	13090	10458	13275	3745	11521	5919	168681
11	Real estate ownership, business & legal	17616	13967	7376	11560	10333	6653	15870	14895	12693	13605	13039	3854	10588	5238	157287
12	Public Administration	31956	11392	5958	9132	9912	2233	14512	10437	8863	7290	10571	1574	6702	1963	134495
13	Other Services	29636	17747	7958	19169	17551	6196	24564	24358	17986	23710	22968	4862	17711	7732	242148
	Sub Total:Tertiary	**175221**	**109494**	**56637**	**103942**	**105535**	**37799**	**182849**	**152164**	**108097**	**117675**	**137283**	**25741**	**108680**	**46957**	**1468074**
	Net State Domestic Product	***300298***	***242027***	***115174***	***190605***	***193675***	***117180***	***342496***	***280289***	***201708***	***219643***	***256583***	***65257***	***221544***	***113532***	***2860011***
	Population('000)	*3194*	*2609*	*1288*	*2169*	*1982*	*1168*	*3054*	*2967*	2582	3356	2840	728	2441	1161	31539
	Per capita Income (Rs.)	**9402**	**9277**	**8942**	**8788**	**9772**	**10033**	**11215**	**9447**	**7812**	**6545**	**9035**	**8964**	**9076**	**9779**	**9068**

* *Provisional Estimate*

Source : *Department of Economics & Statistics*

Appendix- 2.11

District wise Distribution of Net State Domestic Product and Per Capita Income of Kerala at Factor Cost by Industry of Origin for the year 1998-99 (at Current Prices) *

Base Year 1993-94 (Rs. in Lakh)

Sl.No	Industry of Origin	TVM	KLM	PTA	ALPA	KTM	IKI	EKM	TSR	PLKD	MLPM	KKD	WYD	KNR	KSD	STATE
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	Agriculture	118567	115429	65362	49937	111246	99481	113206	90853	89546	105886	102226	57911	116737	70855	1307244
2	Forestry and Logging	5316	8884	16548	0	865	27815	865	11047	14530	11024	4417	8407	5201	600	115319
3	Fishing	6043	28648	160	12048	985	67	26093	8400	506	12234	26559	0	5179	6204	133126
4	Mining and Quarrying	371	343	147	230	248	82	698	501	397	757	1233	101	1348	434	6890
	Sub Total: Primary	**130297**	**153104**	**82217**	**62215**	**113344**	**127445**	**140864**	**110801**	**104979**	**129901**	**134435**	**66419**	**128465**	**78093**	**1562579**
5	Manufacturing	54726	65563	11623	70346	28998	7688	79789	79728	43648	29966	43830	3573	50429	35477	805384
5.1	Registered *	26630	31904	5656	34231	14111	3741	38826	38796	21239	14582	21328	1739	24539	17263	294585
5.2	Unregistered	28096	33659	5967	36115	14887	3947	40963	40932	22409	15384	22502	1834	25890	18214	310799
6	Electricity, Gas & Water Supply	8355	4605	2367	4080	4369	3900	5803	4429	3103	1742	3554	340	1582	713	48942
6.1	Electricity	6814	4360	2199	3715	4022	3838	5122	4061	2922	1463	3099	294	1315	592	43816
6.2	Gas	117	99	50	84	76	44	114	110	92	107	101	25	87	39	1145
6.3	Water Supply	1424	146	118	281	271	18	567	258	89	172	354	21	180	82	3981
7	Construction	52757	31418	14996	29501	27977	9293	92485	52217	27141	38351	54577	5704	40564	14701	491682
	Sub total : Secondary	**115838**	**101586**	**28986**	**103927**	**61344**	**20881**	**178077**	**136374**	**73892**	**70059**	**101961**	**9817**	**92575**	**50891**	**1146008**
8	Transport,Storage & Communication	43327	24142	15882	21076	27421	6449	52522	35949	19290	28787	27398	4748	18802	9630	333223
8.1	Railways	779	744	64	581	517	0	815	603	1268	872	758	0	737	751	8489
8.2	Transport by other means *	36763	19625	13987	16913	23437	5396	42552	29209	13504	23625	20000	4081	11920	7466	268468
8.3	Communication	5712	3681	1622	3481	3293	1035	9027	6099	4445	4234	6631	631	4068	1390	55349
8.4	Storage	83	92	9	101	174	18	128	38	73	56	9	36	77	23	917
9	Trade, Hotel & Restaurants	112236	87814	35141	84028	81040	28089	151919	132915	91678	96100	127655	18885	105065	42910	1195275
10	Banking and Insurance	25085	15212	13944	16894	19258	8118	35323	26108	18917	15114	19185	5412	16650	8556	243776
11	Real estate ownership, business & legal	27272	21863	11441	17930	16027	10319	24564	23052	19865	21052	20445	5977	16418	8123	243948
12	Public Administration	52525	18724	9783	15010	16292	3670	23853	17154	14568	11982	17376	2586	14303	3227	221063
13	Other Services	50214	29988	13436	32476	29732	10449	41601	41225	30370	39961	38813	8202	29895	13033	409395
	Sub Total:Tertiary	**310659**	**197343**	**99437**	**187414**	**189770**	**67094**	**329782**	**276403**	**194488**	**212996**	**250872**	**45810**	**199133**	**85479**	**2646680**
	Net State Domestic Product	***556794***	***452033***	***210640***	***353556***	***364458***	***215420***	***648723***	***523578***	***373359***	***412956***	***487268***	***121846***	***420173***	***214463***	***5355267***
	Population('000)	*3226*	*2636*	*1301*	*2191*	*2002*	*1180*	*3084*	*2997*	*2606*	*3389*	*2868*	*736*	*2465*	*1173*	*31856*
	Per capita Income (Rs.)	**17260**	**17148**	**16191**	**16137**	**18205**	**18256**	**21035**	**17470**	**14316**	**12185**	**16990**	**16555**	**17046**	**18283**	**16811**

* *Provisional Estimate*

Source : *Department of Economics & Statistics*

Appendix- 2.12

District wise Distribution of Net State Domestic Product and Per Capita Income of Kerala at Factor Cost by Industry of Origin for the year 1998-99 (at Constant Prices) *

Base Year 1993-94 **(Rs.in Lakh)**

Sl.No	Industry of Origin	TVM	KLM	PTA	ALPA	KTM	IKI	EKM	TSR	PLKD	MLPM	KKD	WYD	KNR	KSD	STATE
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	Agriculture	61941	60305	34147	28088	58117	51972	59142	47465	46780	55318	53405	30254	60985	37014	682933
2	Forestry and Logging	3722	6079	11584	0	605	19472	606	7734	10172	7719	3092	5886	3641	419	80731
3	Fishing	3304	15662	87	6586	538	36	14264	4592	276	6689	14520	0	2832	3392	72778
4	Mining and Quarrying	287	266	114	179	193	64	541	388	309	586	956	79	1044	335	5341
	Sub Total: Primary	69254	82312	45932	32853	59453	71544	74553	60179	57537	70312	71973	36219	68502	41160	841783
5	Manufacturing	32564	39010	6917	41856	17255	4574	47474	47439	25972	17830	26080	2125	30006	21107	360208
5.1	Registered	16392	19638	3482	21069	8686	2303	23899	23881	13074	8976	13128	1070	15105	10626	181329
5.2	Unregistered	16172	19372	3435	20786	8569	2271	23575	23558	12898	8854	12952	1055	14901	10481	178879
6	Electricity, Gas & Water Supply	5407	2896	1539	2652	2841	2541	3768	2880	2021	1131	2305	220	1025	462	31788
6.1	Electricity	4443	2843	1434	2423	2623	2503	3340	2649	1907	955	2021	191	857	386	28575
6.2	Gas	73	62	31	53	48	27	72	69	58	66	62	16	64	25	716
6.3	Water Supply	891	91	74	176	170	11	356	162	56	108	222	13	114	51	2495
7	Construction	22439	13363	6379	12547	11899	3953	39336	22209	11543	16311	23212	2426	17252	6253	209122
	Sub total : Secondary	60410	55369	14835	57054	31996	11068	90578	72528	39536	35272	51597	4771	48283	27822	601118
8	Transport,Storage & Communication	28672	16257	10143	14299	18027	4329	35656	24372	13768	19308	19492	3132	12011	6529	225995
8.1	Railways	610	583	50	455	405	0	638	472	994	663	594	0	577	589	6650
8.2	Transport by other means	22085	11793	8405	10163	14064	3243	25570	17552	8115	14197	12019	2452	7163	4483	161324
8.3	Communication	5918	3815	1681	3806	3413	1073	9356	6321	4606	4388	6872	654	4216	1440	57361
8.4	Storage	59	66	7	73	125	13	92	27	53	40	7	26	55	17	660
9	Trade, Hotel & Restaurants	56183	43857	17591	42062	40566	14061	78047	68534	45891	48105	63901	9453	52593	21480	598324
10	Banking and Insurance	16429	11176	10244	12411	14149	5964	25951	19181	13896	11104	14095	3976	12232	6288	179096
11	Real estate ownership, business & legal	18492	14661	7743	12135	10847	6984	16859	15635	13324	14281	13887	4045	11113	5498	185104
12	Public Administration	33187	11631	6188	9484	10294	2319	15071	10839	9205	7571	10979	1834	9037	2039	139678
13	Other Services	31582	18912	8481	20428	16704	6603	26177	25958	19167	25267	24478	5181	18874	8240	258050
	Sub Total:Tertiary	186545	116694	60390	110819	112587	40260	195561	162519	115253	125636	146630	27421	115860	50074	1566249
	Net State Domestic Product	*316209*	*254375*	*121157*	*200726*	*204035*	*122872*	*360692*	*295226*	*212326*	*231220*	*270200*	*68411*	*232645*	*119056*	*3009150*
	Population('000)	*3226*	*2636*	*1301*	*2191*	*2002*	*1180*	*3084*	*2997*	*2608*	*3389*	*2868*	*736*	*2485*	*1173*	*31856*
	Per capita Income (Rs.)	9802	9650	9313	9161	10192	10413	11696	9851	8141	6823	9421	9295	9438	10150	9446

* *Provisional Estimate*

Source : *Department of Economics & Statistics*

Appendix- 2.13

District wise Distribution of Net State Domestic Product and Per Capita Income of Kerala at Factor Cost by Industry of Origin for the year 1999-2000 (at Current Prices) *

(Rs.in Lakh)

Sl.No	Industry of Origin	TVM	KLM	PTA	ALPA	KTM	IKI	EKM	TSR	PLKD	MLPM	KKD	WYD	KNR	KSD	STATE
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*	*15*	*16*	*17*
1	Agriculture	143246	81112	61968	138048	123452	140483	112746	111119	131400	126856	71864	144861	87921	39639	1514715
2	Forestry and Logging	5668	9256	17641	0	922	29650	922	11777	15489	11751	4709	8961	5545	639	122930
3	Fishing	6889	32660	182	13735	1123	76	29746	9576	577	13947	30277	0	5904	7072	151764
4	Mining and Quarrying	388	359	154	240	260	86	730	524	415	790	1290	106	1410	454	7206
	Sub Total: Primary	**156191**	**123387**	**79945**	**152023**	**125757**	**170295**	**144144**	**132996**	**147881**	**153344**	**108140**	**153928**	**100780**	**47804**	**1796615**
5	Manufacturing	61387	73542	13036	78906	32527	8624	89500	89432	48960	33613	49163	4006	56565	39791	679054
5.1	Registered	29728	35614	6314	38212	15752	4176	43342	43309	23710	16278	23808	1940	27393	19269	328845
5.2	Unregistered	31659	37928	6724	40694	16775	4448	46158	46123	25250	17335	25355	2066	29172	20522	350209
6	Electricity, Gas & Water Supply	9348	5204	2672	4599	4929	4420	6528	4996	3507	1954	3992	381	1772	797	55099
6.1	Electricity	7734	4948	2496	4217	4565	4356	5815	4610	3317	1661	3516	333	1492	671	49731
6.2	Gas	124	104	52	88	80	46	120	116	97	114	106	26	91	41	1205
6.3	Water Supply	1490	152	124	294	284	18	593	270	93	179	370	22	189	85	4163
7	Construction	59743	35578	16982	33407	31681	10523	104730	59130	30734	43429	61803	6459	45934	16648	556781
	Sub total : Secondary	**130478**	**114324**	**32692**	**116912**	**69137**	**23567**	**200758**	**153558**	**83201**	**78996**	**114958**	**10846**	**104271**	**57236**	**1290934**
8	Transport,Storage & Communication	51860	28842	18805	25191	32800	7738	62898	43050	22950	34403	32780	5693	20048	11434	398492
8.1	Railways	809	772	66	603	537	0	846	626	1317	906	787	0	765	783	8817
8.2	Transport by other means	44074	23534	16773	20282	28106	6471	51028	35028	16194	28331	23985	4894	14294	8950	321944
8.3	Communication	6890	4439	1956	4199	3972	1248	10888	7357	5361	5107	7996	781	4907	1676	66759
8.4	Storage	87	97	10	107	185	19	136	39	78	59	10	38	82	25	972
9	Trade, Hotel & Restaurants	137287	107169	42985	102783	99128	34358	185828	162581	112140	117550	156148	23101	128515	52487	1462060
10	Banking and Insurance	28822	17478	16022	19411	22126	9327	40586	29999	21738	17366	22044	6218	19131	9831	280099
11	Real estate ownership, business & legal	31721	25150	13283	20817	18606	11961	26577	26822	22856	24499	23479	6939	19061	9431	283224
12	Public Administration	63510	22640	11841	18149	19700	4437	28841	20742	17615	14487	21009	3128	17294	3903	267296
13	Other Services	58501	34936	15653	37835	34638	12173	48466	48028	35382	46556	45218	9556	34828	15185	476955
	Sub Total:Tertiary	**371701**	**236215**	**118589**	**224186**	**227002**	**80014**	**395196**	**331222**	**232879**	**254861**	**300678**	**54635**	**238877**	**102271**	**3169126**
	Net State Domestic Product	***658370***	***473926***	***231226***	***493121***	***421896***	***273876***	***740098***	***617776***	***463761***	***487201***	***523776***	***219409***	***443928***	***207311***	***6255675***
	Population('000)	*3214*	*2572*	*1286*	*2250*	*1929*	*1286*	*3215*	*2892*	*2572*	*3535*	*2893*	*643*	*2572*	*1286*	*32145*
	Per capita Income (Rs.)	**20484**	**18426**	**17980**	**21916**	**21871**	**21297**	**23020**	**21362**	**18031**	**13782**	**18106**	**34123**	**17260**	**16121**	**19461**

* Quick Estimate

Source : *Department of Economics & Statistics*

Appendix - 2.14

Total Work Seekers in Kerala as on 31-10-2000

Year at the end of December	General Work Seekers	Professional/Tech. Work Seekers	Total Work Seekers
1	2	3	4
1990	3204003	116032	3320035
1991	3529781	109023	3638804
1992	3718926	128137	3847063
1993	4020822	136070	4156892
1994	4039063	129606	4168669
1995	3106892	119413	3226305
1996	3158515	128959	3287474
1997	3412211	138597	3550808
1998	3629499	154750	3784249
1999	3748493	152148	3900641
2000 (As on 31-10-2000)	4019811	166060	4185871

Source: Directorate of Employment and Training

Appendix - 2.15

Distribution of Work Seekers in Kerala by Educational Level

Year at the end of December	Below SSLC	SSLC	PDC	Degree	P.G.	SSLC & above	% to total Work Seekers	Total Work Seekers
1	2	3	4	5	6	7	8	9
1990	1227319	1655465	273725	135213	28313	2092716	63	3320035
1991	1318514	1885304	257173	150014	27799	2320230	64	2638804
1992	1345260	2027567	283556	161571	29109	2501803	65	3847063
1993	1412925	2210314	317719	181605	34329	2743967	66	4156892
1994	1377759	2230232	325760	190261	36637	2790910	67	4168669
1995	928954	1857110	260505	154207	25529	2297351	71	3226305
1996	822183	1984136	287766	161962	31427	2465291	75	3287474
1997	858219	2144636	327753	182555	37645	2692589	76	3550808
1998	935092	2224481	372921	206243	45512	2849157	75	3784249
1999	904194	2300026	415298	228976	52147	2996447	77	3900641
2000 (As on 31-10-2000)	945582	2409558	522576	250250	57905	3240289	77	4185871

Source : Directorate of Employment & Training

Appendix - 2.16

Number of Professional and Technical Work Seekers

Year at the end of December	Medical Graduates	Engineering Graduates	Diploma holders in Engineering	ITI Certificate Holders	Agricultural Graduates	Veterinary Graduates	Total
1	2	3	4	5	6	7	8
1990	1806	6507	20154	87069	368	128	116032
1991	2588	7762	22399	75898	363	13	109023
1992	3123	9286	25810	89616	219	83	128137
1993	3318	9549	34680	87962	451	110	136070
1994	3494	10420	30720	80757	4001	214	129606
1995	1974	7553	26403	82030	1305	148	119413
1996	1976	7274	28565	89847	1265	32	128959
1997	2158	7059	31787	96241	1327	25	138597
1998	2126	7314	37201	106690	1324	95	154750
1999	1698	8334	39408	101384	1205	119	152148
2000 (As on 31-10-2000)	2395	9635	43189	109408	1281	152	166060

Source : Directorate of Employment & Training

Appendix - 2.17

Number of Professional and Technical Work Seekers (as on 31-10-2000)

Sl.No.	District	General Work Seekers	Professional/Technical Work Seekers	Total Work Seekers		
				Men	Women	Total
1	2	3	4	5	6	7
1	Thiruvananthapuram	37863	581605	253852	365616	619468
2	Kollam	17686	480878	221838	276726	498564
3	Alappuzha	14068	363263	163775	213556	377331
4	Pathanamthitta	6758	150818	65921	91655	157576
5	Kottayam	10809	272471	122766	160514	283280
6	Idukki	4136	129049	58366	74819	133185
7	Ernakulam	29249	395947	192069	233127	425196
8	Thrissur	15079	333807	138069	210817	348886
9	Palakkad	4554	280796	143134	142216	285350
10	Malappuram	5963	239125	121309	123779	245088
11	Kozhikode	8198	365299	183057	190440	373497
12	Wayanad	1649	83931	42007	43573	85580
13	Kannur	8451	247835	117533	138753	256286
14	Kasaragod	1597	94987	48652	47932	96584
Total		**166060**	**4019811**	**1872348**	**2313523**	**4185871**

Source : *Directorate of Employment & Training*

Appendix - 2.18

Unemployment Assistance and Self Employment Scheme

Year	Unemployment Assistance			Self Employment Scheme		
	Application Received	No.of Beneficiaries to whom UA Paid	Amount Disbursed (Crore)	Application Received	No.of Beneficiaries	Amount Disbursed (Lakh)
1	2	3	4	5	6	7
1990-91	118279	264314	19.35	10127	4665	27.99
1991-92	99814	260196	16.20	10279	2653	15.92
1992-93	Nil	229149	6.26	-	45	0.27
1993-94	121376	273512	17.49	6382	100	0.60
1994-95	67602	281424	21.37	2802	5741	34.45
1995-96	-	272371	26.49	-	1032	6.19
1996-97	-	264382	22.70	-	-	-
1997-98	-	263715	35.94	3784	1518	9.11
1998-99	-	232264	14.49	3384	888	9.13
1999-2000	-	-	34.80	NA	NA	NA
2000-01	-	-	-	14343	208	7.10

Source : *Directorate of Employment & Training*

Appendix - 2.19

Employment in the Public and Private Sector in Kerala

Year at the end of December	Public Sector	Index	Private Sector	Index	Total	Index
1	2	3	4	5	6	7
1990-91	645858	114.67	525882	102.90	1171738	109.00
1991-92	647853	102.61	532837	100.90	1180690	100.11
1992-93	649199	99.70	536480	101.60	1185679	100.54
1993-94	643615	98.80	540472	102.36	1184087	100.40
1994-95	620422	95.30	553986	104.90	1174408	99.62
1995-96	620068	95.25	552474	104.66	1172542	99.46
1996-97	624542	96.20	554084	103.30	1178626	99.41
1997-98	621975	95.60	556241	104.30	1178216	99.90
1998-99	634803	97.90	586643	97.90	1221446	-
1999-2000	639340	-	576605	-	1215945	-

Source : *Directorate of Employment & Training*

Appendix - 2.20

Number of Placements through Employment Exchanges and Monthly Average Number of Employers using Employment Exchanges in Kerala

Sl.No.	Year	No of placements	Monthly average no.of Employers using Employment Exchanges
1	2	3	4
1	1990-91	15640	540
2	1991-92	16748	392
3	1992-93	17890	404
4	1993-94	13828	452
5	1994-95	18305	412
6	1995-96	16996	486
7	1996-97	18268	374
8	1997-98	19375	350
9	1998-99	19661	447
10	1999-2000	23012	388

Source : Directorate of Employment & Training

Appendx-3.1

Consumer Price Index (Cost of Living Index) Numbers for Agricultural and Industrial workers-Kerala : 2000

(Base 1970=100)

Sl. No.	Centre	1999				2000									Variation (Sept. to Sept.)	
		Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March	April	May	June	July	Augu.	Sept.	Index	Percent
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*	*15*	*16*	*17*
1	Thiruvananthapuram	1054	1059	1064	1073	1081	1081	1083	1091	1098	1110	1119	1122	1126	72	6.83
2	Kollam	1054	1059	1067	1073	1078	1080	1083	1089	1097	1106	1113	1115	1121	67	6.36
3	Punalur	1006	1014	1020	1028	1034	1037	1039	1045	1053	1062	1069	1071	1075	69	6.86
4	Alappuzha	1055	1060	1067	1074	1081	1082	1085	1092	1100	1110	1118	1121	1126	71	6.73
5	Kottayam	1047	1055	1061	1067	1072	1074	1079	1087	1095	1106	1114	1117	1123	76	7.26
6	Mundakkayam	1019	1026	1034	1041	1047	1049	1052	1060	1068	1078	1085	1087	1092	73	7.16
7	Munnar	1013	1019	1028	1034	1040	1043	1046	1054	1062	1072	1079	1082	1089	76	7.50
8	Ernakulam	1012	1018	1022	1026	1031	1032	1034	1042	1050	1061	1070	1073	1077	65	6.42
9	Chalakudy	1076	1081	1086	1091	1095	1096	1098	1105	1114	1124	1133	1136	1142	66	6.13
10	Thrissur	1034	1040	1045	1050	1055	1057	1059	1066	1074	1034	1092	1094	1099	65	6.29
11	Palakkad	1046	1051	1055	1060	1064	1065	1068	1075	1085	1094	1102	1104	1110	64	6.12
12	Malappuram	1042	1046	1051	1054	1057	1059	1059	1067	1076	1086	1095	1097	1101	59	5.66
13	Kozhikode	1029	1034	1040	1046	1051	1054	1056	1064	1073	1083	1092	1095	1099	70	6.80
14	Meppady	1094	1100	1107	1114	1120	1122	1124	1132	1141	1152	1160	1162	1167	73	6.67
15	Kannur	1032	1036	1041	1045	1049	1050	1052	1060	1060	1079	1087	1090	1095	63	6.10
	Average	1041	1047	1053	1058	1064	1065	1068	1075	1084	1094	1102	1104	1109	68	6.53

Source :*Department of Economics and Statistics*

Appendix - 3.2

Month-end Average Retail Prices of Essential Commodities 2000

(Rupees)

Sl.	Name of Commodity	Unit	Janu.	Febru.	March	April	May	June	July	Aug.	Sept.	Octo.	Novem.	Decem.
			2000											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A.	**Cereals**													
1	Rice Matta(OM)	Kg	13.71	13.48	13.58	13.67	13.75	13.65	13.6	13.54	13.28	13.23	13.17	13.34
2	Rice White(OM)	Kg	13.06	13.07	13.05	13.46	13.55	13.10	12.73	12.43	12.39	12.3	12.83	12.9
B.	**Pulses**													
3	Greengram	Kg	26.44	25.96	27.75	29.23	29.32	29.68	28.96	28.64	27.07	25.77	28	28.11
4	Blackgram(without husk)	Kg	34.32	34.11	33.93	36.69	37.5	41.43	41.15	39.89	40.07	40.43	42	42.57
5	Redgram	Kg	21.89	21.04	20.75	21.19	21.46	21.18	20.39	20.43	20.46	20.64	20.46	19.89
6	Dhall (Tur)	Kg	30.38	29.38	30.23	30.63	30.88	30.44	30.17	30.15	29.58	28.62	30	29.35
C.	**Other Food Items**													
7	Sugar(OM)	Kg	14.81	14.75	15.99	16.27	15.22	15.26	15.64	16.3	15.56	15.61	15.34	15.19
8	Milk (Cow's)	Ltr	13.04	13.04	13.04	13.04	13.04	13.04	13.04	13.04	13.04	13.00	12.93	12.93
9	Tea(Kannan Devan)	1/2 Kg	63.18	63.32	63.25	63.61	63.61	64.64	65.12	66.64	66.54	66.71	66.79	66.71
10	Coffee(Brook Bond Green Label)	1/2 Kg	70.92	70.66	70.09	70.08	70.25	70	70.05	70.02	69.96	69.96	69.57	69.66
11	Baby Food(Amul)	Kg	133.21	130.22	129.5	130	132.86	132.8	132.75	135.14	136.14	136.14	136.14	136.14
12	Egg(Hen'sWhite Legon)	Dozen	19.45	19.72	17.67	15.69	16.59	18.9	18.63	17.28	17.61	17.26	17.89	18.89
13	Mutton(with bones)	Kg	108.57	108.57	109.29	109.29	109.29	110	110	110	110	110	110	111.43
D.	**Oil and Oil Seeds**													
14	Coconut oil	Kg	56.54	50.99	43.4	44.38	39.93	38.29	35.08	38	34.6	34.43	36.75	35.04
15	Groundnut Oil	Kg	49.6	49.3	49.1	49.1	49.55	49	49.5	50.05	50	50.05	48.95	48.05
16	Refined oil (Postman)	Kg	63.98	63.21	60.22	61.86	58.95	59.41	62.22	61.83	62.09	61.29	61.95	61.34
17	Gingelly oil	Kg	57.73	57.75	56.91	54.75	51.68	50.21	49.08	49.71	49.43	49.29	50.32	48.14
18	Coconut (without Husk)	100Nos	577.5	534.64	473.93	464.93	426.07	389.64	348.85	372.5	357.14	342.5	369.29	357.14
E.	**Spices and Condiments**													
19	Coriander	Kg	26.21	26.39	27.75	32	33.71	33.36	34.31	33.5	32.85	32.78	34	36.68
20	Chillies(dry)	Kg	48.29	44.93	41.93	41.92	41.07	42.86	41.62	41.5	40.76	40.76	41.97	41.01
21	Onion (small)	Kg	9.39	8.78	10.37	13.38	17.61	15.87	9.73	9.96	10.63	10.63	11.44	13.00
22	Tamarind (without seed)	Kg	35	32.64	31.21	31.25	31.07	29.64	28.77	28.07	27.5	27.36	28.08	28.07
F.	**Tubers**													
23	Chenai (Elephant Foot)	Kg	7.29	7.39	7.14	7.62	7.64	8.21	7.69	7.29	7.11	7.11	6.64	6.86
24	Tapioca(Raw)	Kg	5.39	5.43	5.43	5.42	5.5	5.36	5.46	5.34	5.32	5.68	5.64	5.68
25	Potato	Kg	7.85	7.47	7.04	7.84	8.04	8.94	8.62	8.50	7.72	8.25	8.53	8.91
26	Colocassia	Kg	11.29	11.57	12.31	13.69	13.15	13.29	14.33	13.77	13.08	13.92	13.29	13.57

1	2	3			6		8	9	10	11	12	13	14	15
G.	**Fruits and Vegitables**													
27	Onion(Big)	Kg	6.55	5.95	5.93	5.96	5.58	5.83	6.19	5.91	6.23	8.63	10.25	10.54
28	Brinjal	Kg	10.57	10.43	9.36	9.77	9.5	9.36	9.69	8.93	9.14	11.86	10.79	11.93
29	Pumpkin	Kg	6.93	6.29	6.07	6.15	7.86	8.29	6.77	6.29	6.43	6.79	6.71	6.14
30	Cucumber	Kg	8.57	7.57	6.57	6.77	7.86	6.93	9.23	6.64	8.71	9.21	8.36	8.04
31	Lady's Finger	Kg	11.43	10.29	9.86	9.69	10.21	8.21	10	10.86	9.86	9.14	12 07	11.57
32	Cabbage	Kg	7.93	9.5	9.57	12.23	14.5	10.5	9.15	7.86	8	10.07	11.00	9.64
33	Bittergourd	Kg	12.29	12.21	12.5	13.69	16.71	16.00	15.31	14.57	13.43	15.14	14.71	14.79
34	Ash gourd	Kg	7.71	7.07	6.57	6.54	7.36	7.15	7.54	7.71	6.93	6.36	6.5	6.04
35	Snakegourd	Kg	9.5	9.07	8.29	8.85	9.5	10.79	10	10.21	9.21	10.71	9.29	9.36
36	Chillies (Green)	Kg	14.57	14.14	12	16.15	16.21	14.64	14.77	15.36	13.21	15.71	14.57	14.5
37	Banana(Green)	Kg	10.86	10.89	9.18	10.81	12.93	12.43	12.65	15.29	16.97	15.43	13.46	13.21
38	Plantain(Green)	Kg	7.75	7.39	6.79	6.81	7.93	7.86	8.5	9.75	10.11	9.43	9.36	9.43
H.	**Miscellaneous items**													
39	Tobacco	Kg	48.57	48.43	49.29	48.43	48.36	49.29	46.00	44.07	44.79	45.71	46.64	45.86
40	Mundu (Mull)	Each	52.78	52.42	52.36	52.49	52.49	52.75	52.75	52.75	53.25	53.11	53.89	53.46
41	Washing Soda	Kg	17.79	17.86	17.86	18	18	18.07	18.00	17.79	17.79	17.93	17.79	17.79
42	Washing Soap(501)	1/2 Bar	7.21	7.2	7.2	7.2	7.2	7.2	7.22	7.24	7.25	7.25	7.23	7.23
43	Toilet Soap (Lux)	Each(100 gm)	10.36	10.46	10.50	10.48	10.48	10.5	10.5	10.5	10.5	10.50	10.5	10.5
44	Tooth paste(Colgate)	100 gms	24.29	24.29	24.29	24.82	26.04	26.79	27.00	27	27	27	25.75	27.29
45	Razor Blade(Topaz)	5 Nos	5.43	5.43	5.43	5.43	5.3	5.64	5.64	5.71	5.71	5.86	5.86	5.75
46	Tablet (Crocin)	2 Tabs	1.26	1.26	1.26	1.27	1.27	1.27	1.27	1.27	1.27	1.28	1.28	1.28
47	Ele. Bulb(Philips)	Each(40 w)	10.92	10.88	10.92	10.81	10.81	10.85	10.85	10.85	10.85	10.85	10.85	10.85
48	Torch Battery(Evereaday950)	Each	7.93	7.96	7.96	7.96	7.96	8.07	8.07	8.11	8.00	8	7.96	8.11
49	Paper	24 Sheets	9.46	9.54	9.54	9.57	9.61	9.71	9.71	10.36	10.43	10.46	10.57	10.71
50	Fire Wood Split (Local)	Qtl	155	154.17	150	150	150.83	147.50	145.83	145.00	145.00	54.00	154.00	154.00
51	Cement(Sankar-Paper Bag)	Each	149.33	156.6	162.88	156.96	159.13	163.21	180.04	191.05	190.05	194.85	196.25	197.14

Source : *Department of Economics and Statistics*

Appendix -3.3

Wholesale Price Index of Agricultural Commodities 1988-2000

(Base: 1952-53=100)

Group	Weight	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999*	1999	2000*
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Food Crops	63.5	696	725	835	936	984	1310	1384	1609	1731	1814.7	1161.9	1821.6	2218.65	2631.07
Rice	40.4	533	544	592	638	638	837	957	1162	1162	1161.9	2130.0	1770.0	1861.75	2238.35
Condiments and Spices	10.4	775	754	1098	1542	1688	1895	1779	1960	2315	2818.3	2872.4	4804.9	4768.33	3732.97
Fruits & Vegetables	10.7	1199	1342	1450	1449	1571	2434	2534	2978	3235	3182.4	3336.3	3453.6	3325.68	3208.47
Molasses	2.0	881	909	1082	1061	1161	1803	1781	1477	1627	2453.7	1839.5	2582.0	2252.92	1774.23
Non-food Crops	36.5	1428	1215	1365	1832	2062	1966	1679	1864	2155	2426.3	2713.2	3144.5	3053.07	2374.10
Oil Seeds	25.5	1795	1411	1562	2240	2543	2368	1915	2029	2395	3069.0	1851.4	1793.1	2818.94	2702.37
Plantation crops	11.0	578	761	910	888	948	1038	1134	1485	1599	1630.9	2452.8	2736.4	2290.73	1615.18
All Crops	100.0	963	904	1028	1263	1377	1550	1492	1702	1876	2114.0	2063.5	2638.4	2690.03	2537.25

Source : Department of Economics and Statistics

* : up to the month of June only

Appendix - 3.4

Month-Wise Wholesale Price Index of Agricultural commodities - Kerala (1999-2000)

	Crops	1999						2000						
		July	August	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	Average*
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*12*	*13*	*14*	*15*	*16*	*17*	*18*
1	Rice	1953.3	1953.5	1953.5	1953.5	1953.5	1953.5	1953.5	1953.5	1953.5	2523.2	2523.2	2523.2	2238.35
2	Molasses	1743.5	1915.7	1913.8	1949.8	2106.6	1913.6	1860.0	1825.4	1839.1	1850.6	1639.8	1630.5	1774.23
3	Condiments & Spices	8254.1	5429.7	4056.6	3855.1	3559	3236.1	3417.4	3784.3	3615.8	3776.2	3921.0	3883.1	3732.97
4	Fruits & Vegitables	2739.4	2856.2	3621.0	3762.7	3078.7	2128.6	3023.6	3008.1	3046.3	3085.0	3685.7	3402.1	3208.47
5	Food Crops	3106.6	2671.5	2576.8	2569.1	2410.3	2359.9	2370.0	2426.0	2405.5	2800.9	2919.2	2864.8	2631.07
6	Oil Seeds	3185.2	3386	3388.8	3512.1	3637.8	3553.0	3302.3	2983.1	2690.0	2755.8	2298.6	2184.4	2702.37
7	Plantation Crops	1840.8	1870.5	1888.7	1875.4	1827.9	1767.0	1733.3	1691.0	1670.2	1685.7	1540.6	1370.3	1615.18
8	Non-food Crops	2779.2	2928.3	2935.8	3017.8	3091.2	3017.5	2828.6	2592.9	2382.3	2432.6	2069.7	1938.5	2374.10
9	All crops	2987.1	2763.2	2707.8	2732.9	2658.9	2600.0	2537.4	2486.9	2396.9	2666.5	2609.1	2526.7	2537.25

Source : *Department of Economics and Statistics*

* *Average from January to June 2000(6 months)*

Appendix 3.5

Average Monthly Price of Farm Commodities during 1999-2000

(Rupees)

Commodity	Unit	1999						2000					
		July	Augu.	Sept.	Octo.	Nove.	Deca.	Janu.	Febr.	March	April	May	June
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Paddy	Qtl.	685	696	694	679	680	686	684	681	673	683	688	676
Coconut	100 Nos	500	520	525	547	560	563	533	478	427	397	375	316
Pepper	Qtl.	17529	19652	20189	22959	22877	20388	20463	20906	19717	21490	21214	20067
Ginger	Qtl.	6611	7066	6994	6786	6874	6125	6032	5851	6188	6496	6081	5910
Cashew	Qtl.	2850	–	–	–	–	–	4108	4180	4009	3506	3104	2665
Arecanut	100 Nos	158	105	80	69	59	58	60	60	61	64	71	73
Banana	Qtl.	894	911	794	870	824	839	867	868	835	872	969	1023
Tapioca	Qtl.	350	344	357	363	367	370	378	375	382	387	380	366

Appendix - 3.6

Index Number of Wholesale Prices in India by Groups and Sub-Groups (Averages)

(Base: 1981-82=100)

Sl. No	Item	Weight	1998 May	June	July	August	Septem.	October	Novem.	Decem.	1999 January	February	March	April
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	All commodities	100	343.8	347.5	351.4	353.2	356.7	358.9	358.5	355.5	354.1	355.3	353.7	
I	Primary Articles	32.295	363.3	369.6	378.0	379.8	388.0	393.4	395.1	385.6	381.2	382.4	376.3	
1	Food Articles	17.386	421.9	429.7	440.3	441.0	456.9	468.1	467.1	446.6	437.8	439.6	433.5	
i	Food Grains	7.917	360.9	366.1	378	384.2	389.8	396.5	409.9	409.8	412.2	425.5	420.1	
	a) Cereals	6.824	350.2	355.9	365.9	371.8	377.9	380.0	391.2	391.4	397.1	414.8	414.3	
	b) Pulses	1.093	428	429.5	453.1	461.8	464.4	499.3	526.3	523.3	506.9	477.9	456.8	463.7
ii	Fruits & Vegitables	4.089	476.5	491.8	514.3	497.1	549.1	579.7	535.5	454.9	415	409	403.9	449.3
iii	Milk	1.961	373.5	380.8	376.4	374.4	374.6	376.2	378.9	378.9	378.9	379.9	384.2	383.9
iv	Egg, Fish & Meat	1.783	460.9	472.1	479.8	483.5	485.3	483.1	480.6	481.9	482.7	479	475.5	477
v	Condiments & Spices	0.947	603.4	606.5	619.2	644.3	660	664.2	738.5	733.9	730.5	726	675.7	682.1
vi	Other Food Articles	0.689	586.9	579.1	551.4	560.6	561.2	575.5	562.5	530.6	516.0	480.9	461.9	682.1
2	Non-food Articles	10.081	356.1	362.7	373.3	379.6	378.4	376.3	383.6	388.5	389.5	390.2	381.2	377.0
i	Fibres	1.791	354.6	361.4	373	366.7	365.2	362.9	368.9	362.7	364.5	359	347	341
ii	Oil Seeds	3.861	322	334.6	352.7	359.6	354.8	347.5	355.8	358.4	359.7	359.3	348.1	343.9
iii	Other non-food Articles	4.429	386.3	387.8	391.3	402.2	404.3	406.7	413.8	425.1	425.6	429.8	423.9	420.4
3	Minerals	4.828	167.5	167.5	163.7	159.8	159.8	159.8	159.8	159.8	159.8	159.9	160	160.3
i	Petroleum Crude & Natural Gas	4.274	142	142	137.6	133.2	133.2	133.2	133.2	133.2	133.2	133.2	133.3	133.3
ii	Fuel, Power, Light& Lubricants	10.663	380.4	380.2	379.9	379.9	380.8	382.0	382.1	382.1	375.3	381.7	390	385.2
iii	Manufactured Products	57.042	325.9	328.9	331.1	333.1	334.5	335	333.4	333.5	334.8	335	334.1	334.6
i	Manufactured Products(item-wise)													
i	Food Products	10.143	330.9	337.9	344.9	353.9	324.9	357	348.6	343.7	345.9	344.4	342.3	340.5
ii	Diary Products	0.642	385.3	388.3	390.7	391.7	363.1	393.3	393.2	392.9	395.8	402.5	403.2	403.2
iii	Sugar, Khandasari & gur	4.05	309.6	317	323.4	334	318.0	327.8	307.9	294.5	294.4	288.6	286.9	291.9
2	Beverages, Tobacco& Tobacco Products	2.149	463.4	487.8	487.9	487.9	443.6	487.9	487.9	487.9	487.7	487.9	488.4	488.7
3	Textiles	11.545	319.2	319.4	319.9	318.6	309.9	321.1	320.1	320.1	321.9	323.2	321.5	323.0
4	Paper& Paper Products	1.988	374.4	381.9	388.8	391.4	369.3	391.4	391.7	391.4	393.2	397.9	398.5	398.5
5	Leather & Leather Products	1.018	297.1	297.1	297.1	297.1	285.3	297.1	297.1	297.1	297.1	257.2	297.3	296.4
6	Rubber & Plastic products	1.592	245.3	246.6	249.5	249.5	244.8	249.5	249.5	249.4	249.5	247.4	247	247.3
7	Chemical & Chemical Products	7.355	274.6	275.6	278.4	278.8	269.1	281.2	283.1	288.9	290.9	289.9	288.5	286.6

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
I	Fertilisers	1.748	223.5	223.2	223.2	223.2	223.2	228	229.8	230.7	233.4	233.7	233.6	233.9
ii	Pesticides	0.202	287.3	292.3	292.3	292.3	284.5	292.3	292.3	292.3	292.3	301.3	301.3	301.3
iii	Drugs and Medicines	1.065	262.2	300.4	304.2	304.1	265.0	304.1	314.3	355.6	360.1	364.9	366.1	367.8
8	Non-metalic Mineral Products	2.477	350.5	351.6	351.2	363.1	242.9	363.1	359.7	363.3	364.4	361.8	362.1	374.6
9	Basic metals, Alloys & metal produc	7.632	353.1	353.3	353.5	353	350.4	353	352.4	352.1	351.9	353.7	354.4	355.1
10	Machinery & Machine tools	6.268	300.4	300.8	303.3	307.5	299.4	307.5	308.3	305.9	304.4	304.9	306.1	304.9
I	Motor Vehicles, Scooters, Bicycles&	2.431	277.3	278.8	278.9	281.1	271.9	281.1	281.3	281.2	281.5	281.5	282	282.2
ii	Other MiscellaneousManufacturing i	0.972	180.9	180.9	180.8	180.8	187.7	180.8	180.8	180.8	180.8	180.8	181.2	182.1

Source : *RBI Bulletin*

Appendix - 3.7

Consumer Price Index Numbers for Industrial workers- All India and Selected Centres

(Base 1982=100)

	1999				2000						
	Septembe	Octoberlovemb		Dece.	January	February	March	April	May	June	July
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*
All India	429	437	438	431	431	430	434	438	440	442	445
Ahmedabad	433	437	435	435	430	432	434	439	439	443	446
Aluva	422	427	429	429	431	436	437	439	442	449	447
Bangalore	407	413	418	416	460	414	415	422	425	423	423
Mumbai	471	472	468	468	484	489	491	501	511	513	512
Culcutta	443	468	472	447	434	430	434	434	439	440	450
Coimbatore	407	424	429	426	423	424	422	426	433	437	437
Delhi	483	498	496	488	490	491	512	517	418	520	524
Hyderabad	397	401	403	404	401	403	412	422	424	422	422
Jamshedpur	407	415	418	409	402	397	397	400	405	404	408
Madras	446	459	453	452	458	462	467	473	477	476	476
Madhura	431	443	441	436	431	430	433	423	432	440	440
Mundakayam	442	415	454	454	453	455	453	450	453	459	455
Nagpur	445	447	442	435	438	435	447	451	454	456	475

Source: *RBI Bulletin*

Appendix - 3.8

Consumer Price Index Numbers for Agricultural Labourers - State-wise

(Base July 1986 - June 1987 = 100)

	1999				2000						
	September	October	November	December	January	February	March	April	May	June	July
1	2	3	4	5	6	7	8	9	10	11	12
All India	310	315	316	311	307	306	306	307	310	310	310
Andra pradesh	316	319	323	320	320	317	316	316	325	325	325
Assam	320	328	329	324	322	320	319	322	326	325	324
Bihar	304	308	310	303	297	298	300	300	295	290	291
Gujarat	307	311	312	306	306	307	309	315	319	320	313
Jammu&Kashmir	322	327	326	322	316	317	317	325	333	332	330
Karnataka	315	324	326	320	316	315	313	313	318	316	315
Kerala	305	312	311	312	311	308	306	315	323	328	322
Madhyapradesh	318	320	318	316	309	307	307	311	312	315	317
Maharashtra	303	308	306	305	302	303	302	303	308	310	311
Orissa	319	324	333	317	311	308	308	311	316	312	313
Panjab	314	316	315	311	311	311	314	317	318	318	322
Rajastan	309	309	310	307	307	309	311	314	315	314	315
Tamil Nadu	296	305	308	309	303	301	301	302	304	305	300
Uttar Pradesh	315	314	310	304	302	302	305	304	301	304	307
Bengal	311	322	322	308	299	298	293	292	291	286	290

Source : *RBI Bulletin*

Appendix - 3.9

Consumer Price Index Numbers for Urban Non-Manual Employees- All India & Selected Centress

(base : 1984-85=100)

	1999					2000						
	August	*September*	*October*	*Novemb*	*December*	*January*	*Februar*	*March*	*April*	*May*	*June*	*July*
1	2	3	4	5	6	7	8	9	10	11	12	13
All India	352	353	357	357	354	355	355	357	362	364	366	370
Mumbai	349	352	356	356	354	358	359	362	367	370	371	371
Delhi	362	362	363	362	359	359	362	366	374	374	376	382
Culcutta	328	332	337	336	328	325	326	327	334	339	342	344
Chennai	381	383	388	389	388	394	393	398	403	405	406	413
Hydrabad	354	355	358	361	358	360	364	367	373	376	378	380
Bangalore	361	363	366	369	365	374	374	374	379	381	380	386
Lucknow	334	332	330	328	326	324	325	328	333	333	334	343
Ahemadabad	316	318	321	321	317	319	321	321	330	331	333	332
Jaipur	362	359	360	357	356	357	359	361	364	363	363	368
Patna	341	344	346	351	347	342	342	343	342	339	341	344
Srinagar	358	361	369	371	373	372	371	374	376	373	383	384
Thiruvananthapuram	337	334	334	340	342	346	348	348	351	352	358	362
Cuttak	352	357	363	372	363	361	358	360	359	365	366	366
Bhopal	341	343	349	348	345	344	344	349	353	356	356	359
Chandigar	434	435	433	433	431	432	433	435	439	438	443	442
Shillong	358	361	362	363	362	364	363	361	367	370	370	378

Source : RBI Bulletin

Appendix - 4.1

Number of Operational Holdings and Area Operated by Size Class in Kerala (1990-91)

Sl. No.	Size of Holding (ha)	Number	Area (ha)	Average Size (ha)
1	2	3	4	5
1	Below .02	635124	8300	0.013
2	0.02-0.50	3914282	535099	0.137
3	0.50-1	466673	336073	0.720
	Marginal(1+2+3)	5016079	879472	0.175
4	1 to 2 (Small)	280900	381437	1.358
5	Above 2	122210	540914	4.426
	Total	5419189	1801823	0.332

Source: *Directorate of Economics and Statistics*

Appendix - 4.2

Percentage Distribution of Main Workers in Kerala

Sl.No.	Item	1961	1991
1	2	3	4
1	Cultivators	20.92	12.24
2	Agricultural labourers	17.38	25.55
3	Livestock, Forestry, Fishing, Plantation, Mining, Quarrying and allied sectors	8.65	10.23
4	Household industry workers	8.68	2.58
5	Other workers	44.37	49.40

Source: *Census Reports.*

Appendix - 4.3

District-wise Actual and Normal Rainfall (in mm) with Percentage Departure from Normal Rainfall for 2000

Sl.No	Districts	Actual	Normal	Percentage Departure
1	2	3	4	5
1	Thiruvananthapuram	1502.5	2203.8	-32
2	Kollam	2352.0	2555.1	-8
3	Alappuzha	2638.3	2965.4	-11
4	Pathanamthitta	2682.8	3133.8	-14
5	Kottayam	2411.4	3130.3	-23
6	Idukki	3225.0	3379.4	-5
7	Ernakulam	2657.3	3274.3	-19
8	Thrissur	2072.8	3262.0	-36
9	Palakkad	1831.3	2389.8	-23
10	Kozhikode	2529.1	3667.9	-31
11	Malappuram	2191.5	2906.1	-25
12	Wayanad	2343.7	3590.8	-35
13	Kannur	2917.3	3465.0	-16
14	Kasargode	3152.2	3581.3	-12
	State average	**2464.8**	**3107.5**	**-21**

Source: *Meteorological Centre, Thiruvananthapuram*

Appendix - 4.4

Month-wise Distribution of Normal Rainfall and Average Rainfall for last 10 years (in mm)

Month	Normal Rainfall	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	Deviation from normal rainfall during 2000
1	2	3	4	5	6	7	8	9	10	11	12	13
January	14.6	14.0	3.4	0.0	32.5	11.0	12.6	2.1	8.7	2.0	14.2	-0.4
February	16.6	6.0	1.0	18.1	31.0	7.2	8.4	3.8	1.6	23.9	67.4	50.8
March	39.6	34.0	0.1	21.0	20.3	41.3	13.5	37.5	10.8	22.1	23.0	-16.6
April	113.4	98.0	44.8	70.6	145.7	173.6	134.4	62.9	84.9	124.2	98.8	-14.6
May	262.9	119.0	226.1	169.5	151.9	348.5	71.0	134.0	170.6	471.0	129.8	-133.1
June	897.1	1084.0	813.3	886.8	836.2	531.6	592.1	551.0	722.9	814.0	849.2	-47.9
July	764.9	837.0	802.3	804.6	941.0	719.7	680.0	941.9	600.1	656.9	335.9	-429.0
August	439.4	471.0	503.6	293.2	478.9	458.2	337.0	520.4	368.5	250.3	580.1	140.7
September	252.1	50.0	296.5	91.7	205.8	293.3	329.4	291.0	516.4	85.4	198.8	-53.3
October	297	291.0	318.4	442.7	448.5	208.2	320.6	284.5	440.5	544.9	216.5	-80.5
November	166.1	100.0	338.7	169.1	163.7	180.6	97.2	284.7	129.0	71.3	80.9	-85.2
December	43	3.0	4.8	49.3	42.5	0.1	86.4	92.7	87.8	5	70.2	27.2
TOTAL	3107	3106.0	3353.0	2818.6	3497.9	2973.5	2684.6	3206.5	3119.5	2871.0	2464.6	-642.2
Average	*258.9*	*259.0*	*279.4*	*234.9*	*291.5*	*247.8*	*223.7*	*267.2*	*260.0*	*239.3*	*205.4*	*-53.5*

Source: *Meteorological Centre, Thiruvananthapuram*

Appendix - 4.5

District-wise Monthly Rainfall in mm for 2000

Sl.No.	District	January	February	March	April	May	June	July	August	September	October	November	December
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	Thiruvananthapuram	9.2	69.3	37.8	135.1	11.2	271.1	89.0	352.1	139.1	189.4	131.3	67.9
2	Kollam	2.1	140.9	37.7	128.7	88.0	473.2	131.5	557.2	266.8	220.1	180.7	125.1
3	Alappuzha	24.0	187.0	60.2	112.0	147.8	621.0	219.5	599.3	277.4	215.2	116.2	58.7
4	Pathanamthitta	16.5	235.5	75.7	167.4	125.4	594.7	231.6	562.8	297.0	195.6	93.1	87.5
5	Kottayam	14.0	73.0	68.4	90.9	124.2	595.6	264.7	631.1	260.7	171.1	87.2	30.5
6	Idukki	9.2	95.5	7.6	115.5	189.8	898.9	407.1	1011.1	223.2	170.1	56.2	40.8
7	Ernakulam	18.2	77.7	22.5	86.2	159.2	667.8	365.3	699.1	202.2	222.9	86.5	49.7
8	Thrissur	0.0	15.8	2.2	65.8	98.2	589.5	333.6	565.7	131.9	203.2	41.3	25.6
9	Palakkad	0.1	29.3	2.5	85.3	43.1	508.2	290.6	464.3	160.1	130.7	82.7	34.4
10	Kozhikode	10.7	0.5	0.0	77.7	143.0	790.4	454.3	452.1	126.2	270.1	103.8	100.3
11	Malappuram	13.2	4.1	0.7	76.0	81.3	591.9	319.3	442.6	247.9	275.3	58.8	80.4
12	Wayanad	13.6	13.6	0.3	118.1	58.4	607.9	378.1	626.0	249.9	122.4	43.3	112.1
13	Kannur	37.5	1.3	6.0	86.5	207.2	822.3	542.8	604.9	126.8	338.1	23.8	120.1
14	Kasargode	30.9	0.0	0.0	38.1	339.9	1056.5	675.4	553.0	74.2	306.3	28.1	49.8
	State	**199.2**	**943.5**	**321.6**	**1383.3**	**1816.7**	**9089.0**	**4702.8**	**8121.3**	**2783.4**	**3030.5**	**1133.0**	**982.9**

Source: *Meteorological Centre, Thiruvananthapuram.*

Appendix - 4.6

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

Sl.No.	Crops	Average of 3 Years 1976-77 to 1978-79	1997-98	1998-99	1999-2000
1	2	3	5	6	7
	AREA				
	All Crops	101.48	99.03	97.10	97.49
A	Food Grains (1+2)	102.55	48.11	43.52	43.18
	1 Cereals	102.59	48.37	43.88	43.53
	2 Pulses	101.53	42.20	35.34	35.34
B	Non-Food Grains (3to10)	101.00	121.86	121.24	121.95
	3 Oil Seeds	101.66	129.06	128.20	130.58
	4 Plantation Crops	95.04	186.57	188.29	189.38
	5 Condiments& spices	100.65	130.60	131.05	132.89
	6 Drugs & Narcotics	82.29	26.62	25.85	25.85
	7 Fruits	103.20	109.82	108.99	106.61
	8 Tubers	100.00	40.81	37.84	36.67
	9 Vegetables	100.00	181.39	184.90	184.90
	10 Miscellaneous Crops	103.59	157.24	132.54	131.46
	PRODUCTION				
	All Crops	100.17	147.80	147.63	150.55
A	Food Grains(1+2)	98.67	59.54	56.41	59.76
	1 Cereals	98.85	59.48	56.46	59.86
	2 Pulses	87.06	63.16	53.17	53.17
B	Non-Food Grains (3to10)	100.52	166.97	167.44	170.26
	3 Oil Seeds	103.48	166.56	163.89	165.00
	4 Plantation Crops	93.54	297.14	311.80	318.16
	5 Condiments & spices	89.40	154.33	150.17	163.77
	6 Drugs & Narcotics	89.54	37.19	25.77	25.77
	7 Fruits	100.00	122.65	119.41	118.79
	8 Tubers	100.00	66.65	63.87	62.26
	9 Vegetables	105.94	187.98	191.62	191.62
	10 Miscellaneous Crops	98.02	87.29	93.95	94.57
	PRODUCTIVITY				
	All Crops	98.71	133.92	135.46	137.58
A	Food Grains (1+2)	96.22	123.58	129.16	137.85
	1 Cereals	96.35	123.17	128.83	137.66
	2 Pulses	85.25	149.66	150.43	150.43
B	Non-Food Grains (3to10)	99.52	136.17	136.82	137.52
	3 Oil Seeds	101.79	126.96	125.50	124.06
	4 Plantation Crops	98.74	167.86	172.74	175.70
	5 Condiments& spices	88.82	118.90	116.09	116.56
	6 Drugs & Narcotics	108.85	194.00	105.13	105.13
	7 Fruits	100.00	123.73	123.40	127.31
	8 Tubers	100.00	163.32	168.76	169.76
	9 Vegetables	102.65	103.64	103.64	103.64
	10 Miscellaneous Crops	94.62	56.78	73.21	74.40

Source: *Directorate of Economics and Statistics*

Appendix - 4.7

Season-wise Area,Production and Productivity of Rice in Kerala (1997-98 to 1999-2000)

Season	Area (ha)			Production (t)			Productivity (kg/ha)		
	1997-98	1998-99	1999-2000	1997-98	1998-99	1999-2000	1997-98	1998-99	1999-2000
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*
Virippu	144743	120217	121525	285328	235849	252876	1971	1962	2081
Mundakan	180701	174714	170228	342353	346022	373259	1895	1981	2193
Puncha	61678	57700	58021	136929	144872	144551	2220	2511	2491
All Seasons	387122	352631	349774	764610	726743	770686	1975	2061	2203

Source: *Directorate of Economics and Statistics*

Appendix - 4.8

Coverage of HYV rice in Kerala 1985-86 to 1999-2000

Sl.No.	Year	Coverage of HYV (ha.)				% to total coverage in HYV		
		Virippu (Autumn)	Mundakan (winter)	Puncha (Summer)	Total	Virippu (Autumn)	Mundakan (winter)	Puncha (Summer)
1	2	3	4	5	6	7	8	9
1	1985-86	83782	40650	38846	163278	51.31	24.90	23.79
2	1986-87	80076	44604	41253	165933	48.26	26.88	24.86
3	1987-88	54670	33763	31311	119744	45.66	28.20	26.14
4	1988-89	62354	37971	36691	137016	45.51	27.71	26.78
5	1989-90	78997	36910	39718	155625	50.76	23.72	25.52
6	1990-91	80025	40005	42786	162816	49.15	24.57	26.28
7	1991-92	73304	49745	43287	166336	44.07	29.91	26.02
8	1992-93	78090	45417	51589	175096	44.60	25.94	29.46
9	1993-94	73243	51192	47983	172418	42.48	29.69	27.83
10	1994-95	74478	55576	44391	174445	42.69	31.86	25.45
11	1995-96	71027	51602	41247	163876	43.34	31.49	25.17
12	1996-97	61532	54725	37072	153329	40.13	35.69	24.18
13	1997-98	69306	50693	48680	168679	41.09	30.05	28.86
14	1998-99	62346	66338	48414	177098	35.20	37.46	27.43
15	1999-2000	70948	85936	54106	210990	33.63	40.73	25.64

Source: *Directorate of Economics and Statistics*

Appendix 4.9

Districtwise Area , Production and Productivity of Rice in Kerala (1997-98 to 1999-2000)

Sl. No	District	Area (ha)			Production (tonnes)			Productivity (kg/ha)		
		1997-98	1998-99	1999-2000	1997-98	1998-99	1999-2000	1997-98	1998-99	1999-2000
1	2	3	4	5	6	7	8	9	10	11
1	Thiruvananthapuram	11368	9598	7969	19610	17689	17550	1725	1843	2202
2	Kollam	20023	17571	17426	36051	33311	35083	1800	1896	2013
3	Pathanamthitta	8267	7497	6716	18534	19467	18639	2242	2597	2775
4	Alappuzha	43220	35125	35326	95128	91681	92087	2201	2610	2607
5	Kottayam	13754	14393	15822	29029	35658	41431	2111	2477	2619
6	Idukki	4068	3846	3640	8468	8995	9056	2082	2339	2488
7	Ernakulam	46152	49730	42894	74234	84529	82326	1608	1700	1919
8	Thrissur	40977	39215	42887	82991	74190	92209	2025	1892	2150
9	Palakkad	120809	107467	109704	262494	237788	250911	2173	2213	2287
10	Malappuram	28936	23818	23495	48317	42341	42117	1670	1778	1793
11	Kozhikode	7988	6843	6495	9655	7834	8720	1209	1145	1343
12	Wayanad	17926	15642	17304	39733	34689	44781	2217	2218	2587
13	Kannur	15648	13878	11710	25461	22540	19800	1627	1624	1691
14	Kasaragod	7986	8008	8386	14905	16031	15996	1866	2002	1907
	State	**387122**	**352631**	**349774**	**784610**	**726743**	**770686**	**1975**	**2061**	**2203**

Source: Directorate of Economics & Statistics

Appendix - 4.10

Season-wise Area, Production and Productivity of Rice in Districts (1999 -2000)

District	Virippu (Autumn)			Mundakan (Winter)			Punja (Summer)			Total		
	A	P	PY	A	P	PY	A	P	PY	A	P	PY
1	2	3	4	5	6	7	8	9	10	11	12	13
Thiruvananthapuram	3705	8206	2215	4214	9259	2197	50	85	1700	7969	17550	2202
Kollam	7649	15737	2057	9767	19333	1979	10	13	1300	17426	35083	2013
Pathanamthitta	1000	1967	1967	2680	6005	2241	3036	10667	3514	6716	18639	2775
Alappuzha	8233	24776	3009	10689	27593	2581	16404	39718	2421	35326	92087	2607
Kottayam	3405	8984	2638	5588	13127	2349	6829	19320	2829	15822	41431	2619
Idukki	866	2215	2558	2389	5719	2394	385	1122	2914	3640	9056	2488
Ernakulam	15467	31401	2030	17690	33858	1914	9737	17067	1753	42894	82326	1919
Thrissur	11343	21488	1894	23622	51132	2165	7922	19589	2473	42887	92209	2150
Palakkad	51685	106137	2054	50730	123292	2430	7289	21482	2947	109704	250911	2287
Malappuram	5844	10230	1751	15440	25677	1663	2211	6210	2809	23495	42117	1793
Kozhikode	681	857	1258	4897	6323	1291	917	1540	1679	6495	8720	1343
Wayanad		..	..	14554	37783	2596	2750	6978	2537	17304	44761	2587
Kannur	6898	11598	1681	4548	7868	1730	264	334	1265	11710	19800	1691
Kasaragod	4749	9280	1954	3420	6290	1839	217	426	1963	8386	15996	1907
Kerala State	***121525***	***252876***	**2081**	***170228***	***373259***	**2193**	***58021***	***144551***	**2491**	**349774**	**770686**	**2203**

A - *Area(ha)*, **P** - *Production (t)*, **PY** - *Productivity (kg/ha)*

Source: *Directorate of Economics and Statistics*

Appendix - 4.11

Plantation Crops - Area, Production and Productivity (1997-98 to 1999-2000)

	1997-98		1998-99		1999-2000	
	Kerala	India	Kerala	India	Kerala	India
1	*2*	*3*	*4*	*5*	*6*	*7*
AREA (hectares)						
Tea	36817	434294	36826	436337	36877	437857
Coffee	82878	305902	83683	329238	84139	340306
Rubber	465282	544534	469924	553041	472900	558592
Cardamom	40867	72444	41449	72444	40867	72444
PRODUCTION (tonnes)						
Tea	72667	838465	68373	845158	71295	810767
Coffee	48300	228300	61150	265000	60470	292000
Rubber	541935	583830	559099	605045	572820	622265
Cardamom	5290	7900	4990	3500	6550	9290
PRODUCTIVITY (kg/ha)						
Tea	1974	1931	1857	1937	1933	1852
Coffee	583	746	731	805	719	858
Rubber	1165	1072	1190	1094	1211	1114
Cardamom	129	109	120	48	160	128

Source: *UPASI, Rubber Board and Directorate of Economics &Statistics*

Appendix - 4.12

Average Market Price of Indigenous & Natural Rubber in Kottayam Market (Rs. Per Qtl)

Sl.No	Year	RSS - 4	Ungraded
1	2	3	4
1	1991-92	2141	1975
2	1992-93	2550	2420
3	1993-94	2569	2437
4	1994-95	3638	3396
5	1995-96	5204	4874
6	1996-97	4901	4531
7	1997-98	3580	3292
8	1998-99	2994	2689
9	1999-2000	3099	2798

Source: *Rubber Board, Kottayam.*

Appendix 4.13

Import of Rubber

Sl. No.	Year	Import (tonnes) Natural Rubber	Synthetic Rubber	Total
1	2	3	4	5
1	1990-91	49013	51715	100728
2	1991-92	15070	39210	54280
3	1992-93	17884	47362	65246
4	1993-94	19940	64338	84278
5	1994-95	8093	73860	81953
6	1995-96	51635	71735	123370
7	1996-97	19770	91050	110820
8	1997-98	32070	86389	118459
9	1998-99	29534	102185	131719
10	1999-2000	16436	80039	96475

Source: *Rubber Board, Kottayam.*

Appendix - 4.14

Consumption of Rubber in Kerala & India (tonnes)

Sl. No	Year	Kerala			India		
		N.R	S.R	R.R	N.R	S.R	R.R
1	2	3	4	5	6	7	8
1	1994-95	64660	18984	6100	485850	122710	64655
2	1995-96	75200	22727	6232	525465	134085	65775
3	1996-97	67144	24575	5968	561765	142810	66585
4	1997-98	69500	27825	6270	571820	160915	70085
5	1998-99	78000	29074	6245	591545	156395	63095
6	1999-2000	NA	NA	NA	628110	167220	63450

Source: Rubber Board, Kottayam.

NR- Natural Rubber SR-Synthetic Rubber RR- Reclaimed Rubber

Appendix 4.15

Production, Consumption, Export and Auction Price of Tea

Year	Production			Consumption ('000 tonnes)	Exports		Cochin Auction Price (Rs/kg)
	India ('000 tonnes)	Kerala ('000 tonnes)	% of Kerala		India ('000 tonnes)	% Production	
1	2	3	4	5	6	7	8
1980	569	54	9	346	224	39	13.14
1981-85	600	50	6	387	214	36	20.498
1986-90	679	57	8	464	204	30	27.536
1991-95	740	65	9	567	174	23	38.136
1996	779	63	8	618	162	21	44.42
1997	811	70	9	633	203	25	61.57
1998	870	70	8	664	210	24	73.39
1999	799	67	8	650	190	24	62.04
2000	NA	NA	NA	NA	NA	NA	51.34

Source : Association of Planters

Appendix - 4.16

Consumption of Fertilizers/ha of Gross Cropped Area in Kerala (kg)

Sl. No.	*Year*	N	*P*	*K*	Total (N+P+K)		*N:(P+K)% (Kerala)*
					Kerala	*India*	
1	2	3	4	5	6	7	8
1	1995-96	28.62	14.15	24.11	66.88	74.38	75
2	1996-97	28.33	13.59	19.60	61.52	76.69	85
3	1997-98	29.29	15.23	29.40	73.92	86.81	66
4	1998-99	29.50	14.58	18.14	62.22	89.9	90
5	1999-2000	29.85	15.08	27.54	72.47	NA	70

Source: Directorate of Agriculture and CMIE.

Appendix - 4.17

Selected Indicators of Agricultural Development in Kerala

Sl.No	Programme	Unit	1997- 98	1998-99	1999-2000
1	2	3	4	5	6
1	**Fertilizer consumption**				
	a)Nitrogen	t	86960	86042	87061
	b)Phosphorus	t	45226	42528	43975
	c)Potash	t	87297	52917	80326
	Total	t	**219483**	**181487**	**211362**
2	**Plant protection measures**				
	a) Fungicide (Liquid& Solid) in terms of technical grade	t	359.91	839.53	472.41
	b) Insecticides (Liquid& Solid) in terms of technical grade	t	192.16	232.51	467
	c) Weedicide (in terms of technical grade)	t	31.13	70.62	108.27
	d) Rodenticides(in terms of technical grade)	t	13.19	8.9	10.24
	e) Area under Plant Protection coverage	lakh ha.	13.96	10.02	9.8
	f) Rodent control operation	lakh ha.	1.07	0.98	1.02
	g) Biological control of Nephantic Serinopa-parasites liberated	lakh nos.	105.60	96.49	95.69
	h) Weed control	lakh ha.	1.32	2.85	3.7
3	**High Yeilding Varieties of paddy seeds**	t	4300.00	4301	4300
4	**Quality planting materials distributed**				
	a) Coconut seedings	lakh no	9.62	8.32	3.53
	b) Rooted pepper cuttings	lakh no.	60.00	70.36	68.74
	c) Cashew grafts	lakh no.	3.16	3.17	2.92
5	**Soil testing**				
	Soil samples analysed	No.	170009	179296	190760

Source: *Directorate of Agriculture*

Appendix - 4.18

Average Price of Agricultural Inputs (Rs.)

Sl No	Item	1997-98	1998-99	1999-2000
1	2	3	4	5
I	Ferlitizer(Price/tonne)			
	Urea	3660+ST	4000+ST	4600+ST
	Ammonium sulphate	4400+ST	5000+ST	5000+ST
	Super Phosphate	2850	2850	2850+ST
	Muriate of Potash	3700+ST	3700+ST	4255+ST
II	Paddy Seed			
	Average NSC Price (per Qtl)	1300	1400	1450
	State Seed Farm Price (per Qtl)	500	900	900
III	Green manure seed(per Kg.)			
	Daincha	10	...	20
	Sannhemp	13.5	...	...
IV	Coconut Seedlings (Pu seedlings)			
a	WCT	15	20	20
b	Hybrids	18	23	23
V	Cashew grafts(per Layer)	20	20	20
VI	Rooted pepper cuttings(price per cuttings)	1.5	1.5	1.5
VII	Pesticides (price per litre/kg)			
	Phosphamidon (per lit)	390	353	410
	Quinal phos (per lit)	297	307	390
	Monocrotophos (per lit)	410	377	346
	Copper sulphate (per kg)	47	45.3	40.75

Source: *Directorate of Agriculture*

Appendix 4.19

Number of Students Admitted for Various Courses in Kerala Agricultural University and Number of Students Passed Out During 1997-98 to 1999-2000

Courses	1997-98.		1998-99		1999-2000	
	No. Admitted	No. Passed out	No. Admitted	No. Passed out	No. Admitted	No. Passed out
1	2	3	4	5	6	7
B.Sc. (Ag)	168	124	213	115	183	127
B.V.Sc. & AH	117	76	116	92	120	100
B.F.Sc.	36	22	50	45	56	28
B.Sc. (C & B)	37	14	42	24	37	21
B.Sc.(Forestry)	12	7	15	10	11	9
B.Tech.(Ag.Engg)	23	18	28	29	29	19
B.S.c.(D.Sc. & Tech)	22		27	20	32	21
M.Sc.(Ag)	41	51	54	36	51	39
M.Sc.(Hort)	22	23	25	13	24	21
M.Sc. (Ag.Stat)	2		3		1	
M.Sc. (Forestry)	4	5	8	1	6	4
M.Sc. (C& B)	2	1	4	2	5	1
M.Sc. (FS & N)	15	2	8	14	8	8
M.Tech.(Ag.Engg)	4	2	5	4	2	3
M.V.Sc.	33	26	43	33	40	23
M.F.Sc.	2	4	6	8	5	
Ph.D.(Agri)	13	7	15	15	23	21
Ph.D.(Vety.)	1	3	3	4	5	4
Ph.D. (Home Sci.)		2	2		1	
TOTAL:	554	387	667	465	639	449

Source: *Kerala Agricultural University*

Appendix 4.20

Crop Varieties Released and Equipments & Tools Developed by Kerala Agricultural University during the Ninth Plan

Sl.No.	Crop	Variety
1	Rice (13)	Deepthi (WN D-3), Makaram (KTR - 2), Kumbham (KTR-3), Pavithra (MO 13), Panchami (MO-14), Remanika (MO-15), Uma (MO-16), Revathy (MO-17), Karishma (MO-18), Krishnarjana (MO-19), Karuna, Ahalya (Cul. 10-1-1) & Mangala Mashuri (RM-1)
2	Banana (2)	BSR -1 & BSR-2
3	Cashew (4)	Anagha, Amrutha, Priyanka & Akshaya
4	Cocoa (5)	CCRP-1 to 5
5	Groundnut (2)	Sneha, Snigdha
6	Sesamum	Thilahara
7	Sugarcane	Madhumathi
8	Cowpea	CWP-11,CWP-16,VS-15-3-1,VS-96
9	Vegetables	
a	Brinjal	Haritha, Neelima
b	Melon	Soubhagya
c	Greater yam	Indu
d	Bitter gourd	Priyanka, Kaomudi
e	Vegetable Cowpea	VS-13-2, Vyjayanthi
f	Snake gourd	TA-17,TA-23
g	Coccinia	CC-29
h	Tomato	Mukti,
I	Bhindi (2)	Saikeerthi and Aruna
j	Pumpkin	Suvarna
II	**Equipments and Tools Developed**	
a	Tender coconut punch	
b	Tender coconut cutter	
c	Black pepper thresher	
d	'Jab' type paddy dibbler	
e	Fruit plucker	
f	Papaya plucker	
g	Foot operated coconut dehusker	

Source: Kerala Agricultural University

Appendix 4.21

Composition of Cattle Population for the last 4 Census Periods

(No.000's)

Year	Composition		Male Nos.	Male %	Female Nos.	Female %	Total Nos.	Total %
1	2	3	4	5	6	7	8	9
1977	Crossbred	No	217	16.01	1138	83.99	1355	100
		%	28.82	-	50.51	-	45.08	-
	Indegenous	No	536	32.47	1115	67.53	1651	100
		%	71.18	-	49.49	-	54.92	-
	Total	No	753	25.05	2253	74.95	3006	100
		%	100	-	100	-	100	-
1982	Crossbred	No	217	14.93	1236	85.07	1453	100
		%	32.93	-	50.70	-	46.92	-
	Indegenous	No	442	26.89	1202	73.11	1644	100
		%	67.07	-	49.30	-	53.08	-
	Total	No	659	21.28	2438	78.72	3097	100
		%	100	-	100	-	100	-
1987	Crossbred	No	199	11.69	1503	88.31	1702	100
		%	39.17	-	51.54	-	49.71	-
	Indegenous	No	309	17.94	1413	82.06	1722	100
		%	60.83	-	48.46	-	50.29	-
	Total	No	508	14.84	2916	85.16	3424	100
		%	100	-	100	-	100	-
1996	Crossbred	No	232	10.14	2055	89.86	2287	100
		%	60.42	-	68.23	-	67.34	-
	Indegenous	No	152	13.73	957	86.27	1109	100
		%	39.58	-	31.77	-	32.66	-
	Total	No	384	11.31	3012	88.69	3396	100
		%	100	-	100	-	100	-

Source : Livestock Census Report - 1996

Appendix 4.22

Distribution of Working Bullocks* and Male Calves over the Four Census Periods and Percentage Variation over 1977 to 1996

('000 Nos)

Category	1977	1982	% variation	1987	% variation	1996	% variation
1	2	3	4	5	6	7	8
Working Bullocks							
Indegenous	343.99	240.94	-29.96	120.66	-49.92	57.50	-52.35
Cross bred	19.60	14.33	-26.89	18.70	30.50	63.88	241.60
Total	**363.59**	**255.27**	**-29.79**	**139.36**	**-45.41**	**121.38**	**-12.90**
Male calves							
Indegenous	125.24	135.30	8.04	112.14	-17.12	52.36	-53.31
Cross bred	136.53	165.55	21.26	132.76	-19.81	111.30	-16.10
Total	**261.77**	**300.85**	**14.93**	**244.90**	**-18.60**	**163.66**	**-33.17**

Source: Livestock Census Report -1996

* Includes bullocks used for work & those used for work and breeding

Appendix 4.23

Trend in Distribution of Adult Female Cattle over the Census Periods from 1977 to 1996 , their Percentage Distribution and Percentage Variation over the Previous Census Period

000 numbers

Category	1977		1982			1987			1996		
	No.	% distribution	No.	% distribution	% variation	No.	% distribution	% variation	No.	% distribution	% variation
1	2	3	4	5	6	7	8	9	10	11	12
Cattle in Milk											
Indegenous	334.29	47.41	392.79	45.45	17.5	451.8	44.51	15.02	329.66	29.57	-27.03
Cross bred	370.75	52.59	471.48	54.55	27.17	563.17	55.49	19.45	785.36	70.43	39.45
Adult Female Cattle											
Indegenous	684.96	49.96	785.71	51.94	14.71	812	47.73	3.35	569.53	31.71	-29.86
Cross bred	686.02	50.03	726.91	48.06	5.96	889.33	52.27	22.34	1226.36	68.29	37.89

Source: Livestock Census Reports - 1996

Appendix - 4.24

Index of Milk and Egg production based on 1984-85 Production - Kerala & India

Year	Index of Milk Production		Index of Egg Production	
	Kerala	India	Kerala	India
1	2	3	4	5
1984-85	100.00	100.00	100.00	100.00
1985-86	105.16	106.02	103.66	113.16
1986-87	109.34	111.08	106.48	121.46
1987-88	116.89	112.53	109.76	124.86
1988-89	124.02	116.63	111.89	133.17
1989-90	131.15	123.85	114.41	141.76
1990-91	138.52	129.88	118.14	148.06
1991-92	146.31	134.22	130.34	154.24
1992-93	154.84	141.20	135.21	160.88
1993-94	164.02	146.02	140.55	169.56
1994-95	173.61	153.73	146.04	182.25
1995-96	179.67	159.76	151.45	191.44
1996-97	186.08	164.58	154.27	192.90
1997-98	192.05	169.88	154.95	199.27
1998-99	198.36	180.00	155.79	211.55
1999-2000	206.97	NA	156.55	NA

Source : Animal Husbandry Department & Annual Economic Survey

Appendix - 4.25

Activities in the Animal Husbandry Sector during 1993-94 to 1999-2000

Sl.No	Activities	'000	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000
1	2	3	4	5	6	7	8	9	10
1	Cases treated	Nos.	3330	3401	3441	3851	3725	3893	3738
2	Operations Performed	Nos.	112	117	121	116	115	119	97
3	Castration done	Nos.	12	10	12	9	8	7	6
4	Vaccination done								
	1. Livestock	Nos.	2349	2424	2502	355	285	691	529
	2.Poultry	Nos.	4648	4755	4864	1828	1794	1235	2073
5	Anti Rabic Vaccinations done in Dogs	Nos.	50	47	49	96	45	132	127
6	Artificial Inseminations done	Nos.	1352	1465	1240	1151	1259	1251	1391
7	Calvings recorded	Nos.	303	307	324	318	327	314	349
8	Chicks hatched out in Department Poultry Farms	Nos.	901	921	947	651	915	1057	639
9	Vaccines produced in Veterinary Biologicals								
	1. Poultry	Doses	9070	15392	5702	4543	787	2645	5561
	2. Livestock	Doses	1489	1149	732	1026	254	303	250

Source: Animal Husbandry Department.

Appendix - 4.26

Production and Distribution of Frozen Semen in Kerala from 1993-94 to 1999-2000

Year	Production of Frozen Semen (lakh doses)	Distribution Inside the (lakh doses)	Distribution Outside the State (lakh doses)	Total Distribution (lakh doses)
1	2	3	4	5
1993-94	26.81	14.99	9.99	24.98
1994-95	24.85	15.36	10.97	26.33
1995-96	14.93	16.27	6.61	22.88
1996-97	24.78	15.39	7.83	23.22
1997-98	24.49	15.04	7.95	22.99
1998-99	25.57	15.75	7.70	23.45
1999-2000	26.17	15.74	6.80	22.54

Source: *KLD Board*

Appendix - 4.27

Artificial Insemination Centres in the State as on 31.03.2000

	Department/ Institutions	*No.of A.I Centres*
1	2	3
1	Department of Animal Husbandry (Both ICDP and Non-ICDP)	2440
2	Department of Dairy Development	12
3	Other Voluntary Organisations (Private)	121
4	APCOS	192
5	Tata Tea	27
	Total:	**2792**

Source: *Animal Husbandry Department & KLD Board*

Appendix - 4.28

Other Important Activities of KLD Board During 2000

	Name of Programme	Achievement
1	2	3
1	Liquid Nitrogen (Lakh litres)	5.52
2	Quantity of basic fodder seeds produced (kg.)	1320
3	Quantity of fodder seed multiplied (MT)	28.89
4	No. of kids produced	454
5	No. of kids distributed	234
6	No. of personnel trained	365
7	No. of embryos collected	154

Source: *KLD Board.*

Appendix - 4.29

Average Price of Livestock Products and Feeds in the State from 1993-94 to 1999-2000

Item	Unit	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	% increase over 1997-98	1999-2000	% increase over 1998-99
1	2	5	6	7	8	9	10	11	12	13
Meat										
Chicken	Kg.	37	43	50	55	62.57	Broiler .. 57.69	-7.80	59.03	2.32
							Desi .. 64.87	--	67.36	3.84
Mutton	Kg.	59	69	83	92	99.12	106.20	7.14	107.08	0.83
Beef	Kg.	25.67	29	33	38	41.36	46.30	11.94	48.62	5.01
Pork	Kg.	34.8	40	43	47	50.53	56.33	11.48	56.85	0.92
Egg										
Fowl	100Nos.	104.53	115	130	130	155	White .. 135	-12.90	145.00	7.41
							Brown .. 170	--	196.00	15.29
Duck	100Nos.	159.05	180	200	209	217	228.00	5.07	245.00	7.46
Milk										
Cow	Litre	7.6	8.75	9.75	10.55	11.87	12.00	1.10	12.66	5.50
Buffalo	Litre	8.74	10	11	12	13.24	14.00	5.74	14.56	4.00
Feeds (price)										
Groundnut cake	Kg.	5.77	7.2	8.25	10.5	10.95	11.00	0.46	11.20	1.82
Coconut cake	Kg.	6.51	6.7	7.5	9.5	10.70	10.83	1.21	11.21	3.51
Gingely oil cake	Kg.		7.25	8.25	10	10.01	10.00	-0.10	10.93	9.30
Straw	Kg.	1.4	1.9	2.6	3	3.44	4.04	17.44	4.19	3.71
Grass	Kg.	0.6	0.9	1.3	1.5	1.99	2.87	44.22	2.88	0.35

Source: *Animal Husbandry Department.*

Appendix - 4.30

Record of Performance of Kerala Co-operative Milk Marketing Federation (1993 to 2000)

Sl. No	Particulars	1993	1994	1995	1996	1997	1998	1999	Sep. 2000
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*
1	No. of Apcos registered(Cum)	1595	1712	1823	1930	1983	2149	2235	2300
2	No. of Apcos functional (Cum)	1523	1621	1722	1784	1826	1985	2040	2077
3	No.of members in Apcos(Cum) (lakh Nos)	3.69	4.39	4.82	5.11	5.27	5.72	5.99	6.21
4	No.of Women in Apcos (lakh nos)	0.5	0.62	0.65	0.67	0.75	0.81	0.83	0.93
5	No.of SC/ST members in Apcos (lakh Nos)	0.25	0.26	0.27	0.28	0.31	0.34	0.40	0.39
6	Average milk marketed/day by KCMMF (tonnes)	368	408	458	516	529	568	611	626
7	Average milk procured per day (tonnes) - Apcos	332	415	465	485	465	477	536	609
8	Direct employment generated (persons)	3368		3602	3816	5242	5565	5709	5823
9	No.of Veterinary routes.	19	17	15	16	25	51	43	31
10	No.of cases treated (lakh Nos)	2.08	2.11	1.98	1.61	0.71	0.14	0.09	0.06
11	No.of emergency veterinary routes	14	15	15	16	17	19	19	17
12	No.of cases treated yearly(lakh Nos)	0.35	0.34	0.33	0.39	0.36	0.36	0.43	0.21
13	Cattle feed sold (MT)	--	34213	35702	28367	38743	43480	83071	76885*
14	Quantity of ghee produced (tonnes)	588	535	1093	912	1213	1220	1562	1227**
15	Quantity of ghee sold (tonnes)	932	1027	1075	1119	1055	1181	1435	1055**

* Nov. 2000 & ** Aug. 2000

Source: *KCMMF*

Appendix - 4.31

Record of Performance of the Dairies under Kerala Co-operative Milk Marketing Federation during 1998 to 2000

Sl. No.	Dairy	Capacity (Ltr.per day)	Procurement (ltrs)			Sales (Ltrs)		
			1998	1999	2000	1998	1999	2000
1	2	3	4	5	6	7	8	9
1	Thiruvananthapuram	100000	24620680	27836464	35703831	46926202	50890339	52097619
2	Kollam	60000	20944763	25112356	35588677	28184307	32238355	32154478
3	Alappuzha	60000	7856300	6233448	7301033	11792087	15150692	18549080
4	Kottayam	60000	5621312	7636690	8766872	16898945	12919219	12238403
5	Ernakulam	100000	32362173	35088256	38644363	27476980	32649012	32170932
6	Thrissur	60000	15885403	16528530	18392808	12178679	11738185	11576618
7	Palakkad	60000	28944309	29554870	32596767	13553493	24608489	15297940
8	Kannur	60000	23764997	27813222	28475565	24288132	25724496	27613759
9	Kozhikode	100000	14375472	19227334	19843503	25696644	25702020	27553944
	Total	**660000**	**174375409**	**195031170**	**225313419**	**206995469**	**231620807**	**229252773**

Source : KCMMF

Appendix - 4.32

Average Quantity of Milk Procured per day by APCOS (1994 to 2000)

Year	No. of Societies (Functional)	Total Procurement/ day (lit)	Procurement per Society/day (lit)
1	2	3	4
1994	1621	414730	256
1995	1722	465294	270
1996	1784	484969	272
1997	1826	464998	255
1998	1985	566247	285
1999	2040	629114	308
Sep. 2000	2077	687106	331

Source: *KCMMF*

Appendix - 4.33

Price Revision Details of Milk

Date of Revision	FAT(Rs./Kg)	SNF(Rs/Kg)	Purchase Price (Average rate)	Sales price(Rs/ltr) Toned Milk
1	2	3	4	5
01/04/84	30.00	21.00	2.67	4.00
01/10/85	31.00	24.00	2.97	4.50
11/08/87	34.00	27.50	3.36	5.00
21-07-89	35.00	31.10	3.69	5.50
15-02-91	39.00	34.90	4.14	6.00
21-11-91	42.80	42.80	4.92	7.00
01/11/92	49.25	49.25	5.66	8.00
01/02/94	55.50	55.50	6.38	9.00
21-01-95	62.50	62.50	7.19	10.00
31-01-96	69.90	69.90	8.04	11.00
01/01/97	80.15	77.01	8.95	12.00
01/04/99	95.70	78.30	9.73	13.00

Source: KCMMF

Appendix - 4.34

Price Spread of Milk (average price per lit.in Rs.) (1993-94 to 2000-01)

Year	Producer	Society	Consumer	Difference in price between producer & consumer
1	2	3	4	5
1993-94	6.14	6.56	9.00	2.86
1994-95	7.44	7.80	10.00	2.56
1995-96	8.31	8.81	11.00	2.69
1996-97	9.42	9.91	12.00	2.58
1997-98	9.26	9.64	12.00	2.74
1998-99	9.18	9.55	12.00	2.82
1999-2000	9.93	10.33	13.00	3.07
2000-01	9.93	10.33	13.00	3.07

Source: KCMMF

Appendix - 4.35

District-wise Distribution of Fishermen Population in Kerala (1999-2000)

Sl. No	District	Marine				Inland				Marine & Inland Total
		Male	Female	Children	Total	Male	Female	Children	Total	
1	2	3	4	5	6	7	8	9	10	11
1	Thiruvananthapuram	50890	49273	69972	170135	442	466	462	1370	171505
2	Kollam	35387	34226	44034	113647	20873	20143	22265	63281	176928
3	Alappuzha	34887	33743	43413	112043	20578	19859	21951	62388	174431
4	Pathanamthitta	....	....	....	....	589	719	1050	2358	2358
5	Kottayam	....	....	....	....	8359	8171	8812	25342	25342
6	Idukki	....	....	....	....	320	244	228	792	792
7	Ernakulam	24039	23272	26670	73981	22284	21672	21450	65406	139387
8	Thrissur	21913	22183	27087	71183	6665	6537	7030	20232	91415
9	Palakkad	....	....	....	....	736	831	1085	2652	2652
10	Malappuram	24071	24624	32946	81641	1413	1405	1632	4450	86091
11	Wayanad	....	....	....	....	92	86	97	275	275
12	Kozhikode	31653	30508	38593	100754	3891	3774	4632	12297	113051
13	Kannur	17549	16665	22695	56909	2270	2210	2168	6648	63557
14	Kasaragod	14387	13860	16389	44636	327	312	328	967	45603
	State	***254776***	***248354***	***321799***	***824929***	***88839***	***86429***	***93190***	***268458***	***1093387***

Soruce: *Directorate of Fisheries*

Appendix - 4.36

Details of Crafts in Operation in the Marine Sector during 1999-2000

Sl.No	District	Mechanised	Motorised	Non-motorised	Total
1	*2*	*3*	*4*	*5*	*6*
1	Thiruvananthapuram	14	4267	2834	7115
2	Kollam	1127	3128	2614	6869
3	Alapuzha	244	6552	2337	9133
4	Ernakulam	1327	1129	2067	4523
5	Thrissur	131	2502	1351	3984
5	Malappuram	177	3955	3616	7748
7	Kozhikode	614	4071	5424	10109
8	Kannur	440	1943	1171	3554
9	Kasaragod	120	1282	337	1739
	Total:	***4194***	***28829***	***21751***	***54774***

Source : *Directorate of Fisheries*

Appendix - 4.37

Export of Marine Products from Kerala and India

Year	Kerala		India	
	Quantity (in tonnes)	Value (Rs.in lakh)	Quantity (in tonnes)	Value (Rs.in lakh)
1	2	3	4	5
1982-83	32525	14147	78175	36136
1983-84	32840	14085	92691	37302
1984-85	31570	14825	86147	38429
1985-86	29580	13803	83651	39800
1986-87	33906	16457	85843	46067
1987-88	35576	18394	97179	53120
1988-89	45614	22131	99777	59785
1989-90	47194	24081	110843	63499
1990-91	50997	31379	139419	89337
1991-92	58743	44446	171820	137589
1992-93	49094	41425	208602	176743
1993-94	63809	62153	243960	250362
1994-95	74576	81496	307337	357527
1995-96	78896	85690	296277	350111
1996-97	92288	93622	378199	412136
1997-98	89366	94803	385818	469748
1998-99	70641	81655	302934	462687
1999-2000	91759	114239	343031	511667

Source : *Directorate of Fisheries*

Appendix - 4.38

Species-wise Inland Fish Production in Kerala from 1994-95 to 1999-2000

(Quantity in Tonnes)

Sl. No.	Species	1994-95		1995-96		1996-97		1997-98		1998-99		1999-2000		Variation in 1999-2000 over 1998-99	
		Actual	%	Actual	%	Actual	%	Actual	%	Actual	%	Actual	%	Actual	%
1	2	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	Prawns	12265	25.45	11984	25.45	12531	24.05	130	22.35	14346.00	21.79	16459	22.20	2113	25.53
2	Etroplus	4468	9.27	4660	9.27	4883	9.37	4964	8.53	4756.00	7.22	4860	6.56	104	1.26
3	Murrels	4179	8.67	4386	8.67	4618	8.86	468	7.85	4369.00	6.64	4596	6.20	227	2.74
4	Tilapia	6836	14.18	7347	14.18	7732	14.84	8532	14.65	7219.00	10.96	8510	11.48	1291	15.60
5	Catfish	4546	9.43	4882	9.43	4928	9.46	5239	9.00	4420.00	6.71	4816	6.50	396	4.79
6	Jew Fish	2566	5.32	2652	5.32	2791	5.36	3181	5.46	3012.00	4.57	3054	4.12	42	0.51
7	Others	13332	27.66	13695	27.66	14622	28.06	18721	32.16	27733.00	42.11	31835	42.94	4102	49.57
	Total	**48192**	**100**	**49586**	**100**	**52105**	**100**	**41235**	**100**	**65855**	**100**	**74130**	**100**	**8275**	**100**

Source : *Directorate of Fisheries*

Appendix - 4.39

Species wise Composition of Marine Fish Landings in Kerala

(Quantity in Tonnes)

Sl.No	Species	1992	1993	1994	1995	1996	1997	1998	1999
1	2	3	4	5	6	7	8	9	10
1	Elasinobranches	3323	4432	5887	4109	4422	3915	4110	3677
2	Cat Fish	1028	597	499	308	390	192	213	248
3	Chirocentrus	959	1707	1450	983	1379	1380	1340	380
4	a) Oil Sardine	16967	49675	1554	13328	30607	93636	77795	143152
	b) Other Sardine	54118	22819	16482	46131	6737	15573	19889	29090
5	Anchoviella	48217	49477	31710	36683	29744	26315	31629	26047
6	Thrissocles& Other Clupeoids	33208	18190	20196	14509	26604	15430	19041	10835
7	Ferches	50159	74813	60180	47620	71157	46763	42370	40989
8	Redmullets	7583	2489	382	174	33	111	358	122
9	Sciaenids	15603	14657	16734	9979	17720	9952	13431	7607
10	Ribbon Fishes	6162	7290	15435	4641	21884	18976	16579	16542
11	Carangids	12991	20725	15836	13075	15193	22401	16091	...
12	Leiognathids	4480	6548	4238	4005	4536	4732	5118	6154
13	Lactaritus	675	907	1135	561	2208	1791	3016	1645
14	Pomfrets	2601	2654	3391	1675	3644	2649	2858	1964
15	Mackerel	37909	59172	111879	78515	128411	82429	61499	82469
16	Seer Fish	8734	6447	5837	5910	4828	4216	5669	2945
17	Tunnies	16619	13257	14395	10977	17923	16018	11561	17708
18	Soles	28445	20618	20999	12385	15768	20375	16747	25433
19	a) Prawn	51131	48119	71974	43406	46279	56562	58575	44706
	b) Lobster & Crustaceans	17800	24797	25252	13700	12808	10703	16164	513
20	Cephalopods	31424	28905	38275	43942	34557	37058	33267	31881
21	Miscellaneous	111005	96534	57093	125030	75173	83597	85376	13180
	Total	**561141**	**574829**	**540813**	**531646**	**572005**	**574774**	**542696**	**507287**

Source : *Directorate of Fisheries*

Appendix - 4.40

NCDC Assisted Integrated Fisheries Development Project (1998-99)

Physical and Financial Achievements under Phase I,II &III

(Rs. In lakh)

Sl. NO.	Project Components	Phase - I		Phase - II		Phase - III		Total	
		Physical	Fianancial	Physical	Fianancial	Physical	Fianancial	Physical	Fianancial
1	2	3	4	5	6	7	8	9	10
I	**Inputs**								
1	Crafts	395	_	406	_	1962		2763	
2	OBM Nos	819	378.19	816	803.68	3687	2836.68	5352	4018.55
3	Webbings(kg)	64790	_	148921	_	289610		503321	
4	OBM service Centres one Regional workshop and one mobile service unit	2	12.38	_	_	_	_	_	12.38
II	Infrasturcture Transport and Insulated Vans(Nos)	6	8.46	Vanitha Bus-2 Cycles-10 Autos - 44	51.65	_		_	60.11
III	Extension	_	78.15		17.29	–	94.26	–	207.57
IV	Training	_	8.34	_	9.53	_		_	
V	Non Formal Education	_	4	_	_	_		_	4
VI	Working Capital	_	8.47	_	18.95	_	81.41	_	108.83
VII	Pre-operative Expenses	_	30	_	10.35	_	36.42	_	76.77
VIII	Physical & Price Contigencies	_	27.85	Project management			621.03	_	648.88
IX	Project Management				122.83		115.50	32595	238.33
X	No. of beneficiaries	4577	_	7223	_	20795			
	Total		***555.84***	..	***1034.28***	..	***3785.3***	..	***5375.42***

Source : *Directorate of Fisheries*

Appendix - 4.41

Details of Fisheries Works under Harbour Engineering Department

Sl. No.	Name of Project	Total estimated cost Original cost (Rs. In Lakhs)	Revised Cost (Rs. In Lakhs)	Year of Starting	Year of Completion Targetted	Expenditure upto 3/2000 (Rs.lakh)	Remarks
1	2	3	4	Jan-00	6	7	8
1	VIZHINJAM	704.06	1585	1962 - I Stage 1987-II Stage 3/95-III Stage	Mar-99	1278.06	Work of warf, gearshed, auction hall, etc are progressing
2	NEENDAKARA	621.7	-	1982	partially commissioned on 27.3.88	775.29	Case against land aquisition pending for completion at Sakthikulangara side
3	THANGASSERY	1980.5	3998	Apr-89	October 1st 2000	3182	Revised estimate for Rs. 4742 lakh submitted
4	KAYAMKULAM	624.6	1770	Jun-95		218.55	
5	MUNAMBAM	1167.2	1895	Mar-89	Sep-98	1612.55	All most all the works have been completed and can be commissioned at any time
6	PUTHIAPPA	962.5		Feb-90	Commissioned on 2.2.96	1089.07	
7	CHOMBAL	556	975	May-92	Commissioned on 25.5.99	833.1	
8	MOPLA BAY	564	816 (sanctioned)	Nov-91	Commissioned on 25.5.99	899.04	
9	FOR TRADITIONAL FISHERMEN						
	1. KATOOR POLLATHAI	59		Dec-98	March 31 2000	41.21	60% work completed
	2. PUNNAPRA	47.25				61.56	Works almost completed
	3. ETTIKKULAM	91.2		Jan-98			Land to be acquired
10	FISH LANDING CENTRE FOR MECHANISED BOATS PALACODE	15	32	Mar-93	Dec-95	20.2	completed 8 numbers
11	DREDGING OF RIVER MOUTHS						
12	PONNANI	2970		Mar-00			Project awaits sanction from GOI
13	THALAI	1370		Mar-00			Project awaits sanction from GOI

Appendix - 4.42

Details of Welfare and Relief Schemes Implemented by the Kerala Fishermen's Welfare Fund Board 1999-2000

Sl.No	Details of scheme	Rate of Assistance (Rs.)	No.of Beneficiaries	Amount Spent (Rs.lakhs)
1	2	3	4	5
1	**Group Insurance Scheme**			
	a Accidental Death (Started on 10-9-1986)	50000	96	47.25
	b Permanent total Disability	50000	5	1.5
	c Permanent -partial Disability			
	Total		101	48.75
2	Death while fishing or immediately thereafter not due to accident(started on 10-9-86)	15000	48	8.45
3	Financial Assistance for the Marriage of Daughters of Fishermen(started on 1-1-87)	1500	2937	44.05
4	Financial Assistance for the Death of dependents of fishermen (started on 1-1-87)	300	896	2.68
5	Fishermen Pension (started on 01-02-1987)	100	27017	248.86
6	Financial Assistance for Temporary Disability of Fishermen due to accident(Started on 4-4-87)	500	1717	5.73
7	Financial Assistance for the Expenses for death of fishermen(started on 4-4-87)	5000	610	29.1
8	a) Cash award to Fishermen students who secured highest mark in S.S.L.C. exam (started on7-5-90)	3000	13	0.16
	b) Scholarship for continuous study who secured 1st and 2nd prize in the state in S.S.L.C	100	4	0.04
9	Flanacial Assistance to one who go for sterilisation operation(started on 1-1-91)	500	1346	6.73
10	a) Financial Assistance for Fatal Diseases (started on 1-4-95)	40000	144	7.14
	b) Pension to Irrecoverable patients	100	118	0.26
	Special Schemes			
11	Sanitation Scheme (Started on 20-5-96)	2500	101	1.86
12	Eye Camp (21-10-96)			
13	Chairman's Relief Fund (Assistance to victims of natural calamity)	Rs.100 to 2500	154	0.77
14	Special cases sanctioned by the Board		1	0.01
15	Maternity Benefit Schemes (1-8-97)			
16	Awareness Programme of Fishermen			1.24
17	Matsya Board Guidance Centre			

Source : *Kerala Fishermen Welfare Fund Board, Thrissur*

Appendix - 4.43

Division-wise Area of Forest in Kerala (as on 31-3-2000)

Area in Sq.kms

Sl. No	Division	Reserve Forest	Proposed for Reserve Forest	Vested Forest	Total
1	2	3	4	5	6
1	Thiruvananthapuram	360.0790	5.8253	3.9750	369.8793
2	Thenmala	198.5007	_	7.1707	205.6714
3	Achenkovil	268.7940	_	0.2060	269.0000
4	Ranni	1050.3360	7.1670	1.6110	1059.1140
5	Punalur	280.0507	_	0.1690	280.2197
6	Konni	320.6430	11.0210	_	331.6640
7	Kothamangalam	316.8451	_	0.1523	316.9974
8	Mannar	662.7502	47.2560	5.8349	715.8411
9	Kottayam	655.4860	5.2570	31.4090	692.1520
10	Vazhachal	413.9438	_	_	413.9438
11	Chalakkudi	279.7098	_	_	279.7098
12	Malayattoor	617.2411	0.5248	_	617.7659
13	Thrissur	204.2931	_	6.3430	210.6361
14	Mannarkkad	209.9800	_	320.0493	530.0293
15	Nilambur North	57.9196	0.0171	335.7790	393.7157
16	Nilambur south	267.3894	_	97.7633	365.1527
17	Palakkad	73.4100	_	163.3146	236.7246
18	Nenmara	205.5173	_	131.4184	336.9357
19	Kozhikode	_	86.1388	204.4131	290.5519
20	Wayanad North	133.9031	15.0644	66.5164	215.4839
21	Wayanad South	67.5205	6.4595	251.9095	325.8895
22	Kannur	206.5127	_	89.0045	295.5172
23	Thiruvananthapuram W.L	181.0000	_	_	181.0000
24	Idukki	102.1600	28.3640	_	130.5240
25	Thekkadi	777.0000	0.5438	_	777.5438
26	Agasthyavanam	30.4470	0.6730	_	31.1200
27	Parambikulam	274.1408	_	_	274.1408
28	Wayanad	344.5502	_		344.5502
29	Silent Valley	89.5165	_	_	89.5165
30	Senthurunl	95.8200	_	4.5000	100.3200
31	Eravikulam	187.4420	_	_	187.4420
32	Peechi	201.7250	_	_	201.7250
33	Aralam	22.3572	-	32.6428	55.0000
	Total:	***9156.9838***	***214.3117***	***1754.1818***	***11125.4773***

Source : *Forest Department*

Appendix - 4.44

Species-wise Area Under Forest Plantation

(area in ha)

Sl. No.	Name of Species	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000(P)	% to total
1	2	3	4	5	6	7	8	9	10	11	12
1	Teak	75355	74914	74947	75320	76288	76010	76116.0	75979.725	75939.793	44.64
2	Eucalyptus	29923	29633	29066	28745	29818	29459	28450.2	25650.380	24009.730	14.11
3	Softwood	919	895	787	781	758	3312	5853.7	8457.491	9035.620	5.31
4	Mixed Plantation	32887	33999	34526	35156	35692	34296	45353.6	43613.342	44722.735	26.29
5	Cashew	4558	4570	4525	4471	4470	4454	4537.5	6194.588	6243.770	3.67
6	Bamboo	646	996	1036	1124	1212	2114	2226.9	2475.474	2662.724	1.57
7	Wattle	3735	3890	3811	3811	3336	3316	3316.3	3316.300	3387.160	1.99
8	Hardwood	849	859	847	863	863	817	769.7	776.728	786.608	0.46
9	Fuelwood	96	138	165	165	165	150	154.2	170.700	270.672	0.16
10	Pepper	408	459	439	439	454	270	305.3	325.300	309.980	0.18
11	Mahagany	169	169	169	169	153	143	119.2	80.630	80.640	0.05
12	Pine	452	452	452	452	897	965	548.6	548.600	222.400	0.13
13	Rosewood	155	155	164	263	267	290	326.6	415.150	414.280	0.24
14	Balsa	93	93	93	93	93	93	93.2	93.200	93.200	0.05
15	Cardamom	–	–	–	–	–	–	...	...	...	0.00
16	Sandal wood	11	11	11	21	166	183	183.1	183.100	73.120	0.04
17	Kongu	–	–	–	–	–	–	...	...	...	0.00
18	Liylesiyam	–	–	–	–	–	–	...	...	...	0.00
19	Others	3502	3855	4034	3877	4050	4164	1746.1	1820.083	1848.385	1.09
	Total	**153758**	**155088**	**155072**	**155750**	**158682**	**160036**	**170100.2**	**170100.791**	**170100.817**	

Source : *Forest Department*

Appendix - 4.45

Production of Major Forest Produce

Sl. No.	Item	Unit	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000 (provisional)	Increase or decrease over the previous year
1	2	3	4	5	6	7	8	9	10	11
1	Timber(round logs)	cum.	78691	123501	61430	51972	19246	26664	44337	66.28
2	Timber(round poles)	Nos.	725231	779507	361179	683391	287243	275050	455389	65.57
3	Timber(Swan & Squard)	cum.	226	10	30	4	2	10	7	-30.00
4	Fire wood	MT.	33409	82888	45336	29877	11291	18424	14191	-22.98
5	Cardamom	Kg.	1459	4379	3155	1233	1717	2758	4249	54.06
6	Honey	Kg.	65655	37512	74767	72161	71214	21376	41734	95.24
7	Reeds	Nos.	64783679	57847490	49615070	56840410	63239268	62708610	39576143	-36.89
8	Bamboo	Nos.	1810194	1596297	1339741	4829421	2338472	2088407	627805	-69.94
9	Jungle Wood Poles	Nos.	174	5282	54	269	7054	670	....	
10	Sandal wood	Kg.	218424	112726	133847	103523	171252	17762	97029	446.27

Source : Forest Department

Appendix - 4.46

Forest Revenue in Kerala

(Rs. In Lakh)

Sl. No.	Items	Sale Proceeds 1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000 (Provisional)
1	2	3	4	5	6	7	8	9
A	Revenue from Forests							
	1. Timber	9043.50	11847.95	13890.86	13598.36	12395.55	10183.28	10016.00
	2. Firewood&Charcoal	100.89	107.38	261.00	151.74	227.72	163.45	132.60
	3. Livestock	7.63	3.14	1.64	2.61	4.29	7.26	1.11
	4. Others	683.74	1294.49	1327.07	1423.78	1361.06	1236.59	1008.90
	Sub total (A)	9835.76	13252.96	15480.07	15176.49	13988.62	11590.58	11158.61
B	Other receipts	483.45	462.20	610.74	1085.34	531.51	627.23	427.91
C	**Total (A+B)**	10319.21	13715.16	16091.31	16261.83	14520.13	12217.81	11586.52
D	Refunds	23.37	26.66	14.77	61.56	28.69	114.77	93.84
E	**Net Revenue(C-D)**	**10295.84**	**13688.50**	**16076.54**	**16200.27**	**14491.44**	**12103.04**	**11492.68**

Source : Forest Department

Appendix 4.47

Physical Targets & Achievements under General Forestry from 1997-98 to 1999-2000

Sl. No.	Item	Unit	1997-98		1998-99		1999-2000	
			Target	Achievement	Target	Achievement	Target	Achievement
1	2	3	4	5	6	7	8	9
1	**Survey of Forest Boundaries**							
a	Boundary demarkation	km	400	627	500	513	1000	1057
b	Cairns constructed	Nos	6450	7668	8000	3841	8000	2076
2	**Fire Protection Works**							
a	Fireline	km	3008	2084	3700	1504	5000	928.836
b	Fire Watch Tower	Nos		2	2	2	5	5
c	Check dam	Nos.	-	2	10	3	10	-
d	Shed	Nos.	-	6	6	5	10	-
e	Water Tank	Nos.	1	7	-	-	8	-
f	Pump set	Nos.	7	2	-	-	8	-
g	Generator set	Nos.	5	7	-	-	-	
3	**Culture Operations**	Ha.	7352	6440			11500	1776.85
a	Special tending	Ha.						530.35
b	Climber cutting	Ha.						1246.5
c	Leranthus cutting	No of trees					50000	546.760 (Ha)
4	**Roads**							
a	Metalling and Tarring	Km	-	-	3	3.7	30	11.2
b	Other Road Works	Km	13.8	23.35	22	13.7	80	12.576
c	Culvert	Nos.	6	4	-	-	5	6
5	**Buildings**							
a	Spill over works	Nos	22	18	7	1	15	-
b	Fire Watch Tower	Nos	-	-	-	-	8	
c	Picket Station	Nos					8	
d	Check Post	Nos					3	
e	Other Buildings	Nos.	44	3	30	60	18	10
6	**Fast Growing Species (IRM)**							
a	Replanting/Augmentation	Ha.	1,422	825	738	787.1	1000	828.6
7	**Teak**							
a	Planting	Ha.	399	395	290	353.59	790	178.95
8	**Soft Wood**							
a	Replanting/Augmentation	Ha.					200	81.7
9	**Bamboo & Reeds**							
a	Planting	Ha.	261	91	100	32	-	-
b	Preliminary Operations (Plg.)	Nos.	-	10	-	-		-
10	**Cashew**							
a	Augmentation	Ha.	470	481	250	429	-	-
11	**Rosewood Project**							
a	Planting	Ha.	60	-	70	90	25	15
b	Ropsewood Nursery	No.						
12	**Fuelwood & Fodder Development (50% CSS)**							
a	Planting Augmentation	Ha.	837	989	813	727.02	800	683.6
b	Nursery beds	Nos.	770	180	-	524	1000	-
13	**Regeneration of denuded Forests**							
a	Planting	Ha.	60	110	1920	2022.2	1500	668.91
14	**Regeneration of desired species**							
a	Planting	Ha.	-	-	415	348.44	621	284.17

Source: Forest Department

Appendix - 4.48

KERALA FORESTRY PROJECT (WORLD BANK ASSISTED)

Year-wise Financial Target Envisaged in the Project

(Rs. Lakh)

Table No.	Items / Components of Project	1998-99	1999-2000	2000-01	2000-02	Total
1	2	3	4	5	6	7
1	Strengthen Instiutional Development & Human Resource Development	176.10	39.30	17.20	21.50	254.10
2	Introduce FMIS	385.00	536.10	368.20	169.50	1458.80
3	Support Project Management	608.90	213.10	191.60	200.30	1213.90
4	Improve Management of Natural Forest Lands	474.80	1527.40	2355.30	3027.00	7384.50
5	Sustainable Management of Teek Plantation	89.80	90.10	135.90	299.00	614.80
6	Improve Productivity of Pulpwood Plantation	51.70	156.60	351.20	512.40	1071.90
7	Introduce Participatory Management Natural Forests areas of Degraded	120.40	239.00	360.00	455.10	1174.50
8	Improve Quality of Seed Handling	43.70	42.90	37.90	20.40	144.90
9	Improve Quality and Quantity of Planting Stock	295.30	290.30	301.80	137.80	1025.20
10	Improve Applied Research in to Ilmproved Seed Handling and Plant Quality	66.00	99.60	71.70	55.00	292.30
11	Extension and Information Services	74.2	39.90	73.80	60.30	248.20
12	KFDC Clonal Planting	79.50	90.40	19.60	8.10	197.60
13	Kalady Forest Study Centre	13.90	53.20	50.40	18.20	135.70
14	Primary Environmental Care	9.20	9.60	7.10	1.20	27.10
15	Tree Management in Public Institutions	20.40	32.50	47.90	3.70	104.50
16	Introduce Improvement in Publiic Institutions	177.40	202.40	211.70	236.20	827.70
17	Establish Statewide Strategy on Biodiversity Conservation	24.40	35.90	70.10	39.00	169.40
18	Strenghten Sustainability of PA System	166.00	309	277.30	212.70	965.00
19	Expand Village Ecodevelopment	36.30	64.90	123.70	120.80	345.70
20	Improve Scientific knowledge and Understanding public support for Biodiversity Conservation	98.10	190.90	177.30	117.70	584.00
	Total:	**3011.10**	**4263.10**	**5249.70**	**5715.90**	**18239.80**

Source : Kerala Forest Department

Appendix 4.49

Kerala Forestry Project (World Bank Assisted)
Yearwise Physical Targets Envisaged in the Project

Sl. No.	Items/components of the Project	Unit	1998-99	1999-2000	2000-01	2000-02	Total
1	2	3	4	5	6	7	8
1	**Treatment Areas**						
	Assisted Natural Regeneration (ANR)	Ha	2000	5000	8000	8600	23600
	Reeds, Rattons & Bamboos	Ha	500	1200	1500	1500	4700
	Rehabilitation of Degraded Forest (RDF) 1&2	Ha	1000	2667	2667	2667	9001
	PFM Treated	Ha	150	650	1500	1500	3800
	PFM Managed	Ha	600	2000	4000	2000	8600
	Plantation Teak P1	Ha	100	200	500	1000	1800
	Plantation Pulpwood P2	Ha	250	600	1250	1600	3700
	Sub Total		4600	12317	19417	18867	55201
2	**Civil Works**						
	Quarters	No	30	43	30	15	118
	Office Buildings	No	3	5			8
	Roads / Trekpaths	Km	55	60	65	70	250
	Sub Total		88	108	95	85	376
3	**Consultant Studies**	No	48	13	7	2	70
4	**Training**						
	International	No	7	12			19
	National	No	65	77			142
	Sub Total		72	89	0	0	161
5	**Workshops**	No	88	82			170
6	**Studytour**						
	Inter National	No	4	6			10
	National	No	25	17			42
	Sub Total		29	23	0	0	52
7	**Equipments**						
	Computers & Accessories	No	75	60	67		202
	Vehicles						0
	Car	No	19	7			26
	Jeep	No	39	24	1		64
	Truck	No	1				1
	Mini Bus	No	1				1
	Motor Cycle	No	10	20			30
	Lorry	No	1				1
	Boat	No	3	2			5
	Sub Total		74	53	1	0	128

Source : Kerala Forest Department

Appendix - 4.50

Operations of the Kerala State Co-operative Bank Limited

(Rs. Lakh)

Sl.No	Particulars	1991-92	1995-96	1996-97	1997-98	1998-99	1999-2000
1	2	3	4	5	6	7	8
1	Share Capital	1209.50	1801.46	1851.46	2073.53	2073.53	2127.85
2	Reserves	1881.20	2500.00	2656.07	2846.91	3081.50	3633.25
3	Deposits	27098.19	47461.64	57915.93	77522.27	123616.97	153972.09
4	Borrowings	15203.45	19973.73	22960.66	19984.82	9351.17	8440.35
5	Working Capital	44966.62	71249.39	84693.35	101957.59	137566.39	180810.00
6	Loans & Advances	27970.68	53566.00	52219.64	51809.69	46811.19	101905.94
7	Investments	7461.00	18832.96	19093.64	23549.84	41738.70	45581.24
8	Net Profits	69.51	136.90	69.55	81.38	126.13	25.06

Source: *Kerala State Co - operative Bank Ltd.*

Appendix - 4.51

Purpose - wise Outstanding Loans in the Kerala State Co-operative Bank Limited as on 31-03-2000

(Rs.in Crore)

Sl.No.	Purpose	1996	1997	1998	1999	2000
1	2	3	4	5	6	7
1	Agriculture	134.00	151.09	167.61	155.36	175.72
2	Procurements/Marketing Distribution	126.63	109.70	102.69	98.59	103.71
3	Cottage and Small Scale Industries	69.38	58.94	68.47	70.65	53.01
4	Other Industries	24.38	42.67	22.68	15.67	11.49
5	Consumer Activities	4.42	2.06	1.91	6.43	1.02
6	Consumption Purpose	40.23	77.01	59.21	29.69	42.00
7	Housing	44.69	43.59	50.04	55.83	23.58
8	Other Purposes	91.93	37.14	45.49	35.89	608.52
	Total	535.66	522.20	518.10	468.11	1019.05

Source: *Kerala State Co - operative Bank Ltd.*

Appendix - 4.52

Selected indicators of the Credit Operations of the Primary Agricultural Credit Socities

Sl. No.	Indicators	Unit	1994	1995	1996	1997	1998	1999	2000
1	2	3	4	5	6	7	8	9	10
1	No.of Societies	Nos.	1583	1589	1591	1591	1591	1631	1628
2	No.of Members	(Nos.Lakhs)	102.85	111.31	114.59	111.73	112.8	113.01	114.21
	(i) of which SC	(Nos.Lakhs)	10.24	10	11	11.0	11.5	11.6	12.96
	(ii) of which ST	(Nos.Lakhs)	0.77	0.8	0.9	0.9	0.95	0.98	2.23
3	Paid up share capital	(Rs. Lakhs)	13478	14496	14579	18716	19410	35359	29217.11
4	Reserves	(Rs. Lakhs)	11193	9075	9076	17726	18640	23727	23622.92
5	Deposits	(Rs. Lakhs)	189123	158288	168506	300395	301594	429828	534181.02
6	Working Capital	(Rs. Lakhs)	324413	269760	354765	505906	532605	630460	731748.04
7	Loans issued	(Rs. Lakhs)	201096	146969	150382	319209	323930	338286	399364.18
	(i) short-term	(Rs. Lakhs)	157337	111945	114709	239788	242716	247248	259326.31
	(ii) Medium-term	(Rs. Lakhs)	37112	29936	30832	69324	70916	71576	118314.79
	(iii) Long - term	(Rs. Lakhs)	6647	5068	4849	10090	10298	19462	21723.08
8	Loan Outstanding	(Rs. Lakhs)	184049	160810	185505	273392	279106	363860	440191
9	Loan Overdue	(Rs. Lakhs)	30515	32773	32877	45186	45895	64518	80990.05
10	S.T Loan for agricultural purpose alone	(Rs. Lakhs)	53516	--	--	74819	76114	71216	73846.32
11	S.T Loan for non-agricultural purpose	(Rs. Lakhs)	103821	--	--	164969	166602	176032	185479.99
12	M.T loan for Agricultural purpose	(Rs. Lakhs)	12448	146949	150382	20998	21486	21930	34979.35
13	M.T loan for non-Agricultural purpose	(Rs. Lakhs)	24664	53472	57393	48326	49460	49646	83335.44
14	L.T. Loan for Agricultural purpose	(Rs. Lakhs)	5841	93477	98989	4064	4396	4110	5700.59
15	L.T. Loan for non-agricultural purpose	(Rs. Lakhs)	806	--	--	6026	6202	15352	16022.49
16	Value of Fertilizers Sold	(Rs. Lakhs)	8173	10016	12118	88441	89126	89215	87102.21
17	Value of Agricultural Produce Marketed	(Rs. Lakhs)	9351	10432	11009	16308	16699	14081	18083.88
18	Dormant Societies	Nos.	17	30	52	44	45	20	26
19	Societies on Profit	Nos.	764	690	703	590	586	671	720
20	Profit Amount	(Rs. Lakhs)	2590	--	--	4924	4764	4824	5797.71
21	Societies on loss	Nos.	784	854	844	955	957	885	836
22	Loss Amount	(Rs. Lakhs)	--	--	--	--	12160	13303	15328.02
23	Societies without profit or loss (U/L)	Nos.	35	45	44	2	3	75	46
24	Societies having paid Secretaries	Nos.	1553	1556	1562	1559	1559	1559	1559
25	Societies having own Godowns	Nos.	1432	1453	1457	1457	1457	1457	1457
26	Societies having Hired Godowns	Nos.	474	481	491	493	493	493	493
27	Viable Societies	Nos.	1487	1487	1502	1430	1431	1439	1432

U/L Under Liquidation

Source: *Registrar of Co-operative Societies, Kerala.*

Appendix - 4.53

Selected Indicators of the Credit Operations of the Primary Agricultural Credit Societies

Sl.No.	Indicators	Unit	1994	1995	1996	1997	1998	1999	2000
1	*2*	*3*	*7*	*8*	*9*	*10*	*11*	*12*	*13*
1	Average membership per society	No.	6560	7005	7202	7023	7094	6929	7015
2	Average Share Capital per Society	Rs.lakh	8.51	9.12	9.16	11.38	12.20	21.68	17.95
3	Average deposit per society	Rs.lakh	119.47	99.61	168.76	188.00	189.37	263.54	328.12
4	Average deposit par member	Rs	1821	1422	2343	2677	2669	3803	4677
5	Average working capital per society	Rs.lakh	205.00	169.76	222.98	318	336.02	386.55	449.48
6	Average loan per member	Rs	1936	1320	1312	2857	2870	2993	3497
7	Percentage of borrowing members to total		43	27	27	47	46	53	56.03
8	Average loan advanced per advancing society	Rs.lakh	128.00	92.00	95.00	201	203.6	207.41	245.31
9	Average loan advanced per borrowing members	Rs	4552	4890	4860	6234	6116	6120	6240
10	Percentage of overdue to demand		17.00	20.00	18.00	17.00	16.00	11.00	20.78
11	Percentage of overdue to outstanding		16.00	22.00	22.00	11.00	16.44	17.73	18.40

Source: *Registrar of Co-operative Societies, Kerala.*
* Provisional

Appendix - 4.54

Targets and Achievements of Deposit Mobilisation Programme of Co-operatives in Kerala

Year	Target (Rs. Lakhs)	Achievement (Rs. Lakhs)	Achievement in terms of percentage
1	2	3	4
1976	2000	2656.38	133.00
1979	2000	3698.72	185.00
1980	2000	4796.27	240.00
1981	2625	5635.64	214.00
1982	2500	6024.95	241.00
1983	4000	9367.35	234.00
1984	6000	11861.56	198.00
1986	6000	13772.60	230.00
1987	6000	13608.58	227.00
1988	3000	11314.51	377.00
1989	6000	17885.37	298.00
1990	6000	28881.12	481.30
1991	6000	28121.97	468.60
1992	6000	34681.77	578.02
1994	20000	47514.85	237.57
1995	20000	54139.77	270.70
1996	20000	58891.36	294.45
1997	20000	59210.11	296.05
1998	20000	59773.00	298.87
1999	20000	72557.00	362.79
2000	20000	77578.00	387.89
Total	***200125***	***621970.88***	***310.79***

Source: *Registrar of Co-operative Societies , Kerala*

Appendix - 4.55

Annual Long Term Loan Disbursement and Debentures Floated by Kerala State Co-operative Agricultural Rural Development Bank Ltd.

(Rs. In Crore)

Sl. No.	Year	Loan advanced					Debenture Floated				
		Ordinary	Scheme	NFS	Rural Housing	Total	Ordinary	Scheme	NFS	Rural Housing	Total
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*
1	1988-89	10.78	14.48	5.23	_	30.49	11.30	17.21	13.78	_	42.29
2	1989-90	14.44	23.12	6.07	8.44	52.07	14.15	27.61	5.20	_	46.96
3	1990-91	12.62	24.86	9.35	34.35	81.18	12.20	22.76	9.38	40.00	84.34
4	1991-92	11.44	27.62	10.19	17.29	66.54	11.00	23.05	9.16	10.53	53.74
5	1992-93	12.43	27.42	18.72	11.31	69.88	12.40	24.74	17.75	9.65	64.54
6	1993-94	11.80	31.76	27.64	13.71	84.91	11.50	30.65	26.92	24.32	93.39
7	1994-95	10.63	45.60	30.77	24.31	111.31	10.00	30.46	25.07	14.86	80.39
8	1995-96	10.44	67.54	40.53	35.49	154.00	11.00	45.78	37.65	40.53	134.96
9	1996-97	17.96	80.93	61.51	47.06	207.46	12.00	90.19	51.09	24.32	177.60
10	1997-98	10.84	79.38	51.01	95.07	236.30	17.25	102.82	61.33	60.98	242.38
11	1998-99	4.64	94.75	45.85	86.70	231.94	4.10	80.28	37.22	69.07	190.67
12	1999-2000	4.44	100.97	72.85	123.03	301.29	4.24	95.59	66.61	98.66	265.10

NFS - Non Farm Sector

Source: *Kerala State Co-operative Agricultural and Rural Development Bank Ltd.*

Appendix - 4.56

Purpose-wise Classification of Long Term Loans Issued by Primary Co-operative Agricultural & Rural Development Banks

(Rs. Lakh)

Sl.No	PURPOSE	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000
1	2	3	4	5	6	7	8	9	10
	Ordinary Loan								
1	Construction of Wells/Tanks	19.71	3.47	11.33	0.21	8.68	4.27	11.41	20.63
2	Renovation of Wells/Tanks	1.39	2.71	2.42	1.61	0.17	-	0.4	1.10
3	Pumpsets	5.42	3.17	1.83	0.37	2.84	2.86	2.44	1.98
4	Plantation & Horticulture	107.21	86.73	55.71	55.96	45.37	130.19	93.49	141.33
5	Agricultural Mechinary	0.07	1.45	14.16	-	-	-	-	-
6	Animal Husbandary	12.77	5.67	14.06	4.19	121.97	214.29	109.9	46.12
7	Land Development	418.41	526.84	415.64	420.61	628.13	386.62	133.05	105.26
8	Construction of Godowns/Cattle	307.74	266.05	243.12	260.09	475.13	132.98	42.81	57.86
9	Barbed wire or stonefencing	205.95	177.21	219.16	231.74	355.34	75.62	12.95	18.28
10	Construction of drainage channels	0.84	-	-	0.43	2.47	3.96	1.5	0.15
11	Loans for Redemption of prior debts	1.00	0.59	-	-	-	-	-	-
12	Others	172.72	113.53	60.93	91.66	141.66	142.42	62.18	70.84
	Total	***1253.23***	***1187.42***	***1038.36***	***1066.87***	***1781.76***	***1093.21***	***470.13***	***463.55***
	Scheme Loan								
1	Minor Irrigation	517.66	630.70	883.83	1304.09	1224.94	1178.6	1496.15	1572.75
2	Plantation & Horticulture	1092.17	1803.19	2237.07	2502.58	3294.19	3861.87	3613.84	4276.5
3	Agricultural Mechinary	215.78	362.98	464.04	831.73	875.39	582.01	676.34	890.04
4	Dairy	147.71	121.94	264.02	714.38	109.58	12.46	24.65	23.14
5	Land Development	239.7	38.80	327.12	786.04	1291.96	1047.87	1688.53	1471.79
6	Poultry	57.24	142.94	270.22	399.80	992.78	991.58	1477.73	1554.53
7	Fisheries	32.67	58.32	85.56	80.06	162.84	97.32	202.82	200.32
8	Others	467.41	5.26	18.71	224.89	149.16	158.35	342.43	235.49
	Total	***2770.34***	***3164.13***	***4551.47***	***6861.57***	***8100.84***	***7930.06***	***9522.49***	***10224.56***

Source: *Kerala State Co-operative Agricultural & Rural Development Bank Ltd.*

Appendix - 4.57

Agency-wise Disbursement of Refinance Assistance by NABARD in Kerala

(Rs. in Crore)

Sl. No.	District	1993-94		1994-95		1995-96		1996-97		1997-98		1998-99		1999-2000	
		Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	KSCARD Bank Ltd.	54.00	43.1	51.86	41.11	78.50	61.8	131.97	71.7	153.67	75.2	110.00	69.3	153.44	72.1
2	Commercial Banks	40.05	32.0	43.48	34.46	23.62	18.6	9.26	5.0	8.26	4.0	21.55	13.6	16.30	7.7
3	State Co-op. Banks	19.08	15.2	18.73	14.85	12.24	9.6	15.21	8.3	18.91	9.3	1.49	0.90	18.59	8.7
4	Regional Rural Banks	12.21	9.7	12.08	9.58	12.66	10.0	27.62	15.0	23.55	11.5	25.74	16.2	24.49	11.5
	Total:	***125.34***	***100***	***126.15***	***100***	***127.02***	***100***	***184.06***	***100***	***204.39***	***100***	***158.78***	***100***	***212.82***	***100***

Source: *NABARD*

Appendix - 4.58

Purpose-wise Refinance by NABARD

(Rs. in Crore)

Sl. No.	District	1993-94		1994-95		1995-96		1996-97		1997-98		1998-99		1999-2000	
		Refinance	%	Refinance	%	Refinance	%	Refinance	%	Refinance	%	Refinance	%	Refinance	%
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	Minor Irrigation	19.62	15.7	16.12	12.8	23.04	18.1	26.09	14.2	25.92	12.7	15.30	9.6	22.70	10.7
2	Land Development	1.39	1.1	2.70	2.1	3.97	3.1	9.24	5.0	16.29	8.0	14.02	8.8	16.18	7.6
3	Farm Mechanisation	4.29	3.4	5.09	4.0	3.78	3.0	3.79	2.1	7.41	3.6	2.12	1.3	3.76	1.8
4	Plantation & Horticulture	23.24	18.5	22.95	18.2	24.33	19.2	42.17	22.9	43.53	21.3	34.94	22.0	41.35	19.4
5	Dairy Development	3.82	3.0	5.14	4.1	6.74	5.3	10.42	5.7	12.73	6.2	12.45	7.8	13.49	6.3
6	Fisheries	2.05	1.6	1.52	1.2	2.09	1.6	2.22	1.2	2.10	1.0	2.56	1.6	2.22	1.0
7	Poultry	2.09	1.7	2.41	1.9	3.81	3.0	8.42	4.6	6.46	3.2	4.94	3.3	6.55	3.1
8	Bio-gas	0.34	0.3	0.15	0.1	0.11	0.1	0.10	0.1	0.11	0.1	0.16	0.1	0.06	0.0
9	I.R.D.P	12.88	10.3	14.51	11.5	6.33	5.0	8.67	4.7	9.55	4.7	8.62	5.4	8.26	3.9
10	Non Farm Sector	50.33	40.2	50.50	40.0	51.87	40.8	72.33	39.3	78.84	38.6	59.13	37.2	88.28	41.5
11	Agro Processing	5.08	4.1	5.04	4.0	0.84	0.7	0.46	0.2	0.53	0.2	1.09	0.7	0.06	0.0
12	Others	0.22	0.2	0.02		0.11	0.1	0.15	0.1	0.92	0.4	3.45	2.2	9.91	4.7
	Total	**125.34**	**100.0**	**126.15**	**100.0**	**127.02**	**100.0**	**184.06**	**100.0**	**204.39**	**100.0**	**158.78**	**100.0**	**212.82**	**100.0**

Source: *NABARD*

Appendix 4.59

Progess Under Rural Infrastructure Development Fund Projects in Kerala

(Rs. Crore)

Particulars	No of Schemes	Sanctioned Amount	Cumulative Disbursement upto 31-12-2000
RIDF - I (1995-96)			
Minor Irrigation	92	14.43	10.10
Medium Irrigation	3	60.28	56.84
Kole Land Development	1	20.00	15.27
Watersheds	40	5.01	4.05
Total	**136**	**99.72**	**86.26**
RIDF - II (1996-97)			
Minor Irrigation	129	9.36	6.47
Medium Irrigation	2	32.97	24.92
Watersheds	32	11.63	7.39
Bridges	21	35.57	27.1
Total	**184**	**89.43**	**65.88**
RIDF - III (1997-98)			
Minor Irrigation	101	10.53	3.54
Rural Bridges	33	34.20	21.29
Rural Roads	143	35.02	9.21
Watrershed Projects	40	13.87	8.41
Total	**317**	**93.62**	**42.45**

Particulars	No of Schemes	Sanctioned Amount	Cumulative Disbursement upto 31-12-2000
RIDF - IV (1998-99)			
Minor Irrigation	68	13.23	2.08
Rural Bridges	39	42.79	17.6
Rural Roads	37	8.53	Nil
Total	**162**	**64.55**	**19.68**
RIDF - V (1999-2000)			
Minor Irrigation	133	14.80	2.07
Rural Bridges	22	50.90	13.83
Rural Roads -PWD	20	20.74	2.07
Rural Roads -CRD	61	31.13	8.4
Inland Navigation	1	10.00	3.5
Total	**237**	**127.57**	**29.87**
RIDF - VI (2000-01)			
Minor Irrigation	92	10.08	NIL
Rural Bridges	16	21.25	NIL
Rural Roads -PWD	21	23.01	NIL
Rural Roads -CRD	73	30.10	NIL
Watershed	20	9.13	NIL
Flood Protection	9	19.78	NIL
Reclamation	1	10.33	NIL
Total	**232**	**123.68**	
Grand Total	**1268**	**598.57**	**243.94**

Source : NABARD

Appendix - 4.60

Details of Externally Aided Projects Implemented During 1999-2000

(Rs.crore)

Sl. No.	Name of Project	Project Period	Date of Commencement	Date of Completion	Project Cost	Expenditure incurred upto 3/2000	Physical Achievement
1	2	3	4	5	6	7	8
1	National Hydrology Project (World Bank assistance)	6 years	95-96	2001-2002	35.93 (external - 32.19 GOK - 3.74)	5.87	Under surface water, A. Civil Works completed i) River Gauge Sites - 12 ii) Meteorological stations - 9 iii) Site Equipment Store - 4 iv) Level 1 lab -4 v) Level II - lab - 1 vi) Buildings for new sites - 1 B. Equipments procured i) Atomic absorption spectro photometer - 1 ii) Bacteriological incubator - 1 iii) Biochemical Oxygen demanded incubator - 1 iv) AWLR - 15 v) Current meter - 30 vi) SRG - 30 vii) Vehicles - 11 viii)Computers - 18 C. Equipment procured under Ground Water i) Portable Compresser - 15 ii) Field monitoring kit - 30 iii) Digital Water Level Recorder - 4 iv) Protective Cover Piezometer-331 v) Computers - 17 vi) Vehicles - 21
2	EEC assisted Kerala Minor Irrigation Programme	5 years	1993-94	2000 Dec.	52.04 (external - 41.30 GOK - 10.74)	12.90	Irrigation Potential created 4130 ha
3	Dutch assisted Community Irrigation Project	5 years	1993-94	2000 June	(a) original 21.70		
					(b) Revised 15.45 (External- 13.23, GOK - 2.00 beneficiary contribution- 0.22)	8.27	131 Borewells drilled

Source: Irrigation and Ground Water Department.

Appendix 4.61

Physical Achievement under Minor Irrigation Schemes

Area in hectares

Sl. No.	Name of Schemes	Physical Achievement (net area)		
		97-98	98-99	99-2000
1	2	3	4	5
1	Minor Irrigation - class -I	3213	2184	2766
2	Minor Irrigation - class -II	1514	1716	2458
3	Lift Irrigation	1161	376	943
4	Jaladhara Padhathy	562	735	–
5	EEC assisted M.I Programme	1282	1544	932
	Total	**7759**	**6557**	**7099**

Source : Irrigation Department

Appendix - 4.62

Physical Achievement under Ground Water Development Schemes

During 1997-98, 1998-99 & 1999-2000

Sl.No	Items	Unit	1997-98	1998-99	1999-2000
1	2	3	5	6	7
1	Detailed hydrological survey	Km^2	162	617	....
2	Siting and providing technical assistance for open wells	No.	227	317	511
3	Siting and construction of different types of drilled wells	No.	473	623	473
4	Creation of additional irrigation facilities	ha.	1036	1246	946
5	Failed well compensation	(persons)	15	12	5

Source: Gorund Water Department

Appendix - 4.63

Physical Achievement Under Command Area Development Programme

No.	Item	Unit	Achievement				
			1995-96	1996-97	1997-98	1998-99	1999-00
1	2	3	4	5	6	7	8
1	Construction of field channels	ha.	17422	14402	7897	14482	2593
2	Construction of field drain	ha.	...	4210	16374	11305	21228
3	Warabandhi works	ha.	3983	3721	9113	759	5743
4	Training programme for farmers	No.	309	384	390	204	305
5	Adaptive trails	ha.	1814	NIL	405	139	392
6	Large scale demonstration	ha.	8709	8795	16393	9390	12082
7	Subsidy to small & marginal farmers	No.	313	159	361	..	..
8	Beneficiary farmers associations organised and registered	No.	145	106	87	99	41
9	Detailed soil survey conducted	ha.	...	...	..	..	3035
10	Land levelling & shapping	ha.	279	285	230	321	82
11	Bench mark and evaluation survey conducted	ha.	2447	1557	2199	1761	3084

Source : CADA

Appendix - 4.64

Operations of CAMPCO from 1996-97 to 1999-2000

(Quantity in tonnes) *(Value in Rs. lakh)*

Sl. No.	Commodity	1996-97		1997-98		1998-99		1999-2000	
		Qty	Value	Qty	Value	Qty	Value	Qty	Value
1	2	3	4	5	6	7	8	9	10
1	Arecanut								
	a)Procurement	27923	23003	27172	22142	28693	28246	23576	30930
	b) Sales	26055	22328	26990	23217	31323	31614	20940	29813
2	Cocoa Procurement								
	a) Cocoa Pods	17	1	17	1	14	1	98	6
	b) Wet Beans	4908	956	6339	1255	4851	960	5203	1008
	c) Dry Beans	3	2	18	13	17	12	0	0
3	Copper Sulphate Sales	250	138	289	155	253	124	221	120

Source : *CAMPCO*

Appendix - 4.65

Production and Sales of Chocolate by CAMPCO

Sl. No.	Item	Production Qty (MT)	Sales Qty (MT)	Sales Value (Rs. in lakhs)
1	2	3	4	5
	1995-96			
1	Chocolate	466.1	496.1	471.8
2	Semi finished	827.9	596.6	608.5
3	Internal Sales for Nestle	3097.4	457.2	602.3
	1996-97			
1	Chocolate	517.3	509	517.0
2	Semi finished	642	969.3	696.2
3	Internal Sales for Nestle	2433.2	349.4	467.0
	1997 - 98			
1	Chocolate	687.2	627.1	695.9
2	Internal Sales for Nestle	–	454.1	698.6
	1998-99			
1	Chocolate	571.4	580.6	784.2
2	Internal Sales for Nestle	–	378.6	597.7
	1999-2000			
1	Chocolate	701.92	690.06	928.1
2	Internal Sales for Nestle	–	285.6	463.6

Source : *CAMPCO*

Appendix - 4.66

Performance Details of KERAFED

Activity	1995 - 96	1996 - 97	1997 - 98	1998-99	1999-2000
1	2	3	4	5	6
Copra procured					
Quantity (MT)	4069	8379	5240	7122	13518
Copra crushed					
Quantity (MT)	10460	8161	6203	7420	10324
Sales					
a) Copra					
Quantity (MT)	3798	941		22	NIL
Value (Rs. Lakh)	952	246		44	NIL
b) Coconut Oil					
Quantity (MT)	7673	4905	4308	5003	5109
Value (Rs. Lakh)	2614	2478	2402	2685	3321
c) Coconut Oil Cake					
Quantity (MT)	375	2721	2348	2193	3313
Value (Rs. Lakh)	29	260	220	181	339

Source: *KERAFED*

Appendix - 4.67

National Co-operative Development Corporation

Release of Fund for Kerala from 1994-95 to 1999-2000

(Amount in Rs. lakh)

Sl.No.	Name of Schemes	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000
1	2	3	4	5	6	7	8
1	Marketing Co-operatives						
	(a) Margin Money to Federation	218.000	197.000	157.000	–	167.000	203.000
	(b) Share Capital to PAMS	39.500	26.500	34.500	55.750	11.000	134.270
	(c) Agro Custom Hiring-cum-service Centre of RAIDCO (Margin Money)	–	6.800	2.000	-	120.000	70.000
	(d) Farmers Service Centre						142.400
2	Processing Unit						
	(a) Rubber	50.090	50.870	40.250	119.190	62.075	319.025
	(b)Spices Powdering Unit	10.800	67.219	8.990	4.990	37.764	58.800
3	Storage	10.802	67.219	45.410	98.005	29.200	79.000
4	Fisheries (a) Marine	837.082	697.712	508.190	695.438	653.881	1335.484
	(b) Inland	-	-	-	116.441	239.363	208.466
	(c)Fish marketing cell						42.200
5	Coir Co-operatives	547.692	542.558	426.250	608.434	371.847	397.826
6	Handloom Co-operatives	5.934	115.887	707.390	181.923	141.849	264.173
	(a) Spinning Mills	–	–	86.500	–	220.810	150.000
	(b) Powerloom	–	–	262.610	538.675	117.790	382.850
7	SC/ST Co-operatives	10.930	25.750	–	24.320	23.840	51.965
8	Sugar Factory	26.000	78.000	–	-	24.000	–
9	Computerisation	6.000	6.698	–	-	-	249.660
10	Tech/Promo Cell	–	3.077	–	-	-	-
11	Project Reports Study etc. Others	0.985	4.900	0.350	-	0.500	-
12	EEC-Coconut Development Project (KERAFED Project)	1714.254	–	–	223.370	439.100	120.850
13	INTE-Co-operative Development Project (I.C.D.P)	336.523	564.416	694.590	455.456	1228.010	945.517
14	Consumer Schemes	–	46.000	48.100	114.080	826.900	443.130
15	Student Stores	5.850	0.150	0.400	1.358	2.120	7.140
16	Animal Husbandry Department Poultry Co-operatives	-	-	-	-	-	-
17	Godown to dairy					9.800	2.500
	Total:	***3809.636***	***2433.116***	***3022.530***	***3237.430***	***4726.849***	***5605.756***

Source:*NCDC*

Appendix - 4.68

NCDC- Activity-wise Cumulative Sanction/Release of Funds to Kerala

As on 31-3-2000

(Rs. in Crore)

Sl. No.	Scheme	Total Sanction from 1962-63 to1999-2000	% to total Sanction	Total Releases From 1962-63 to 1999-2000	% to total release
1	2	3	4	5	6
1	Mktg. & Input Distribution	38.4336	8.02	34.5944	9.26
2	Agro- Processing				
	a) Sugar	1.5600	0.33	1.3944	0.37
	b) Spinning Mills	10.0470	2.10	8.9671	2.40
	c) Oil Processing	97.3330	20.30	74.2549	19.87
	d) Powertooms	25.1642	5.25	13.0193	3.48
	e) Rubber/others	17.7062	3.69	14.1436	3.79
3	Storage	15.6502	3.26	13.1777	3.53
4	Rural consumer / Student stores	21.4447	4.47	18.6107	4.98
5	ICDP	84.8286	17.69	58.4570	15.65
6	Weaker Section				
	a) Fisheries	97.4608	20.33	77.4797	20.74
	b) Handloom	16.2322	3.39	14.9801	4.01
	c) Coir	44.8797	9.36	38.1826	10.22
	d) SC-ST Co-ops.	2.4408	0.51	1.4981	0.40
	e) Poultry	0.1241	0.03	0.0980	0.03
	f) Dairy	0.0500	0.01	0.0250	0.01
7	Promotional/Development Projects	6.0702	1.27	4.7612	1.27
	Total:	***479.4253***	***100.00***	***373.6438***	***100.00***

Source: *NCDC*

4/67/2001—S6A

Appendix - 5.1

Growth of Kerala Power System at a Glance - 1992, 1999 and 2000

Sl. No.	Particulars	Position as on 31.3.1992	31.3.1999	31.3.2000
1	2	3	4	5
1	Installed Capacity -MW	1477.00	2043.100	2391.18
2	Maximum Demand _MW			
	System	1264.00	1896.20	2177.00
3	Generation Per Annum-M.U	5326.00	7601.550	7655.57
4	Import Per Annum -M.U	1855.82	3595.580	4275.04
5	Export Per Annum - M.U	2.17	–	–
6	Energy Sales Per Annum-M.U	5598.17	9182.890	9812.88
7	Energy Losses of Percentage of Energy Available for Sales	21.7	17.750	17.41
8	Per capita Consumption- Kwh	192.00	278.240	300.56
9	220 K.V Lines- CT Km	1064.22	1897.470	1954.73
10	110 K.V Lines- CT Km	2329.00	2809.660	2910.93
11	66K.V Lines- CT Km	2531.00	2673.920	2733.31
12	11 K.V Lines- CT Km	21551.00	28090.620	28672.00
13	L.T. Lines- CT Km	108420.00	174196.000	180499.00
14	Step up Transformer Capacity -MVA	1276.00	2590.370	2808.37
15	No. of EHT Sub Stations	143.00	176.000	179.00
16	Step down Transformer Capacity -MVA	4994.20	8773.400	2729.47
17	Distribution Transformers			
	a) Numbers	18843	28058	29638.00
	b) Capacity - MVA	2293.52	3644.120	3864.12
18	No. of Villages Electrified	1384.00	1384.000	1384.00
19	No. of Consumers(in lakhs)	36.98	56.390	60.30
20	Connected Load -M.W	5526.00	7275	8150
21	No.of Street Lights	544744.00	658643.000	716390.00
22	Total Revenue per Annum(Rs. Lakha)	34326.99	123471.070	166765.08 (from sale of power)

Source : *KSEB*