

GOVERNMENT OF KERALA

# ECONOMIC REVIEW 1999

STATE PLANNING BOARD  
THIRUVANANTHAPURAM



PRINTED BY THE SUPERINTENDENT OF GOVERNMENT PPFSSSES  
MANNANTHALA, THIRUVANANTH

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# CONTENTS

		<i>Pages</i>
<b>Chapter - 1</b>	<b><i>General Review</i></b>	<b>1-14</b>
	Development in National Economy	1
	Development in Kerala's Economy	2
<b>Chapter - 2</b>	<b><i>Income, Employment and Population</i></b>	<b>15-25</b>
	National Income	15
	State Income	17
	Unemployment	22
	Migration	24
	Demographic Factors	25
<b>Chapter - 3</b>	<b><i>Prices, Cost of Living and Wages</i></b>	<b>26-41</b>
	Consumer Price Index	26
	Retail Prices	28
	Wholesale Price Index of Agricultural Commodities	30
	Farm Commodity Prices	33
	Parity Index	34
	Public Distribution System	35
	Wages	39
<b>Chapter - 4</b>	<b><i>Agriculture and Irrigation</i></b>	<b>42-95</b>
	Weather	43
	Crop Sector	45
	Crop-wise Analysis	48
	Agricultural Research and Education	59
	Soil and Water Conservation	60
	Livestock	60
	Fisheries Development	67
	Forestry and Wildlife	73
	Agriculture Marketing	76
	Agricultural Finance	77
	Irrigation	81
	Review of Major Projects	83
	Minor Irrigation	86
	Performance of Externally Aided Projects	87
	Flood Management	88
	Command Area Development	89
	Co-operation	89
<b>Chapter - 5</b>	<b><i>Energy Development</i></b>	<b>96-114</b>
	Generation	98
	Transmission and Distribution	105
	Outlay and Expenditure	109
	Power Sector Reforms	110
	Power Finance Corporation	113
	ANERT	113
	Electrical Inspectorate	114
	Energy Management Centre	114
<b>Chapter - 6</b>	<b><i>Industry and Mining</i></b>	<b>115-138</b>
	Growth in General Index of Industrial Production	116
	Working Factories and Employment	117
	Industrial Disputes	119
	Central Sector Investment	119
	Large and Medium Industries	121
	Village and Small Scale Industries	123
	Industrial Promotion Agencies	131

	Mining	137
	Information Technology	137
<b>Chapter - 7</b>	<b><i>Transport and Communications</i></b>	<b>139-151</b>
	Roads	139
	Road Transport	141
	Railways	144
	Ports	144
	Inland Water Transport	145
	Air Transport	146
	Passports	146
	Communications	146
	Tourism	147
<b>Chapter - 8</b>	<b><i>Export and Import</i></b>	<b>152-156</b>
	Balance of Payments	152
	Cargo Handled by Kochi Port	152
	Marine Products	153
	Coir and Coir Products	156
<b>Chapter - 9</b>	<b><i>Social and Community Services</i></b>	<b>157-184</b>
	Education	157
	Health	166
	Water Supply and Sanitation	173
	Housing	181
	Labour and Labour Welfare	184
<b>Chapter - 10</b>	<b><i>Special Programme for Weaker Sections</i></b>	<b>185-217</b>
	Rural Development	185
	Land Reforms	196
	Western Ghats Development Programme	197
	Urban Development Schemes	199
	Social Security & Welfare	200
	Development of Scheduled Castes and Scheduled Tribes	204
<b>Chapter - 11</b>	<b><i>Local Self Governments</i></b>	<b>218-260</b>
	Local Finance	220
	State Finance Commission	221
	District Plans	237
	Review of Annual Plans	239
	Plan Implementation 1997-98 & 1998-99	248
	The Process of Institutionalisation	256
<b>Chapter - 12</b>	<b><i>Institutional and Bank Finance</i></b>	<b>261-266</b>
	Institutional Finance	261
	Bank Finance	261
	<b>APPENDIX TABLES</b>	<b>S 1-S 282</b>

## CHAPTER 1

### GENERAL REVIEW

#### Development in National Economy

The all India GDP growth, in real terms, was 6.8% in 1998-99, but is expected to be lower at 5.9% in 1999-2000, a fall of 13.24% in growth rate inspite of the stated position that the economy is on the course of recovery from the slowdown it was experiencing in 1997-98 when growth was 5.1%. Index of agriculture production is projected at (-) 2.2% in 1999-2000 as against a 7.4% growth achieved in the previous year. It is a matter of concern that foodgrains production is expected to fall by 1.9% from 203.4 million tonnes in 1998-99 to 199.1 million tonnes in 1999-2000, inspite of the fact that the rainfall has been quite close to normal, except in a few meteorological subdivisions. Significant fall is expected in the case of coarse grains and pulses. GDP growth in Agriculture and Allied sectors is expected to fall sharply to 0.8% in 1999-2000 compared to 7.2% in 1998-99.

1.2 The decline in the Gross Domestic Saving from 24.7% of GDP in 1997-98 to 22.3% in 1998-99 is undoubtedly a poser to the likely scenario in the subsequent years. The saving rate may well decline further with the interest rate on instruments such as Small Savings and Provident Fund having been reduced. The reduction in interest rate will definitely make these instruments less attractive to the household sector, particularly the small investors. Savings in the public sector have declined to zero in 1998-99 from 1.4% in the previous year, for the first time in the last six year period. Also there is a clear one percent decline in the private sector saving, with private household sector showing a fall of 1.5% over the previous year. Consequently, the Gross Domestic Investment also decreased by 2.8 per cent in 1998-99 over the previous year.

1.3 Gross Fixed Capital Formation, which had peaked at 24.5% in 1995-96, declined to 23.3% in 1996-97 and further to 23% in 1998-99.

1.4 The External Sector continues to cause concern. Exports in 1998-99 recorded a negative growth of 3.9% in dollar terms in 1998-99 as compared to an increase of 4.6% in 1997-98. Growth in exports during April-September 1999 remained sluggish, with the subsequent months showing some signs of some recovery. Imports in dollar terms after showing a negative growth of 7% in 1997-98, witnessed a sharp increase in the current year, with POL imports alone increasing by 58% in the first nine months. Total imports rose by 9% during April-December 1999. As a result, current account deficit has gone up from one percent in 1998-99 to 1.5% in the first six months of the current financial year.

1.5 The net capital inflows in 1998-99 at US \$ 7.87 billion were about US \$ 1.55 billion lower than in 1997-98. Foreign Direct Investment (FDI) inflows declined from US \$ 3557 million in 1997-98 to US \$ 2462 million in 1998-99. The declining trend continued in 1999-2000 also, when the FDI in the first eight months were lower at US \$ 1330 million compared to US \$ 1610 million during the corresponding period last year.

1.6 India's external debt at the end of September 1999 rose to US \$ 98.87 billion from US \$ 97.68 billion at the end of March 1999.

1.7 There is no let up on the fiscal front. The Union Government's fiscal deficit in 1998-99 rose to 5% compared to 4.8% in the previous year. Fiscal deficit in 1999-2000

Budget Estimate was 4.1%, which in the revised estimate is placed at 5.1%. Gross Fiscal Deficit in 2000-01 is again at 5.1%. There are doubts if the fiscal deficit will be kept at this level given the very high levels of projected expenditures on defence, interest payments and other heads announced in the Union budget. The withdrawal of food subsidies combined with the hike in PDS foodgrains prices along with higher fiscal deficit is bound to lead to an inflationary situation in the country.

### **Development in Kerala's Economy**

1.8 The economy of the State during the last two years has been passing through extremely difficult times, largely a reflection of the recessionary trend, experienced in the country, causing severe strain on the finances of the State. The growth in revenues was below the projected levels to sustain the tempo of development expected at the beginning of the Ninth Five year Plan. Sales Tax revenue, the only buoyant source of revenue for the State, suffered set back and the growth rate fell far below the levels which obtained two years ago. In addition, the huge liability the State Government had to bear on account of the pay revision, following the recommendation of the V Central Pay Commission, upset the fragile resource base of the State Government.

1.9 In spite of the severe stress on the economy, it has been possible to maintain a fairly high order of public expenditure policy directed towards achieving reasonably high growth of the core activities. The State Income (SDP) growth rate in 1998-99 was 5.6% (at 1993-94 prices) as compared to 4.9% achieved in 1997-98. This achievement was made possible mainly due to a high growth of 3.82% in Agriculture compared to 0.8% in 1997-98 and an average growth of 1.3% in the three years preceding 1998-99. Industry witnessed a smart recovery in the last two years to over 7% compared to a negative growth in 1996-97, and the rest of the secondary sector and service sector also

recorded higher growth rates in 1998-99. The growth rates in SDP achieved during the last two years are also a reflection of the initiatives taken by the State Government to address among other things the micro-economic issues by decentralising the development process and also the public expenditure policies on development of core infrastructure sectors.

1.10 It is important to note that, contrary to general belief that the economy of the State is growing at a rate which is lower than that obtaining in several other States, the latest publication of the Reserve Bank of India, 'Handbook of Statistics of Indian Economy 1999' revealed that the Net Domestic Product of Kerala registered a growth of 45.1% during the period 1991-92 to 1997-98. In fact Kerala occupies fifth position among the major States in the country, climbing from ninth position during the six year period preceding 1991-92. Kerala would have surely done even better, if the State had not suffered neglect in regard to Central Sector investment and the indifferent attitude of financial institutions and banks in advancing credit in Kerala.

1.11 The State Government have made concerted efforts to provide more impetus to growth in the last three years. Important to mention are announcement of the Industrial Policy, a white paper on the subject and the establishment of an Industrial Revitalisation Fund Board to mobilise funds, including that from the market, with a view to revive and revitalise manufacturing industrial units in the State.

1.12 A major setback on the farm front, close on the heels of the root wilt disease of the coconut trees in several districts, is the mite attack, 'mandari' that affected the coconut palms in the Central and southern districts of the State with telling effects on the crop. Spraying of pesticides resorted to by the State Government seems to have helped in restricting the damage. The damage already caused is likely to have its

adverse impact on the crop in the coming months.

1.13 The fall in the price of rubber, largely the fall out of the trade liberalisation policies of the Government of India, has substantially subdued the agrarian economy of the State, which was also aggravated by the pest attack on coconut in the current year. Rubber prices continue to rule low, far below the levels to sustain the interest of the farmers in this crop. The procurement operations of rubber undertaken by the State Government should have helped in sustaining the market but not to the full extent to counter the removal of quantitative restrictions and relaxations of import regulation measures announced by the Government of India in the recent years with their serious adverse impact.

1.14 The outlook for the future of the economy would depend largely on the measures that would be taken to sustain the tempo of development achieved in both industrial and agricultural sectors and also to improve the infrastructure facilities in the state such as transport, irrigation and power. Private sector participation in these areas will attract the required investment for a much higher growth rate. Initiatives on the development of Information Technology have to be pursued with vigour for employment generation.

1.15 The State has achieved progress with regard to availability of power by adding 878 MW to the installed capacity since the beginning of the Ninth Five Year Plan. Kerala is the only state in South India, with virtually no power cut. With the commissioning of the ongoing projects and the completion of the approved projects currently under implementation and which are being executed in both Public and Private sectors, Kerala would be able to attain self sufficiency in power in the immediate future. Of course, as the demand for power is also bound to grow efforts have to continue to tap all the sources of power generation.

1.16 Credit supply from banking sector and other financial institutions have to look up substantially, if the State has to achieve the desired goals in development. The CD ratio of bank finance continues to decline, with as low a rate as 40.2% in September 1999. The credit disbursement from all India Financial Institutions is even less encouraging with the exception of NCDC, which has shown improvement in its disbursement in 1998-99. For Kerala, which is relatively less endowed with natural resources, to meet the increasing development requirements, the financial institutions including banks would have to appreciably expand their lendable resources and provide the support necessary for its infrastructure development.

1.17 The overall financial position of the State Government has come under severe strain largely due to pay revision to the employees of the State Government following the recommendation of the V Central Pay Commission to revise the salaries of the Central Government employees. It is noteworthy, however, the State Government has managed the State finances in a situation of very heavy increase in expenditure, especially revenue expenditure when the growth in revenue receipts was perhaps at its lowest in recent times. However the increase in revenue account deficit of the State Government is a matter of serious concern particularly since the jump in revenue deficit during the last three years is primarily due to the large transfers made to the local bodies in the form of grant. In the last four years these transfers amounted to Rs.2931 crores. In 1999-2000, out of the total revenue deficit of Rs.1852 crores in B.E., Rs.1020 crores is on account of the plan grant given to the local bodies. In the plan programmes formulated by the local bodies, using the grant in aid, about 70% of the allocation is on schemes of capital nature. This continues to be booked as revenue for want of the required concurrence by the C & AG. Once this is correctly booked, the revenue deficit of the State Government would also be



substantially reduced. Nevertheless, the present practice of financing revenue expenditures through borrowings will have to be checked so that the economic growth is not inhibited by increasing debt service liabilities and diversion of development funds to non-income generating activities.

1.18 The process of decentralisation of planning and development has stabilised after three years, with the local bodies able to formulate and implement development programmes by themselves. This has helped in transforming the economy of the State, as reflected in the resilience shown by the economy, in sustaining a high rate of growth in SDP at a time when the entire country was experiencing recessionary trends. Kudumbasree project launched by the State Government has emerged as a major catalyst for the empowerment of women and the participation of community in poverty eradication. It is expected to become an effective tool for integrating micro level development initiatives with decentralised planning which provide the forum for women coming together in neighbourhood groups to set up self-help and income generating schemes.

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

### **State Income**

1.19 The State Income (SDP), at 1993-94 prices, is estimated at Rs.31,240 crores in 1998-99 as against Rs.29,586 crores in 1997-98, registering a growth rate of 5.6 per cent. At current prices, the State Income in 1998-99 is estimated at Rs.56,563 crores as compared to Rs.47,924 crores in 1997-98. The percapita income at current prices is estimated at Rs.17,756 in 1998-99 as against Rs.15,195 in 1997-98. The percapita income in 1998-99 at constant prices is estimated at Rs.9,807 as compared to Rs.9381 in 1997-98 registering a growth rate of 4.5 per cent. Thus, now the percapita income of the State exceeds the all India percapita income.

1.20 The sectoral distribution of State income shows that the tertiary sector continues to dominate the income generation followed by the primary sector. The contribution of the tertiary sector increased from 51.45 per cent in 1997-98 to 51.9 per cent in 1998-99. The share of primary sector declined from 27.38 per cent in 1997-98 to 26.95 per cent in 1998-99, while the share of the secondary sector remained more or less unchanged.

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 very large, with the latest figure being 37.90 lakhs in 1999. An important aspect 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 to note that 54.8 per cent of the job seekers are women.

1.22 Employment in the organised sector stood at 6.35 lakhs in the public sector and 5.87 lakhs in the private sector in 1998-99. Placement through employment exchanges in 1998-99 stood at 19,661 as against 19,375 in 1996-97.

### **Price Situation**

1.23 The general price level during the year under review has shown a downtrend in terms of inflation rate. The consumer price index for agricultural and industrial workers in the State declined from 6.41 per cent in 1998 to 6.33 per cent in 1999. The wholesale price index of agricultural commodities in 1999 increased by 28.2 per cent compared to 4 per cent in 1998. The rate of increase in the price index of food crops was 42.3 per cent in 1999 as compared to 0.5 per cent in 1998. The parity index in 1998-99 was favourable to the farmers as the prices received by the farmers increased by 15.4 per cent while the prices paid by them increased by 10.3 per cent.

**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
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. State income at current prices (Rs. Crores)	1255	3823	6503	10668	12173	15102	17175	23401	28697	35087	40819	47924(P)	56563(Q)	-
2. State Income (1980-81 Prices) (Rs. Crores)	1255 ⊗	3823	4086	4892	5262	5365	5752	23401 ⊗	25608 ⊗	26887 ⊗	28189 ⊗	29586 ⊗ (P)	31240(Q)	-
3. Per Capita Income (at Current prices) (Rs.)	594 ⊗	1508	2398	3718	4200	5140	5768	7788	9432	11390	13089	15195(P)	17756(Q)	-
4. Per Capita Income (at constant prices) (Rs)	594 ⊗	1508	1507	1705	1815	1826	1932	7788	8417	8728	9039	9381(P)	9807(Q)	-
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(P)	-
b) Coconut-Million Nuts	3981	3008	3377	4358	4232	4641	5124	5192	5336	5155	5276	5209	6672(P)	-
c) Arecanut -Million Nuts	12738	10805	10664	11964	13074	13116	13643	15357	17466	17429	17039	17278	18359(P)	-
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	64.34(P)	-
e) Rubber-1000 tonnes	78.73	140.33	184.70	275.40	307.52	343.11	368.65	408.31	442.83	474.56	512.76	541.94	559.10(P)	-
f) Tea-1000 tonnes	41.45	50.72	52.63	57.08	63.42	66.80	54.44	66.69	60.72	64.80	69.32	65.23	68.37(P)	-
g) Coffee-1000 tonnes	12.57	36.48	23.35	23.80	35.70	30.96	36.17	43.47	46.24	45.00	47.32	50.66	61.15(P)	-
6. Prices														
a) Whole sale Price index of Agricultural Commodities (Base 1952-53=100) ⊗ ⊗	222	551	688	906	1028	1263	1377	1550	1492	1702	1923	2114	2063.52	2638.35***
b) Consumer Price Index Number (Base 1970-71 = 100) ⊗ ⊗	264	202	314	413	435	497	553	599	675	759	836	911	967	1024**
7. Plan Outlay (Rs. Crores) (Accountable)	59.35	311.31	411.95	620.28	662.70	719.53	825.32	1091.42	1415.92	1763.76	2180.18	2867.63	3107.00 ●	3250.00 (BE)

Q- Quick Estimate

P- Provisional

\*\*\* Averages from January to October

● - Pre - Actual

⊗ - At 1970-71 Prices

⊗ ⊗ - Figures pertaining to item 6, relate to Calendar year

⊗ (Base year 1993-94

BE - Budget Estimate

● - Pre - Actual

⊗ - At 1970-71 Prices

⊗ ⊗ - Figures pertaining to item 6, relate to Calendar year

## Agriculture

1.24 The agricultural sector 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 recorded increases in production. Production of coconut and rubber reached new peaks in 1998-99, substantially improving the production levels achieved in the previous year.

1.25 Coconut production was 6672 million nuts in 1998-99. Production of rubber also reached a new high of 5.59 lakh tonnes, while that of coffee increased from 50659 tonnes in 1997-98 to 61150 tonnes in 1998-99. However, the sharp fall in the price of rubber had a shattering impact on the State's agriculture economy for the last two years.

1.26 Area under rice and production of rice have continued to decline. The area declined from 3.87 lakh ha. in 1997-98 to 3.53 lakh ha. in 1998-99. Rice production continues to fall, which declined from 7.65 lakh tonnes in 1997-98 to 7.27 lakh tonnes in 1998-99. It is relevant to note in this situation that out of the gross cropped area of 3.53 lakh ha., the coverage of HYV is 1.77 lakh ha., which represent only 50 percent 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 Non-food crops performed by and large well, with production of most of the crops showing improvement. Production of Rubber apart, Ginger increased from 43,617 tonnes to 49926 tonnes, Tea from 65225 tonnes to 68373 tonnes, Arecanut from 87038 million nuts to 92481 million nuts, Pepper from 46039 tonnes to 64335 tonnes, Turmeric from 8584 to 9066 tonnes and

cardamom from 5290 to 5295 tonnes. The major crop, which recorded a fall in production, was cashew from 56,885 to 56,554 tonnes.

## Livestock

1.28 Kerala accounts for 1.75 per cent of the total cattle population in the whole country. About 67% of the breedable cattle in the State is crossbred, made possible by expanding the facilities and veterinary services. So far, 2408 artificial insemination centres have been established. During 1998-99, 12.51 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 24.20 lakh tonnes in 1998-99. 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 208 grams per day, during 1998-99. Still, with the demand for milk increasing even faster, internal supply in the State is not adequate to meet the demand. At present, the State has three cattle feed plants, with a capacity of 500 MT each per day. Out of these, the one at Kalletinkara in Thrissur District was commissioned in February 1999.

1.29 The Kerala Milk Marketing Federation, the implementing agency for Operation Flood Programme, operates through 2206 Anand pattern co-operative societies (APCOS) with a membership of 5.87 lakhs. 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 2044 million in 1998-99. The target fixed for the Ninth Plan is 2929 million eggs.

1.31 The total fishermen population in the State in 1997-98 is estimated at 10.3 lakhs. Fishing activities in the State are still concentrated in inshore part of the marine sector. 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 0.66 lakh tonnes, about 10.18 per cent of the total fish catch in the State in 1998-99. In order to expand the coverage of inland fisheries a new project for the development of culture fisheries in five reservoirs of the irrigation in projects and a new scheme 'Janakeeya Matsyakrishi' have been launched in the State

1.32 The total fish catch during 1998-99 was 6.48 lakh tonnes, as against 5.69 lakh tonnes in 1997-98. Out of the total catch in 1998-99, the share of marine sector was 5.82 lakh tonnes, and that of the inland sector was 0.66 lakh tonnes

1.33 The export of marine products from Kerala in 1998-99 stood at 0.71 lakh tonnes valued at Rs.816 crores, out of the total export of 3.03 lakh tonnes from the whole country valued at Rs.4626 crores. Thus, Kerala's share in the total exports from the country was 23 per cent in terms of quantity and 18 percent in terms of value in 1998-99.

### **Irrigation**

1.34 The cumulative investment on irrigation in Kerala till the end of 1998-99 amounted to Rs.2,510 crores, out of which 69% was on major and medium irrigation projects. The total irrigation potential created so far is 4.45 lakh ha.(net) and 7.25 lakh ha.(gross).

1.35 Of the cumulative investment of Rs.2,510 crores, that on major and medium irrigation projects amounts to Rs.1,736 crores, with an irrigation potential of 2.19 lakh ha.(net) and 4.40 lakh ha.(gross) as at the end of March 1999. The Eighth Plan envisaged completion of eight major and medium irrigation projects but only four of

those projects could be completed. Against the target of 1.48 lakh ha of irrigation potential fixed during the Eighth Plan, the achievement was only 33626 ha for which the investment amounted to Rs.581.62 crores.

1.36 The Ninth Plan envisages completion of seven projects which include four originally scheduled for the Eighth Plan Viz.Chimmoni, Pazhassi, Kanhirapuzha and Kanakkankadavu. Karappuzha, Kallada and Moovattupuzha are the other three proposed for completion. During 1997-98 two projects, Chimmoni and Kanakkandavu were completed and Pazhassi and Kanhirapuzha are nearing completion. 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.

1.37 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.

1.38 The area brought under irrigation through minor irrigation schemes, including ground water sources, as at the end of 1998-99, was 2.26 lakh ha (net) and 2.89 lakh ha (gross).

1.39 Anti-sea erosion works, implemented with Central 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 1999, 354.4 kms of new sea wall were constructed and reformation works of 83.27 kms of old seawall were carried out. The expenditure

on anti-sea erosion works has amounted to Rs.17.01 crores, till the end of 1998-99.

### **Command Area Development**

1.39 Command area development, is implemented in the commands of 16 completed projects. During 1998-99, field channels were constructed to benefit 14,482 ha. Warabandi system covered 759 ha., and 204 training programmes arranged and demonstration covered 9390 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**

1.40 The installed capacity as at the end of March, 1996 was 1505 MW. This has since been enhanced to 2383.5 MW by December 1999 (i.e. by 58%). The total energy generated during the year was 5364 MU in 1998-99, while power purchased from the Central pool declined from 4236.19 MU in 1997-98 to 3595.58 MU in 1998-99. The number of consumers has increased from 52.11 lakhs in 1997-98 to 56.38 lakhs in 1998-99.

1.41 The cumulative investment for power development upto the end of March, 1999 amounts to Rs. 4040 crores, with the expenditure during 1998-99 amounting to Rs.807 crores. Total energy available, including energy purchased in 1998-99 was 11,197 MU. The T & D losses stood at 17.75 percent. Energy sold during 1998-99 was 8960 MU. Revenue realised by the sale of power amounted to Rs.1,146 crores in 1998-99. 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.

1.42 Power situation has considerably

improved during the last three years. Power cut has been completely withdrawn. Still the existing demand-supply gap for energy is 3396 MU. The per capita consumption of electricity in the State during 1998-99 was 278.24 KWH, which is far below the national average of 334.26 KWH. Dependence on hydroelectric power and the undue delay in commissioning of the projects already taken up for implementation have mainly contributed to the shortage in power. 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. Private sector, it is felt, has to be involved in power development and initiatives taken so far have borne fruit.

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

### **Industry**

1.44 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.

1.45 With the financial support of Kerala State Industrial Development Corporation (KSIDC), 52 projects involving a total investment of Rs.848 crores on large and medium industries could be commissioned in 1998-99. Another 106 projects costing Rs.1478 crores were under various stages of implementation. KSIDC signed MOUs for establishing 73 projects with private sector firms with a total investment of Rs.348 crores. Out of 60 companies functioning under the Industries Department, 22 were working on profit during 1998-99. Together these units, earned a total profit of Rs. 119.83 crores during the year.

1.46 The major projects taken up by Kerala Industrial Infrastructural 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.111 crores upto 31.03.1999, out of which State Government contribution was Rs.97.38 crores.

1.47 Technopark constructed industrial modules adding up to 4.89 lakh sq.ft. out of which 57% has been fully occupied by 33 Software/Electronics units, employing about 4696 persons. 27 are software units. Total investment by State Government on Technopark is Rs.75 crores upto 31.03.1999. 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 from the plans of the Municipal Corporations and run directly by the STP in Thiruvananthapuram, Kochi and Kozhikode, 27 small software firms are already operating.

1.48 Recognising the emerging trend in the Information Technology field and its extreme importance, an Information Technology Policy for the State has been announced by the State Government. A separate Department for Information Technology has also been established. The Department has drawn up a number of future programmes in Information Technology for implementation in the State.

1.49 The number of working factories in the State rose from 17,336 in 1997 to 17719 by the end of 1998. The number of workers employed increased from 4.29 lakhs to 4.36 lakhs during the period. The number of industrial disputes declined from 11,477 in

1994-95 to 9116 in 1998-99. Out of 9116 disputes handled, 5829 were settled. The number of workers affected by strikes and lockouts declined from 75,183 in 1997-98 to 12,070 in 1998-99.

1.50 During 1998-99, 19,736 small-scale industries were newly registered. The total investment in these units amounted to Rs.302 crores. The total number of small-scale units stood at 1,99,827 providing employment to 9.81 lakh persons. The new units registered in 1998-99 provided employment to 71,632 persons. Out of 19,736 units newly registered, 492 units were run by Scheduled Castes, 73 by Scheduled Tribes and 4,459 by women. The Kerala Financial Corporation sanctioned an amount of Rs.210 crores to 2,043 units during 1998-99, out of which Rs.191 crores were sanctioned to small-scale units.

1.51 The new Industrial Policy announced by the State Government envisages a number of incentives and promotional measures for industrial development in the State. Government have established the Kerala Industrial Revitalisation Fund Board for revitalising potentially viable Public sector undertakings with funds mobilised from State Government and Financial Institutions. An amount of Rs.15.49 crores has already been sanctioned to four units.

1.52 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 85 per cent are women. As on 31.3.1999, there were 829 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 1998-99 stood at Rs.292.19 crores as compared to Rs.238.93 crores in 1997-98. Handloom industry provides employment to about two lakh workers. Even though the industry has shown improved performance in terms of number of looms acquired, production of cloth etc, the major problem of unsold stock of handloom cloth continues to persist. By the end of March 1999, production of handloom cloth was 76.12 million meters as against 74.99 million meters in the previous year. Shortage of raw cashewnut continued to be the main problem faced by the Cashew industry. The quantity of raw cashew imported in 1998-99 was 180686 MT valued at Rs.693.17 crores. Export earnings through the export of cashew kernels and cashew shell liquid amounted to Rs.1613.16 crores during 1998-99. The net foreign exchange earnings amounted to Rs.920 crores.

1.53 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. About 3024 acres have been brought under mulberry cultivation during 1997-98 and 1998-99. At present, about 5400 acres are under mulberry cultivation. With a view to activate 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.

1.54 The State's share of Central Sector Investment was 1.50 per cent in 1998, which shows a small increase from 1.40 per cent in 1997. Out of the total Central sector investment in the country which increased from Rs.284330 crores in March 1997 to Rs.314635 crores in March 1998, Kerala's share was only Rs.724 crores, showing that the state's share of the incremental investment was somewhat higher being

2.39%. In absolute terms, Central sector investment in Kerala went up from Rs.3992 crores in 1997 to Rs.4716 crores in 1998.

### Transport

1.55 Even though 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 1998-99 was 1.10 lakh kms. The total number of motor vehicles stood at 17.01 lakhs as on 31.3.1999. Out of 48,884 passenger buses and stage carriages in the State as on 31.3.1999, the number of buses owned by KSRTC were 3,928.

1.56 Kollam, Kochi and Kottappuram stretch of West Coast Canal along with 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 be funded by World Bank and the consultants are at work for preparing the Project Report.

### Tourism

1.57 Foreign tourist arrivals in the State during 1998 were 1.90 lakhs as compared to 1.82 lakhs in the previous year, registering an increase of 4.12 per cent. The total number of tourists including domestic arrivals in the State stood at 46.7 lakhs in 1998. With a view to give the further push, much greater attention is being given to tourism development in the next financial year.

1.58 Kerala Tourism Development Corporation runs a chain of hotels, motels, yatrivas etc. Priority is being given to infrastructural development and marketing as part of the overall tourism development. 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 crores, out of which State Government's contribution is placed at Rs.35 crores. 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

1.59 Kerala has achieved the highest effective literacy rate in the country. According to 1991 Census, Kerala's literacy rate was 89.81 per cent as compared to the all India average of 52.21 per cent. The female literacy rate was 86.17 per cent in Kerala compared to the 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.

1.60 During 1998-99 there were 12306 schools in the State, out of which 4493 (37%) were Government Schools, 7304 (59%) private aided schools and 509 (4%) private unaided schools.

1.61 Out of the total number of schools, 6755 were Lower Primary Schools, 2966 Upper Primary and 2585 High Schools in addition to the LP and U.P. sections attached to the U.P. and High Schools.

1.62 The school enrolment in the State declined to 53.36 lakhs in 1998-99 compared to 54.37 lakhs in the previous year. 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 lakhs. The teacher pupil ratio is 1:29. The number of uneconomic schools with enrolment less than 25 per standard, a peculiar phenomenon witnessed in Kerala, stood at 1950 in 1999, comprising 835 Government Schools and 1,115 private aided schools. Correspondingly, the number of protected teachers was 2,220 in 1998-99. 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 528 Higher Secondary schools, of which 256 are Government Schools, 260 private aided schools and 12 unaided schools. Total enrolment in Higher Secondary courses stood at 70,571 with girl students comprising 58%.

1.63 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 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 3.09 lakhs out of whom girl students accounted for 60 per cent. The teaching faculty had a total strength of 13,276 in 1998, out of whom 38 per cent were women teachers.

1.64 Private registration for various courses in the three Universities of Kerala, Mahatma Gandhi and Calicut in 1997 stood at 1.46 lakhs.

1.65 For Technical Education in the State, there are of 21 Engineering Colleges, comprising of 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. Nine Government Polytechnics were started in 1998 and 1999. The total enrolment in Engineering Colleges stood at 5,798 in 1999, and that in Polytechnics 8,710.

1.66 The total expenditure on education in 1998-99 amounted to Rs.2215 crores as against Rs.1747 crores in the previous year. Out of the total expenditure, Rs.1068 crores was spent on primary education, Rs.728



crores on secondary education, Rs.308 crores on University and Higher Education and Rs.93 crores 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 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 142 hospitals, comprising five Medical College Hospitals, five General Hospitals, 11 District Hospitals, 36 Taluk Hospitals, 69 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 5094 sub-Centres. The Ophthalmic Hospital, Thiruvananthapuram has been converted into Regional Institute of Ophthalmology. The total bed strength in these hospitals put together was 44,500. The number of beds in the Government

sector for the three systems of medicine per lakh of population stood at 152 during 1999 compared to the all India average of 103 beds per lakh of population. There were 24,416 medical and paramedical personnel with the Department of Health Services and 2368 with 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 4288 Allopathic Hospitals, 4922 Ayurveda Hospitals and 3118 Homoeopathic Institutions with bed strength of 70924.

1.70 In the State there were also 111 Ayurveda hospitals with 2484 beds and 631 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 During 1996-97, there were 31 Homoeopathic Hospitals with 970 beds and 474 dispensaries. Two clinical laboratories, one attached to the District Homoeo Hospital, Thodupuzha and the other to District Homoeo Hospital, Pushpakandom were started during 1995-96 and one rehabilitation centre for mentally retarded 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 200 students.

1.72 The Family Welfare programmes in the State are implemented through the network of 962 Primary Health Centres and 5094 sub-centres. The present couple protection rate in the State is 64.3 as against the all India average of 60.

1.73 The total government expenditure on health stood at Rs.6030 crores in 1998-99. The per capita expenditure on health

increased from Rs.168 in 1997-98 to Rs.193 in 1998-99.

### **Housing**

1.74 The total demand for houses in the State projected for 2000 AD is 16 lakhs. A significant aspect of housing policy in recent years has been to address particularly the requirements of weaker sections. During the period 1986-1998, 6.96 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.

1.77 Housing Board is the major public agency contributing about 60 per cent of the total houses constructed during 1998-99. Cumulatively, as of 31.3.1999, the Board constructed/assisted 4.34 lakh houses under various schemes. During 1998-99, 52,459 houses were constructed by the Board. The Co-operative Housing Federation extended financial assistance for the construction of 1,14,979 houses cumulatively as of 31.3.1999. A new housing Scheme, Maithri Housing Scheme, was introduced for the weaker sections in 1996-97 under which 1,25,314 houses were constructed/assisted by the Housing Board.

### **Water Supply**

1.78 During 1998-99, 1576 rural water supply schemes and 50 urban water supply schemes were under implementation and 128 Water Supply Schemes were completed.

1.79 Ninth Five Year Plan envisages 100 per cent coverage of the state in regard to protected water supply. Mobilisation of resources through institutional sources and more realistic user charge policies is crucial for meeting the investment requirement for achieving total coverage.

1.80 Local Bodies have formulated about 10,200 water supply schemes with a financial allocation of Rs. 100 crores during 1997-98 and 1998-99.

### **Bank & Institutional Finance**

1.81 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 40.2 in September 1999. The most disturbing aspect about the sharp 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**

1.82 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 is fixed at Rs.16,100 crores. This is 195 per cent higher than the outlay for the Eighth Five Year Plan. In the first two years of the

Ninth Plan, 1997-98 and 1998-99, expenditures have exceeded the budgeted outlay.

### **Decentralisation of Planning**

1.83 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 and a 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, 2000-01, 36% of the State Plan will be allocated to the Local Bodies on the basis of objective criteria, giving appropriate weightage for backwardness in addition to population.

1.84 In order to make decentralised 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. The plan formulation and implementation for 2000-01 will continue to be in the Campaign mode given the fact that the functionaries of the local bodies exposed for the first time require further sharpening of their lessons in planning and development as otherwise the

efforts taken so far if left incomplete will not have the desired result. A major exercise for preparing District Perspective Plans is in its final stages in all the districts. The Campaign has been widely acclaimed, nationally and internationally, as evidenced by the delegations that have been visiting the State. World Bank team that visited the State in December 1998, reviewed the plan decentralisation process initiated by the State and acclaimed it as a unique exercise in decentralisation. The Bank has agreed in principle to finance water supply schemes to be implemented through Panchayats with a financial support of about Rs.350 crores. Pilot projects have already been taken up in five Panchayats. The Swiss Agency for Development and Cooperation (SDC), an agency of the Government of Switzerland, has signed an agreement for 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.20 crores has been allocated by Planning Commission. This is in addition to Centre's allocation of Rs.4.68 crores during 1996-98 for meeting the Campaign's expenses. While the Central Government has shown appreciable understanding towards the State's exercise in plan decentralisation, this unfortunately is not true of the Centre's financial agencies, be it RBI, NABARD etc.

1.85 In general, the economy performed reasonably well with the rate of growth during the year under review being 5.6%. 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.

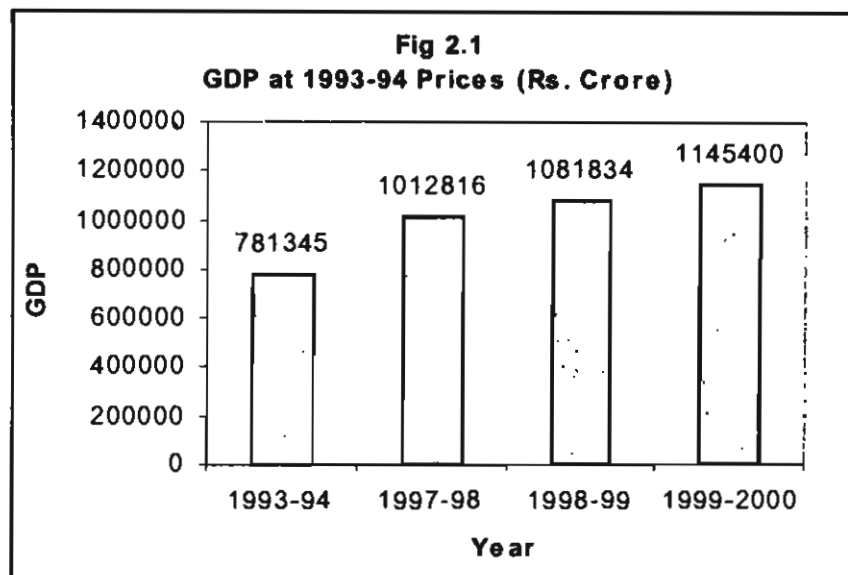
## CHAPTER 2 INCOME EMPLOYMENT AND POPULATION

### National Income

**G**ross Domestic Product (GDP) at factor cost, at constant (1993-94) prices in 1998-99 has been estimated at Rs.1,081,834 crores (quick estimate) as against Rs.1,012,816 crores (provisional) in 1997-98, registering a growth of 6.8 percent. The annual growth rate recorded by the economy during the previous year was 5 percent. At current prices, GDP was Rs.1,612,383 crores in 1998-99 as against Rs.1,384,446 crores in 1997-98, showing an increase of 16.5 percent during the year. Growth rate

of GDP in 1999-2000 is anticipated at 5.9 percent.

2.2 At constant (1993-94) prices, the national income (i.e.net national product at factor cost) in 1998-99 was Rs.949,525 crores as against Rs889,102 crores in 1997-98, registering a growth of 6.8 per cent over the year. At current prices, the national income in 1998-99 has been estimated at Rs.1,431,527 crores as compared to Rs.1,220,716 crores in 1997-98, showing an increase of 17.3 percent during the year.



*1997-98: Provisional, 1998-99: Quick Estimate,  
1999-2000: Advance Estimate*

2.3 While there has been improvement in growth in 1998-99 in sectors such as agriculture, trade, hotels and communications, there was decline in the growth of financial services (from 11.8 to 6.1%), industry (from 4 to 3.6%), community, social and personal services (from 12.2 to 10.9%) and construction (from

10.3 to 5.7%). (See Table 2.1). One of the major setbacks noticed in 1998-99 at the national level was the sharp decline in the rate of Gross Domestic Savings, which was 24.7% of GDP in 1997-98 but declined to 22.3% in 1998-99. The rate of Gross Fixed Capital Formation has come down from 23.3% of GDP to 23% during this period.

**Table 2.1**  
**Sectoral Real Growth Rates in GDP (at factor cost)**  
**(All India, 1994-95 to 1998-99)**

<i>Industry</i>	<i>Percentage change over the previous year</i>				
	<i>1994-95</i>	<i>1995-96</i>	<i>1996-97</i>	<i>1997-98 (P)</i>	<i>1998-99(Q)</i>
<b>I. Agriculture and allied Sectors</b>	5.0	-0.9	9.6	-1.9	7.2
<b>II. Industry</b>	9.2	11.8	6.0	5.9	4.0
1. Mining and quarrying	9.1	5.6	0.5	9.0	-0.5
2. Manufacturing	10.7	14.9	7.9	4.0	3.6
3. Electricity, Gas & water supply	9.3	6.8	5.4	7.2	7.9
4. Construction	4.8	7.4	2.4	10.3	5.7
<b>III. Services</b>	7.0	10.3	7.1	9.0	8.3
5. Trade, hotels, transport and communications	9.9	13.3	7.7	5.8	8.1
6. Financial services	6.1	7.6	7.1	11.8	6.1
7. Community, social and personal services	3.3	7.9	6.2	12.2	10.9
<b>IV. Total GDP</b>	7.0	7.3	7.5	5.0	6.8

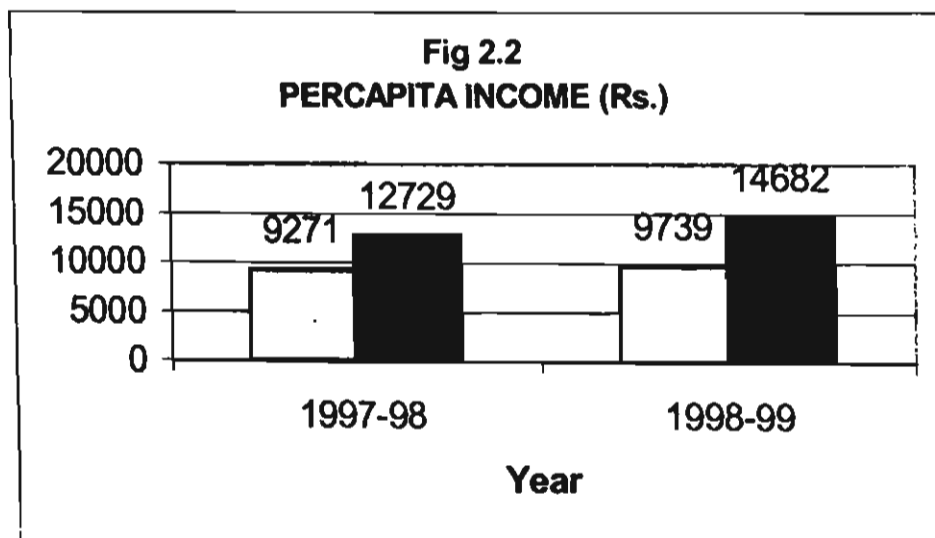
*P: Provisional, Q: Quick estimates*

*Source: Economic Survey 1999-2000; Government of India*

### Per Capita National Income

2.4 The per capita national income at 1993-94 prices is estimated at Rs.9,739 for 1998-99 as against Rs.9,271 for 1997-98, registering an increase of 5.0 per cent during the year. The per capita income at current

prices is estimated at Rs.14,682 in 1998-99 as against Rs.12,729 for the previous year, representing a growth of 15.3 per cent. (Fig.2.2).



2.5 Table 2.2 illustrates National Product, Domestic product, and Per Capita

National Income at constant and current prices.

**Table 2.2**  
**National Product, Domestic Product and Per Capita Income**  
**at Factor Cost**

Sl. No.	Item	<i>(Rs. Crores)</i>			
		At current prices		At 1993-94 Prices	
		1997-98 (P)	1998-99 (Q)	1997-98 (P)	1998-99 (Q)
1	2	3	4	5	6
	<i>Domestic Product</i>				
1	Gross Domestic Product (GDP)	1384446 (11.3)	1612383 (16.5)	1012816 (5.0)	1081834 (6.8)
2	Net Domestic Product (NDP)	1233921 (12.0)	1446494 (17.2)	899418 (5.0)	960694 (6.8)
	<i>National Product</i>				
3	Gross National Product (GNP)	1371241 (12.0)	1597418 (16.5)	1002500 (5.1)	1070665 (6.8)
4	Net National Product (NNP)	1220716 (12.0)	1431527 (17.3)	889102 (4.9)	949525 (6.8)
5	Per Capita National Income	12729 (10.2)	14682 (15.3)	9271 (3.2)	9739 (5.0)

*P – Provisional, Q – Quick Estimate*

*Note: Figures in brackets indicate percentage growth over the year*

2.6 Certain salient features of the Indian Economy are presented in Appendix Tables 2.1 to 2.5

### State Income

2.7 Based on the guidelines of Central Statistical Organization (CSO), the State Department of Economics and Statistics has revised the data on State Domestic Product in the New Series for the period commencing from 1993-94.

### Net State Domestic Product (Net SDP)

2.8 New series of National Accounts Statistics, with 1993-94 as the base year, has been released by the Central Statistical Organisation replacing the series with 1980-81 as the base year. The State Income figures have also been accordingly revised

The net State Domestic Product at constant (1993-94) prices is estimated at Rs.31,240 crores in 1998-99 as against Rs.29,586 crore in 1997-98 registering a growth of 5.6 percent as against the previous year's growth of 4.95 percent (See Table 2.3). This is mainly due to better growth of agriculture from 0.8 percent in 1997-98 to 3.82 percent in 1998-99, electricity, gas and water supply from 12.4 to 13.4 percent, transport, storage and communication from 14.2 to 14.8 percent and better performance of forestry and logging, fishing, public administration etc. Manufacturing sector performed well in 1997-98 and 1998-99 when the annual growth rate averaged at 7.56 percent. The agriculture sector registered a growth rate of 3.82 percent in 1998-99 as against 0.8 percent recorded in 1997-98 (See Table 2.4). At current prices, the State Income in 1998-99 is estimated at Rs. 56,563 crores, compared to Rs.47,924 crores in 1997-98.

representing a growth of 18.03%. State income anticipated for the year 1999-2000 at current prices is Rs. 66,636.87 crores, growth rate being 17.87 per cent and

Rs.32,988.14 crores in 1993-94 prices which represents a growth rate of 5.6 per cent over the previous year.

**Table 2.3**  
**State Domestic Product and Per capita Income of Kerala**

Sl. No	Items	Year				Growth Rate (%)		
		1996-97	1997-98 *	1998-99 **	1999-2000 @	1997-98	1998-99	1999-2000
1	State Domestic product (Rs. in crores)							
	I. Current Price	40818.90	47924.24	56562.82	66636.87	17.41	18.03	17.81
	II. Constant Price (Base Year 1993-94)	28189.47	29586.18	31239.72	32988.14	4.95	5.60	5.60
2	Per capita Income (In Rs.)							
	I. Current Prices	13089	15195	17756	20730	16.10	16.85	16.75
	II. Constant Prices (Base Year 1993-94)	9039	9381	9807	10262	3.80	4.54	4.64

\* Provisional Estimate \*\* Quick Estimate @ Anticipated

Source : Directorate of Economics & Statistics

**Table -2.4**  
**Percentage Change Over Previous Year in NDP of Selected Sectors of Kerala Economy at Constant (1993-94) Prices**

Sl. No.	Sector	1994-95	1995-96	1996-97	1997-98 *	1998-99 **
1	Agriculture	12.5	1.2	2.00	0.80	3.82
2	Forestry and logging	9.5	-11.97	4.2	4.00	4.00
3	Fishing	6.9	-12.41	10.4	5.0	5.0
4	Mining and Quarrying	-18.9	41.9	-12.5	3.5	2.2
5	Manufacturing	20.8	12.4	-2.2	8.0	7.2
6	Electricity, Gas & Water Supply	12.5	-11.3	30.5	12.4	13.4
7	Construction	1.4	-0.3	2.5	1.23	1.2
8	Transport, Storage and Communication	14.6	21.1	13.96	14.2	14.8
9	Trade, Hotel & Restaurants	7.8	6.2	2.9	4.3	3.4
10	Banking and Insurance	10.8	15.0	27.4	13.3	13.3
11	Real estate, Ownership, Business, Legal	2.9	3.7	5.1	2.7	2.6
12	Public Administration	-6.3	6.0	3	0.6	2.1
13	Other Services	7.0	2.1	5.8	3.9	3.1
	Net State Domestic Product	9.4	5.0	4.8	4.95	5.6

\* Provisional Estimate \*\* Quick Estimate

Source: Directorate of Economics and Statistics

2.9 Contrary to the general belief that the economy of the State is growing at a rate lower than that achieved by other States, the latest publication of the Reserve Bank of India, "Handbook of Statistics of Indian Economy 1999", shows that the Net Domestic Product of Kerala registered a growth of 45.1 percent during the period, 1991-92 to 1997-98. This is higher than that of Tamil Nadu (42.6%), Karnataka (33.2%) and several other States. In fact, Kerala ranks among the top five major States with regard to growth rate of State Income. State-wise comparison is given in Table 2.5

**Table 2.5**  
**State-wise Growth of**  
**State Domestic Product**  
(Percentage)

State	1991-92 to 1997-98	1984-85 to 1990-91
Gujarat	85.4	28.3
Maharashtra	58.2	56.9
Andhra Pradesh	49.2	36.2
West Bengal	46.0	29.7
Kerala	45.1	33.5
Madhya Pradesh	43.1	47.8
Tamil Nadu	42.6	37.5
Rajasthan	42.4	62.7
Karnataka	33.2	29.7
Haryana	29.3	61.3
Punjab	29.3	36.4
Orissa	22.8	17.4
Assam	20.3	22.1
Uttar Pradesh	19.6	39.5
Bihar	10.1	26.3

Source: RBI Handbook of Statistics on Indian Economy 1999.

2.10 Kerala would have done even better if the State had received its due share in the Central Sector Investment and had the financial institutions and commercial banks extended adequate credit support for the industrial and economic activities in the State.

### Per capita State Income

2.11 Per capita Net State Domestic Product at constant (1993-94) prices increased from Rs.9,381 in 1997-98 to Rs.9,807 in 1998-99 recording a growth of 4.54 per cent. At current prices, per capita State Income is estimated at Rs.17,756 in 1998-99 as against Rs.15,195 in 1997-98 (See Table 2.3). Anticipated per capita State income in 1999-2000 at constant prices is Rs. 10,262 and at current prices Rs. 20,730. A landmark achievement has been realised with the per capita State income crossing the per capita national income with the new series of national account statistics released by the Central Statistical Organisation.

### Sectoral Distribution of State Income

2.12 The contribution of primary sector to net state domestic product at constant prices declined marginally from 27.38 percent in 1997-98 to 26.95 percent in 1998-99. The share of secondary sector remained at around 21 percent while that of tertiary sector increased marginally from 51.45 percent to 51.9 percent during the period. Similar trend in sectoral contributions to domestic product has been noticed at the national level also. (See Table 2.6)



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

<i>Sector</i>		<i>1994-95</i>	<i>1995-96</i>	<i>1996-97</i>	<i>1997-98</i> <i>(P)</i>	<i>1998-99</i> <i>(Q)</i>	<i>1999-2000</i> @
Primary	Current Prices	30.45	30.10	29.02	28.37	27.63	26.74
	Constant Prices	30.70	28.90	28.32	27.38	26.95	26.22
Secondary	Current Prices	21.48	21.93	21.55	21.71	21.83	21.78
	Constant Prices	21.50	21.86	20.98	21.17	21.15	20.89
Tertiary	Current Prices	48.07	47.97	49.43	49.91	50.54	51.48
	Constant Prices	47.80	49.24	50.7	51.45	51.90	52.89

*P* - Provisional, @ - Anticipated

*Q* - Quick estimate.

Source: Department of Economics and Statistics.

### District-wise Income

2.13 District-wise distribution of Net State Domestic Product (Net SDP) at factor cost at constant (1993-94) prices shows that Ernakulam district continues to have the highest income at Rs.3,774.02 crores in 1998-99 as against Rs. 3,564.28 crore in 1997-98 recording a growth of 5.88 percent followed by Thiruvananthapuram, Thrissur and Kozhikode. The lowest Net

Domestic product was recorded in Wayanad district (Rs. 763.81 crore in 1998-99).

2.14 During 1998-99, highest growth in district income was recorded in Alappuzha district (5.92 percent) followed by Thrissur (5.90 percent), Ernakulam (5.88%), Pathanamthitta (5.81%) and Thiruvananthapuram (5.8%). Wayanad district recorded the lowest growth rate (4.57 percent) in 1998-99 (See table 2.7).

**Table- 2.7**  
**District wise Distribution of Net State Domestic Product**  
**at factor cost at constant prices (1993-94 prices)**

*(Rs.in Lakhs)*

<i>Net State Domestic Product at Factor Cost</i>					<i>Growth Rate (%)</i>	
<i>Sl No</i>	<i>Districts</i>	<i>1996-97</i>	<i>1997-98*</i>	<i>1998-99**</i>	<i>1997-98</i>	<i>1998-99</i>
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>
1	Thiruvananthapuram	287443	302217	319655	5.14	5.80
2	Kollam	232178	243601	257007	4.92	5.50
3	Pathanamthitta	115885	121444	128502	4.80	5.81
4	Alappuzha	194143	205016	217143	5.60	5.92
5	Kottayam	195513	204871	216613	4.79	5.70
6	Idukki	116737	121063	127155	3.70	5.03
7	Ernakulam	338097	356428	377402	5.40	5.88
8	Thrissur	277580	292917	310182	5.53	5.90
9	Palakkad	205306	215074	226676	4.76	5.40
10	Malappuram	216818	226952	239097	4.67	5.35

1	2	3	4	5	6	7
11	Kozhikode	249715	261771	275641	4.83	5.30
12	Wayanad	70460	72835	76381	3.40	4.87
13	Kannur	211310	221424	233249	4.79	5.34
14	Kasaragod	107761	113005	119269	4.87	5.54
	<b>State</b>	<b>2818947</b>	<b>2958618</b>	<b>3123972</b>	<b>4.95</b>	<b>5.60</b>

\* Provisional estimate

\*\* Quick estimate

Source: Department of Economics & Statistics.

### District-wise Per Capita Income

2.15 Among the districts, Ernakulam continues to have the highest per capita income with Rs.12,237 in 1998-99 as against Rs.11,671 in 1997-98 recording a growth of 4.8 percent followed by Kottayam

(Rs.10,820 in 1998-99) and Idukki (Rs.10,776). Malappuram district registered the lowest per capita income of Rs:7,055 in 1998-99. See table 2.8.

**Table 2.8**  
**District-Wise Per Capita Income (1993-94 Prices)**

Sl No	District	Per Capita Income (in Rs.)				
		1997-98(P)	Rank	1998-99(Q)	Rank	Growth Rate (%)
1	Thiruvananthapuram	9462	7	9909	8	4.7
2	Kollam	9337	10	9750	10	4.4
3	Pathanamthitta	9429	9	9877	9	4.8
4	Alappuzha	9452	8	9911	7	4.9
5	Kottayam	10337	3	10820	2	4.7
6	Idukki	10365	2	10776	3	4.0
7	Ernakulam	11671	1	12237	1	4.8
8	Thrissur	9872	5	10350	5	4.8
9	Palakkad	8330	13	8692	13	4.3
10	Malappuram	6763	14	7055	14	4.3
11	Kozhikode	9217	11	9611	11	4.3
12	Wayanad	10005	4	10378	4	3.7
13	Kannur	9071	12	9462	12	4.3
14	Kasaragod	9733	6	10168	6	4.5
	<b>State</b>	<b>9381</b>		<b>9807</b>		<b>4.5</b>

**P - Provisional Estimate**

**Q - Quick Estimate**

Source: Department of Economics & Statistics

### District-Wise Rate of Growth of Primary, Secondary and Tertiary Sectors

2.16 At the State level, tertiary sector recorded the highest growth rate of 6.5 percent followed secondary sector (5.5 percent) and primary sector (3.9 percent). In

the districts, primary sector recorded a growth rate which ranged between 3 and 4 percent, secondary sector 4.5 and 7 percent and tertiary sector from 6 to 7.5 percent. Table 2.9 shows district wise rates of growth of primary, secondary and tertiary sectors of the Kerala economy.

**Table -2.9**  
**District-wise Rate of Growth of Sectoral Income during 1998-99\***

(At constant prices 1993-94)

Sl.No	District	Primary	Secondary	Tertiary
1	Thiruvananthapuram	3.9	5.5	6.5
2	Kollam	4.1	6.1	6.1
3	Pathanamthitta	3.9	5.4	7.5
4	Alappuzha	4.0	6.2	6.4
5	Kottayam	3.8	5.6	6.9
6	Idukki	3.9	6.9	6.6
7	Ernakulam	4.0	4.9	7.1
8	Thrissur	3.9	5.7	6.7
9	Palakkad	3.8	5.9	6.1
10	Malappuram	3.9	4.7	6.4
11	Kozhikode	4.0	4.9	6.1
12	Wayanad	3.8	4.5	6.5
13	Kannur	3.9	5.3	6.4
14	Kasaragod	3.9	6.0	6.4
	State	3.9	5.5	6.5

\* Quick Estimate

### Unemployment

2.17 Number of job seekers registered in Employment Exchanges of Kerala increased from 35.51 lakhs in 1996-97 to 37.90 lakhs in 1998-99. The number of those who possess qualification of SSLC and above increased from 26.92 lakhs in 1996-97 to 28.57 lakhs in 1998-99. While their proportion to total job seekers was 75.83 per cent in 1996-97, it marginally declined to 75.38 per cent in 1998-99. Percentage of total work seekers with qualification below SSLC was 24.17 per cent in 1996-97 and 24.62 percent in 1998-99.

2.18 Total number of graduates who had registered their names in Employment Exchanges in 1996-97 was 1.82 lakhs which went up to 2.09 lakhs in 1998-99. Total number of job seekers with post-graduate qualification in 1996-97 was 37,645 which increased to 46,228 in 1998-99.

2.19 Total number of professional and technical work seekers in Kerala was 1,38,597 in 1996-97. It increased to 1,54,813 in 1998-99. Total number of medical graduate job seekers declined from 2,158 in 1996-97 to 1,883 in 1998-99. While there was an increase in the case of

engineering graduates, Diploma holders in Engineering and ITI certificate holders, there was a marginal decline in the number of Agricultural Graduates and Veterinary graduates who had registered in Employment Exchanges, between 1996-97 and 1998-99. (For details see Appendix 2.18)

2.20 One of the peculiarities of unemployment situation in Kerala is that Women outnumber men who seek employment through employment exchanges. Total number of women job seekers in Kerala in 1999 was 20.77 lakhs compared to 17.14 lakh men. The spread of education and the difficulty to take up jobs freely due to various reasons perhaps explain the high incidence of unemployment among women.

2.21 Among the districts in Kerala, Thiruvananthapuram ranks first with the highest number of job seekers. In 1999 the total number of job seekers in Thiruvananthapuram was 6.70 lakhs of which women constituted 3.84 lakhs and men 2.87 lakhs. The lowest number of work seekers is in Wayanad district with a total number of 71,650 out of which 36,193 were women and the remaining 35,457 were men. Palakkad and Kasargode are the two districts where men outnumber women among the total job seekers in fourteen districts. (for details see appendix 2.19)

### **Unemployment Assistance**

2.22 The total number of beneficiaries who had received unemployment assistance was 2,64,382 in 1996-97. It declined to 2,32,264 by 1998-99. The total amount disbursed by way of unemployment assistance declined from Rs.22.7 crores in 1996-97 to Rs.14.49 crores in 1998-99.

2.23 The total number of beneficiaries and the amount disbursed as self-employment assistance scheme has also been showing a declining trend. Total number of beneficiaries who received self-employment assistance in 1997-98 was 1,518 and the amount disbursed was Rs.9.11 lakhs. Their number came down to 888 and the amount disbursed was only Rs.5.33 lakhs during 1998-99.

### **Employment in the Organized Sector**

2.24 Total number of persons employed in the organized sector in Kerala has increased from 11,78,626 in 1996-97 to 12,21,446 as in 1998-99. The employment in public sector as well as private sector increased between 1996-97 and 1998-99. Public sector provided employment to 6,24,542 persons in 1996-97 and to 6,34,803 in 1998-99. There has been an increase in employment in the private sector also which went up from 5,54,084 persons in 1996-97 to 5,86,643 persons in 1998-99. At the National level while employment in the Public Sector stagnated between 1995 to 1998, Private Sector employment increased from 80.58 lakhs to 88.35 lakhs during the same period. see Table 2.10.

**Table 2.10**  
**Employment in the Organised Sector**

(In Lakhs)

At the end of	Public Sector					Private Sector	Total (6+7)	Women Employed out of Total	Percentage of Women Employed to Total
	Central Govt.	State Govt.	Quasi Govt.	Local Bodies	Total (2+5)				
March 1995	33.95 (+0.1)	73.55 (+0.2)	65.20 (+0.1)	21.97 (-0.3)	194.66 (+0.1)	80.58 (+1.6)	275.25 (+0.5)	43.04 (+3.6)	15.6
March 1996	33.66 (-0.9)	74.14 (+0.8)	64.58 (-1.0)	21.92 (-0.2)	194.29 (-0.2)	85.12 (+5.6)	279.41 (+1.5)	44.26 (2.8)	15.8
March 1997(P)	32.95 (-2.1)	74.85 (+1.0)	65.35 (+1.2)	22.44 (+2.4)	195.59 (+0.7)	86.85 (+2.0)	282.45 (+1.1)	46.37 (+4.8)	16.4
March 1998(P)	..	..	..	..	195.40 (-0.1)	88.35 (+1.7)	283.75 (+0.5)	17.0	

**P: Provisional****Note: Figures in brackets represent percentage variations over the previous year****Source: Ministry of Labour, Government of India.**

### Placement through Employment Exchanges

2.25 Placement through employment exchanges has increased from 19375 in 1997-98 to 16661 in 1998-99. The monthly average of the number of persons who utilised the services of employment exchanges has increased from 350 in 1997-98 to 447 in 1998-99.

### Migration

2.26 Kerala's population was a non-migrating one till the 1940's. After the World war and Indian independence migration became a way of life for many educated youths in Kerala, to earn their livelihood. In the beginning migration was almost confined to within India, but during the last three decades migration to countries outside India has grown rapidly. Migration has affected every walk of life in the State-economic, social demographic, political and even religious. Arab countries of the middle East were the destination of 95 percent of the emigrants with Saudi Arabia alone accounting for nearly 40 percent of the total. Outside the Arab world, the principal destination of Kerala emigrants was the U.S.A., which accounted for 2.2 percent of the total. According to a study conducted by Zachariah, Mathew and Rajan of the Centre

for Development Studies, there were altogether 37.5 lakhs migrants in Kerala 1998. Out of this total number, 20.5 lakhs were those residing outside Kerala of which 17 lakhs were persons who had returned to the State and 21 lakhs were external migrants. According to this study, the number of emigrants from Kerala in the second half of 1998 was 13.6 lakhs. Accurate data on migration from Kerala is not available. The migration Survey 1992-93 conducted by Department of Economics and Statistics revealed that 11.92 lakh persons had migrated outside the State. Out of which 6.41 lakhs persons were to gulf countries and 5.23 lakhs to other states and Union territories of India.

2.27 Recent statistics made available by Department of Non-resident Keralites show that out of 30 lakh Indians in gulf countries 16 lakhs are Keralites. According to banking Statistics for September 1999 the NRE deposits amounted to Rs.16,804.52 crore in all the commercial banks in Kerala as against Rs.13,584 crore in September 1998. It is a matter of serious concern that substantial portion of the contribution of the migrants from Kerala is flowing out of the State for investment as reflected in the declining credit deposit ratio of the banks.

Efforts to channelise this money for investment purposes within the State has to be stepped up by persuading the migrants. Major countrywise migration are reflected in Table.2.11

**Table 2.11**  
**Country -wise Migrants**

<i>(in Lakhs)</i>		
<i>Country</i>	<i>Indians</i>	<i>Keralites</i>
Saudi Arabia	16.00	8.00
U.A.E.	6.50	3.50
Kuwait	2.50	1.25
Bahrain	2.00	1.25
Oman	1.50	1.00
Qatar	1.50	1.00
<b>Total</b>	<b>30.00</b>	<b>16.00</b>

*Source:- Department of Non-resident Keralites*

#### **Placement through ODEPC**

2.28 From data available as on 30.11.1999, 1627 persons were registered with Overseas Development and Employment Promotion Consultant Ltd (ODEPC) for foreign employment. Out of this 90 were doctors, 246 Engineers, 393 technicians, 440 nurses, 219 paramedical staff, 57 skilled workers, 96 administrative staff, 31 catering staff, 8 teachers and 47 unskilled workers. Total number of placements through ODEPC in 1999 was 73. Out of which 33 were doctors, 9 nurses and 31 para-medical staff. With this the cumulative number of persons registered with ODEPC from 1977 to 1999 were 11,688 and the cumulative number of placements were 3,888. Country wise deployment of personnel in 1998-99 shows that 40 persons are in Saudi Arabia, 6 in Malaysia, 5 in Bahrain, and one in Qatar.

#### **Demographic factors**

2.29 According to 1991 Census, Kerala's population was 290.38 lakhs which consisted of 142.82 lakh males and 148.09 lakh females. About 73.61 percent of Kerala's population are living in rural areas and the remaining 26.39 percent in urban areas including those residing in urban agglomeration. India's total population according to 1991 census is 8,463.03 lakhs,

consisting of 4,392.30 lakh males and 4,070.72 lakh females. Out of this, 6,286.96 lakh people are living in rural areas and 2,176.11 lakh in urban areas. Kerala's estimated population during July 1995 was 309.37 lakhs.

2.30 Among 14 districts in Kerala, Malappuram rank first with a population of 30.96 lakh and Thiruvananthapuram ranks next with a population of 29.47 lakhs. Wayanad is the least populated district in the state with a population of 6.72 lakhs. According to 1991 Census Kerala's geometric growth rate of population is 1.4 percent.

2.31 The decennial growth rate of population in Kerala between 1981 and 1991 is 14.32. Among the districts Pathanamthitta had the lowest decennial growth rate of population with 5.60 and Malappuram had the highest decennial growth rate with 28.87.

#### **Birth, death and Infant Mortality rates**

2.32 According to Registrar General of India among Indian States except Goa, 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 16 which is the lowest among Indian states. The comparable rates for whole of India in 1998 are 26.4, 9.0 and 72 respectively.

#### **Sex Ratio**

2.33 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 against the corresponding all India figure of 927.

#### **Main workers**

2.34 Total main workers in Kerala was 83.01 lakhs while that at the all India level was 2,859.32 lakhs in 1991. Out of the 83.01 lakh main workers in Kerala; 64.04 lakh are males and 18.96 lakhs are females.

## CHAPTER 3 PRICES, COST OF LIVING AND WAGES

### *Consumer Price Index*

The annual average Consumer Price Index (CPI) in 1999 (upto October) rose by 61 points, compared to the corresponding period in 1998, from 963 points to 1024 points (Table 3.1). Though in absolute term, the CPI recorded an increase in 1999, in terms of annual rate of growth, it came down by 0.08% in 1999, from 6.41% in 1998 to 6.33% in 1999. It is significant to note that, since 1996 the rate of growth of CPI has been declining. The annual growth of CPI, which was 10.14% in 1996, came down to 8.97% in 1997 and to 6.41% in 1998 (upto October) and further to 6.33% in 1999 (upto October). Thus, the rate of inflation in the state has shown a declining trend since 1996. It is notable also that, the State was able to maintain downward trend in the growth of CPI, even while the rate of growth of CPI for the whole country witnessed upward trend. The CPI (Base: 1986-87) for industrial workers for the whole country increased by 7.02% in 1997-98 and by 13.12% in 1998-99, over the previous year, and the CPI for agricultural workers for the whole country increased by 3.13% and 10.98% respectively during the same period.

3.2 Within Kerala, the indices of seven centres viz., Punalur, Mundakkayam, Munnar, Eranakulam, Thrissur, Kozhikode and Kannur, were below the state average of 1024 points in 1999. The highest increase was recorded by Chalakkudy (76 points) and the lowest by Kollam and Kannur (48 points each). Like in the past few years including 1999, Meppady recorded the highest index (1074 points), followed by Thiruvananthapuram (1041 points) and Kollam (1039 points). The index was the lowest at Munnar (992 points). Inflation, measured in terms of CPI, was comparatively lower in the central region of the State, particularly at Munnar, Eranakulam and Mundakkayam. Month-wise consumer price indices of industrial and agricultural workers are shown in Appendix 3.1. The monthly index witnessed a steady increase since January 1999, with April and September showing erratic levels with 10 points and 2 points respectively. Between October 1998 and October 1999, the index went up by 6.6%, from 982 points in October 1998 to 1047 points in October 1999. Regarding the centre-wise rate of increase, the highest increase was recorded by Munnar (8.3%), followed by Mundakkayam (7.8%); the lowest being Kollam (5.1%).

Table 3.1  
Annual Average Consumer Price Index Numbers in Selected Centres of Kerala 1995-1999\*  
(Base: 1970=100)

Centers	Consumer Price Index Numbers					Percentage change over previous Year						
	1995	1996	1997*	1998*	1999*	1996	1997	1998	1998*	1999*		
1. Thiruvananthapuram	760	838	911	919	985	990	1041	10.26	9.67	7.73	8.12	5.69
2. Kollam	772	860	935	942	991	995	1039	11.40	9.53	5.63	5.99	4.84
3. Punalur	706	781	860	868	935	939	989	10.62	11.14	8.18	8.72	5.78
4. Alappuzha	762	839	910	916	971	975	1037	10.10	9.18	6.44	6.70	6.80
5. Kottayam	761	839	904	909	960	964	1028	10.23	8.34	6.05	6.19	7.08
6. Mundakayam	752	824	886	890	935	940	1001	9.57	8.01	5.61	5.53	7.06
7. Munnar	733	797	865	871	921	926	992	8.73	9.28	6.31	6.47	7.71
8. Ernakulam	734	818	888	892	942	947	999	11.44	9.05	6.17	6.08	6.05
9. Chalakudy	773	847	921	928	982	988	1058	9.57	9.56	6.47	6.62	7.74
10. Thrissur	761	835	903	908	953	958	1019	9.27	8.74	5.51	5.54	6.93
11. Palakkad	769	846	913	918	968	973	1029	10.01	8.51	5.99	6.02	6.30
12. Malappuram	790	863	923	927	970	974	1027	9.24	7.42	5.07	5.09	5.88
13. Kozhikode	752	831	898	902	949	954	1013	10.51	8.54	5.77	5.68	6.74
14. Meppady	794	870	940	946	1005	1009	1074	9.57	8.74	6.66	6.91	6.87
15. Kannur	773	853	917	923	971	975	1019	10.35	8.21	5.63	5.89	4.94
State Average	759	836	905	911	963	967	1024	10.14	8.97	6.15	6.41	6.33

Source :- Department of Economics and Statistics

\* Average from January to October



### ***Retail Prices***

3.3 Compared to 1998, the retail prices of essential commodities in 1999 recorded a down trend in general. Out of twenty two important essential items reviewed, as many as eleven items recorded negative growth in their prices ranging between -1.4% to -32.4% over the previous year, as against only six items in 1998, within the range of -1.2% to -25.59%. However, nine items witnessed increases in their prices. Compared to 1998, the rate of growth of prices of these nine items were of lower order, but for the prices of tapioca, banana, milk and egg. While the price of tapioca increased by 22.6%, that of banana increased by 6.4%, milk by 8.7% and egg by 5.2%. The price of rice witnessed only a marginal increase of Rs. 1.32 per kg in 1999, from Rs. 12.58 per kg in 1998 to Rs. 13.90 per kg in 1999, compared to an increase of Rs. 1.56 per kg in 1998 over the previous year. In 1999, Potato, dry chillies and onion recorded steep fall in their prices by 32.4%, 27.3% and 40.4% respectively, as against steep increases of 80.5% and 95.9% respectively of potato and dry chillies and a marginal fall of 5.2% of onion in 1998. Price of dhal came down by Rs 7.87 per kg, from Rs 41.50 per kg in 1998 to Rs 33.63 per kg in 1999

showing a decline of 19%. So was the case with refined oil, the price of which decreased by Rs. 10.77 per kg, from Rs. 75.11 per kg in 1998 to Rs 64.34 per kg in 1999, marking a decline of 14.34%. Prices of Coconut (without husk) and coconut oil went up. While the price rise was 12.4% in the case of coconut (100 nos.), from Rs 548.93 in 1998 to Rs. 616.79 in 1999, it was 3.2% in the case of coconut oil, from Rs. 59.21 per kg to Rs. 61.13 per kg during the corresponding period. When the price of firewood and electric bulb recorded modest increases in their prices by 1.5% and 1.3% respectively, price of washing soap and baby food decreased marginally by 1.8% and 1.4% respectively. The price of groundnut oil dipped by 3.5%, from Rs 51.50 per kg in 1998 to Rs. 49.70 per kg in 1999. The price of blackgram went up by Rs. 2.75 per kg, from Rs. 31.96 per kg in 1998 to Rs. 34.71 per kg in 1999 and the price of redgram went up marginally by Rs. 1.40 per kg, from Rs. 22.75 per kg to Rs. 24.15 per kg during the corresponding period. Greengram recorded a fall in its price (1%). The details are presented in Table 3.2.

Table 3.2  
Average Retail Prices of Essential Commodities 1994-99

Commodities	Unit	Prices at the end of December												Percentage of change over Previous Year											
		1994	1995	1996	1997	1998	1999	1995	1996	1997	1998	1999	1995	1996	1997	1998	1999								
1	2	3	4	5	6	7	8	9	10	11	12	13	3	4	5	6	7	8	9	10	11	12	13		
Rice	Kg	9.47	9.78	11.72	11.02	12.58	13.90	3.27	19.84	-0.97	14.16	10.49	18.48	21.54	22.96	24.42	26.96	26.70	16.56	6.59	6.35	10.40	-0.96		
Green Gram	Kg	18.48	21.54	22.96	24.42	26.96	26.70	16.56	6.59	6.35	10.40	-0.96	28.52	27.30	27.43	23.15	31.96	34.71	-4.28	0.36	-15.60	38.06	8.60		
Black gram ( without Husk)	Kg	28.52	27.30	27.43	23.15	31.96	34.71	-4.28	0.36	-15.60	38.06	8.60	14.13	15.06	18.17	17.07	22.75	24.15	6.58	20.65	-6.05	33.27	6.15		
Red gram	Kg	14.13	15.06	18.17	17.07	22.75	24.15	6.58	20.65	-6.05	33.27	6.15	20.14	3303.00	33.32	25.32	41.50	33.63	64.00	0.27	-23.55	63.90	-18.96		
Dhall	Kg	20.14	3303.00	33.32	25.32	41.50	33.63	64.00	0.27	-23.55	63.90	-18.96	38.35	44.30	67.91	56.81	59.21	61.13	15.51	53.30	-16.35	4.22	3.24		
Coconut Oil	Kg	38.35	44.30	67.91	56.81	59.21	61.13	15.51	53.30	-16.35	4.22	3.24	43.71	45.31	45.48	44.60	51.50	49.70	3.66	0.38	-1.93	15.47	-3.50		
Ground Nut Oil	Kg	43.71	45.31	45.48	44.60	51.50	49.70	3.66	0.38	-1.93	15.47	-3.50	59.48	64.84	65.23	62.14	75.11	64.34	9.01	0.60	-4.74	20.87	-14.34		
Refined Oil (Postman)	Kg	59.48	64.84	65.23	62.14	75.11	64.34	9.01	0.60	-4.74	20.87	-14.34	3.04	3.52	4.05	4.35	4.43	5.43	15.79	15.06	7.40	1.84	22.57		
Topioca	Kg	3.04	3.52	4.05	4.35	4.43	5.43	15.79	15.06	7.40	1.84	22.57	8.46	8.29	12.32	11.12	10.68	11.36	-2.01	48.61	-9.74	-3.96	6.36		
Banana (Green)	Kg	8.46	8.29	12.32	11.12	10.68	11.36	-2.01	48.61	-9.74	-3.96	6.36	8.79	9.75	11.00	11.85	12.00	13.04	10.92	12.82	7.72	1.27	8.67		
Milk (cow)	Litre	8.79	9.75	11.00	11.85	12.00	13.04	10.92	12.82	7.72	1.27	8.67	14.40	14.21	23.15	25.68	25.37	26.70	-1.32	62.91	10.93	-1.21	5.24		
Egg (Hen Nadan)	Dozen	14.40	14.21	23.15	25.68	25.37	26.70	-1.32	62.91	10.93	-1.21	5.24	7.25	7.36	9.14	7.50	13.54	9.16	1.52	24.18	-17.94	80.53	-32.35		
Potato	Kg	7.25	7.36	9.14	7.50	13.54	9.16	1.52	24.18	-17.94	80.53	-32.35	19.42	25.11	49.21	36.38	27.07	26.32	29.30	95.98	-26.07	-25.59	-2.77		
Coriander	Kg	19.42	25.11	49.21	36.38	27.07	26.32	29.30	95.98	-26.07	-25.59	-2.77	46.33	64.00	48.43	35.31	69.17	50.29	38.33	-24.32	-27.09	95.89	-27.30		
Chillies (Dry)	Kg	46.33	64.00	48.43	35.31	69.17	50.29	38.33	-24.32	-27.09	95.89	-27.30	6.68	12.54	9.29	17.62	16.70	9.95	87.72	-25.92	89.67	-5.22	-40.42		
Onion (small)	Kg	6.68	12.54	9.29	17.62	16.70	9.95	87.72	-25.92	89.67	-5.22	-40.42	12.83	12.60	13.48	15.71	15.12	14.99	-1.79	6.98	16.54	-3.76	-0.86		
Sugar	Kg	12.83	12.60	13.48	15.71	15.12	14.99	-1.79	6.98	16.54	-3.76	-0.86	374.17	413.57	620.00	571.92	548.93	616.79	10.53	49.91	-7.75	-4.02	12.36		
Coconut(without Husk)	100 Nos	374.17	413.57	620.00	571.92	548.93	616.79	10.53	49.91	-7.75	-4.02	12.36	102.53	128.83	0.00	0.00	151.00	153.33	25.16	0.00	0.00	0.00	1.54		
Fire wood (Local split)	Qtl	102.53	128.83	0.00	0.00	151.00	153.33	25.16	0.00	0.00	0.00	1.54	5.59	5.82	6.35	6.63	7.29	7.16	4.12	9.11	4.41	9.95	-1.78		
Washing Soap (501)	1/2 Bar	5.59	5.82	6.35	6.63	7.29	7.16	4.12	9.11	4.41	9.95	-1.78	9.64	9.50	0.00	0.00	10.71	10.85	-1.35	0.00	0.00	0.00	1.31		
Electric Bulb (Philips)	each	9.64	9.50	0.00	0.00	10.71	10.85	-1.35	0.00	0.00	0.00	1.31	85.00	103.29	113.08	111.64	129.33	127.55	21.52	9.48	-1.27	15.85	-1.38		
Baby Food (Amul)	Kg	85.00	103.29	113.08	111.64	129.33	127.55	21.52	9.48	-1.27	15.85	-1.38													

Source:- Department of Economics and Statistics

3.4 Month-wise prices of essential commodities in 1999, generally recorded a mixed trend. One of the notable features was that, at the end of December, the prices of as many as nineteen items, namely, dhall, sugar, tea, baby food, coconut oil, refined oil, gingelly oil, Corriander, chillies (dry), onion (small), chenai, potato, onion (big), lady's finger, banana, washing soap, razor blade, crocin and paper rolled back to a level lower than that in January, as against only twelve items in 1998. The price of rice, which was Rs. 12.43 per kg in January moved in an erratic manner, and after attaining a high of Rs. 13.64 per kg in October, declined to Rs. 13.60 per kg in December 1999. A sudden spurt in price was witnessed in the case of coconut (without husk), which generally remained high. The price, which was Rs. 539.64 (for 100 numbers) in January, gradually picked up and attained a peak level at Rs. 646.43 in November 1999 and, thereafter, came down to Rs. 616.79 in December 1999. Price of chillies (dry) gradually declined from Rs. 65.29 per kg in January to a low level at Rs. 43.71 per kg in May and, thereafter, picked up again touching at Rs. 53.29 per kg in October. After that, the price came down to Rs. 50.29 per kg in December. Corriander showed a marginal decline in its price from Rs. 27.39 per kg in January to Rs. 26.32 per kg in December. Prices of onion witnessed an erratic trend. From Rs. 11.06 per kg in January, the price declined to the lowest level at Rs. 7.4 per kg in August and thereafter, increased to a peak level at Rs. 14.06 per kg in October and again declined to Rs. 9.95 per kg in December. Coconut oil witnessed a price rise of 12.8%, from Rs. 54.18 per kg in January to Rs. 61.13 per kg in December. In oil and oilseeds group, price of groundnut oil and refined oil declined to a level at Rs. 49.70 per kg and Rs. 64.34 per kg respectively in December, from a level at Rs. 53.36 per kg and Rs. 73.63 per kg respectively in January. Tapioca recorded more or less a steady increase in its price from Rs. 4.39 per kg in January to Rs. 5.43 per kg in December,

showing an increase of 23.7%. The price of onion (big) witnessed an erratic trend of Rs. 9.12 per kg (January) to Rs. 7.61 per kg (December), in between going upto Rs. 10.76 in September and a high of Rs. 14.06 in October 1999. Price of Chillies (green) went up from Rs. 13.21 per kg in January to a peak level at Rs. 16.71 per kg in October and, thereafter, came down to Rs. 13.29 per kg in November and then again went up to Rs. 15.64 per kg in December. In fruits & vegetables group, the highest increase in price was recorded by snakegourd (28.6%), from Rs. 8.00 per kg in January to Rs. 10.29 per kg in December. Prices of other items in this group showed moderate fluctuations with in narrow range, comparatively. Among miscellaneous items, while the price of cement went up by 8.5%, from Rs. 152.46 per paper bag (sanker) in January to Rs. 165.38 per bag in December, that of tobacco went up by 6.1%, from Rs. 45.3 per kg in January to Rs. 48.21 per kg in December, tooth paste by 9%, from Rs. 22.21 (for 100 gms) in January to Rs. 24.21 in December. While the price of paper declined by 4.6%, from Rs. 10 (for 24 sheets) in January to Rs. 9.54 in December, the price of razor blade and washing soap witnessed only marginal declines, 1.3% and 1.9% respectively. A significant point observed in the movement of month-wise prices was that the price fluctuations were within a moderate range, compared to previous year. The details of month-wise prices are presented in Appendix 3.2.

### *Wholesale Price Index of Agricultural Commodities.*

3.5 Wholesale price index of agricultural commodities increased by 28.2%, from 2058.6 point in 1998 (upto June) to 2638.4 points in 1999 (upto June, the latest month for which data are available for 1999) as against the decrease of 4% in 1998 (upto June), from 2144.5 points in 1997 (upto June) to 2058.6 points in 1998 (upto June). As between different groups of

commodities the index of food crops went up by 42.3%, from 1815 points in 1998 to 2582 points in 1999, as against only 0.5% in 1998, from 1805.5 points in 1997 to 1814.6 points in 1998. The index of non-food crops also increased by 10.2% in 1999, from 2483.2 points in 1998 to 2736.4 points in 1999, as against a decrease of 9.7%, from 2733.8 point in 1997 to 2483.2 points in

1998. Among food crops, while the index of molasses decreased by 17.5%, indices of rice and condiments & spices shot up by 56.8% and 73.9% respectively. Index of fruits & vegetables witnessed a moderate increase of 4.9%. Among non-food crops, when the index of plantation crops declined by 4%, index of oil seeds went up by 14.4%. The details are presented in Table 3.3.

**Table 3.3**  
**Wholesale Price Index of Agricultural Commodities - 1995-1999\***

Base 1952-53=100)

Crops	Weight	Wholesale Price Index														Percentage change over previous year													
		1995	1998	1997*	1997	1998*	1998	1999*	1998	1999*	1998	1999*	1998	1999*	1997	1998	1999*	1998	1999*	1997	1998	1999*	1998	1999*					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25					
A Food Crops	63.50	1608.90	1731.10	1805.45	1814.70	1814.56	1839.54	2582.00	7.59	4.83	1.37	0.50	42.29																
Rice	40.40	1181.90	1161.90	1161.90	1161.90	1161.90	1161.90	1821.56	0.00	0.00	0.00	0.00	56.77																
Condiments & Spices	10.40	1960.00	2305.80	2783.53	2818.30	2763.10	2872.38	4804.90	17.64	22.23	1.92	-0.73	73.90																
Fruits and Vegetables	10.70	2978.10	3287.70	3185.02	3182.40	3293.60	3336.34	3453.55	10.40	-3.20	4.84	3.41	4.86																
Molasses	2.00	1477.10	1896.70	2338.20	2453.70	2144.75	2130.01	1769.98	28.41	29.37	-13.2	-8.27	-17.47																
B Non Food Crops	36.50	1864.30	2255.60	2733.78	2426.30	2483.20	2452.75	2736.38	20.99	7.57	1.09	-9.17	10.20																
Oil Seeds	25.50	2028.60	2553.40	3237.43	3069.00	2749.30	2713.20	3144.51	25.87	20.19	-11.6	-15.1	14.37																
Plantation Crops	11.00	1484.50	1567.50	1569.76	1630.90	1867.91	1851.35	1793.06	5.59	4.04	13.52	19	-4.01																
C All Crops	100.00	1702.00	1922.50	2144.51	2114.00	2058.62	2063.52	2638.35	12.96	9.96	-2.39	-4.00	28.16																

Source: - Department of Economics and Statistics

\* Average from January to June (6 months)

3.6 Month-wise movement of wholesale price indices in general witnessed a mixed trend in 1999. Index of rice, after a sudden spurt from 1161.9 point in January to 1953.5 point in February, but remained steady during the rest of the months. The trend was erratic in the case of indices of molasses, fruits & vegetables and plantation crops. The index of molasses, after a decline from 1879.7 point in January to an all time low at 1656 point in March, maintained uptrend and touched at 1772 point in May and, thereafter, again declined to 1767 point in June. The index of fruit & vegetables, after maintaining more or less a steady increase from January to April, shot up by 152 points, from 3406 points in April to 3558 points in May and, thereafter, came down to 3542 points in June. While the index of food crops increased throughout the period, from 1919 point in January to an all time high of 3112 point in June, the index of non-food crops, after maintaining uptrend and touching at 2856 point in April, declined to a level at 2767 point in June. Unlike in 1998, where the index of All Crops witnessed a skewed distribution, in 1999, the index recorded an uptrend through out the period. Between the period January to June, the index of condiments & spices increased by more than two fold, the highest increase experienced by agricultural commodities in 1999. The increase was 4106 points, from 3342 point in January to 7448 point in June. The index of oil seeds, after increasing gradually from 2974 point in January to an all time high of 3311 point in April, declined to 3198 point in June.

Plantation crops witnessed an erratic trend, moving with in rather a narrow range, from 1763 point to 1826 point. The month-wise indices of agricultural commodities from January to June 1999 are presented in Appendix.3.3.

### *Farm Commodity Price*

3.7 The farm prices of important agricultural commodities in the small farm segment of Kerala witnessed an upward trend during 1998-99. Data on trend of prices during the last eight years are given in table 3.4. The rate of increase in prices compared to the previous year was the highest in the case of arecanut (48%) followed by ginger (26%) and cashewnut (24%). In respect of coconut, the increase in prices was only 9% over the previous year. Pepper, the most important export commodity recorded a phenomenal increase of Rs 17440/qtl during 1997-98 and touched an all time high of Rs 18090/qtl during 1998-99. This probably reflected the boom in international prices. Prices of plantation crops are dealt with in the chapter "Agriculture and Irrigation". Among the commodities, coconut which had market support under market intervention mechanism, based on the advice of the Commission for Agricultural Costs and Prices, the support price announced by Government of India during 1999 was Rs 3100/qtl and the open market prices during the year remained more or less same as the support price.

Table 3.4  
Average Farm Prices of Principal Crops

Commodity	Unit	Prices								% increase during 1998-99 over 1997-98
		1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	
1	2	3	4	5	6	7	8	9	10	11
Paddy	Qtl	374.76	420.8	414.53	494.86	547	607	583	627	8
Tapioca	Qtl	157.68	187.24	197.6	217.13	253	300	297	313	5
Coconut	100 Nos	393.25	420.14	325.55	307.83	331	480	443	485	9
Pepper	Qtl	2950.05	2616.59	3898.02	6687.43	7320	8780	17440	18090	4
Ginger	Qtl	2177.95	2490.5	2858.06	5250.29	5871	4214	4462	5625	26
Cashewnut	Qtl	2037.74	2000.41	2134.34	2353.36	2700	2730	2848	3536	24
Arecanut	100 Nos	31.48	33.01	33.65	36.73	43	43	44	65	48
Banana	100 Nos	80.77	93.89	108.56	125.7	130	161	148	167	13

Source: Department of Economics and Statistics

#### Parity Index.

3.8 Parity index is the relative measure of prices received by farmers and prices paid by the farmers. The index is constructed to assess how the price situation in the state affects the farmers. During 1999 (up to August), the parity index increased by 4 points, from 78 points in 1998 (up to August) to 82 point in 1999, as against a decrease of 7 point in 1998, compared to 1997. While the index of prices received by the farmers increased by 15.4% in 1999, over the previous year, prices paid by the farmers increased only by 10.3%, reflecting a favourable condition to the farming community in the state during 1999. During the past fourteen years, from 1986 to 1999, only in six years, i.e., in 1986, 1991, 1995,

1996, 1997 and in 1999, the rate of growth of prices received by farmers ruled high over the rate of growth of prices paid by the farmers, reflecting favourable situation to the farming community. On comparing the annual average growth of prices received by farmers and prices paid by the farmers during the period mentioned above, it is observed that while the prices received by farmers increased by 9.5 per cent only, the prices paid by the farmers increased by 10.3 per cent. Thus in general, the price situation in the state has not been favourable to the farming community over the years. Farm cultivation cost and domestic expenditure were also on increase year after year. 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 Cultivation 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*	2467	4667	2120	3145	78
1998	2447	4895	2117	3212	76
1999*	2847	5413	2223	3469	82

Source: Department of Economics and Statistics  
Average from January to August

### Public Distribution System

3.9 Public Distribution System, generally known as the PDS occupies a permanent and important place in the programme of the state government as a vital point for ensuring availability of all essential commodities at easily affordable prices even in remote areas. Statutory system of rationing was introduced in Kerala with effect from 24-10-1965. As on 31<sup>st</sup> August 1999, PDS covered a ration population of 304.63 lakhs, which constitute 96 % of the projected population of 320 lakhs.

Thus the coverage of population is nearly cent percent, but for children below 2 years who are not entitled to ration. Total number of ration cards till 30-9-1999 is 614063. Ration articles are issued through 14287 Retail Public Distribution Shops scattered all over Kerala including remote areas. Out of these, 1037 shops are in co-operative sector and 13250 are running by private individuals on commission basis and 12295 are in rural areas and remaining 992 shops are in urban areas. Table 3.6 illustrates details of Public Distribution System in Kerala.

Table 3.6  
Public Distribution System in Kerala

Sl. No.	Items	Units	1990	1995	1996	1997	1998	Upto 30-9-1999
1	Ration Cards in lakhs	Nos.	50.52	56.54	57.75	59.45	61.11	61.41
2	Ration permits to Institutions	Nos.	9016	13178	13553	15015	17448	17596
3	No. of whole sale shops	Nos.	296	314	321	329	305	339
4	Retail Ration shops	Nos.	13007	14179	14224	14255	14263	14287
5	Retail shops under Co-operatives sector	Nos.	1193	1080	1070	1053	1051	1037
6	Other Sectors	Nos.	11814	13099	13154	13202	13212	13250

Source:- Department of Civil Supplies  
4/74/2000—3A



3.10 Government of India have launched a scheme for the supply of rice at concessional rate to families below poverty line to the extent of 25 percent of India's population.

Kerala State government have extended the benefit to 42 percent of total population. Retail price of commodities issued through ration shops is shown below in Table 3.7.

**Table 3.7**  
**Retail price of commodities issued through ration shops**  
**During December 1999(Rs./Kg)**

<i>Sl.No</i>	<i>Items</i>	<i>Revised price (as on 29-1-99)</i>
1	A grade rice	9.60
2	A grade Rice after Government subsidy	8.60
3	Common rice issued to people below poverty line	4.00
4	Wheat – from 1-11-1999	7.35
5	Sugar	12.10
6	Kerosene per litter	2.80

#### ***Allotment of Rice and Wheat***

3.11 Allotment of rice to Kerala from the central pool has been more or less constant after 1995. It was 17.49 lakh tonnes in 1997, which was raised only marginally to 17.84 lakh tonnes in 1998. But in 1999 it was reduced to 17.44 lakhs tonnes. Wheat allotment to Kerala was 3.67 lakh tonnes in 1997, which was, enhanced to 4.73 lakh tonnes in 1998. But it also was reduced to 4.53 lakh tonnes in 1999. Sugar allotted to Kerala from central pool was also more or less constant during 1990's. From 1.50 lakh tonnes in 1990, it was raised to 1.54 lakh tonnes in 1993 and 1996, but later it reduced to 1.49 lakh tonnes in 1999. Similarly allotment of Kerosene oil was 3.38 lakh kilo litters in 1990. It increased to 3.59 lakh kilo litters in 1995, again enhanced to 3.88 lakh kilo litters in 1999.

#### ***Distribution of Rice and Wheat***

3.12 Distribution of both rice and wheat through the Public Distribution System in Kerala shows a highly fluctuating trend during 1990's. In 1990 the off-take of rice through public distribution system was 14.62 lakh tonnes and 2.01 lakh tonnes of wheat. The offtake reached a high of 18.04 lakh tonnes in 1992. It came down to 11.32 lakh tonnes in 1995. The offtake of rice was 16.3 M.T in 1998 which declined to 13.58 M.T in 1999. The off-take of wheat from public distribution system in 1991 was 3.34 lakh M.T. It has gone up to 4.92 lakh tonnes in 1996. In the next year it came down to 3.52 lakh tonnes but jumped to 4.58 lakh tonnes in 1998 and again declined to 2.71 lakh tonnes in 1999. Table 3.8 gives an idea of off-take from public distribution system during 1990's.

**Table 3.8**  
**Quantity of Rice and Wheat distributed through Public Distribution System in Kerala**  
*(lakh tonnes)*

Year	Rice	Wheat
1990	14.62	2.01
1991	17.50	3.34
1992	18.04	2.05
1993	16.46	2.19
1994	11.53	2.91
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

*Source:- Civil Supplies Department.*

#### **Civil Supplies Corporation**

3.13 To strengthen the public distribution system in Kerala, the state's Civil Supplies Corporation started market intervention from August 1996 through procurement and distribution of essential commodities, which help to control the open market prices.

Corporation organises its distribution activities through 61 Taluk Depots. The Corporation has 712 retail outlets called Maveli Stores, 18 Supermarkets and 21 Mobile Maveli vans operating in pre-designed routes. Moreover it operates 9 petrol bunk and 4 LPG Depots. Details of its activities are shown in Table 3.9.

**Table 3.9**  
**Details of Corporation's activities**

Region	Maveli Store	Mobile Maveli	Depots	Super Market	Petrol Bunk	LPG Depot
Thriuvananthapuram	131	2	9	4	4	2
Kottayam	109	3	14	3	1	—
Ernakulam	138	4	13	5	2	1
Palakkad	182	4	14	2	1	—
Kozhikode	152	8	11	4	1	1
<b>Total</b>	<b>712</b>	<b>21</b>	<b>61</b>	<b>18</b>	<b>9</b>	<b>4</b>

*Source:- Civil Supplies Corporation*

3.14 The Corporation was incorporated in June 1974 with an authorised share capital of Rs. 15.00 crores, its paid up capital is Rs. 8.56 crores constituted by State Government which has also advanced an amount of Rs. 132.60 crores as loan and Rs. 113.00 crores as grant. Credit facility of the corporation is Rs. 15

crores from a consortium of five commercial banks for its non-Food operation and a food credit limit of Rs. 5.00 crores for PDS – sub depots operation. The turnover and loss from 1993-94 to 1998-99 as per provisional accounts are show in Table.3.10.

**Table 3.10**  
**Turnover and Loss of Civil Supplies Corporation**

Year	Rs in Crores	
	Turn over	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

Source:- Civil Supplies Corporation.

3.15 In order to check the price increase during festival seasons like Onam, X'mas and Ramzan, the corporation organises festival markets. Total turnover of the Corporation during 1998-99 was 599.21 crores as against 472.51 crores during 1997-98. Corporation's annual loss during 1996-97 was Rs. 37.27 crores, which was reduced to Rs 1.78 crores during 1997-98 and to Rs. 1.19 crores in 1998-99. However, the accumulated loss of Corporation is Rs. 170.88 crores.

3.16 The Corporation supplies rice, greengram and other pulses items to schools under the Noon Meal Programme of government. It lifts monthly quota of levy sugar of around 12375 M.T. per month allotted to the State by the government of India from the mills and transports it to the

Taluk Depots. The Corporation also purchases free sale sugar from open market and distributes it through its retail outlets. It has entered the area of wholesaling of rice and wheat under the Public Distribution System, for which 10 depots were taken from the Food Corporation of India in 1997. Under its Maveli Programme, the Corporation started 13 Maveli Medical Shops and plans to open more fair price medical shops. Corporation launched its own brand tea "Sabari" in 1984 and now the average monthly sale is about 220 M.T, out of the 2500 M.T. per month tea sold in Kerala. In addition to tea Sabari brand coffee, curry powder, detergent powder have also been launched. Now non- Maveli items include toiletries and miscellaneous stationary items. The Corporation's performance from 1995-96 to 1998-99 is shown in table 3.11.

**Table 3.11**  
**Sales of Civil Supplies Corporations 1995-96 to 1998-99**

Items	1995-96	1996-97	1997-98	1998-99
Non-Maveli Sales (Rs.in crores)	3.38	8.55	20.66	32.9
Total Maveli Sales (Rs.in crores)	35.11	62.44	93.13	136.29
Percent of Non-Maveli sale to Maveli sale	9.62	13.69	22.18	24.14

Source:- Civil Supplies Corporation

3.17 The Corporation was incorporated in June 1974 with an authorised share capital of Rs. 15.00 crores and paid up capital is Rs. 8.56 crores. Kerala Government have advanced an amount of Rs. 132.60 crores as loan and Rs. 113.00 crores as grant. Credit facility of the corporation is Rs. 15 crores from a consortium

of five commercial banks for its non-Food operation and a food credit limit of Rs. 5.00 crores for PDS – sub depots operation. The turnover and loss from 1993-94 to 1998-99 as per provisional accounts are shown in Table.3.12.

**Table 3.12**  
**Turnover and Loss of Civil Supplies Corporation**

<i>Rs in Crores</i>		
Year	Turn over	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	59921	1.19

*Source:- Civil Supplies Corporation.*

### **Wages**

3.18 The details of average daily wage rate of skilled and unskilled workers in Kerala in the agriculture sector are presented in Table 3.13 and 3.14. In 1998-99, the daily wage of carpenter increased by Rs 9.46, from Rs 145.94 in 1997-98 to Rs. 155.40 in 1998-99 and that of mason by Rs 10.76, from Rs 144.04 in 1997-98 to Rs 154.80 in 1998-99. Already in 1997-98 the wage rate had

increased by Rs 17.40 for carpenter and Rs. 16.23 for mason .The annual average growth rates of wages of carpenter and mason since 1990-91 are more or less same ( 12.2%) . For paddy workers, while the wage rate for male increased by Rs 8.74 , from Rs 103.72 in 1997-98 to Rs. 112.46 in 1998-99, that for female increased only by Rs 2.05 from Rs 69.35 in 1997-98 to Rs 71.40 in 1998-99.

**Table 3.13**  
**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	155.40	154.80	6.48	7.47

*Source: Department of Economics and Statistics*

*P: Provisional*

Table 3.14

**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(p)	112.45	71.40	7.71	2.96

Source: Department of Economics and Statistics

P: Provisional

3.19 The average daily wages of skilled and unskilled workers in construction sector in Kerala for the period from 1980-81 to 1998-99 are presented in Tables 3.15 and 3.16. While the wage of carpenter in rural area increased by Rs 13.70, from Rs 146.30 in 1997-98 to Rs 160.00 in 1998-99, that in urban area increased by Rs 13.38 only, from Rs 150.07 in 1997-98 to Rs 163.45 in 1998-99. In the case of wage of mason, the trend is reversed ie, increase is more in urban area.

When the wage of mason in rural area increased by Rs. 12.69 only, that in urban area increased by Rs. 14.07. In the case of unskilled workers in the construction sector, the male wage increased by Rs 16.58 in rural area and by Rs 15.00 in urban area. The corresponding increases with respect to the female wage were by Rs. 12.10 and Rs 11.79 respectively, some what lower than that of male wage.

**Table - 3.15**  
**Average Daily Wage Rates of Skilled**  
**Workers in the Construction Sector**

*(Rupees)*

<b>Year</b>	<b>Carpenter</b>		<b>Mason</b>	
	<b>Rural</b>	<b>Urban</b>	<b>Rural</b>	<b>Urban</b>
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(p)	160.00	163.45	158.47	162.85

*Source:- Department of Economics & Statistics P- Provisional*

**Table 3.16**  
**Average Daily Wage Rates of Unskilled Workers**  
**in the Construction Sector**

*(Rupees)*

<b>Year</b>	<b>Men</b>		<b>Women</b>	
	<b>Rural</b>	<b>Urban</b>	<b>Rural</b>	<b>Urban</b>
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(p)	118.00	119.07	97.10	99.07

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

## CHAPTER 4 AGRICULTURE AND IRRIGATION

**A**gricultural economy in Kerala, as it enters the new millennium, is facing many constraints and emerging challenges which are vastly different warranting a development perspective, different from that pursued in the past. Despite considerable investments, Kerala has not taken full advantage of the rich resource endowments by way of high rainfall, productive soil and diverse biological wealth. Efforts in the past have been largely aimed at optimising the use of land for agriculture without commensurate effort for securing higher levels of productivity. The tremendous demographic pressure on the limited land resource of Kerala has led to certain undesirable consequences such as extreme subdivision and fragmentation (see appendix 4.1), high dependency of the population for livelihood (see appendix 4.2) and the compulsion for maintaining a livestock population beyond the carrying capacity of the biological base. It was in this context that the Ninth Five Year Plan of Kerala has suggested a paradigm shift in the approach for development of the farm sector. Under the new strategy

emphasis was on the optimal utilization of the biological resources in an integrated manner under a participatory approach, with the objective of sharpening its competitive edge, through improvement in productivity and quality. With the introduction of decentralised planning and the launching of the People's Planning Campaign, the responsibility for planning and implementation of development projects in agriculture sector along with the required resources have been transferred from the State to the local bodies. Consequently the flow of resources to the productive sector has increased substantially with positive signs of ensuring revival on the farm front. This initiative could usher in a new dynamism for revitalising the agricultural sector of the state. ✓

4.2 The Central Statistical Organisation has released a new series of National Account Statistics with 1993-94 as the base year and for the year 1998-99 the estimate available is the one computed under the new series. Particulars of Income Statistics as per the series are given in table 4.1.

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

<i>Sl. No.</i>	<i>Year</i>	<i>Agricultural Income (Rs. in crores)</i>	<i>Rate of change over previous year (%)</i>	<i>Percentage contribution to State income(SDP)</i>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1.	1993-94	5622.07	-	24.03
2.	1994-95	6323.64	12.48	24.69
3.	1995-96	6397.66	1.17	23.79
4.	1996-97	6525.72	2.00	23.15
5.	1997-98*	6577.92	0.80	22.23
6.	1998-99**	6829.33	3.82	21.86

Source: Directorate of Economics and Statistics

\* Provisional,

\*\* Quick estimate

4.3 The trend in the growth of agricultural income in Kerala during the last decade shows that the sector is set to recover from the stagnating phase existed in the late eighties. The average annual growth recorded during the Eighth Five Year Plan was 3.6 percent against the target of 2.75 percent. The provisional estimates for the first two years of the Ninth Five Year Plan reveal that the positive trend in growth is being maintained. The growth, which slid back during the first year with an insignificant rate of 0.80 percent, recovered to 3.82 percent during 1998-99. The decelerating trend observed during 1997-98 is due to the fall in production in respect of pepper, cashew and tea. The recovery staged during 1998-99 is mainly due to the impressive performance in the production of pepper, coconut, coffee, tea and rubber.

4.4 The export-import policy announced as part of the liberalisation process initiated by Government of India could have several undesirable impacts on the agricultural sector. Kerala agriculture is characterised by the predominance of commercial crops, which are very much influenced by the vicissitudes of international trade. During the past several decades, our agricultural products such as coconut oil, rubber, pepper, cardamom, tea, coffee, etc. used to enjoy certain amount of protection. This is no more the case after the introduction of Economic Reforms in 1991, after which trade and tariff barriers are being drastically scaled down.

4.5 Through the export-import policy, 1997-2002, announced by Government of India in March 1997 and the "modifications and amendments" introduced in April 1999, import restrictions on 340 items have been removed. The items listed in the free import category under the open license system include some of the important products of Kerala, such as marine products, spices, green pepper and turmeric oil, fruits, and 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 as and when they liked with the intention to depress the domestic prices. Of late, the Government of India has also reduced the import duty on rubber from 25 per cent to 20 per cent making price competition more difficult for India. Coconut oil and copra are included among items, which can be imported under license. Cloves, cinnamon and cassia were also brought under this category. However, their imports are channelised through the S.T.C. Again the import duty on vegetable oil has been reduced from 65 per cent during 1994 to 30 per cent during 1995 and further to 20 per cent during 1996. This had a depressing effect on coconut oil and copra prices in Kerala.

4.6 To meet these challenges, our agriculture has to become competitive by reducing the unit cost of production, through improved yield and use of cost reducing technologies in production, marketing, processing and value addition. While these restructuring call for long term strategies for efficient production, quality control and marketing, immediate steps are necessary to help our agriculture to become self reliant and acquire sufficient strength to face external competition.

#### *Weather*

4.7 While various parts of the country experienced erratic weather conditions during 1999, Kerala witnessed a far more comfortable situation. Although quantum-wise the rainfall received during the year has been deficient by eight percent, it has been more than compensated by its very satisfactory temporal and spatial distribution. The rainfall received was 287 cm against the normal of 311 cm. According to the Metereological Centre Thiruvananthapuram the weather condition has shown certain distinctive features during the year. They include:

- (i) Day temperatures were above normal by 1 to 2 degree Celsius in January, February, March, August and September.
- (ii) South-West monsoon, though deficient by 25 per cent, set in



- over Kerala on 25th May, a week ahead of its normal date of onset.
- (iii) The State had the coolest summer in April and May 1999 since 1961 because the years summer rainfall of 62.3 cms. was the highest during the past twenty five years.
- (iv) The South West monsoon period was comparatively hot during 1999 since the intensity of rainfall was deficient in June, July, August and September.
- (v) In October 1999 rainfall stations in Kerala reported about 20 to 25 rainy days as against a normal of about 10 days in north Kerala and 15 days in South Kerala. The rainfall received during the month was 54.6 cm, exceeding the entire North East Monsoon normal rainfall and the highest in the last decade.

4.8 The fairly good rainfall received during the North East Monsoon and also

summer seasons in Kerala has been a very rewarding feature in the context of Kerala's peculiar cropping situation predominated by perennial cash crops. The spread and distribution of rainfall recorded during the latter half of the year could provide a very favourable environment for augmenting the milk production through better availability of biomass for feeding dairy cattle.

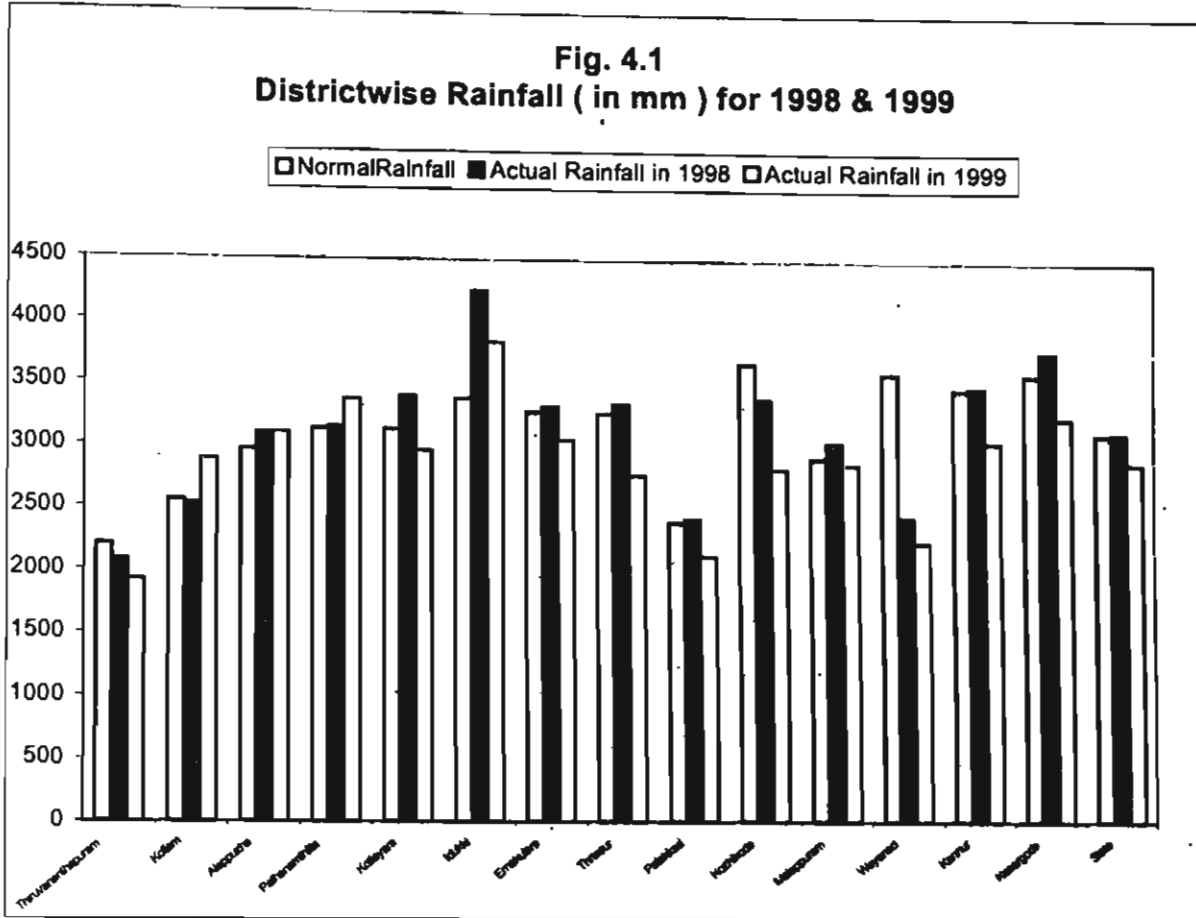
4.9 Season-wise analysis of the distribution pattern is presented in table 4.2. In spatial distribution also the data presents more or less a picture which is very similar to the state average. In 10 out of 14 districts, quantum of rainfall received was marginally deficient but its adverse impact has been more than compensated by its good spread during North East and Summer months (fig. 4.1). Relevant data are given in appendices 4.3, 4.4 and 4.5.

**Table 4.2**

**Percentage Departure of Rainfall from Normal (1990 to 1999)**

<i>Sl.No.</i>	<i>Year</i>	<i>Annual</i>	<i>South West Monsoon</i>	<i>North East Monsoon</i>
(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

*Source: Meteorological Centre, Thiruvananthapuram.*



## Crop Sector

### Land Use

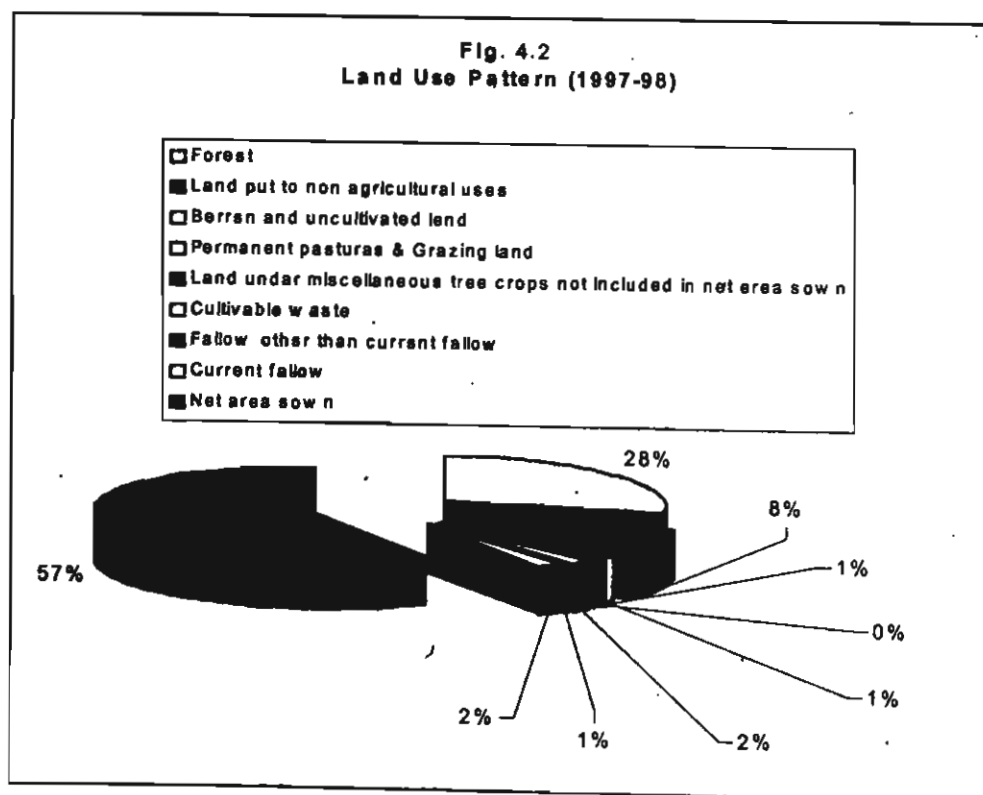
4.10 Data on land use pattern of the State for the year 1997-98 is given in table 4.3. The favourable weather conditions prevailed in the State for three years in succession particularly with good temporal and spatial spread of rainfall has enabled optimisation of the degree of land use. The cropping intensity, which was 133.17 per cent in 1996-97, has recorded a negative growth by sliding back to 130.7 percent in 1997-98. The net area sown has increased by 1980 ha. while the gross cropped area

has declined from 30.21 lakh ha. in 1996-97 to 29.69 lakh ha. The reduction is largely accounted by seasonal and annual crops including paddy. The positive features of the emerging land use pattern include reduction in the categories such as "cultivable waste" (-2341 ha), "fallow other than current fallow"(-1612 ha) and "barren and uncultivable land" (2096 ha). The incessant drift from rice based farming systems in the low lying areas to perennial mono-cropping systems explains the paradox of a lower cropping intensity inspite of higher degree of land use as recorded during 1997-98.

**Table - 4.3**  
**Land Use Pattern in Kerala (Area in ha.)**

Sl. No.	Classification of Land	1996-97		1997-98		Change in area between 1996-97 & 1997-98	
		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	317871	8.18	320307	8.24	+2436	0.77
4	Barren and uncultivated land	41030	1.06	38934	1.00	-2096	5.11
5	Permanent pastures & Grazing land	931	0.02	825	0.02	-106	11.39
6	Land under miscellaneous tree crops not included in net area sown	23256	0.60	22028	0.57	-1228	5.28
7	Cultivable waste	67413	1.73	65072	1.67	-2341	3.47
8	Fallow other than current fallow	29342	0.76	27730	0.71	-1612	5.49
9	Current fallow	55532	1.43	58499	1.51	2967	5.34
10	Net area sown	2268613	58.39	2270593	58.44	1980	0.09
11	Area sown more than once	752611	19.37	698409	17.97	-54202	7.20
12	Total cropped area	3021224	77.76	2969002	76.41	-52222	1.73
13	Cropping intensities	133.17	-	130.76	-	-	1.81

Source: Directorate of Economics & Statistics



### Trend In Area, Production and Productivity of Crops

4.11 Area, Production and Productivity of major crops in Kerala for 1996-97, 97-98 and 1998-99 are given in table 4.4. The crops which recorded increase in area during 1998-99 over the previous year

include pulses (1181 ha), pepper (50526 ha), ginger (2216 ha), turmeric (165 ha), cardamom (202 ha), arecanut (7294 ha), tapioca (8521 ha.), groundnut (1260 ha), coconut (193836 ha.), tea (2144 ha) and rubber (4642 ha). Area under rice, the staple food crop of Kerala has further declined. (-34491 ha).

**Table 4.4**  
**Area, Production and Productivity of Principal Crops**

Sl. No	Crops	Area ( ha )			Production ( tonnes )			Productivity ( kg/ha )		
		1996-97	1997-98	1998-99 #	1996-97	1997-98	1998-99 #	1996-97	1997-98	1998-99 #
1.	Rice	430826	387122	352631	871361	764610	726743	2023	1975	2061
2.	Jowar	4110	2881	4110	2092	1466	2238	509	509	545
3.	Ragi	1425	2362	1667	1153	1909	1273	809	808	764
4.	Other Millets	2637	2568	2662	2049	1996	2099	777	777	789
5.	Pulses	18299	15078	16259	13674	11668	11761	747	774	723
6.	Sugarcane	5630	5805	5467	40743	42227	43011	7237	7274	7867
7.	Pepper	182887	180370	230896	56546	46039	64335	309	255	279
8.	Chillies	609	417	609	617	406	617	1013	974	1013
9.	Ginger	13199	12352	14568	46371	43617	49946	3513	3531	3428
10.	Turmeric	4053	3586	3751	9840	8584	9066	2428	2394	2417
11.	Cardamom	41268	40867	41069	4550	5290	5295	110	129	127
12.	Arecanut	76066	73351	80645	85829	87038	92481	1128	1187	1147
13.	Banana	28855	31001	29120	403673	436717	415156	13990	14087	14257
14.	Other Plantains	49224	49639	48325	338871	356622	232732	6884	7184	4816
15.	Cashewnut	97089	94689	85125	68963	56885	56554	710	601	664
16.	Tapioca	120387	121389	129910	2691118	2741696	2810928	22354	22586	21638
17.	Sweet Potato	1771	1405	1684	20101	15491	18815	11350	11026	11173
18.	Groundnut	11292	10032	11292	8394	7458	9471	743	743	839
19.	Sesamum	5204	4211	2771	1807	1389	786	347	330	284
20.	Coconut	902104	884344	1078180	5276 (mn)	5209 (mn)	6672 (mn)	5849*	5890*	6188*
21.	Cotton	11693	14551	11693	18872	23485	19604	1614	1614	1677
22.	Tobacco	103	93	103	574	518	574	5573	5570	5573
23.	Coffee	83014	83014	83683	47320	50659	61150	570	610	731
24.	Tea	34602	34665	36809	69319	65225	68373	2003	1882	1858
25.	Rubber	455566	465282	469924	512756	541935	559099	1126	1165	1190

Source: - Directorate of Economics and Statistics

\* Nuts/ha

(mn) - Million nuts

# Provisional

4.12 Indices of area, production and productivity of crops in Kerala for the year 1997-98 and 1998-99, in the first two years of Ninth Plan, in relation to the base year index for the triennium ending 1978-79 are given in appendix 4.6. The overall index of production recorded a significant increase of 16 points during the year. The increase was mainly in the nonfood crops. On the other hand, food crops in general and cereals in particular registered steep fall in area and as a result, the corresponding index number declined from 59.54 to 56.67. Food grains which include both rice and pulses suffered a severe set back during the last two decades registering a sharp decline of over forty points. The index of nonfood crops gained substantially during the period, registering a growth of over 88 points over the base year index. Among the non food crops, plantation crops continued to enjoy the dominant place with a record performance of over 200 points followed by oil seeds (120 points) which is largely accounted for by coconut and condiments and spices (95 points) including pepper.

4.13 The increases in the area indices in respect of plantation crops (+ 93 points) oil seeds (+55 points) condiments and spices etc. are all through inter crop adjustments by replacement of cereals (-54) and pulses (-55).

4.14 The overall increase in the index of productivity was rather low. This is particularly so in categories such as condiments and spices, where the growth recorded has been just twenty points over the last twenty years, a reflection of the low levels of productivity witnessed by the State's export oriented crops, pepper and ginger.

#### **Crop-wise analysis**

##### **Rice**

4.15 Sustaining the area under Paddy by arresting the fall in area and securing a production level for keeping the internal availability of rice at safer limits were the major goals set under the Ninth Five Year Plan. It was also decided to concentrate in the central region comprising of Kottayam, Alappuzha, Ernakulam,

Thirissur and Palakkad. A special programme for providing the required infrastructural facilities for augmenting the productivity of the crop was also launched. Special authorities were constituted in the major rice producing areas like Kuttanad, Kole, Kari land, Wayanad, Palakkad, Onattukara, Pokkali etc. for taking up location specific programmes for development and fostering the group activity on an area basis. The enforcement of the Land utilisation order 1968 has also been tightened prohibiting all types of diversion of rice lands for other purposes.

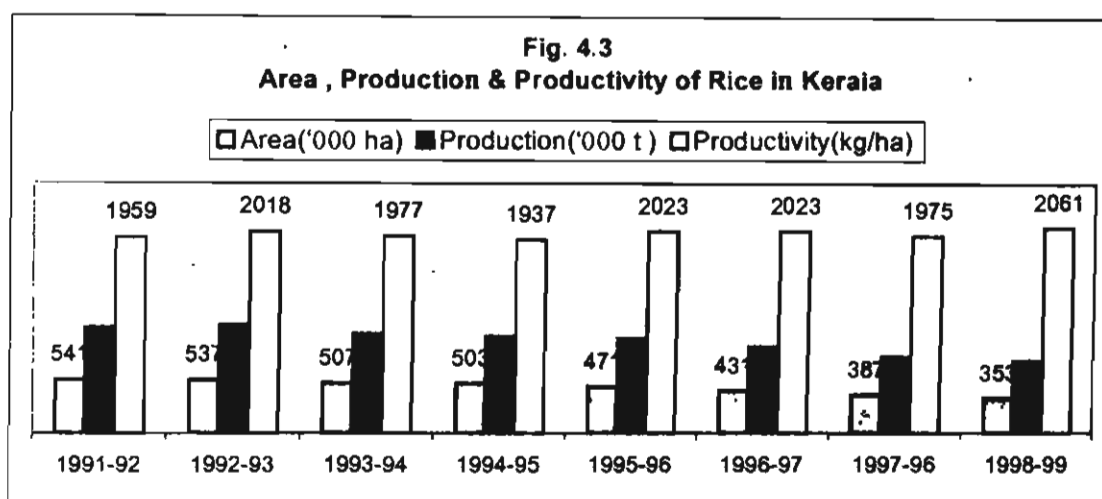
4.16 The target for rice production set for the Ninth Five Year Plan is 12.5 lakh tonnes. Statistics for 1998-99 shows that the area under rice has further declined from 3.87 lakh ha to 3.53 lakh ha. The decline in area during the first two years of the Ninth Plan is 0.78 lakh ha. The annual average decline in area under rice recorded during the Eighth Five Year Plan was around 22,000 ha where as it has increased to 39,000 ha during Ninth Plan. The only solace in the otherwise gloomy picture is that there was improvement in the productivity of the crop. The average yield, which has also slid back during 1997-98, was reversed during 1998-99 and touched an all time high of 2061 kg/ha. (Please see fig. 4.3) The improvement in productivity secured is not adequate to compensate the loss in production consequent to the reduction in area. Although the productivity of rice in Kerala is marginally higher than the national average of around 1900 kg, it is far behind that in other major producing states of Punjab, Tamilnadu and West Bengal (see table 4.5). State Government has appointed a technical committee under the chairmanship of the Vice Chancellor Kerala Agricultural University to advise the government about the measures to be taken for sustaining rice production. The Committee, among other things, has recommended concentration of the rice production efforts supported with a package of assistance in 54 blocks, which accounts for 75 per cent of the rice area in the State.

**Table 4.5**  
**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	1751
1992-93	537	41775	1085	72867	2018	1744
1993-94	507	42539	1004	80298	1977	1888
1994-95	503	42814	975	81814	1937	1911
1995-96	471	42837	953	76975	2023	1797
1996-97	431	43433	871	81737	2023	1879
1997-98	387	43420	765	82300	1975	1895
1998-99*	353	NA	727	NA	2061	NA

Source: Directorate of Economics and Statistics, C M I E.

\* Provisional



4.17 Season-wise data shows that there was a reduction in area in all the three seasons, but the degree of reduction was the highest during virippu. The productivity of the crop during the punja season (2511 kg) was nearly 25 percent more than that recorded in the other two seasons. Virippu crop which could maintain a productivity higher than the mundakan season lost its prestigious position. Obviously there is need for concerted efforts for augmenting productivity through better management during the virippu season (see appendix 4.7)

4.18 Palakkad district which accounts  
4/74/2000—4

for the largest area under the crop and which has the benefit of maximum irrigation support, suffered the largest fall in area (-13342 ha) followed by Alappuzha (-8095 ha). On the other hand, there was increase in area in the districts of Kottayam, Ernakulam and Kasargode. Among the major rice producing districts the productivity is above the state average in Pathanamthitta, Alappuzha, Kottayam (all represent Kuttanad) Palakkad and Wayanad. (see appendix 4.8). Season wise analysis of the coverage of rice in the districts reveal that there is scope for expansion of area under the crop during the Virippu season in the districts of Kollam, Pathanamthitta, Ernakulam, Thrissur, Palakkad, Malappuram,

Kozhikode and Kasaragode. (see appendix 4.9). Local interventions by way of additional irrigation support and group endeavours for promoting additional crop with the involvement of the local bodies could perhaps bring about spectacular results in these districts.

4.19 Season-wise coverage of HYV of rice is given in appendix 4.10. The area under high yielding varieties which was 1.68 lakh ha in 1997-98 has recorded over 10 percent growth during 1998-99, with the coverage touching a level of 1.77 lakh ha. The percentage coverage to area under paddy works out to 50 per cent and the largest share in the coverage is accounted for by the Mundakan season. This again is a deviation from the normal pattern observed in the past, when Virippu used to account for the largest share both in absolute and relative terms.

### Coconut

4.20 Thanks to the all round attention received by the crop in local and state level plans, coconut performed very well during the first two years of Ninth Five Year Plan with both area and productivity of the crop recording impressive growth. The trend in area shows that the expansion phase of the crop is not yet over and the surge for replacing other crops by coconut continues to persist (fig. 4.4). The area under coconut increased from 8.84 lakh ha in 1997-98 to 10.78 lakh ha in 1998-99. Coconut has already emerged as the most preferred crop in the state, occupying nearly 47 per cent of the net cropped area. There was also considerable improvement in productivity from 5890 nuts per ha. in 1997-98 to 6188 in 1998-99. Still the national average is much higher at 6902 nuts per ha. According to the provisional estimates (see table 4.6) for 1998-99, the output of coconut touched an all time high of 6672 million nuts, an increase of nearly 1500 million nuts in just one year.

Table - 4.6  
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	91	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	5209	13096	5890	6902
1998-99	1078*	NA	6672*	NA	6188*	NA

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

4.21 Apart from the debilitating wilt disease which is rampant in 8 districts, the crop has been worst hit by another devastating menace namely coconut mite during the last two years. The pest has spread to almost all the districts with the intensity of damage assuming alarming proportion in the central region.

The expert committee fielded by Government of India has assessed that 35 per cent of the crop has been affected. Being a very prolific pest, chemical control on a massive scale is unavoidable. However the long term solution lies in evolving appropriate biological means for containing the pest.

4.22 Coconut is the crop, which has received considerable development support under the local plans with nearly three quarters of the one thousand grama panchayats joining hands with the development efforts. The local involvement took largely the form of promoting better management by subsidising the inputs and irrigation. The spraying campaigns organised for the control of the mite attack were by and large joint efforts, with the state and local governments sharing the cost.

4.23 Coconut which is the major crop in the coastal and midlands provides income and employment base for millions of households with limited land holdings. The crop provides ample opportunities for inter cropping and mixed farming through systematic efforts on an organised scale. The future of the small farm segment of the Kerala Agriculture largely depends on the ability to convert its coconut holdings as income and employment generating integrated homestead enterprises capable of supporting an average farm family.

### Pepper

4.24 Performance of pepper continues to be promising during 1998-99 as well. Area under the crop has further increased from 1.80 lakh ha in 1997-98 to 2.31 lakh ha in 1998-99. The production which suffered a set back in 1997-98 has regained its strength during 1998-99 by attaining a peak of 64,000 tonnes (see

table 4.7). The trend shows that the comfortable price situation, which has more or less stabilised over the years, is acting as the strongest incentive for expansion in area and there is hectic activity by way of additional plantings in the upper midlands and hilly regions. The spurt in area recorded during the last two years is in the order of around 50,000 ha. The enthusiasm for planting pepper is not visible in the management side. The traditional pepper plantations in general are under low levels of management and as a result the state could not optimise in production through higher levels of productivity. The average productivity continues to be lower in the range of 275 to 300 kgs per ha. while there is potential for securing a productivity level up to one tonne per ha through better management. A systematic rehabilitation programme is also long overdue in the major pepper producing districts like Wayanad and Idukki, where the proportion of old and senile vines in the traditional plantations is large. The export market is also vibrant with increasing demand for new product lines like white pepper, oleoresins and organic pepper. Kerala will be able to hold its monopoly in the international market only if it takes early action for preparing its economy for catering to the emerging demand. The Pepper Technology Mission set up by the state as per the guidelines of the Ministry of Agriculture, Government of India aims at sharpening the competitive edge of the state in the export market.

**Table - 4.7**  
**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	46.0	57.3	255	315
1998-99	231*	NA	64.34*	NA	279*	NA

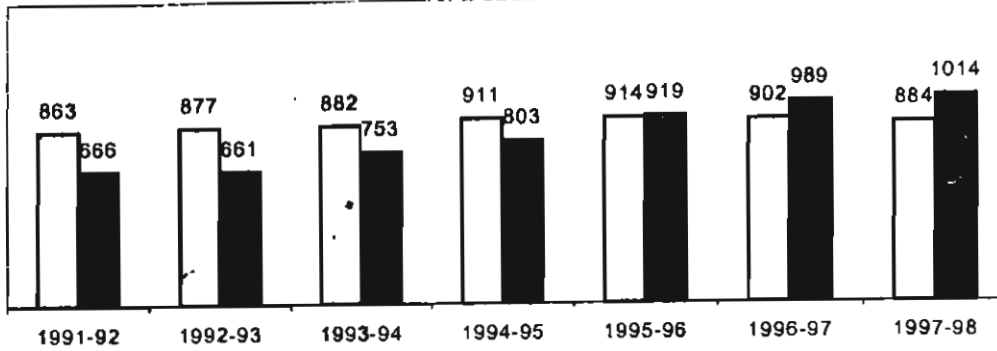
Source: Directorate of Economics and Statistics, CMIE

\*Provisional

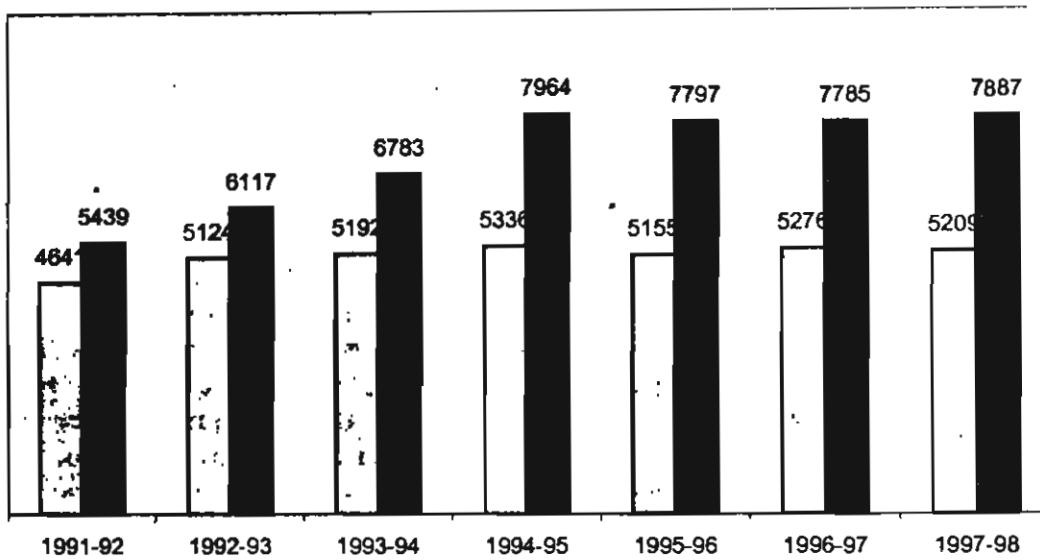


Fig. 4.4  
Area, Production & Productivity of Coconut in Kerala & Rest of India  
(i) Area ('000 ha)

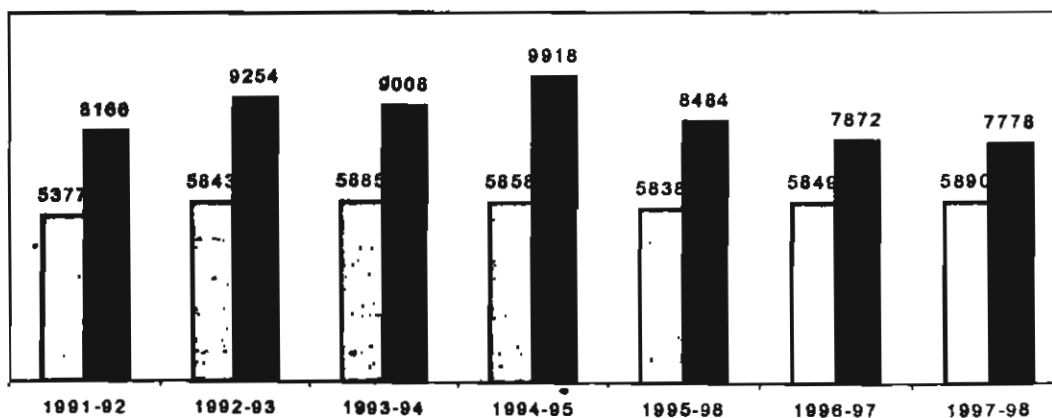
□ Kerala ■ Rest of India



(ii) Production (million nuts)



(iii) Productivity (nuts/ha)



## Cashew

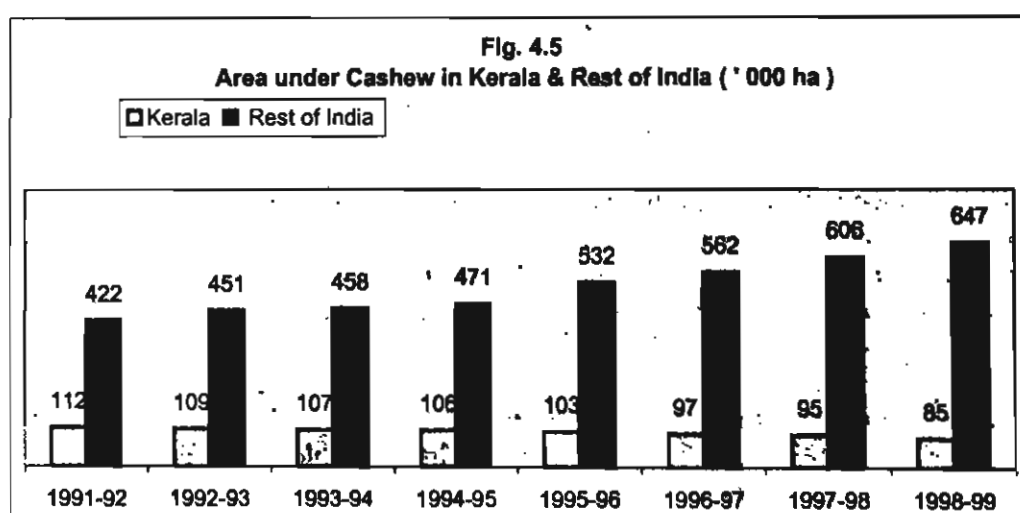
4.25 Despite considerable investment and efforts, both area and production of cashew show a declining trend (fig. 4.5). The area which was 1.03 lakh ha in 1995-96 has declined to around 85,000 ha. in 1998-99. Statistics shows that there is an annual loss of around 3 to 5 thousand ha under cashew in the state (see table 4.8).

Productivity under the crop has also suffered set back during the period recording a level as low as 664 kg/ha in 1998-99, against 800 kg/ha in 1995-96. Internal production of cashew which is hardly sufficient to meet about 20 percent of the processing requirements is facing further instability even in maintaining the supplies at the current level.

**Table – 4.8**  
**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	85.1	732.2	56.6	460.0	664	628

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



## Plantation Crops

4.26 Kerala has a substantial share in all the four plantation crops namely rubber, tea, coffee and cardamom, with a

share close to 50 percent of the area and 40 percent of production in the country. According to the latest estimates, plantation crops in Kerala occupy nearly 6 lakh ha and account for 28 per cent of the

net cropped area in the state. They provide the natural cover for the most sensitive and fragile ecosystem of the Western Ghats region and support the largest segment of the organised farm labour in Kerala.

4.27 Consequent to the removal of import restrictions by Government of India, tea and rubber are facing a situation of low prices while recording also significant increases in productivity and production. In the case of rubber, the major plantation crop of Kerala the decline in prices has been extremely sharp. For coffee the prices are subjected to the vagaries of the global market. In respect of cardamom, Government of India for the first time have liberalised the import of cardamom which was hitherto banned.

### **Rubber**

4.28 Next to coconut, rubber has emerged as the crop covering the largest area in Kerala. Area under the crop at the end of 1998-99 was 4.70 lakh ha. Kerala accounts for 85 per cent of the area under the crop in the country. Production touched a peak of 5.59 lakh tonnes during the year, which is higher by around 18,000 tonnes in the previous year (see appendix 4.11). Average productivity per ha works out to 1190 kg/ha. Productivity based on tappable area is much higher at 1599 kg/ha. Though a plantation crop, rubber is predominantly in the small farm category with the plantations in the size group of less than 5 ha accounting for 85 per cent of the total number of plantations. Rubber provides the livelihood security for over 7.5 lakh farm families in Kerala.

4.29 The market sentiments for natural rubber continued to be grim during 1998 and 1999 without any marked

improvement. The average prices of RSS 4 grade natural rubber, which was Rs. 51 per kg. in 1995 fell to Rs. 39.88 in 1997, further declined to Rs. 30.13 in 1998. There was no improvement in 1999 either with prices touching a low of Rs. 29 per kg (see appendix 4.12). This is against the bench mark price of Rs. 34.05 per kg. announced by Government of India in September 1998 that too based on the cost of production in 1996-97. The huge stock pile does not allow the market price to cross the bench mark price level. State Government has taken a number of initiatives to tide over the situation. They include announcement of incentive @ Re. 1 for kg. for the procurement of rubber by public sector undertakings offering 50 ps. Per kg. above the market price, authorisation given to RUBCO to export 15,000 tonnes by inviting global tender, and directing the rubber producing public sector organisations like PCK, SFC etc. to sell their produce to export promotion zone at Kochi. Government of India also came to the rescue of the rubber growers by suspending the import of rubber by manufacturers against advance licenses in February 1999. Instead the STC was directed to procure and release the stock to manufactures at international prices against advance licenses. Interestingly the STC procurement scheme, have met with negligible response from the industry as evinced by poor off take of STC stock against advance licenses. However, yearend buying by tyre and non tyre sectors have pushed up the demand for natural rubber during the fourth quarter of 1998-99.

4.30 As may be seen from the following table, the price trend during the year was more or less in tandem with the international price.

**Table 4.9**  
**Price Trend of Rubber During 1998-99**

<i>Month</i>	<i>India (Rs. per 100 kg. of RSS 4)</i>	<i>World (Rs. per 100 kg. of RSS 3)</i>
April 1998	2653	2988
May 1998	2892	3104
June 1998	3457	2912
July 1998	3314	2934
August 1998	3022	2744
September 1998	2935	2822
October 1998	3338	3044
November 1998	3289	3005
December 1998	2968	2804
January 1999	2695	2906
February 1999	2625	2754
March 1999	2737	2597
Average (1998-99)	2994	2885

Source: - Rubber Board, Kottayam

4.31 The fall in prices has adversely affected the production trend also. In contrast to the average growth of about 8 per cent in the past, production increase was only 3.6 percent in 1998-99, the increase in 1999-2000 is also estimated to be only about 3.3 percent.

4.32 The main reason for the price fall

has been the sharp decline in demand, especially from the tyre sector. Against the 8 percent annual growth in the past, the increase was only 1.8 percent in 1997-98 and 3.4 percent in 1998-99. Some recovery is anticipated during 1999-2000, but this has not got reflected in the price trend due to the large build up of stocks.

4.33 The liberalisation process gave a fillip to the demand in the initial period. However the global recession during 1997-98 and 1998-99 had its adverse impact on consumption. Consumption of NR was 571,820 tonnes during 1997-98 and 591,545 tonnes during 1998-99 resulting in surplus stocks in both the years (see table 4.10 & appendix 4.13). However, lately the automobile industry and consequently the auto tyre sector are showing signs of revival during the current year. To promote value addition in natural rubber and to encourage setting up of rubber based industries, a rubber park is being established as a joint venture of the Rubber Board and the Kerala Industrial Infrastructure Development Corporation. Rubberisation of roads initiated by Kerala government is yet another area for promoting consumption of rubber from a long term point of view.

**Table 4.10**  
**Consumption of Rubber during 1997-98 & 1998-99**

	<i>Consumption (in tonnes)</i>		<i>Growth (%)</i>
	<i>1998-99</i>	<i>1997-98</i>	
<b><u>Natural Rubber (NR)</u></b>			
Auto Tyre Manufacturers	281121	277724	1.2
Others	310424	294096	5.5
Total of NR	591545	571820	3.4
<b><u>Synthetic Rubber (SR)</u></b>			
Auto Tyre Manufacturers	89062	89470	-0.5
Others	67333	71445	-5.8
Total of SR	156395	160915	-2.8
<b><u>NR &amp; SR</u></b>			
Auto Tyre Manufacturers	370183	367194	0.8
Others	377757	365541	3.3
Total of NR & SR	747940	732735	2.1

Source: - Rubber Board, Kottayam

## Coffee

4.34 The Coffee growers in Kerala has responded favourably to the comfortable price situation and secured export market by stepping up the productivity from 610 kg. per ha. to 731 Kg. Coffee witnessed impressive performance in respect of area, production and productivity during 1998-99. As against the all India production of 2.65 lakh tonnes in 1998-99, Kerala's share was 0.61 lakh tonnes, which works out to 23 per cent. However the productivity of coffee is far below the all India average of 877 kg/ha. Area under the crop in the country increased from 3.06 lakh hectares in 1997-98 to 3.29 lakh hectares in 1998-99 (7.6%), whereas the growth rate in Kerala was a marginal 0.9 percent only. The area increased from 82,878 hectares in 1997-98 to 83,683 hectares in 1998-99. The major variety grown in Kerala is robusta, which accounts for 95 per cent of the area.

4.35 The prospects for 1999-2000 is also reported to be bright with an estimated production of 2.82 lakh tonnes comprising of 1.63 lakh tonnes of robusta and 1.19 lakh tonnes of arabica. It appears that the country could circumvent the cyclical fluctuation in productivity. Summer showers of 1998-99 have been extremely helpful in stabilising the yields at higher levels. Export of the commodity during 1998-99 has been 2.12 lakh tonnes, earning a foreign exchange of Rs. 1751 crores which compared more or less favourably with the previous years.

## Tea

4.36 Like other plantation crops, tea also remained buoyant during 1998-99 with production reaching a level of 68,373 tonnes against 65,225 tonnes in 1997-98. Even though the area under tea in the state marginally increased from 34,665 ha in 1997-98 to 36,809 ha in 1998-99, the production and productivity declined from 83,846 tonnes to 68,373 tonnes and 1933 kgs/ha to 1858 kgs/ha. respectively. On the other hand at the national level production increased from 8.38 lakh

tonnes to 8.45 lakh tonnes during the period.

4.37 Paradoxically, tea prices in south India declined and the fall was sharp in December 1999. The average auction prices for South Indian tea in 1999 was Rs. 55 per kg. against Rs. 69 per kg. in 1998. One of the reasons for this phenomenon is the decline in tea exports from the country, which fell to 180 m.kgs. against 210 m.kgs. in 1998. There has been an overall decline of 14.20 per cent in tea prices at the all India level during January to July 1999 as compared to the corresponding period last year.

4.38 During 1998 India exported 206 m.kgs. (203 m.kgs. during 1997) of tea valued at Rs. 2156 crores (Rs. 1731 crores during 1997). Export from South India was 111 m.kgs. as against 100 m.kgs. during 1997. The performance of export of tea during the last decade reveals a direct correlation between the domestic price of tea and the quantum of exports. For instance, export of more than 25 percent of the production ensured a higher average domestic price. During the years 1994 to 1996 when the export was in the neighbourhood of 21 percent there was crash in domestic prices. The inclusion of tea in the list of 100 items for duty free import, as part of Indo-Sri Lankan Free Trade Agreement, will adversely affect the industry.

## Cardamom

4.39 Cardamom presents more or less stagnating picture during the year with area and productivity remaining stagnant. The area and production under the crop during 1998-99 was 41,069 ha. and 5295 tonnes respectively with the productivity also stagnating around 127 kg./ha.

4.40 Cardamom production in the country during 1998-99 is reported to be lower than 7,900 tonnes recorded in the previous year. However, an all time record crop of nearly 9,300 tonnes is expected during the 1999-2000 season. No change is expected in the export trend and

shipments are likely to be just about 300 to 400 tonnes during the financial year 1999-2000. The shortfall in production during 1998-99 led to enormous increase in the domestic prices of the commodity, the prices shot up to Rs. 568 per kg. Prices have already started declining in the wake of production increase in the current season. With the inclusion of cardamom in free trade list, as per the new Exim policy, the commodity is likely to loose even in the domestic front consequent to the import of the commodity from other producing centres like Guatemala at cheaper prices.

### Horticulture

4.41 Although the agro endowments of Kerala are highly favourable for building a vibrant horticulture industry, the commercial potential of Kerala speciality crops like pineapple, banana and wide variety of plantain as well as selected vegetables like snakeguard, bitter guard, cowpea etc. have not been fully tapped. Although some initiatives could be made in vegetable production during the Ninth Plan, fruit sector still remains largely untapped. With immense potential for promoting the traditional fruit crops of Kerala as part of the coconut farming

system, special efforts are needed for identifying potential areas and intensive efforts for genetic upgradation and mass multiplication through the media of micropropagation. The EEC aided Kerala Horticulture Project which has been in operation during the last seven years has been successful in evolving replicable modules of self supporting fruits and vegetable ventures.

### Production Programme

4.42 Consequent to the introduction of the decentralised planning process, investment under the agriculture and allied sectors has increased considerably. As per the devolution of powers the local bodies are expected to concentrate on production enhancement programmes involving direct financial assistance. State interventions are largely in the form of infrastructure and supporting facilities capable of strengthening the production base. The restructuring process thus effected in accordance with this strategy on the state level programmes has also helped in reducing the number of schemes operated from the state level. Sub sector wise flow of funds under the state plan from the state level and through the local self-governments is given in table 4.11.

**Table- 4.11**  
**Sub Sector wise flow of funds under**  
**Agriculture and Allied Sectors**

<i>Name of sub Sector</i>	<i>Annual Plan 1997-98</i>		<i>Annual Plan 1998-99</i>	
	<i>State Sector Plan Expenditure</i>	<i>Grant-in-aid in Local body Schemes</i>	<i>State Sector Plan Expenditure</i>	<i>Grant-in-aid in Local body Schemes</i>
1. Crop Husbandry	55.55	91.43	54.07	80.32
2. Soil and Water Conservation	6.74	30.00	5.79	33.52
3. Animal Husbandry & Dairy Development	33.45	65.57	38.98	57.10
4. Fisheries	42.19	9.26	30.42	11.18
5. Forestry	28.33	0.29	43.14	0.16
6. Co-operation	26.79	5.02	14.69	4.28
7. Minor Irrigation	41.73	51.35	35.82	77.66
<b>TOTAL</b>	<b>234.78</b>	<b>252.92</b>	<b>222.91</b>	<b>264.22</b>

*Source: Ninth Five Year Plan, Midterm Review*

4.43 A brief review of the major programmes implemented at the state level for crop development during 1998-99 is given below.

#### **Rice**

4.44 The major areas supported under the departmental programmes include multiplication and distribution of improved seeds (2500 tonnes), integrated pest management system (plant protection 3456 ha), small farm mechanisation (power tillers 433 numbers, tractors 46, threshers 28, harvestors 6) and the special support for infrastructural facilities for the predominantly rice growing areas. Separate authorities have been constituted with the intention of formulating comprehensive development programmes covering these areas for implementation by availing institutional finance. So far eleven authorities have been constituted. They are Thrissur Kole land, Vaikom Kariland, Karingalilchal Puncta, Kuttanad, Pokkali, Onattukara, Wayanad, Purakkad, Thuravur Kariland, Ponnai Kole land and Kattampally vikasana agency. On a request of the State Government a technical team was deputed by Government of India and they visited the areas and prescribed a technological package for sustaining rice production in these areas. During 1998-99 also production incentive at the rate of Rs, 350 per ha. per season was extended for rice growers. In addition the electricity charges payable by the rice growers have been subsidised.

4.45 Under Coconut development the emphasis was on community irrigation (irrigation 1400 ha, pumpset 1000) and market intervention through KERAFED for price stabilisation in addition to procurement of 5 lakh seed nuts. The centrally sponsored scheme for seedlings production with assistance from Coconut Development Board was also continued during the year for cutting and removal of senile palms (2.49 lakh numbers) plant protection and subsidised distribution of fertilizers (36.68 lakh palms) and multispecies cropping (23500 ha). The mite incidence appeared in Ernakulam

district during 1998 was controlled through joint action by the Coconut Development Board, District Panchayat and the Department of Agriculture.

4.46 The technology mission on pepper formulated as per the guidelines of Government of India was recognised as the major strategy for development of pepper during the Ninth Plan. However the programme as suggested by the state could not be operationalised for want of Government of India clearance. It could be implemented only in a limited scale integrating the centrally sponsored scheme. Along with pepper minor spices like ginger and turmeric also received attention. The activities under the programme include production and distribution of seeds and seedlings (rooted pepper cuttings 70.36 lakhs, plant protection measures (132442 ha), distribution of plant protection equipments (1000 numbers), demonstration plots (536 numbers), area expansion of pepper (1121 ha), rehabilitation of old pepper gardens (6465 ha), farmers training (1000 numbers) and soil conservation measures (1586 ha.). R & D support and the market support including processing and value addition components suggested as part of the Mission were to be scaled down considerably.

4.47 Cashew also received substantial support from the state level during 1998-99. The activities taken up under the programme include area expansion (1400 ha), maintenance of existing plantation (2326 ha), replanting (200 ha), plant protection measures (2832 ha) and distribution of 3.17 lakh cashew grafts.

#### **Supplies and Services**

4.48 The state could build up a relatively strong network for supplies and services. They include 1001 Krishi Bhavans for transfer of technology and organising agricultural services, 33 state seed farms, 10 district farms, 10 special farms and 8 coconut nurseries. The paddy seed farms and the district agriculture farms have been placed under the control of the district panchayats for facilitating

appropriate seed planning at the grass root level. With the introduction of decentralised planning, the demand for seeds and planting materials has undergone manifold increase. Immediate steps are warranted for capacity building for the production of the required planting materials including quality upgradation of the progeny base.

4.49 During 1998-99, 8.32 lakh coconut seedlings, 70.36 lakh pepper cutting and 3.17 lakh cashew grafts were distributed. The consumption of fertilizers which was more or less recovering from the shock of the hike in prices has suffered yet another set back during 1998-99(see appendix 4.14). The consumption has declined from 2.19 lakh tonnes to 1.81 lakh tonnes. The shortfall is mainly in Potash because of the non availability of the imported fertilisers. Kerala Agriculture predominated with tree crops and vulnerable to pests and diseases cannot afford to be complacent on the shortage in the supply of Potash.

4.50 In plant protection, the strategy is one of need based adoption of chemical control and consequently the reduction in the consumption of p.p. chemicals without much adverse impact on crop production is considered to be a positive feature. The mite attack on coconut which has emerged as a very serious threat for coconut in the state warranted chemical intervention on a war footing for combating the menace. The State Government with the active involvement of the local bodies could organise massive plant protection operations. Selected indicators of progress are given in appendix 4.15. The average price of agricultural inputs during 1998-99 are given in appendix 4.16.

#### **Agriculture Research and Education**

4.51 The Kerala Agricultural University is organised into four faculties, nine colleges, 27 research stations and four Krishi Vinjan Kendras spread all over the State. Kerala Agricultural University receives financial assistance from the State Government (plan and non-plan), ICAR, World Bank, Department of Electronics, Science, Technology and

Environment, FERRO, USDA, Hindustan Cocoa products Ltd., Commodity Boards and various other agencies.

#### **Education**

4.52 The university is entrusted with the human resource development in the fields of Agriculture, Forestry, Veterinary and Animal Sciences, Dairy Science, Fisheries, Co-operation and Banking and Agricultural Engineering. Admission and passing out levels of the various under graduate and post graduate courses in the University during the Eighth plan and in 1997-98 and 1998-99 are presented in appendix 4.17

#### **Research**

4.53 With the introduction of National Agricultural Research Project (NARP) the research activities have been restructured and reoriented on the basis of the five agro-climatic zones, viz., Northern, Central, Southern, Special and High Range zones with their headquarters as Regional Agricultural Research Stations at Pilicode, Pattambi, Vellayani, Kumarakom and Ambalavayal respectively. The Kerala Agricultural University undertakes fundamental, applied and adaptive research in Agriculture, Veterinary and Animal Sciences, Agricultural Engineering and Fisheries. During 1998-99 University could release 13 crop varieties in the State, details of which are furnished in appendix 4.18. Thrust is given for the development of hybrid and scented rice varieties, export oriented vegetable and cut flower varieties, integrated pest and disease management, studies on organic farming and bio-fertilizer and research on honey bees and mushrooms. Production and distribution of quality seeds and planting materials, earthworm species for vermi composting, mushroom spawn, honey, milk, meat and their products etc. are also undertaken in the research stations.

#### **Extension**

4.54 Kerala Agricultural University has a full-fledged extension wing with supporting facilities on information and communication relating to technological innovations and research findings. Central



Training Institute, Information cum sales centres and Krishi Vinjan Kendras also form part of the extension set up. During 1998-99 Extension Directorate could conduct 52 trainings for the functionaries of the various development departments in agriculture and allied sectors, practicing farmers and educated youth. The Directorate could also publish six books in Malayalam and two in English on Agriculture and Animal Sciences for the benefit of the farmers and extension personnel.

4.55 The University has actively associated with the Decentralised Planning process launched by the State by providing the necessary technical know-how and organising zonal workshops for imparting knowledge for identifying local problems and developing replicable modules for development on a regional basis.

#### **Soil and Water Conservation**

4.56 The high rate of rainfall received by the state has not been optimally utilised through appropriate conservation measures for surface water irrigation and for ground water recharge. In the absence of systematic effort for soil and water conservation, the heavy incidence of rainfall coupled with undulating terrain makes the Kerala soil vulnerable to soil erosion. It is estimated that out of 22.8 lakh ha. of cultivated land about 9.5 lakh is prone to erosion. Prior to the commencement of Eighth Plan the pace of soil conservation activities in the state through departmental programmes was rather slow and the cumulative coverage of protection till the end of 1991-92 was only around one lakh ha. with an annual average of around 2835 ha. However, the activity got a fillip under the National Watershed Programme assisted by Government of India during Eighth Plan. With the introduction of the decentralised planning there is increasing awareness about the need for effective conservation measures and accordingly considerable attention has been paid by the local bodies for supporting the activity. This coupled with the substantial assistance rendered by NABARD under RIDF and consequent to

the inclusion of large number of projects as part of local level 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 crores benefiting an area of 5718 ha. spreading over 37 watersheds in the five districts of Thiruvananthapuram, Idukki, Wayanad, Kannur and Kasaragod. The Phase II programme with the project outlay of Rs. 12.90 crores was commenced in 1997-98 and is implemented in 11 districts excluding Alappuzha, Ernakulam and Malappuram covering an area of 8725 ha in 28 watersheds. The Phase III programme was started in October 1998 in 40 watersheds with a project cost of Rs. 16.22 crores. All the 14 districts are covered under the project. The area benefited is 13423 ha.

4.58 The National Watershed Development Project for Rainfed Areas (NWDPR) is a 100 per cent Centrally Sponsored Scheme taken up from 1990-91 onwards. During the Eighth Plan an area of 88,276 ha coming under 114 watersheds received the benefit of the scheme at an expenditure of Rs. 29.94 crores. During the Ninth Plan the project is to be implemented in an area of 1.37 lakh ha coming under 114 watersheds lying adjacent to the old ones such that one watershed is selected additionally in a block. During 1998-99 conservation activities were carried out in 2800 ha. with an expenditure of Rs. 112 lakh.

4.59 The grant in aid earmarked by the local bodies in their Annual Plans 1997-98 and 1998-99 for soil conservation and land development were in the order of 30 crores and 34 crores respectively.

#### **Livestock**

4.60 Livestock sector performs an important role in generating income and employment opportunities. The back yard system of dairy farming and poultry rearing was a very popular avocation in

rural areas with the active involvement of women. It is on the decline with the increasing urbanisation causing changes in the attitude towards farming, and also due to the shift in cropping pattern from food crops to cash crops.

4.61 The composition of livestock population in Kerala is also undergoing a selection process in favour of high yielding crossbred animals under stall fed rearing. As a result it is losing its relative advantage as part of a family avocation and as a low cost management system. Consequent to the continuous depletion of

food and fodder base, there is reduction in the number of farm families owning cattle as well as in the number of cattle owned by the families. According to the 1996 census, out of 57.89 lakh households in Kerala, 38.68 lakh (ie, two-thirds) possessed livestock.

#### *Livestock population*

4.62 The livestock in Kerala accounts for 1.75 per cent of the total cattle population in the country. A comparative picture of livestock population during the last two census periods 1987 & 1996 is presented in table 4.12.

**Table 4.12**  
**Livestock Population of All India and Kerala**

(Nos. in lakhs)

Species	1987		% share of Kerala	1992 India	1996 Kerala	% share of Kerala	% increase over the previous Census (Kerala)
	India	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	5.40	40.3

Source: *Livestock Census All India & Livestock Census Kerala.*

4.63 According to Livestock Census 1996, Kerala possess 34 lakh cattle, 1.7 lakh buffaloes, 18.6 lakh goats, 1.4 lakh pigs, 11.9 lakh ducks and 256.5 lakh poultry. Thus for every thousand human population of the state there were 118 cattle, 11 buffaloes, 54 goats, 1 sheep, 5 pigs and 618 poultry. This is against 263 cattle, 91 buffaloes, 130 goats, 54 sheep, 13 pigs and 35 poultry for the whole of India.

4.64 A comparison of 1987 and 1996 Census (see table 4.12) reveals that significant reduction has taken place in bovine population from 37.5 lakhs to 35.6 lakhs 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 per cent (from 50% to 67%) in the number and proportion of crossbred cattle. According to 1996 census, crossbred cattle constituted over two-thirds of the total population. There has been an increase of 85 lakh numbers in the poultry population from 171 to 256 lakhs.

4.65 Dairy activity is concentrated in almost all districts, poultry in Idukki and Pathanamthitta, goats in Malappuram, and ducks in Kuttanad.

#### *Weak fodder – feed base*

4.66 Due to the continuous depletion of feed and fodder base, as a result of the shift in cropping pattern in favour of cash crops and further marginalisation of operational holdings, the feed and fodder base has become very weak. The state is finding it very difficult to sustain the present livestock population and it is

going to be hard to sustain the momentum of growth in milk production.

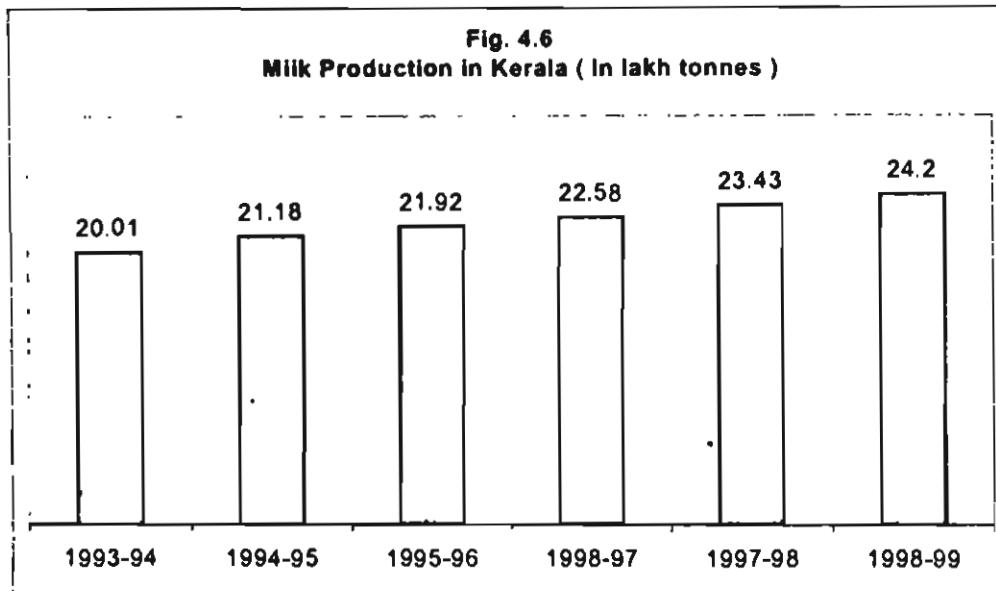
4.67 The area under rice has come down by 50 per cent over the last two decades. Consequently the availability of straw from internal sources has drastically declined. The present level of supply is estimated to be around 20 lakh tonnes, which constitute only around 30 per cent of the estimated present requirement. Kerala farmers, being rational, resorted to counter the situation by restricting the number of cattle and at the same time by choosing high yielding cross bred varieties. This changing trend has led to considerable reduction in the draught animals, working bullocks and indigenous dairy cattle.

#### **Milk**

4.68 Despite considerable increase in the proportion of high yielding crossbred cattle, the average milk yield per animal

per day remains low at 6 litres compared to its potential of 8-10 litres. It is heartening to note however that the productivity of crossbred animals is on the increase albeit at a very slow pace.

4.69 All these constraints notwithstanding milk production in Kerala during the last two decades recorded steady and consistent improvement. The annual average growth in milk production during the last two decades was 9.3 per cent as against 4.7 per cent at the national level. During the Eighth Plan the average annual growth was 5.3 per cent. The percapita availability of milk also increased to 208 gms. per day. Ninth Plan aims at a production level of 33.83 lakh tonnes. Milk production in Kerala increased from 23.43 lakh tonnes in 1997-98 to 24.20 lakh tonnes in 1998-99 (provisional). See figure 4.6.



#### **Egg, Poultry and other meat**

4.70 In the late seventies, Kerala witnessed a break down in deep litter system of egg production. Since then the commercial poultry rearing has been largely confined to broiler production. As per Census 1996, the broiler population in Kerala is 3.9 million and the supply of day old chicks is around 13 million. The supply of spent birds from neighbouring states for meat purpose is 1.7 million. At the end of Eighth Five Year Plan egg

production reached 2024 million. The target for Ninth Five Year Plan is 2929 million. During 1998-99 egg production increased to 2044 million from 2033 million in 1997-98. The State could maintain a higher rate of growth compared to the national level in the production of egg also. In poultry meat production also the performance during 1998-99 was better than 1997-98. The production during the year was 32,480 tonnes against 31,688 tonnes estimated for 97-98. Meat other than poultry increased to 1.18 lakh

tonnes from 1.14 lakh tonnes during 1997-98. This is against the Ninth Plan target of 1.66 lakh tonnes. Details of year-wise

estimate of milk, egg and meat production are furnished in table 4.13.

**Table – 4.13**  
**Year-wise estimate of milk, egg and meat production in Kerala and India (1993-94 to 1998-99)**

Year	Milk Production (lakh tonnes)		% Contribution of Kerala	Egg (million )		% contribution of Kerala	Meat other than Poultry (tonnes)	Poultry meat (tonnes)
	India	Kerala		India	Kerala			
1	2	3	4	5	6	7	8	9
1993-94	606	20.01	3.3	24167	1844	7.3	101223	28000
1994-95	638	21.18	3.3	25975	1916	7.2	103551	30000
1995-96	663	21.92	3.3	27284	1987	7.3	105933	32000
1996-97	683	22.58	3.3	27492	2024	7.4	108336	34000
1997-98	705	23.43	3.3	28400	2033	7.2	114306	31688
1998-99	747	24.20	3.2	30150	2044	6.8	117840	32480

Source: *Economic Survey 1999 and Department of Animal Husbandry*

4.71 The Poultry segment of the livestock economy is also facing several problems. Backyard poultry rearing which was unique and very popular in Kerala in the past is still the major source of egg production in the State. With a view to giving special attention for the revival of poultry farming, particularly for taking up area specific egg development programmes and to provide the required market tie up, Kerala State Poultry Development Corporation was established in 1989. The Corporation has built up a broiler breeding farm and hatchery at Kudappanakunnu in Thiruvananthapuram District. The total investment was Rs. 5.95 crores. 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 lakhs 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***

4.72 The universal experience is that beef is the costliest item of meat. But in

Kerala it is the cheapest item costing only 50 percent of the prices elsewhere. This is because of the migration of large number of cattle and buffalo from the neighbouring states for slaughter in Kerala having no taboo against animal 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 lakhs per annum. Besides Kerala has the relative advantage for substantially increasing the 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 diseases. Male calves available as the byproduct of intensive cross breeding programme are estimated to be about 1.5 lakh every year, which if properly looked after for value addition, could be utilised for export.

#### ***Animal Health Care***

4.73 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 net work of institutions comprising 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. Artificial insemination centres increased from 2393 in 1997-98 to 2408 in 1998-99.

#### **Production of Vaccine**

4.74 The Veterinary Biologicals, Palode is the sole agency engaged in the production and distribution of animal vaccine in the State. During 1998-99 the Institute has produced 26.45 lakh doses of poultry vaccine and 3.03 lakh doses of live stock vaccine as against 7.87 lakh doses of poultry vaccine and 2.54 lakh doses of livestock vaccine during the previous year. Number of vaccination done during the year was 6.91 lakh for livestock and 12.35 lakh for poultry. Details are given in appendix - 4.19.

#### **Breeding Support**

4.75 Kerala Livestock Development Board (KLDB) is involved in the production and distribution of frozen semen and maintains four bull stations at Mattupetty, Peerumede, Dhoni and Kulathupuzha for production of crossbred, pure bred cattle and buffalo bulls. Production of frozen semen during 1998-99 increased to 25.55 lakh doses from 24.49 lakh doses in the previous year and distribution inside the state increased to 15.75 lakh doses from 15.04 lakh doses. Details are furnished in appendix 4.20.

4.76 The Department of Animal Husbandry is responsible for providing the

artificial insemination support. Ninth Five Year Plan envisages providing one centre for every 500 breedable cattle, in addition to 2393 centres already operating in the state by the end of 1997-98. 200 sub centres were sanctioned during 1998-99. The total number of AI centres increased to 2408 during the year. These centres are operating under Animal Husbandry Department. Along with the 376 centres operated by other agencies, the total number of AI centres stood at 2784. Details are furnished in appendix 4.21. With a view to improving the efficiency of cattle breeding support, Animal Husbandry Department has launched a pilot programme to extend AI facilities to the door step of the farmers. Mobile AI units are established in 10 centres for this purpose.

4.77 During 1998-99 12.51 lakh artificial inseminations were done and 3.14 lakh calving were recorded. Although the number of centres has increased, there was reduction in the number of inseminations from 12.59 lakh to 12.51. Number of calvings decreased from 3.33 lakhs in 1996-97 to 3.27 lakh in 1997-98 and further to 3.14 lakh in 1998-99. Obviously there is need for improving the quality of service. The average number of inseminations done by one centre during the year is 520. The average number of insemination needed for producing one calf at present is four, which is very high. Details are furnished in table 4.14.

**Table - 4.14**  
**Number of artificial inseminations conducted and calving produced**  
(1993 - 94 to 1998 - 99)

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

Source: Animal Husbandry Department.

4.78 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 production and training programmes. The Board has an embryo transfer centre at Mattupetti, a goat farm at Dhoni for production of frozen semen and kids, a pig breeding centre at Puthur etc. During the year Board has produced 244 kids and 206 were distributed, 44 embryos were collected, 209 personnel were trained under various programmes. Other activities of the Board are given in appendix - 4.22.

#### **Cattle feed**

4.79 At present the state has three cattle feed plants functioning, one at Pattanakad, another at Malampuzha and third at Kallettinkara. The cattle feed plant at Pattanakad (300 MT/D capacity) and at Malampuzha (200 MT/D capacity) are functioning under KCMMF. Kallettinkara factory is operating under a separate management and was commissioned in February 1999.

4.80 Even though Milma is manufacturing balanced cattlefeed to compensate the acute fodder shortage in the state, the production and distribution in the above two units are far below their capacity. However the cattle feed production during the year 1998-99 is 91,167 MT as against the last year's production of 63,419 MT.

#### **Better Management of Young Calves**

4.81 Bringing down the age at first calving and reducing the intercalving period of cross bred cows have been recognised as the most effective measure for augmenting milk production. With this objective a calves rearing programme by subsidising the cattle feed required for rearing the calf upto 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 1998-99 10,000 calves were covered under the scheme. Details are furnished in table 4.15.

**Table - 4.15**  
**Year-wise details of calf insurance**  
**from 1993-94 to 98-99.**

<i>Year</i>	<i>No. of calves insured under feed subsidy</i>	<i>Amount subsidised (Rs. in lakhs)</i>
1993-94	25000	1.67
1994-95	10000	25.00
1995-96	25000	10.00
1996-97	-	25.00
1997-98	30000	938.00
1998-99	10000	500.00

*Source: Animal Husbandry Department.*

4.82 The Animal Husbandry Department in collaboration with United Insurance Company has formulated a Kamadhenu Insurance Scheme to insure the family of the farmer 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 much encouraging. The number of cows insured during the first year itself is more than 41,000.

4.83 Average price of important inputs and products of live stock sector for the last 6 years is presented in appendix 4.23. Compared to the previous year, there is an overall increase in the price of all products except egg and broiler chicken and inputs except that of gingly oil cake. During the year, price of milk recorded an increase of 1.1 per cent, mutton 7.14 per cent, beef 11.94 per cent and pork 11.48 per cent and price of egg recorded a decrease of 12.9 per cent and chicken 7.8 per cent. Price of straw increased by 17.44 per cent and grass by 44.22 per cent. The rate of

increase in the input prices is higher compared to the price of products thereby making the terms of trade for livestock further unfavourable.

### **Dairy Development**

4.84 Dairy sector in Kerala made spectacular progress during the last three decades. Milk marketing continues to be largely under the private sector. However with the inception of Operation Flood programme, the organised sector under the co-operative fold started giving a lead for the market trends of milk in Kerala. Kerala State Co-operative Milk Marketing Federation supported by the three regional unions has emerged as the single largest dealer of milk in Kerala with a very wide network of 2047 co-operatives regularly engaged in the procurement and distribution of milk. Besides marketing support the federation also provides extension support, input delivery and health cover. Extension support for dairy development, fodder development programmes, farm advisory services, implementation of quality control measures, training of farmers etc. are the major activities coming under the purview of the Department. The Department is undertaking activities such as promotion of indigenous milk product units and assisting the co-operatives for making them economical. The development programmes are operated through 2979 dairy co-operatives including 2047 Anand pattern societies functioning under the KCMMF.

4.85 During Eighth Plan, quality control units were established in eight districts and six more units sanctioned during 1997-98 are expected to be operational during 1999-2000. Training programmes are organised through the four livestock training centres functioning under the Department.

4.86 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 26.50 MT of fodder seeds

during 1998-99. The Dairy Department supplied 284 MT of seeds and the area covered under fodder during the year 1998-99 is 1000 ha. Details are furnished in table 4.16

**Table – 4.16**  
**Production and procurement of fodder seeds from 1993 – 94 to 1998 – 99**

<i>Year</i>	<i>Quantity of Seeds Produced (MT)</i>	<i>Quantity of Seed (MT) Supplied</i>	<i>Area covered under fodder(ha)</i>
1993-94	68.50	100	NA
1994-95	30.72	135	NA
1995-96	31.01	106	2416.0
1996-97	28.42	212	2182.4
1997-98	31.64	278	757.3
1998-99	26.50	284	1000.0

*Source: KLD Board and Dairy Department.*

### **Milk Marketing**

4.87 The Co-operative Milk Marketing Federation (KCMMF) has a widespread network of outlets for marketing 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 consumer 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 was under the network of Anand Pattern Dairy Co-operatives for procurement of milk. During 1998-99 the federation was operating through 2206 APCOs with total membership of 5.87 lakh as on August 1999. The average milk procured per day by APCOs during the year was 5.77 lakh litres (as on August 1999) against the previous year average of 4.77 lakh litres. The activities of KCMMF are presented in appendix 4.24.

4.88 In Kerala where the production of milk is concentrated in the small farm sector and ultimate supply is depended on seasonal factors, maintaining uninterrupted supply particularly during lean period is very difficult compelling the federation to import milk from the neighbouring states. The months of



August and September after the South West monsoon and the months from January to 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 quite often leading to hold excess stock beyond the distribution capacity of the organisation. The problem is further compounded by the influx of milk at cheaper prices from the neighbouring states. Holding of excess stock involves cost and it cannot be avoided in the long term interest of stabilizing the internal production and supporting the small farmers. The procurement of milk was 1950.31 lakh litres during 1998 against previous year's figure of 1743.75 lakh litres and total quantity of milk marketed was 2316.21 lakh litres against 2069.95 lakh litres during the previous year. The milk procurement and sale recorded a growth of 11.85 per cent and 11.90 per cent respectively considering the year as a whole, the gap between procurement and supply has increased to 365.90 lakh litres compared to 326.20 lakh litres during the previous year. This excess requirement was met by procurement of fluid milk and milk powder from neighbouring states. The total procurement and sale of milk by different dairies of KCMMF is presented in appendix 4.25.

4.89 The Veterinary services rendered by KCMMF are noteworthy. During the year Veterinary Services are provided through 33 regular and 19 emergency routes and 21202 animals were treated as on August 1999. The number of animals treated over the years shows more or less a decreasing trend from around 2 lakhs in 1996 to 1.07 lakhs in 1997, 0.29 lakhs in 1998 and slightly increased to 0.50 lakh numbers in 1999 (as on August 1999). Through dairy Co-operative Societies 60623 MT of cattle feed was sold. As on August 1999, 8.69 lakh kg. ghee was produced and 8.09 lakh kg. ghee was marketed. Details are furnished in appendix 4.24.

4.90 The number of functional milk co-operatives increased from 1985 in 1998 to 2047 in 1999 (as on August 1999), but the quantity of milk procurement per society has not increased with the increase in number of members. Year-wise average procurement of milk/day by APCOS is presented in appendix 4.26.

4.91 The average price of milk paid to the producer during 1998-99 was Rs. 9.18 and Rs. 9.93 per litre in 1999-2000. The price at which milk was supplied to the consumer was Rs. 12/- in 1998-99 and to Rs. 13/- in 1999-2000. The price revision details of KCMMF are furnished in appendices 4.27 & 4.28.

#### ***Livestock Development under Panchayat Plan***

4.92 Live stock sector has received considerable attention by way of resource flow and development support by the panchayats. The review of the Local plan for the year 1997-98 reveals that the flow of Grant-in-aid to the local bodies for the development of livestock was of the order of Rs 65.57 crores. This is clearly two times the normal funding as part of state sector programmes. Important programmes received support under local level plan includes dairy & poultry development, feed management and broiler production.

#### **Fisheries Development**

4.93 Although Kerala State has the natural endowments comprising of 590 kms of coastline and about four lakh hectares of inland water spread providing ample opportunity for building a sound fisheries economy, past investment and efforts did not appear to have helped in achieving this objective. No doubt the total fish production has increased from 4.03 lakh tonnes in 1988-89 to 6.48 lakh tonnes in 1998-99. But the increase in production was largely in the marine sector, that too from the inshore area. The inland sector by and large remains under-exploited. It was only during the last two years that some beginning could be made for tapping this potential. Export of marine products from the state has also



been remaining more or less stagnant. Export, which was 70,641 tonnes valued at 817 crores during 1998-99, witnessed a decline from 89,366 tonnes in 1997-98.

4.94 The total number of active fishermen in the state is 2.23 lakhs which include 1.82 lakhs in the marine sector and 0.41 lakhs in the inland sector. The fishermen population in the state for 1998-99 is projected to be 10.3 lakhs comprising of 8.00 lakhs under marine and 2.3 lakhs under inland sectors. Alappuzha district ranks first with a fishermen population of 1.74 lakhs followed by Thiruvananthapuram (1.69 lakhs). District wise details of fishermen population are given in appendix. 4.29.

4.95 The marine sector of Kerala has

been facing resource depletion crisis owing to the enormous spurt in the number of fishing crafts during the last decade. The trend is continuing. The total number of mechanised and non-mechanised crafts has increased from 34,007 in 1988-89 to 52,732 in 1998-99. The largest increase was in motorised country crafts, which rose from 9914 to 27,094 during the period. The pressure on the marine resources has increased enormously with fishing crafts from the neighbouring states also operating in the Kerala seas during the peak seasons. The data for 1998-99 also reveal that there was further increase in the number of motorised crafts, which is a very unhealthy trend. Category wise details of crafts operating from Kerala are given in table 4.17.

**Table 4.17**  
**Fishing Crafts Operating in Kerala**

Sl. No.	Category of crafts	1988-89	1997-98	1998-99	Increase/decrease over	
					1988-89	1997-98
1	Mechanised	3548	4206	4040	+492	-166
2	Motorised	9914	22723	27094	+17180	+4371
3	Non-motorised	20545	22271	21598	+1053	-673
<b>TOTAL</b>		<b>34007</b>	<b>49200</b>	<b>52732</b>	<b>+18725</b>	<b>+3532</b>

Source: Directorate of Fisheries

4.96 The enormous increase in the number of crafts does not appear to have helped in boosting the marine fish production substantially. Though high production of 6.78 lakh tonnes and 6.61 lakh tonnes were recorded during the years 1990-91 and 1996-97 respectively, it was hovering around 5.50 lakh tonnes during the remaining years of the last decade. District wise details of crafts in operation in the marine sector are given in appendix 4.30.

4.97 The introduction of large number of crafts and the increased level of unrestricted fishing necessitated the enforcement of strict regulatory measures. With this end in view the State has enacted the Kerala Marine Fishing Regulations Act. According to the Act the

inshore area coming within the depth range of 50 meters 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. Unfortunately, these demarcations are not being adhered to strictly leading to undue exploitation of the inshore area, which is comparatively rich in fishery resources. As a conservation measure, monsoon trawling has been banned in the State for the last one decade. During 1998-99 the ban in trawling was enforced from 15<sup>th</sup> June to 29<sup>th</sup> July 1999. It was in the back drop of the unrestricted induction of motorised crafts and their unregulated operation in the inshore area the State's Ninth Five Year Plan suggested introduction of an Aquarium Reform for safeguarding the interest of traditional

fishermen. However the required legislation is yet to be enacted.

### Trend in Production

4.98 The target for fish production during the Ninth Five Year Plan is 7.5 lakh tonnes which includes 6 lakh tonnes under the marine sector and 1.5 lakh tonnes under the inland sector. The estimated production for 1998-99 is 6.48 lakh tonnes which includes 5.82 lakh tonnes under marine and 0.66 lakh tonnes under inland sector. This is against the total production of 5.69 lakh tonnes recorded for 1997-98 (see table 4.18 & fig. 4.7). The increase is mainly in the marine sector, which has already reached a saturation point. Species wise composition of marine fish landings in Kerala from 1992 to 1998 are furnished in appendix 4.31.

### Inland Fisheries

4.99 Kerala has good resource potential for the development of inland fisheries. The state is enriched with 44 rivers (8500 ha), 30 major reservoirs (30,000 ha), fresh water ponds and tanks (3300 ha), 45

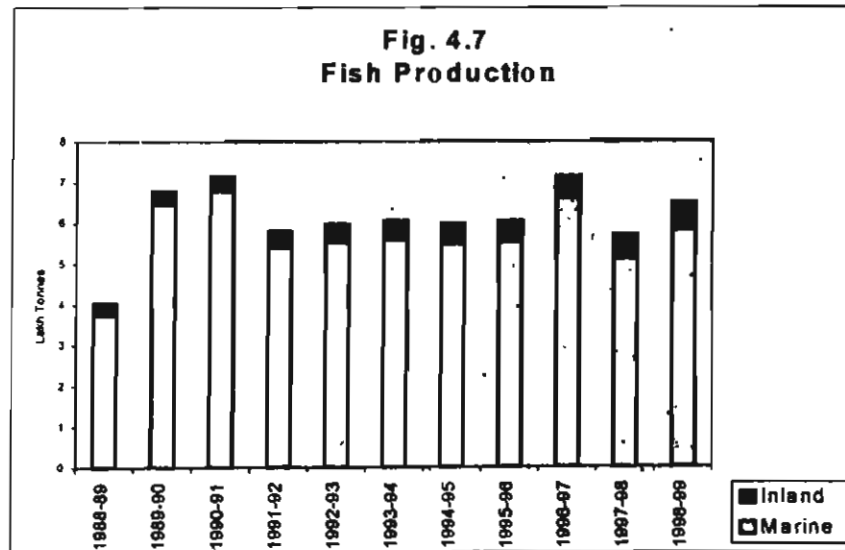
backwater (46,000 ha) and extensive brackish water area (965,000 ha). But the fish production in the inland sector presents a very dismal picture with its contribution remaining almost stagnant all these years. The share of inland fish production to the total fish production in Kerala in 1998-99 was only 10 percent, where as inland sector contributes nearly 46 per cent at the national level. (Species-wise inland fish production in Kerala is presented in appendix 4.32)

**Table 4.18**  
**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

Source: Directorate of Fisheries



4.100 Coastal Zone Regulations by the Centre have severely limited the scope for promoting culture fisheries in the country. In Kerala, however there is considerable

scope for development of culture fisheries in an eco-friendly manner without any infringement on the restrictions prescribed under the Coastal Zone Regulations. This

is an opportunity to promote inland fisheries by launching location specific aqua-culture development programmes based on appropriate technologies for the optimal utilisation of the State's back waters, reservoirs and other water bodies.

### Export of Marine Products

4.101 Shrimp forms the main item of the State's marine product exports. The inshore water of Kerala is one of the best

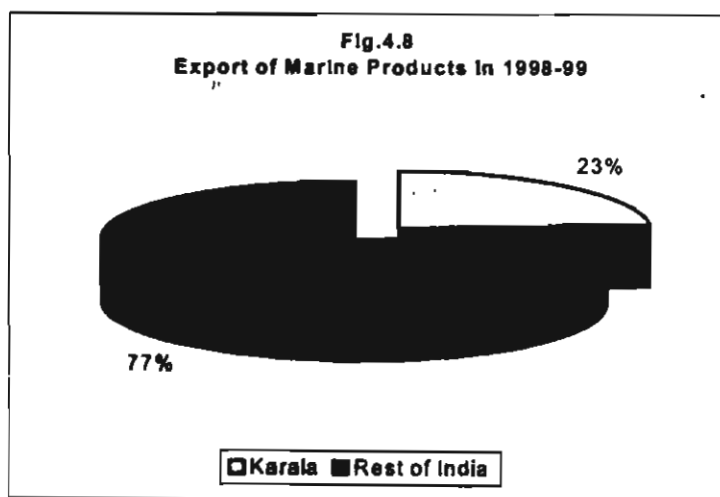
shrimp growing grounds in the country. The exportable varieties of marine fish landings from Kerala is 5.43 lakh tonnes comprising of high valued items like shrimps, cephalopods, (Squid, cuttle fish and octopus) and fin fish varieties. The table below gives the details of production of exportable varieties of fish from Kerala vis-à-vis India.

**Table 4.19**  
**Production of Exportable Fish Varieties**  
**from Kerala and India - 1998**

*Quantity: Metric Tonnes*

Sl. No.	Item	All India	Kerala	Share Percentage
1.	Shrimp	214741	58523	27.25
2.	Cephalopods	106992	32311	30.20
3.	Fin Fish	1971793	418323	21.22
4.	Lobster	2611	64	2.45
5.	Others	371863	33779	9.08
	<b>Total</b>	<b>2668000</b>	<b>543000</b>	<b>20.35</b>

Source: MPEDA.



4.102 Export of marine products from Kerala decreased from 89,366 tonnes valued at Rs. 948 crores in 1997-98 to 70,641 tonnes valued at Rs. 816 crores in 1998-99. It showed a decrease of 20.95 per cent in quantity and 13.82 per cent in value. The over all exports from the country also decreased from 385818 tonnes in 1997-98 to 302934 tonnes in 1998-99. At national level the value of

export decreased from Rs. 4697 crores to Rs. 4626 crores during the period. The contribution of the state to the total export of marine products from the country accounts for 23 per cent in terms of quantity and 17.6 per cent in terms of value. Share of Kerala has come down in terms of both quantity and value. The following table depicts details of export of marine products from Kerala and India (see appendix 4.33)

**Table 4.20**  
**Export of Marine Products from Kerala**  
*vis-a-vis* India (1992-'93 to 1998-'99)

(Q: Quantity in Metric Tonnes, V: Value in Rs. crores)

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	4626	816	17

Source: Directorate of Fisheries

#### Major Development Programmes

4.103 Fish production is one of the functions transferred to the local bodies as per the devolution of powers under the decentralised planning as part of the Ninth Plan. However the sector-wise performance of the local plans reveals that the sector did not receive the needed thrust in their development plans. The allocation of the resources in the local plans for 1997-98 for the fisheries sector accounts for only a meagre of 1.56 per cent.

#### State Level Programmes

##### 1. Janakeeya Matsyakrishi

4.104 The programme envisages optimal utilisation of inland water resources with people's participation through local bodies. The Department of Fisheries was providing technical guidance including the supply of fingerlings, while the organisation of the matsyakrishi was entrusted to local bodies. The achievements under the programme are given below.

**Table 4.21**  
**Year-wise details of Coverage under Janakeeya Matsyakrishi**

Year	Area brought under Fish culture (ha.)	Fish/Prawn/Shrimp Production (Tonnes)	Value (Rs. in crores)
1997-98	3257	7710	46.43
1998-99	6620	15875	90.63
1999-2000	7931	24,000 (anticipated)	145.00 (anticipated)

Source: Directorate of Fisheries.

4.105 The programme has been successful in motivating the local bodies and building confidence among them to launch similar programmes.

##### 2. Reservoir Fisheries Development

4.106 The module developed through the pilot project assisted by Germany for organised fish culture in five reservoirs in the State proved successful. The

technology has now been extended to other reservoirs.

### 3. *Integrated Fisheries Development Project*

4.107 A programme for the development of marine fisheries in an integrated manner was under implementation through Matsyafed, the apex federation of the Village Co-operatives. The objective of the project was to empower the traditional fishermen through supply of fishing inputs and providing market support on a group basis. The Federation has so far invested Rs. 53.75 crores benefiting 32,595 fishermen under the three phases of the project, which was completed by the end of Eighth Plan. The IV phase of the project is now under the consideration of NCDC for assistance. Pending approval for the same, NCDC has accorded sanction for the continuance of the

activities on an annual basis. Under IFDP 98, an amount of Rs. 1989.75 lakhs has been expended and 2022 units of fishing inputs has been distributed to fishermen. Details of physical and financial achievements under this project are furnished in appendix 4.34.

### 4. *NCDC Assisted Inland Fisheries Development Project*

4.108 NCDC has approved a project for the distribution of fishing inputs to fishermen at a cost of Rs. 6.36 crores with the intention of enhancing the fish production in the inland sector. Under the Project till the end of March 1999, a sum of Rs. 417 lakhs has been utilised to assist 1742 units. Table 4.22 shows the financial and physical achievements under the project.

**Table 4.22**  
**Achievements under NCDC assisted Integrated Fishery Development Project 1998-99**

<i>Sl.No.</i>	<i>Project Component</i>	<i>Block Cost</i>	<i>Unit disbursed</i>	<i>Amount Rs. in lakhs</i>
1.	Fishing Inputs			
a.	Gill/castnets		1545	339
h.	Clam type - A		90	16.5
c.	Clam type - B	507	84	12
d.	Hook and lines		23	3
2.	Marketing Infrastructure	33	600	9
3.	Working Capital	4.80	600	4
4.	Training	5.61	-	1
5.	Project Management	9.93	-	1
6.	Pre-operatives	29.07	-	29
	Physical and Price Contingency	46.37	-	0.5
	<b>Total</b>	<b>636.37</b>	<b>-</b>	<b>417</b>

*Source: Fisheries Department*

### 5. *Integrated Development of Aquaculture in Kuttanad*

4.109 The Project envisages augmentation of fish/prawn production by introducing eco-friendly culture and ranching practices in greater Kuttanad region covering about 25,000 ha of water logged area, within 5 years with the participation of local bodies. With the implementation of this project, production of 9880 MT fish and 1600

MT Scampi (*Macrobrachium*) are anticipated. As part of implementation of the programme, 14 lakhs of fish seeds were reared, composite fish culture introduced in 4123 hectares of area, developed monoculture of scampi in an area of 3 ha and stocked 22 lakh scampi seeds in selected open water hodies of Alappuzha and Kottayam districts.

## 6. Fishing Harbours and Landing Centres

4.110 There are eight fishery harbours now under execution, out of which four projects viz., Nccndakara, Puthiyappa, Chombal and Mopla Bay were completed and commissioned. Munambam Harbour is nearing completion. There are three projects under implementation for the establishment of fish landing centres. Progress of implementation of the harbour projects and landing centres are furnished in appendix 4.35.

## 7. Welfare Activities

4.111 The Kerala Fishermen Welfare Fund Board implements about 17 schemes at present for the benefit of Fishermen who are members of the Welfare Fund. The major schemes are group insurance, old age pension, assistance to the disabled fishermen, assistance for the marriage of daughters of the fishermen, assistance to the families against death of fishermen while fishing, assistance for the treatment of fatal

diseases, etc. During 1998-99, 26,734 fishermen were given old age pension and the amount involved was Rs. 22.86 crores. Assistance for the marriage of daughters was provided to 2444 cases and amount disbursed was Rs. 36.66 lakhs. During the year under report 24,587 fishermen were assisted under various welfare schemes spending Rs. 24.5 crores. The physical and financial details of programmes implemented by the Board are given in appendix 4.36.

## 8. Schemes implemented with the financial assistance of NBCDC

4.112 The National Backward Classes Development Corporation (NBCDC) and the National Minorities Classes Development Corporation (NMCDC) have rendered financial assistance through Matsyafed for implementing alternate self employment programmes. NBCDC had disbursed Rs. 1.65 crores to 1555 fishermen of backward community during 1995-'99 to undertake the following ventures.

**Table 4.23**  
**Programmes Implemented with Financial Assistance from NBCDC**

<i>Sl. No.</i>	<i>Name of Scheme</i>	<i>No. of beneficiaries</i>	<i>Unit cost (Rs.)</i>
1.	Screwpine mat making unit	484	50000/-
2.	Autorickshaw	93	58000/-
3.	Cold storage	44	69500/-
4.	Fish Pickle	23	86000/-
5.	Fish marketing	911	6000/-
<b>Total</b>		<b>1555</b>	

Source: - Fisheries Department

4.113 Upto 1998-99 NMDC had sanctioned 10 schemes and released an amount of Rs. 1.52 crores for the implementation of the scheme.

## Forestry and Wild Life

4.114 According to the records of the Forests and Wild Life Department, the forest area in the state is 1.12 million ha, constituting 29 per cent of the total land area. Although the percentage of forest cover in Kerala is higher than the national

average of 19.9 per cent. Kerala cannot afford to be complacent in the preservation of the forest wealth in view of its strategic location, as the state is one of the 18 hotspots for eco-preservation identified by Government of India.

4.115 Forests of Kerala are rich in bio-diversity and are known for the high degree of endemism and biological values. The diversity in plant and animal species in the forests justify the

intensive conservation of the biological wealth assigning top priority. Kerala forests are the habitat for a wide variety of

medicinal plants, which are in varied uses in the Ayurveda, Sidha and other traditional systems of medicine.

**Table 4.24**  
**Types of Forest in Kerala**

<i>Sl. No.</i>	<i>Forest Type</i>	<i>Area (m. ha.)</i>	<i>Per centage of the total area</i>
1.	Tropical Wet Evergreen Forests	0.3480	37.02
2.	Tropical Moist Deciduous Forests	0.4100	43.62
3.	Tropical Dry Deciduous Forests	0.0094	01.00
4.	Mountain Sub Tropical	0.0188	02.00
5.	Plantations	0.1538	16.36
	<b>TOTAL</b>	<b>0.9400</b>	<b>100.00</b>

*Source: Forest Department*

4.116 The Forest ecosystems in Kerala also show wide variation ranging from tropical wet evergreen to tropical dry deciduous. Table 4.24 shows the area under different types of forests. The high lands of the Western Ghats across the eastern boundary of the state constitute the continuous belt of forests supplemented by few fragmented and isolated bits in the midlands and home gardens and estates. Forests occupy over 59 per cent of the land area of Idukki and Pathanamthitta districts where as it is only 8 per cent of the geographical area of Kannur district. Division-wise coverage of forests in the state is furnished in appendix 4.37.

4.117 Forests plantations are also important as the supplier of raw materials to the forest based industries. The total area covered by forest plantations of various species is about 1.72 lakh ha. Among the various species of forests, teak (44%) eucalyptus (15%) and softwood and mixed plantation (29%) constitute the major items. Details of forest plantations are given in appendix 4.38.

4.118 The Forests of Kerala represent a dynamic repository of a wide array of forest produce comprising of wood as well as non-wood products. They include timber, firewood, charcoal, bamboo, jungle wood poles, reeds, honey and sandalwood. Among the various products, timber, jungle wood poles, firewood and cardamom show an increasing trend in production during 1998-99 over the year

1997-98. On the other hand, the production of poles, reeds, bamboos and honey has declined over the previous year. The trend in production of major forest products are given in appendix 4.39.

4.119 The sale proceeds of forest produce is a major source of income for the Government. The revenue from the forestry sector by way of the sale of timber and other non wood forest products during 1998-99 was Rs. 121 crores, which shows a decrease of Rs. 24 crores than the previous year (Rs. 145.00 crores). The total growing stock is estimated to be 200 million M<sup>3</sup>. The forests in the state supply about 2.6 million M<sup>3</sup> of timber and poles and 17 million M<sup>3</sup> of fuel-wood a year. Year-wise details of revenue from the forests are given in appendix 4.40.

4.120 With increasing awareness of importance of forests for ecological and environmental considerations and their immense value as a genetic resource, revenue is no longer the main objective of forest management. Thus the contribution of the forests for the society and preserving the ecological balance are more important than the direct revenue generated by them to the exchequer.

#### *Wild Life*

4.121 As per the statistics published by the Forest Department, the area covered by the 13 National Parks and 12 Wild life sanctuaries is 2.31 lakhs ha. It is 24.6 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.

4.122 Protected areas are managed now as show cases 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 neighbouring communities.

#### *Social Forestry*

4.123 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. Other social forestry activities include primary environmental care in urban areas, institutional planting programmes, integrated afforestation and eco-development with people's participation, social forestry through panchayats etc.

#### *Research and Training*

4.124 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.

4.125 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.

#### *World Bank Aided Kerala Forestry Project*

4.126 The World Bank Aided Kerala Forestry Project aimed at the integrated development of the Forest sector was approved by the World Bank in 1998. The Project is for a period of four years from 1998 to 2002 and the total cost is Rs. 182.39 crores. The Project was launched in 1998. The project aims at capacity building in promoting bio-diversity conservation, use of modern technologies in increasing productivity and management of forests through participation of communities, adoption of information technologies in management planning and implementation. During 1998-99 an amount of Rs. 1372.26 lakhs was expended for undertaking the following activities.

**Table 4.25**  
**Activities under Kerala Forestry Project during 1998-99**

<i>Item</i>	<i>Physical coverage</i>
1. Treatment areas	5460 ha.
2. Construction of	
a) Quarters	118 Nos.
b). Office building	8 Nos.
c). Road Trench path	250 Km.
3. Consultant studies	70 Nos.
4. Training	163 Nos.
5. Workshop	170 Nos.
6. Study tour	53 Nos.
7. Equipment	
a. Computer and accessories	202 Nos.
b. Car	26
c. Jeep	64
d. Truck	1
e. Mini bus	1
f. Motor cycle	30 Nos.
g. Lorry	1
h. Boat	1

*Source: Forest Department*

Year-wise Financial & Physical targets envisaged are given in appendices 4.41 & 4.42.



## AGRICULTURAL MARKETING

4.127 With the liberalisation process already initiated by Government of India marketing support is assuming critical importance for protecting the interests of the small farmers in Kerala. Consequent to the absence of organised systems for regular procurement, processing and marketing instability in prices has become the biggest disincentive for modernising agriculture in Kerala. In an economy like ours predominated by large number of producers with very meagre marketable surplus, organisation of the marketing support on a firm footing is both costly and difficult. Co-operativisation is the only means but the performance of the co-operative sector in this vital segment is very weak. The major crops, which have vital bearing in the state's economy, are not included under the protective regime of the national support price policies. 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 under agriculture marketing in specific areas. The programmes operated by the Department are described below.

### (i) *Procurement of paddy through Primary Co-operatives*

4.128 Farm prices of paddy are subjected to seasonal fluctuations for want of organised arrangements for procurement. Consequently the prices used to fall during peak marketing seasons in important paddy growing regions like Kuttanad, Kole and Palakkad. State Government is operating a scheme for tackling this problem by providing an incentive of Rs. 60 per quintal by way of handling charges to the co-operatives that come forward for procurement at the prices mutually agreed upon by the Department of Agriculture and the co-operatives. An additional incentive of Rs. 5 per quintal is also being made available if the paddy procured is processed and sold as rice. During the Virippu season of

1998, 5530 tonnes of paddy were procured at Rs. 5500 per tonne (White-rice) and Rs. 6000 per tonne (Red-rice) by giving an incentive of Rs. 42.45 lakhs. The scheme was continued during the Mundakan and Punja seasons as well by procuring 4109 tonnes of paddy with an incentive of Rs. 249 lakhs.

### 2. *Grading of Agricultural Commodities*

4.129 Ten district level State Agmark Labs undertook the grading of agriculture commodities such as coconut oil, gingely oil, honey, curry powder etc. During 1998-99 the commodities graded were 99 tonnes honey, 317 tonnes ground spices, 37 tonnes gingily oil, 167 tonnes coconut oil and 21 tonnes of ghee against 161 tonnes honey, 269 tonnes ground spices and 14 tonnes ghee graded during 1997-98.

### 3. *Agricultural Market Development Project*

4.130 The project is to construct 3 urban markets, one each at Anayara in Thiruvananthapuram district, Maradu in Ernakulam District and Vengeri in Kozhikode District and three rural markets, one each at Nedumangad in Thiruvananthapuram District, Moovattupuzha in Ernakulam District and Sultan Batteri in Wayanad District with a block cost of Rs. 72 crores. The entire EEC assistance of Rs. 31 crores out of the original project cost of Rs. 44 crores was fully utilised. During 1998-99 Rs. 4.25 crores was utilised for the project bringing the cumulative expenditure to Rs. 58.94 crores. The Markets at Maradu and Moovattupuzha are nearing completion.

### (4) *Warehousing Facilities*

4.131 The Kerala State Warehousing Corporation at present has 62 warehouses (own - 46 and hired - 16) with a total storage capacity of 1.92 lakh tonnes (Own - 1.60 lakh tonnes and hired - 0.32 lakh tonnes). The Corporation closed down two unviable godowns at Vellarikundu and Iringalakkuda. During 1998-99 the Corporation strengthened its storage

capacity by replacing 5100 MT hired storage capacity (at Attingal and Karunagapally) with own godowns. The Corporation has diversified its activities by taking up procurement and storage of agricultural commodities and consultancy service for construction works for other organisations, disinfection and soil fumigation extension service, courier service, transportation and running own container freight station.

## AGRICULTURAL FINANCE

4.132 Farm front in Kerala is largely in the private sector and a perceptible improvement in commodity production is possible only through higher investment for improving productivity. In the context of Kerala's agrarian economy predominated by small holdings with limited surpluses, this is possible only through enhanced flow of credit from the financing institutions. Agricultural finance has special significance under the emerging agricultural scenario in Kerala with capital intensive perennial crops expanding their coverage replacing short term seasonal and annual crops. With the decentralisation of the planning process the venue of planning for commodity production has been shifted to the local bodies at the grass root level. The priorities and directions for development interventions have also undergone substantial changes with the introduction of Panchayat Raj System. It is imperative that the credit dispensation mechanisms in Kerala also imbibe the spirit and philosophy of decentralisation and suitably reorient their credit plans.

4.133 The organised credit sector in Kerala comprises of co-operatives and commercial banks. The co-operative credit is channelised through the State Co-operative Bank, 14 District Co-operative Banks and 1626 Primary Agricultural Credit Societies and the Kerala State Co-operative Agricultural and Rural Development Bank with 44 Primary Banks operating at the taluk level. The commercial banking sector also operates concurrently with 43 banks having 2908

branches and two Regional Rural Banks with 281 branches.

### *Short and Medium Term Credit*

4.134 Short and medium term loan requirements are catered both by the co-operative sector and the commercial banking sector. In the co-operative sector the primary agricultural credit societies supported by the District Co-operative Banks and the State Co-operative Bank operate in a large scale. A substantial portion of the S.T. & M.T. credit requirements are provided by the Banks using their own funds including the deposits mobilised through special campaigns. The working results of the Kerala State Co-operative Bank for the last three years are given in appendix-4.43.

4.135 The purpose-wise cumulative loan disbursement position of Kerala State Co-operative Bank Ltd. is furnished in appendix-4.44. The cumulative loan disbursement by the Kerala State Co-operative Bank as on 31-3-1999 is Rs. 468.11 crores against Rs. 518.10 crores during the previous year. The flow to agricultural sector (Production and Investment) as on 31-3-1999 was Rs. 155.36 crores which is 7.3 per cent lower than the disbursement during the previous year. (Rs. 167.61 crores). However, Agriculture accounts for 33.2 per cent of the cumulative disbursement against 32.5 per cent accounted by the sector during 1997-98. The other sectors which have recorded increases in credit disbursement during 1998-99 include cottage and small scale industry, consumer business and housing whereas in important sectors like production, marketing, consumption etc. the disbursement is lower compared to the previous year.

4.136 The primary agricultural credit societies (PACS) are institutions at the grass root level for the disbursement of co-operative credit. As on 31.3.1999 there were 1626 PACs with a total membership of 106 lakhs and resource base (share capital, resources and working capital) of Rs. 11193.74 crores. The target for

deposit mobilisation for 1999 was Rs. 200 crores and the achievement was Rs. 726 crores (363%) (see appendix 4.45). The data on working of primary societies reveals that as on 31.3.1999 out of 1626 societies, 671 societies were on profit, 885 societies were on loss and 15 societies were without loss or profit. Out of 1626 societies 1559 societies have paid secretaries and 1457 societies have their own godowns (see appendix 4.46).

4.137 The total loan disbursed through the PACs during 1998-99 was Rs. 3683 crores compared to Rs. 3239 crores in 1997-98 registering a growth of 13.7 per cent. The seamy side of the picture is that the credit for agricultural purpose decreased from Rs. 1017 crores (in 1997-98) to Rs. 973 crores. The proportion of agricultural loan was also reduced from 31 per cent to 26.41 per cent. The dominance of non-farm sector is still continuing. This is noteworthy since PACs are basically for servicing the farm front. Selected indicators of the credit operations of the PACs are furnished in appendix 4.46 & 4.47.

#### *Long Term Credit*

4.138 Long term credit for rural development is, mainly, provided by the Kerala State Co-operative Agricultural and Rural Development Bank Ltd. (KSCARDB) at the apex level and 44 Primary Agricultural Development Banks at 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 1998-99 the bank disbursed Rs. 232 crores as loan against Rs. 236 crores in 1997-98. The advances included Rs. 4.64 crores under ordinary loan, Rs. 94.75 crores under schematic lending, Rs. 45.85 crores under non-farm sector and Rs. 86.69 crores under rural

housing. The details of loans issued and debentures floated by KSCARDB are given in appendix 4.48 & 4.49

4.139 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 SLBC the cumulative loan disbursement as on 31 March 1999 in respect of commercial banks operating in Kerala was Rs. 13,577 crores as against Rs. 12,364 crores as on 31 March 1998. Out of this the priority sector advance was Rs. 5997 crores as against Rs. 5214 crores as on March 1998. Within the priority sector the cumulative loan disbursement in the agricultural sector was Rs. 1951 crores in March 1999 against Rs. 1814 crores in March 1998. During both years the percentage share of Agriculture to the total loan outstanding in respect of the commercial banks works out to around 15 per cent only, which is below the target of 18 percent by the RBI.

4.140 According to the figures furnished by the SLBC the priority sector lending in Kerala during 1998-99 is Rs. 4516 crores which include Rs. 1039 crores disbursed through Co-operatives and Rs. 3477 crores through commercial banks. The credit disbursement during the year has registered a growth of 26.8 per cent over the previous year when the total disbursement was only Rs. 3568 crores. Between the Co-operative and commercial banking sectors the performance of the commercial banking sector was better with a growth rate of 54.64 per cent against 9.02 per cent for the co-operative sector. Although there is growth in the disbursement of credit the gaps between the total deposit and disbursement continue to persist. The credit deposit ratio of the commercial banking sector as on 3/99 was 43.06 which was lower than the level of 44.88 per cent recorded on 3/98. The consistent fall in the credit deposit ratio inspite of the serious concern expressed by the State Government warrants appropriate corrective measures.

### *Refinance by NABARD*

4.141 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. The cumulative disbursement of refinance from NABARD as on 1998-99 was Rs. 158.78 crores against Rs. 204 crores in 1997-98. The Kerala State Co-operative Agricultural and Rural Development Bank Ltd. (KSCARDB) continues to absorb the largest share of refinance (69%) followed by Regional Rural Banks (16.21%), commercial banks (13.57) and Kerala State Co-operative Bank (0.94%). In 1997-98 the share of State Co-operative Bank was 9 per cent and was higher than that of commercial banks (4%). The share of KSCARDB also decreased by 6 per cent while that of Regional Rural Banks and Commercial Banks increased by 4 and 10 per cent respectively.

4.142 The purpose wise comparison indicates that non-farm sector was the major activity which accounted for 36 per cent share followed by plantation and horticulture (22%), animal husbandry (11.4%), minor irrigation (9.6%) and land development (8.8%).

4.143 Malappuram district with Rs. 17.1 crore stood first in drawal of refinance followed by Kasargod (Rs. 16.2 crore), Kannur (Rs. 15.8 crore) and Thiruvananthapuram (Rs. 15.6 crore).

4.144 The agency-wise and purpose-wise cumulative refinance disbursement during the last six years is given in appendix 4.50 & 4.51.

### *Rural Infrastructure Development Fund (RIDF) of NABARD*

4.145 As part of the national policy for supporting 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 shortfall in agriculture target lending upto an extend of 1.5 % of the net bank credit, State Government has been receiving assistance from 1995-96 onwards. The initial corpus (RIDF-1) of Rs. 2,000 crores was utilised for extending loans to state governments mainly for incomplete irrigation projects. The successive Union Budgets made enhanced allocations to the RIDF corpus. The allocations were Rs. 2,500 crores in 1996-97 (RIDF-II), Rs. 2,500 crores in 1997-98 (RIDF-III) and Rs. 3,000 crores in 1998-99 (RIDF-IV). Thus the amounts allocated so far aggregated Rs. 10,000 crores.

4.146 Under the various tranche of RIDF, 794 projects involving an assistance of Rs. 347 crores have been sanctioned for Kerala till 1998-99. The projects include 5 medium irrigation, 408 minor irrigation, 112 watersheds, 93 rural bridges, and 175 rural roads. The projects completed include 2 medium irrigation, 125 minor irrigation, 37 watersheds and 21 rural bridges. The amount drawn by the State Government till 1998-99 is Rs. 140.87 crores. Details of sanction and disbursement are given in appendix 4.52.

4.147 The long term potential credit plan (PLP) for Kerala prepared by NABARD for a five year period coterminous with the Ninth Plan estimated a credit requirement of Rs. 11,460 crores for the primary sector. The district-wise 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.

4.148 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 when it is linked with Panchayat level planning. With local planning gaining ground, the 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 funds to the grass root level making the credit linking 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.

4.149 Despite this favourable setting, the first and second year's experience with local level planning indicates that there is little linking of credit flow from the banking sector including the co-operatives to local level plans. Bank credit has not been duly reflected even at the conceptualisation stage of the plan, only a meagre 12.15 per cent has been projected for in the first year's plan and 9.29 per cent in the second year. The actual credit flow during the first year was deplorably low with 1.1 per cent.

#### *Overall Performance under the Primary Sector*

4.150 The credit flow to the Primary sector through the banking sector during the last three years is given in table 4.26

**Table 4.26**

#### **Credit flow under the Primary Sector (Rs. in Crores)**

Sl. No.	Purpose	1996-97	1997-98	1998-99
1	Crop loans	950.49	1125.16	1364.88
2	Minor Irrigation	46.09	53.64	45.48
3	Land Development	50.79	44.91	71.41
4	Farm Management	21.77	21.77	14.78
5	Plantation and Horticulture	135.29	168.67	234.32
6	Others	52.34	45.19	63.52
7	Dairy Development	38.94	46.60	44.91
8	Poultry	10.31	11.58	11.27
9	Goat/Piggery	7.0	7.47	6.17
10	Fisheries	15.97	20.03	60.78
11	Forestry	0.70	2.76	1.12
12	Storage and Market Yard	3.70	3.23	3.49
	<b>Total Primary</b>	<b>1333.39</b>	<b>1551.01</b>	<b>1922.13</b>
13	Non farm sector	916.70	822.15	921.88
14	Other priority sector	1003.04	1251.27	1675.77
	<b>Total Priority</b>	<b>1253.13</b>	<b>1624.43</b>	<b>4519.78</b>

Source: - NABARD

4.151 Although the total credit to the primary sector rose from 1333.39 crores to 1551.01 crores in 1997-98 and Rs. 1922.13 crores in 1998-99, there are many grey areas in the pattern of dispensation. They include.

- (1) The total credit of 1922.13 crores is largely accounted by short term crop loans which is Rs. 1364.88 crores. In percentage terms it works out to 21. The investment credit is a meagre of 29 per cent. The low priority given for investment credit is a matter of serious concern particularly in the context of the structural transformation-taking place in Kerala farm front in favour of perennial crops demanding enhanced flow of investment credit.
- (2) In the dispensation of production credit also, the average credit per unit area is only Rs. 4597 per ha, which is very low compared to the scales of finance recommended for the various crops in Kerala.
- (3) Important sectors like minor irrigation farm mechanisation, dairy development, fisheries etc. have registered negative growth during 1998-99. The scheme-wise profile of credit dispensation also reveals that emphasis is on expansion of area under crops like coconut, pepper etc. which has limited scope rather than rehabilitation of the traditional plantations which is a long felt need.
- (4) In the case of investment credit flow also, the average per unit of cropped area works out to Rs. 2455 only which clearly shows that either the area serviced is very low or it is under financed.
- (5) The credit flow to the priority sector shows wide regional disparity ranging from Rs. 155.14 crores in Wayanad to Rs. 578.33

crores in Kollam district. In districts like Idukki, Palakkad and Malappuram, which are important for agricultural development, the average credit flow per ha on the basis of net cropped area is below the state average.

4.152 As a proportion to the bank deposit generated in Kerala and also as a proportion to the total credit, bank advances to priority sector and agriculture have shown no improvement during 1998-99 as well, as could be seen from the data given in table 4.27.

**Table 4.27**

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

<i>All Commercial Banks</i>				
Year	<i>Priority sector lending</i>		<i>Agriculture Credit</i>	
	<i>As a % of total credit</i>	<i>As a % of total deposits</i>	<i>As a % of Total credit</i>	<i>As a % of Total deposits</i>
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

Source: State Level Bankers Committee

### **Irrigation**

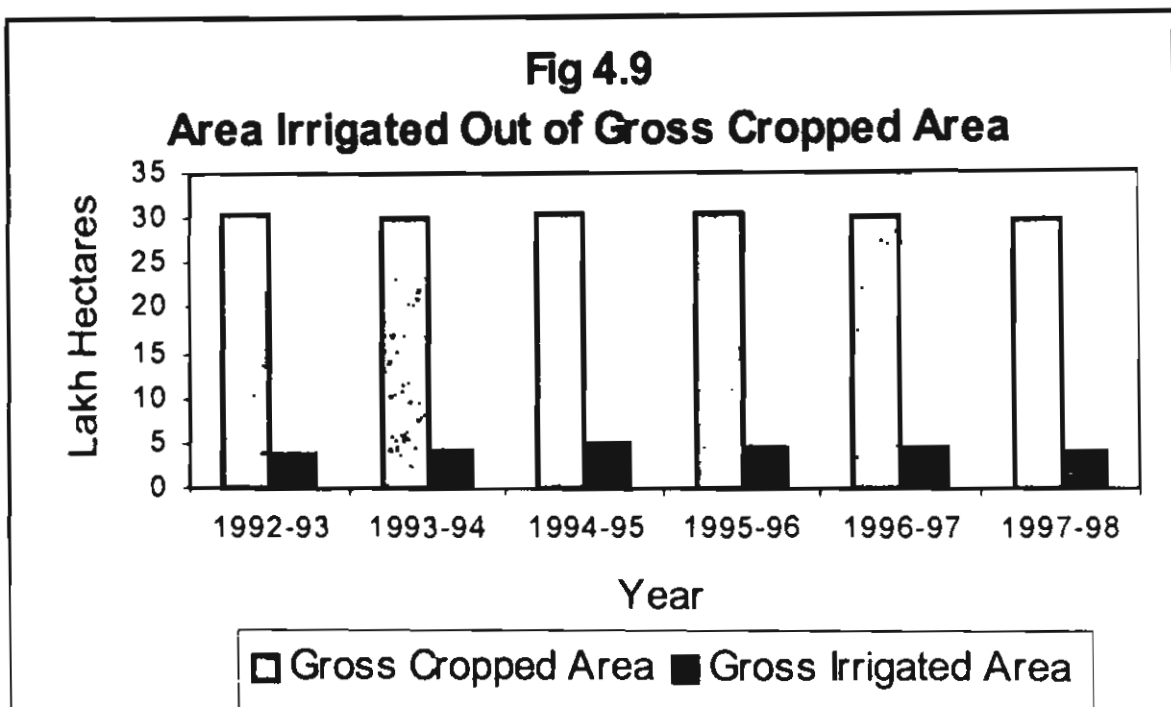
4.153 Land and water are the most important basic resources required for a vibrant agriculture. In Kerala, land is a scarce resource while in respect of water it is richly endowed. The State is located in a high rainfall region in the country with an average rainfall of about 3000 mm. Although the rainfall pattern normally shows temperal and spatial variation, its performance in recent years has been more or less satisfactory. The State has been receiving comfortable rainfall during the last three years in succession with almost all the reservoirs having storage up to full capacity. However this favourable

situation does not seem to have made any impact in increasing the area under irrigation, not to speak of any spectacular improvement in the area under seasonal crops.

4.154 The annual yield of water in Kerala in a normal year is around 7030 crore cubic meters. The utilisable water resources will be around 4200 crore cubic meters. Being located in an intensive rainfall region, for the life style of the people, cropping pattern, intensity of cropping and livestock reared etc. the demand for water is very high. Among various uses highest priority is for drinking water followed by irrigation.

4.155 The strategy adopted for the development of water resources and its management during the IX Plan period aims at conservation of natural resources including rainwater through appropriate intervention and ensuring its optimal utilisation. It also contemplates optimum utilisation of the potential already created by introducing appropriate system of participatory management suitable to the systems and social groups. Consequent to the introduction of the decentralised planning, demarkation of the responsibilities has been brought about in the area of irrigation management at the State level and the local bodies. Even

though major irrigation has been the main thrust in the past, minor irrigation is gaining importance. In the allocation of resources for the irrigation sector during the IX plan the major share is for the major irrigation sector i.e., (63%), followed by minor irrigation (24%), coastal zone management (5%), command area development (4%) and flood management (4%). The cumulative investment so far made for the development of irrigation in Kerala works out to Rs. 2510 crores and out of it, Rs. 1736 crores (69.16%) was for major irrigation.



4.156 The cumulative area brought under irrigation upto 1998-99 including minor irrigation is 4.45 lakh hectares (net) and 7.25 lakh hectares (gross). The additional investment made during 1998-99 for irrigation is Rs. 203.50 crores where as the net addition to the area irrigated is only 14,173 ha. This achievement is neither in commensurate with the additional investment made nor anywhere near the targeted area under plan. In percentage terms the increase in area is a meagre of 3.25 per cent under net and 4.02 per cent in gross.

#### *Review of Major Projects*

4.157 The strategy adopted for major and medium projects during the IX Plan period include (i) time bound completion of projects, which are nearing completion. (ii) revamping and consolidation of old projects through a modernisation programme (iii) reinvestigation for reassessment of the cost/benefits of projects which are under investigation (iv) optimum utilisation of the potential already created through proper maintenance of the completed systems and with participatory management and (v) the introduction of the concept of multipurpose and self supporting medium projects under autonomous authorities. As part of the strategy for time bound completion of projects, 8 projects Pazhassi, Chimmoni-Mupli, Karapuzha, Kanjirapuzha, Kanakkankadavu, Muvatupuzha, Idamalayar and Kallada were targeted for completion during the plan period. Accordingly higher outlays were provided for these projects and 5 projects out of these 8 projects were posed for assistance under the RID Fund of NABARD for completion. During the first two years of the IX Plan, two projects Chimmoni and Kanakkankadavu could be completed and works relating to the remaining projects are progressing. Kanhirapuha and Pazhassi Projects are nearing completion. In Karapuzha project about 80 per cent of the works in the main canal has been completed and the works relating to the remaining portion of the branches are progressing. However

indications are that the project would require a further investment of Rs 41 crores for completing the distributories. Enormous hike in the cost of the project within a short span of time without any valid reasons bring to light the need for streamlining the system of investigation and appraisal of irrigation projects.

4.158 Kallada and Moovattupuzha are the other two projects expected to be completed during the IX Plan and substantial investments were made for these projects during the first two years of the plan. The cumulative investments made under these two projects till the end of 1998-99 is Rs. 815.99 crores, out of which expenditure on Kallada is Rs. 557.48 crores. However the organisation of the work programme was so sporadic and piecemeal, without any perspective for completing the project in meaningful sequence commencing from the main canal followed by branches and distributories has been the major reason for prolonging the work and as a result the ayacuts in the completed portions of the main and branch canals could not get the benefit of irrigation through partial commissioning. The delay in the execution of the project has led to cost escalation of a substantial order and it becomes difficult to complete the project with the normal plan funding. This project was receiving assistance from the AIBP of Government of India for quick completion.

4.159 As far as Muvatupuzha is concerned, work relating to dam and major portion of the main canal has been completed. Major portion of the branches and distributories have to be completed. Out of a total length of 58.50 km of branch canals, only 13.115 km. has been completed and out of 184 kms. of distributories only 15 km. has been completed. The progress of execution is very slow and no ayacut is achieved till date. In the case of Idamalayar project, out of the 32.278 kms. of distributories, work relating to 7.96 kms. completed and in the case of branch canals, only 1.48 km. completed. The overall performance of the major and medium sector was thus not



encouraging. Additional irrigation facility could be extended only in the case of Kallada project, which is also very nominal. The cumulative area brought under irrigation through major and medium irrigation projects is 2.192 lakh hectares (net) and 4.403 lakh hectares. (gross)

4.160 As part of the strategy for reinvestigation of non-starter projects, five projects namely Attappady, Banasurasagar, Thrithala, Chamravattom and Vamanapuram have been taken up. The investigation of Banasurasagar has

been completed and execution commenced. In the case of other projects clearance of the projects is subjected to detailed examination with a view to exploring the scope of executing them as multipurpose projects combining water supply, bridge cum roads and energy for supplementing the income so that they could be posed as viable projects for external assistance. The new projects Attappady, Chamravattom, Thrithala, Vamanapuram and Kuriyarkutty - Karappara are being reinvestigated based on this strategy. The details of the ongoing projects is given in table 4.28

Table 4.28  
Details of Ongoing Projects

(Rs. in lakhs & Area in ha.)

Sl. No	Name of Project	Year of starting	Original estimate	Revised estimate of revision	Year of revision	Cost of escalation	Expenditure upto march 1999	Expected area to be irrigated		Physical achievements		Cost per ha
								Net	Gross	Net	Gross	
1.	2	3	4	5	6	7	8	9	10	11	12	13
1.	Kallada	1961	1328	69800	1966	5156	55748	61630	92800	30414	45798	1.21
2.	Chimmoni-Mupli	1975	633	3615	1992	471	5680	13000	26000	13000	26000	0.22
3.	Kanhirapuzha	1961	365	10000	1996	2639	9095	9710	21850	7270	16340	0.55
4.	Pazhassi	1962	442	13700	1996	2999	13513	11525	19650	6348	12696	1.06
5.	Muvattupuzha	1974	2086	45500	1996	2081	25851	17370	34740	-	-	-
6.	Vamanapuram	1981	1982	26000	1996	1211	10271	8800	18010	-	-	-
7.	Idamalayar	1981	1785	10700	1996	499	8221	14060	43190	-	-	-
8.	Kuriyarkutty-Karappara	1987	1036	14000	1996	1251	996	11740	23190	-	-	-
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	12000	1996	2421	909	4500	8380	-	-	-
12.	Karapuzha	1976	760	22500	1996	2860	15754	4650	9300	-	-	-
13.	Meenachil	1980	3500	12800	1996	265	506	9960	14510	-	-	-
14.	Banasurasagar	1979	800	3614	1996	351	473	2800	4800	-	-	-
15.	Chamravattom	1985	870	1327	1996	52	454	6700	8660	-	-	-

Source:- Irrigation Department

#### Revamping and Consolidation of first generation Projects

4.161 One of the strategies adopted under major and medium irrigation is revamping of old generation projects for the optimal utilisation of the irrigation potential. Detailed base line studies have been organised for identifying the most critical intervention necessary for renovating the system, categorising them into head works, main canal, branches and distributories. This would also involve restructuring delivery system to suit the

shift in cropping pattern occurred in the ayacuts over the years.

4.162 The nature of works supported include repairs in head works and regulators, providing measuring devices, lining works in canal system, repair/renovations of control structure, improvement works in CD works, protection works in conveyance systems etc. which would help in preventing leakage/seepage and other losses. The implementation has been scheduled in a phased manner sequencing the interventions from head works, main canal, branches and distributories. Even

though the programme was launched in 1997-98, implementation started only during 98-99. Nine projects out of the ten old generation projects were taken up with an estimated cost of Rs. 55.36 crores.

About 80 per cent of the works sanctioned for the first year is over and the remaining are progressing. Details of projects implemented under revamping programme is given in table. 4.29

**Table 4.29**  
**Details of Revamping and Consolidation Programme**

(Rs. lakhs)

Sl. No.	Name of project	Estimated cost for revamping	Estimated cost for				Expenditure during 1998-99	Target 1999-2000
			Head works	Main canal	Branch canal	Distributories		
1.	Malampuzha	1658.00	-	279.20	1110.22	268.49	24.35	455.00
2.	Pothundy	813.00	53.50	150.60	593.75	15.15	78.87	255.00
3.	Mangalam	430.00	7.00	22.00	204.00	197.00	53.17	155.00
4.	Walayar	370.00	27.00	155.00	126.81	60.64	20.47	200.00
5.	Gayathri	700.00	42.00	284.45	331.07	42.48	31.35	220.00
6.	Neyyar	380.00	35.00	118.70	158.10	68.20	86.60	170.00
7.	Vazhani	145.00	8.00	45.50	75.50	16.00	17.59	100.00
8.	Cheerakuzhy	230.00	25.00	166.00	39.00	-	3.65	115.00
9.	Peechi	810.00	50.50	412.00	201.10	146.40	60.78	285.00
	Total	5536.00	248.00	1634.09	2839.55	814.36	376.83	1955.00

Source: - Irrigation Department

#### *Performance of the Irrigated Projects assisted under Rural Infrastructural Development Fund*

4.163 Under the "Rural Infrastructural Development Fund" (RIDF) of NABARD, financial support has been availed for completion of irrigation projects both medium and minor. Out of the total amount of Rs. 347 crores sanctioned by NABARD under the four phases, assistance provided to irrigation sector is Rs. 140.71 crores (40.61%).

4.164 Under irrigation, 5 medium projects and 408 minor irrigation schemes were supported upto 1998-99. NABARD share sanctioned for the 5 medium projects is Rs. 93.145 crores, and Rs. 47.569 crores for the MI schemes. Chimmoni-mupli, Kanakkankadavu, Karapuzha, Pazhassi and Kanjirapuzha are the medium projects and were scheduled for completion during 96-97 and 97-98. But only one project namely Chimoni could be completed within the time schedule. Kanakkankadavu project took one more year. Pazhassi and Kanjirapuzha are expected to be completed by the end of 1999-2000. But

in the case of Karapuzha only 80 per cent of the works in the main canals could be taken up. The branches and distributories remain incomplete by and large. Under minor irrigation, 408 schemes were sanctioned in four phases. Out of this 125 works are completed, 50 schemes dropped and the remaining schemes are progressing.

#### *Coverage and Pattern of Irrigation*

4.165 The data on source-wise and crop-wise area irrigated from 1992-98 are given in Table 4.30 and Table 4.31. As per the estimates of the Irrigation Department the area irrigated (gross) by the end of 1997-98 is reported to be 6.97 lakh ha. This is in contrast to the reported area of 4.12 lakh ha by the Directorate of Economics and Statistics. According to the Directorate the area has declined marginally during 1997-98. It is evident that there is need for streamlining the system for estimating the irrigated area in Kerala and for its periodic revision. Among the sources, private wells predominate. Among the crops, paddy receives major share. During 97-98 about 49 per cent of the gross irrigated area was

accounted for by paddy. Even though there is reduction in area under paddy cultivation, the area irrigated under paddy

remained more or less stagnant, showing that the shift in area from rice cultivation is more in the unirrigated tract.

Table- 4.30  
Net Area Irrigated (Source wise) (Area in ha.)

Sl. No.	Source	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98
1	2	3	4	5	6	7	8
1	Government canals	102942	102880	108633	103136	103300	101023
2	Private canals	3745	3743	3464	3681	3601	3548
3	Tanks	48294	48474	53364	49213	48479	45377
4	Wells	65772	66221	75871	73137	82731	82917
5	Other sources	113704	102280	116626	113026	118774	117648
6	Total	334457	323598	357958	342193	356885	350513
7	Area irrigated more than once in a year	41911	89273	147532	123311	-	-
8	Gross irrigated area	376368	412871	505490	465504	458569	417082
9	Net area irrigated to net area Sown(%)	14.87	14.38	15.98	15.11	15.73	15.44
10	Gross irrigated area to gross cropped area (%)	12.35	13.71	16.58	15.18	15.18	14.05
11	Irrigated area under paddy to total irrigated area	56	51	54	49	50	49

Source: Directorate of Economics & Statistics

Table 4.31  
Gross Area Irrigated (Crop-wise)

Sl. No	Crops	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98
1	2	3	4	5	6	7	8
1	Paddy	212576	209735	272772	234409	230087	202143
2	Tubers	822	801	859	954	862	841
3	Vegetables	6059	5013	5676	7428	7061	6567
4	Coconut	105698	146682	172486	164518	160475	144029
5	Arecanut	22395	22621	22709	25544	26167	26741
6	Nutmeg/ clove	953	1074	1352	1459	1749	1846
7	Other Spices and condiments	1873	1966	2110	2942	2921	2608
8	Banana	11005	8853	10331	10737	11835	12497
9	Betelvine	732	743	840	931	1088	822
10	Sugarcane	2112	2289	2260	3844	3668	5805
11	Others	12342	13099	14105	12738	12656	18183
	Total	376368	412871	505490	465504	458569	417082

Source: Directorate of Economics & Statistics

### Minor Irrigation

4.166 Minor irrigation segment received considerable boost during the IX plan period consequent to the enhanced flow of funds from the grant in aid of the local

bodies as well as on account of the special support received from the external agencies like EEC, Dutch Government and from the RID Fund of NABARD. Major works executed by the MI wing of the Department are MI Class-I works, lift

irrigation works and MI Class-II works servicing more than 15 hectares. Construction of check dams, cross bars, weirs, open wells and tanks etc. are the items of work undertaken by the Irrigation Department. During 1998-99, Rs. 2823.43 lakhs has been expended to provide irrigation support to 8177 ha.

#### *Ground Water Development*

4.167 The State has a re-plenishable ground water resource of 7900 MCM. The potential so far utilised is only below 25 per cent of the resource. The ground water resources are largely concentrated in the sedimentary aquifers of the coastal region. The deep hill aquifers are also endowed with groundwater resources although an accurate assessment of the resources available in the region is yet to be made. The ground water resources are utilised for both drinking water as well as irrigation.

4.168 The State Ground water Department is the nodal agency assigned with the responsibility of ground water development and utilisation. The activities of the Department include ground water exploration for identification of potential zones, assessment of recharge and use of ground water, specific hydrological and geophysical studies to identify feasible sites for wells, construction of different types of wells and identifying measures for ground water conservation and management. During 1998-99, a detailed survey was conducted in 617 km<sup>2</sup>, technical guidance was provided for siting 317 open wells, constructed 623 drilled wells and created an irrigation potential of 2377 ha. The Department has failed to achieve the target set for providing technical assistance for siting open wells as well. Against the target of 10,000 wells, the Department could provide technical support for the siting of 317 open wells only. The lack luster performance in this important area of technical support is a matter for serious concern particularly at a time when such supports are increasingly needed as part of the local plans of the Panchayats. However against the target of 500 wells,

623 bore wells have been constructed. The irrigation potential created during 98-99 was only 2377 ha. ie. 57 per cent of the target set for the purpose. Failed well compensation was given to 12 beneficiaries, training was imparted to 30 personnel in the Department. The details of the Physical achievement in respect of M.I. Schemes (ground water) are given in appendix. 4.53.

#### *Performance of Externally aided projects*

4.169 There are three externally aided projects under implementation in the Irrigation sector. They include (I) World Bank assisted National Hydrology Project (ii) EEC assisted Kerala Minor Irrigation Project (iii) Dutch assisted Kerala Community Irrigation Project.

4.170 The World Bank assisted National Hydrology Project is operated jointly by the Irrigation as well as the Ground Water Departments to build up a user friendly data base covering all important aspects of surface and ground water hydrology. The project also plans to develop interactive computerised data banks with Central Water Commission, and Central Ground water Board. The data bank will cover surface and ground water quality information. Under surface water, construction of 12 river gauge stations were completed, repairs, and replacement of 42 meteorological stations, minor buildings for 10 site equipment store, one level I lab were completed, procured 15 Water Level recorders (AWLR) 30 current meters, 11 vehicles and 9 sets of computers. An amount of Rs. 105.48 lakhs has been expended during 98-99. The cumulative expenditure upto 3/99 is Rs. 158.64 lakhs. Under ground water, the Department procured hydrological equipments like portable compressor (15 nos) field monitoring kit (30 nos) digital water level recorders (DWLR) (54 nos) 331 protective cover for piezometers (331 nos) and 21 vehicles under NHP. The Level II lab at Thiruvananthapuram has been fully equipped and made operational. The total expenditure during 98-99 was Rs. 164.26 lakhs and the cumulative

expenditure upto 3/99 under ground water component is Rs. 251.28 lakhs.

4.171 Kerala minor irrigation project, with EEC assistance aims at creation of or rejuvenating surface water irrigation structures such as vented cross bars, small lift irrigation tanks, weirs and sub surface dams in selected potential areas. The original estimate of the project was Rs. 52.40 crores and area targeted to be benefited is 17,500 ha. of paddy. During the course of implementation, the target has been revised and the number of schemes reduced to 250 to benefit an area of 7255 ha. of paddy. Out of this, 160 schemes have been completed to benefit 4432 ha. The remaining schemes are progressing.

4.172 The Dutch assisted Kerala Community Irrigation Project aims at development of ground water resources in Thrissur District with the active participation of beneficiary communities. The project was started in 1993 with a physical target of drilling and commissioning of 210 bore wells (152 for irrigation and 58 for drinking water) to irrigate 900 hectares and to provide drinking water to 12,000 families. On the basis of a mid term review, it was decided to reduce the target of drilling of bore wells to 131. Upto 3/99, 131 bore wells were drilled. Out of this, 59 schemes were commissioned and handed over to the respective communities.

4.173 The physical and financial achievements under the externally aided projects are given in appendix. 4.54

#### *Flood Management*

4.174 The strategy adopted for flood management during the Ninth Plan period

was to evolve scientific management systems based on detailed studies of the major river basins, which are prone to floods. Although a study has been proposed during the IX Plan, it has not been launched. Hence flood control measures are being continued on an adhoc basis in the flood affected areas. The physical coverage reported upto 98-99 is 52,314 hectare. During 1998-99, an area of 2814 hectare has been protected expending a sum of Rs 6.65 crores.

#### *Coastal Zone Management*

4.175 Ninth Plan contemplates giving a new orientation for coastal zone management in the light of the coastal zone regulations introduced by Government of India. The new strategy evolved envisages a multi pronged approach integrating engineering, eco-restoration, regulatory and management measures. However, the new strategy has not been operationalised yet and the construction of sea wall continues to be the major intervention for protecting the sea coast. In the new Panchayat raj set up, the local bodies concerned will also be involved in the identification process for locating the areas vulnerable to sea erosion, and execution of the programmes will also be based on a participatory approach involving the local bodies and beneficiary communities.

4.176 During 1998-99 an amount of Rs. 1701.8 lakhs had been spent to construct 5.23 kms. of new sea wall and to reform 5.96 kms. of old damaged sea wall. The physical and financial achievements under flood management and coastal zone management are given in table 4.32

**Table 4.32**  
**Financial & Physical Progress of Flood Management and Coastal Zone Management**  
**Programmes during 1997-98 & 1998-99**

*(Amount in Rs lakhs)*

Sl. No	Item	Financial Achievements		Physical Achievements		Cumulative Achievement as on 3/99
		1997-98	1998-99	1997-98	1998-99	
1	Flood Management	638.68	664.77	3548 ha.	2815 ha.	55128 ha.
2	Anti-Sea Erosion Works					
	a) New sea-wall construction	1340.29	1701.8	4.84 km	5.09 km	354.4 km
	b) Reformation of old & damaged sea-wall			5.02 km	4.73 km	83.27 km

*Source: Irrigation Department*

### *Command Area Development*

4.177 The command area development activities are carried out in the 16 completed irrigation projects namely Malampuzha, Mangalam, Walayar, Pothundy, Cheerakuzhy, Chalakudy, Peechi, Vazhani, Neyyar, Gayathri, Pamba, Periyarvalley, Chitturpuzha, Kuttiyady, Pazhassi and Kanjirapuzha. The total ayacut of the projects is 2.03 lakh hectares. The main activities under CADA include construction of field channel, field drain, enforcement of warabandhi, 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 associations etc. Almost all the activities are nearing completion in the old 10 projects except the reclamation programmes.

4.178 During 1998-99, field channels were constructed in 14,482 hectares, field drains to benefit 11,305 hectares, Warabandhi system in 759 hectares, land leveling in 32 hectares, 9390 demonstrations, adaptive trials in 139 hectares, 204 training programmes were conducted, bench mark and evaluation studies in an area of 1761 hectares and crop cutting experiments were conducted in 620 plots. Compared to last year, the physical achievements in all the activities show a decreasing trend except in the construction of field channels. The physical achievements during 1992-99 is given in appendix 4.55. The expenditure

incurred by CADA during the year under report is Rs. 1350.54 lakhs.

### *Co-operation*

4.179 Although originated as a credit movement co-operation has spread its wings to almost all walks of life in Kerala. The major segments of the State economy serviced by the sector include production, marketing, agro-processing, consumer, housing, employment, public health etc. The number of co-operatives operating in Kerala by the end of 1998-99 is 27,705. A profile of the important Co-operative institutions along with the areas serviced by them is presented below.

#### *(i) Credit Co-operatives*

4.180 Kerala has a very strong co-operative credit base capable of catering to the short, medium and long term credit needs of the farm front. Short and medium term credit is operated through a three tier system headed by the Kerala State co-operative Bank at State level, 14 District Co-operative Banks at intermediary level and 1626 Primary Credit Societies at base level. The long term credit structure consists of 44 Primary Co-operative Agricultural Development Banks federated into an apex body viz., Kerala State Co-operative Agricultural and Rural Development Bank (KSCARDB). Activities under the credit sector are dealt in detail under "Agricultural Finance."

(ii) *Agricultural Marketing Co-operatives*

4.181 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 new supplier countries entering the international market, commodities like pepper, ginger, cardamom and cashewnut, in which the state had near monopoly in the past, are facing competition.

4.182 The main agencies functioning in the Co-operative sector for marketing of agricultural produce, 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)*

4.183 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. The business handled by Marketfed during 1995-96, 1996-97, 1997-98 and 1998-99 are given in appendix 4.56. Marketfed is the only organisation in the Co-operative sector dealing in spices comprising of 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. But unfortunately there is no specialised effort on the part of the Federation on these lines as revealed by its business profile. During 1998-99 the federation procured commodities worth Rs. 30.99 crores and sold commodities worth Rs. 35.19 crores. The quantity of commodities handled by the federation is too small to make any influence in the market. So also spices constitute only a

very small proportion of the total marketable surplus available in Kerala.

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

4.184 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, Ghaziabad, Jalandhar and Ahmedabad and fourteen purchase depots spread all over the state.

4.185 Despite such elaborate infrastructure facilities the Federation could not gear up its procurement operation during 1998-99 when the commodity was facing serious crisis as a result of sharp decline in prices. The procurement during 1998-99 was only 20,990 tonnes as against 33,964 tonnes in 1997-98 and 37,126 tonnes in 96-97. The federation has failed to provide the protection cover to the rubber growers of Kerala at a critically important period when they were looking at the Federation for salvation. Although there were attempts for increased procurement and quality improvement in the processing units of the federation viz., Crumb Rubber Factory at Chenappady, Intermix Factory and Pre-cured Tread Rubber Unit at Kaduthuruthy it did not offer much help in salvaging the rubber economy from its sad state.

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

4.186 The unprecedented fall in the price of rubber and the failure of the existing agencies in coming to the rescue of Kerala growers 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. 3 crores with the main objective of setting up of industries based on rubber and rubber wood. Within the short span of two years the co-operative could make a good beginning in the marketing and processing segments of rubber industry. The major highlights in this regard are listed below.

- (i) Within three months of its registration it procured 20,000 tonnes of rubber from the market. The procurement operation was continued during 1997-98 and 1998-99 also with procurement of 22,000 and 9999 tonnes respectively.
- (ii) Global tenders were invited to export 15,000 tonnes of rubber and 3000 tonnes have already been exported.
- (iii) In the industrial front a Hawaii chapel manufacturing unit with a capacity of 36 lakh pairs has already been established. NCDC provided Rs. 195 lakhs as loan and the state Government Rs. 78 lakh as share capital.
- (iv) A cycle tyre and tube manufacturing unit with an investment of Rs. 4.35 crore is being established.
- (v) Construction work for the tread rubber manufacturing unit is in progress.
- (vi) Buildings for the rubber wood treatment unit are nearing completion.

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

4.187 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 1996-97, 1997-98 and 1998-99 are given in appendices 4.57 & 4.58. The quantity of arecanut and cocoa procured by CAMPCO during 1998-99 were 29,000 tonnes and 4900 tonnes (wet beans) respectively as against 27,000 tonnes and 6300 tonnes in the previous year. Compared to other co-operatives in Kerala, the performance of CAMPCO in providing marketing support for the commodities dealt by them is commendable.

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

4.188 RAIDCO is a co-operative organisation with a membership of 2481 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 crores. It has 35 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.

4.189 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. With financial assistance from Government of India RAIDCO started a fruit processing training centre attached to the fruit processing centre at Mattanchery to impart training to unemployed youth including those sponsored by local bodies. First batch of 11 students sponsored by Munderi Grama Panchayat has completed training at the centre. The total turnover during 1998-99 was Rs. 34 crores against Rs. 25 crores in 1997-98.



(f) *The Kerala Kera karshaka Co-operative Federation Ltd. (KERAFED)*

4.190 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.

4.191 Consequent to the fall in prices of coconut in 1994-95, the State Government have launched an Integrated Coconut Development Project at a block cost of Rs. 104.78 crore with EEC assistance through KERAFED. The project period was over by March 1998. Copra Milling Plant at Karunagappally with a capacity of 200 tonnes copra per day was commissioned as early as 1995-96. The procurement of copra by KERAFED during 1998-99 was only 7122 tonnes, which is around 12 per cent of the capacity created. Performance details of copra procurement, processing and marketing from 1995-96 onwards is furnished in appendix 4.59. During 1998-99 Kerafed could export one container of coconut oil (nearly 12 tonnes) to Dubai and release a hair oil with the brand name "Kera Kesh" in addition to their branded product KERA.

(iii) *Consumer Co-operatives*

4.192 Consumer Co-operatives operating in Kerala include the Kerala State Co-operative Consumer Federation at the apex level, 14 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. Out of this only 11 are functional. Most of the primary agricultural credit societies are also engaged in the trade of consumer articles. The link between consumer co-operative organisations in different tiers is very weak as a result of which the sale outlets operated at the grass root level are deprived of the benefit of large scale operations. The NCDC

assisted lead link scheme for empowering the consumer movement at the primary level also did not succeed to the desired extent. It was under this background that the State Government have launched the scheme for setting up of 'Neethi Stores' attached to primary agricultural credit co-operatives in 1997-98. "Neethi Stores" is intended for the distribution of quality consumer goods at reasonable prices taking advantage of the benefit of large-scale procurement. The reduction in price is achieved by procuring consumer goods in bulk by the Consumer Federation. 1020 'Neethi Stores' are functioning, serviced by 14 Neethi godowns established at the district level. Neethi Stores receives financial assistance from NCDC (as share capital) and the State Government (as interest free working capital). The total turn over of the Consumer Federation recorded a substantial increase during 1998-99 with a business worth Rs. 102.53 crores against Rs. 71.42 crores in 1997-98 and Rs. 29.06 crores in 1996-97.

(iv) *The Kerala State Co-operative Housing Federation*

4.193 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. The Federation has advanced loans for the construction of 1.10 lakh houses since its inception in 1970. During 1998-99 the Federation received total financial assistance of Rs. 31.45 crores of which Rs. 80 lakhs was government contribution towards share capital. It could disburse loans amounting to Rs. 59.14 crores for the construction of 7348 houses as against Rs. 65.28 crores for 8224 houses during the previous year.

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

4.194 There are 701 Scheduled Caste and 101 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 and a cheevaka processing unit. The total business handled by the Federation during 1998-99 is Rs. 6.03 crores against Rs. 2.38 crores in 1997-98 and Rs. 2.03 crores in 1996-97.

*(vi) Special Type of Co-operatives*

4.195 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) etc.

*Self Help Groups*

4.196 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. The PACS in the area will recognise them as non-member clients and make available the required finance at concessional rate on group guarantee basis. A thrift scheme on the lines of the saving scheme sponsored by NABARD has also been linked for promoting savings and to facilitate utilisation of the funds so generated for meeting the domestic and consumption needs. During 1998-99, the project was extended to Palakkad and Ernakulam districts. In Kannur 189 groups were formed under 42 PACS for cultivation of banana, paddy, tapioca, pineapple, vegetables etc. and for livestock production, honey bee rearing, fish culture etc. As on 31.3.99, the State Co-operative Bank and District Co-operative Bank

distributed Rs. 3.58 crores and Rs. 4.00 crores as loan in the district. On an average the groups have a deposit in the range of Rs. 30,000 to 50,000. Kannur District Co-operative Bank in collaboration with United India Insurance bestows insurance protection to the self help groups in the district. Under the efforts of the groups 612 acres of land was brought under cultivation of different crops (banana – 368, tapioca – 121, vegetables 40, ginger – 22 and paddy -61 acre) and 156 livestock production units and 96 poultry units were also started.

4.197 In Palakkad district 172 groups are functioning- 157 under 36 PACS and 15 directly under the District Co-operative Bank. Financial assistance to the tune of Rs. 1.5 crores was provided to the groups for crop and livestock production. State Co-operative Bank has already granted refinance amounting to Rs. 1.76 crores.

4.198 The 89 groups attached to 20 PACS in Ernakulam district are engaged in crop production, livestock production and fish culture. One of the groups is also operating a sale outlet in the Kothamangalam-Munnar road for the sale of their products as well as the products of other SHGs.

*Intensive Co-operative Development Project (ICDP)*

4.199 Intensive Co-operative Development Project (ICDP) aimed at the development of grass root level co-operatives in selected districts has been under implementation in three districts, Pathanamthitta, Idukki and Thrissur. Palakkad, Wayanad and Kottayam districts have already been covered under the project during Eighth Five Year Plan. In 1998-99 the project was extended to three more districts viz., Kasargod, Kannur and Malappuram with a total outlay of Rs. 35 crores. The total investment made in the six districts under ICDP during 1998-99 was Rs. 10.48 crores against Rs. 6.3 crores in the previous year.

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

4.200 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. Information and publicity support to the sector is also the responsibility of this organisation. 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 advance training courses to department officials, non-officials and employees of co-operative institutions.

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

4.201 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. On the basis of scrutiny by a high level technical committee the quantum of assistance is decided in a need based manner. During 1998-99 financial assistance to the tune of Rs. 3.01 crores was provided to 12 societies under these two schemes. Hawaii chapel unit and Automobile tyre manufacturing unit of Rubco (Rs. 133.25 lakhs), Modernisation of the super speciality hospital (Rs. 36.26 lakhs) at Malappuram, Readymade garment scheme of Kunnathunadu Tailors co-operative Society (1.75 lakhs), ready made garment unit by women in Kozhikode, Malappuram and Kannur with an apex federation at Kozhikode etc. are the major ventures supported under the scheme.

4.202 The State Government has appointed three committees for studying the problems faced by the co-operatives in

Kerala and to suggest measures for strengthening the movement. The State Government has also enacted a bill for Co-operative reforms in the last session of the assembly incorporating the provisions under the Model Co-operative Act suggested by Government of India for preserving the autonomy, democracy and self reliance in the Co-operative movement.

*Support by NCDC*

4.203 The finance from NCDC is mainly for funding long term projects covering production, processing, storage and marketing of agricultural commodities and distribution of consumer goods in rural areas. The amount released by NCDC for activities in Kerala during 1998-99 was 47.27 crores against Rs. 32.37 crores in 1997-98. It accounts for 10.2% of the assistance released by NCDC in the country during 1998-99 (see appendix 4.60). The cumulative financial assistance to Kerala from NCDC from 1962-63 to 1998-99 is Rs. 317.56 crores out of which Rs. 109.87 crores (35%) was released during the last three years. 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 1998-99 are furnished in appendix 4.61.

4.204 Kerala is emerging as the major beneficiary of NCDC's developmental assistance to the co-operatives in the country. There was considerable increase in the quantum of assistance sanctioned to Kerala during the last three years. It was Rs. 31.92 crores in 1996-97, Rs. 46.54 crores in 1997-98 and Rs. 82.30 crores in 1998-99. The major projects cleared by NCDC during 1998-99 include ICDP in the districts of Kasargod, Kannur and Malappuram (Rs. 32.58 crores), 'Farmers Service Centre' in PACS (Rs. 1.42 crores), Modernisation of co-operative Spinning Mills in Kannur and Malappuram (Rs. 4.79 crores), MATSYAFED Projects for establishment of 100 marketing centres (Rs. 3.39 crores)

and for Integrated Marine Fisheries Development (Rs.16.90 crores), Consumer business through Neethi Stores by Consumer Federation and 282 PACS (Rs.7.16crores), Diversification

programme of KERAFED (Rs. 8.51 crores), Ayurveda Medicine Manufacturing unit of SC/ST Federation (Rs. 1.10 crores) and Computerisation programme of 26 PACS in the State (Rs. 1.35 crores)

## CHAPTER 5 ENERGY DEVELOPMENT

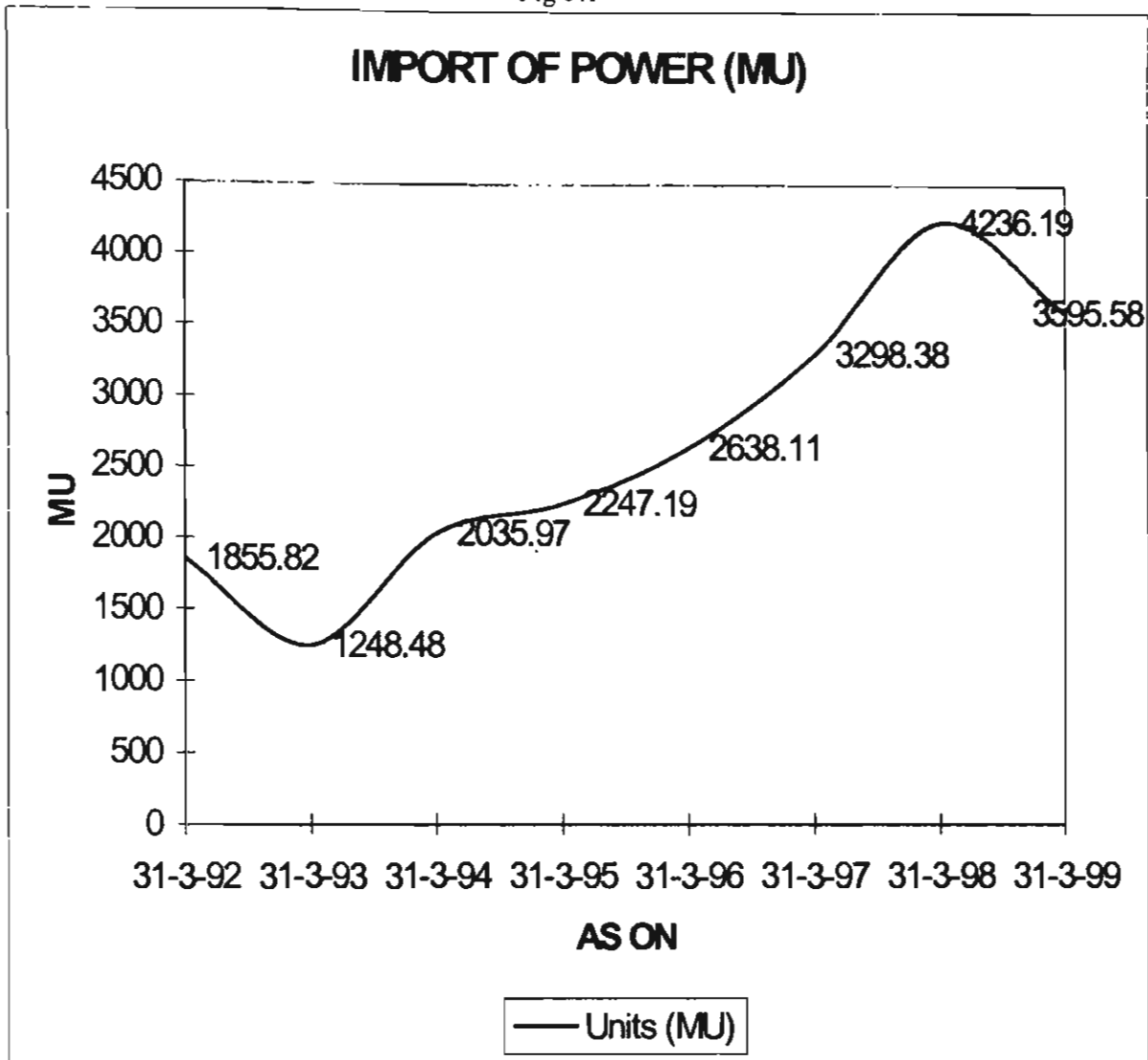
In 1998-99, the growth rate of energy sector remained the same as that of the previous year, at 16.9 percentage.

5.2 Power Development in Kerala has been guided primarily by resource endowments within the State. While the State has abundant hydro potential it does not have any reserves of coal or oil or gas. Power development in Kerala has been based therefore mainly on the exploitation of hydropower. The growth of hydel power continued at a reasonable rate till 1976 when Idukki Power Project was commissioned. Since then further hydro development has been held up somewhat due to environmental considerations. The State has to turn increasingly thermal power and its share from Central Sector thermal/nuclear power plants for meeting its growing demands.

5.3 Installed capacity remained stagnant during the period from 1978 to 1985 at 1012 MW. There was an increase in the installed capacity to 1487 MW as on 31.3.1990 but thereafter no further significant improvement took place till the end of the Eighth Five Year

Plan. With a firm resolve to achieve self-sufficiency in power by the end of the Ninth Plan, the State Government adopted a diversified strategy of developing thermal power alongside the development of hydropower. The installed capacity increased by 58.4% from 1505.5 MW in March 1996 to 2383.5 MW in December 1999. Brahmapuram Diesel Power Project was commissioned on 24/11/1998, followed by the commissioning of Kozhikode Diesel Power Project at Nallalam, its first unit on 9/1999 and last unit on 11/1999. The third unit of the combined cycle power project of NTPC at Kayamkulam was also synchronized to the grid on 1/11/1999, five months ahead of schedule. The power output from the Kayamkulam power plant is available exclusively to Kerala. These additions have resulted in improving the power supply in the State. At the same time, however, thermal support has been adding significantly to the cost of power supply. The recent hike in price of oil fuels has made thermal power itself costlier, adding even further to the cost of power supply in the State.

Fig 5.1

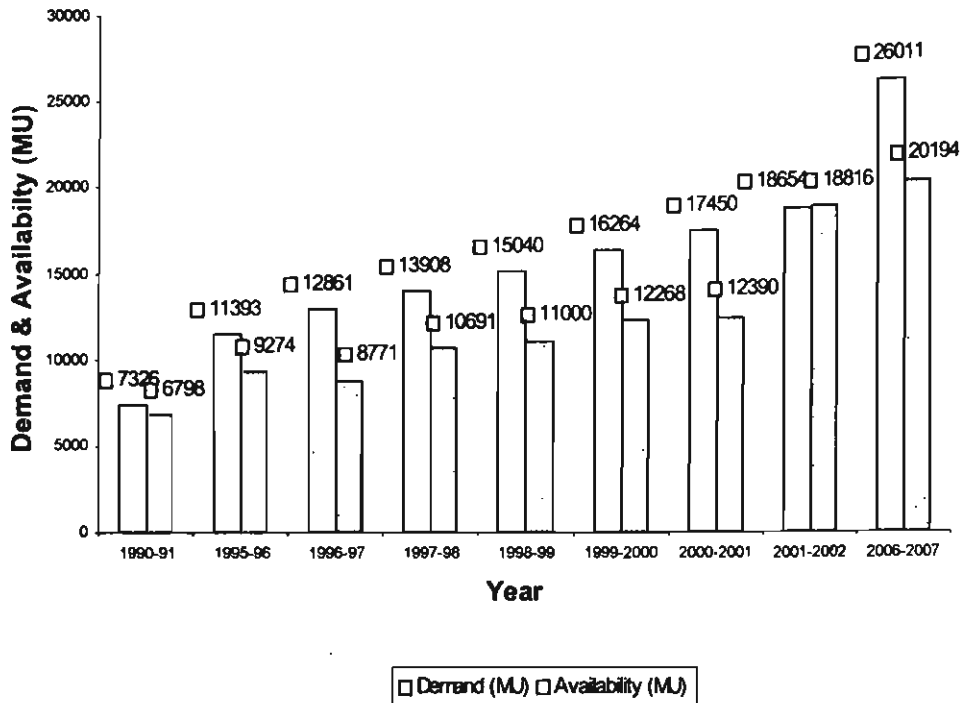


5.4 The State Government is giving a new thrust to develop hydropower from such small and medium projects, with very little adverse impact on the environment. By the end of the next financial year, 2000-01 it is expected that the State will be able to achieve self-sufficiency in power by and large and thus reduce its dependence on power import. During 1998-99, the total import of power

declined by 15.12% from 4236.19 MU in 1997-98 to 3595.58 MU. Import of power since 1992 is shown in Figure 5.1

5.5 The annual demand for power at present is 16,264 million kWh whereas the availability is only 12,268 million kWh. The projected demand and availability of power in the State up to the year 2007 is given in Fig. 5.2.

**Fig 5.2**  
**Demand and availability of power in kerala**



*N.B: Demand is estimated as per 14<sup>th</sup> national power survey. Availability in 2001-02 and 2006-07 is calculated on the assumption that all ongoing hydel and thermal projects, NTPC, CRI and IPP projects, will be commissioned according to schedule.*

### Generation

5.6 In tune with the energy policy declared by State Government, a strategy for completion of ongoing power projects expeditiously is being pursued. The growth in the generation capacity since the beginning of 8<sup>th</sup> Plan is shown in Fig. 5.3. The installed capacity increased by over 15% in 1998-99,

from 1775.78 MW as on 31.3.1998 to 2043.10 MW as on 31.3.1999. The installed capacity as on 31.3.98 and 31.3.99 is given in Fig. 5.4.1 and 5.4.2 and projection as on 31.3.2002 is given in Fig. 5.4.3. The projects commissioned during the year under report are listed in Table 5.1. Appendix 5.1 exhibits the growth of power system in the state for the last two years.

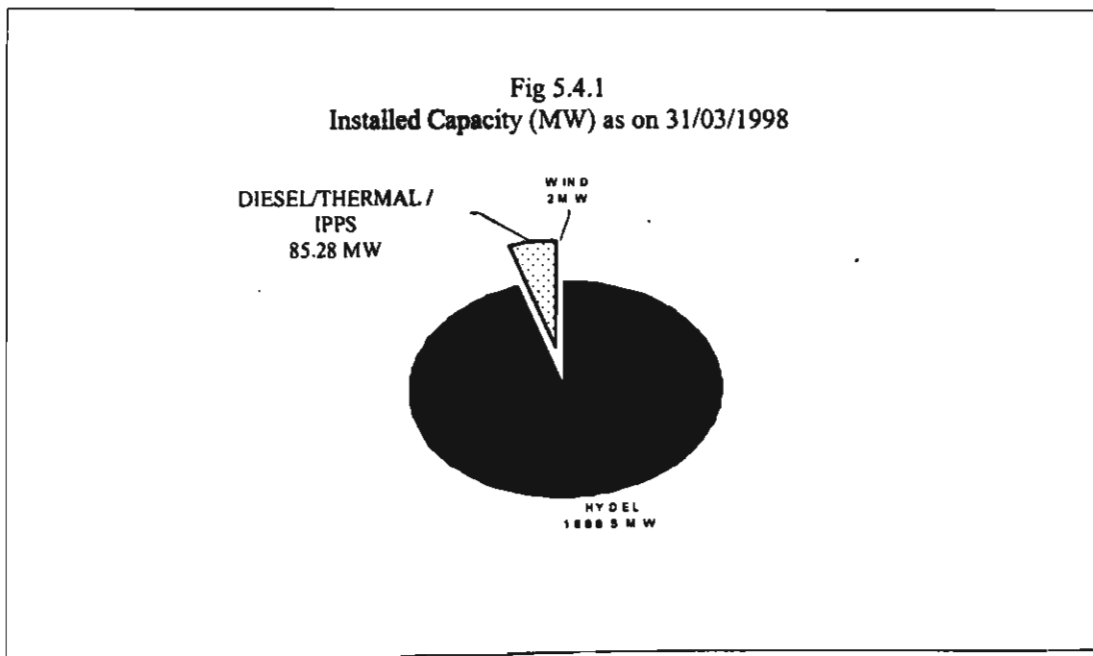
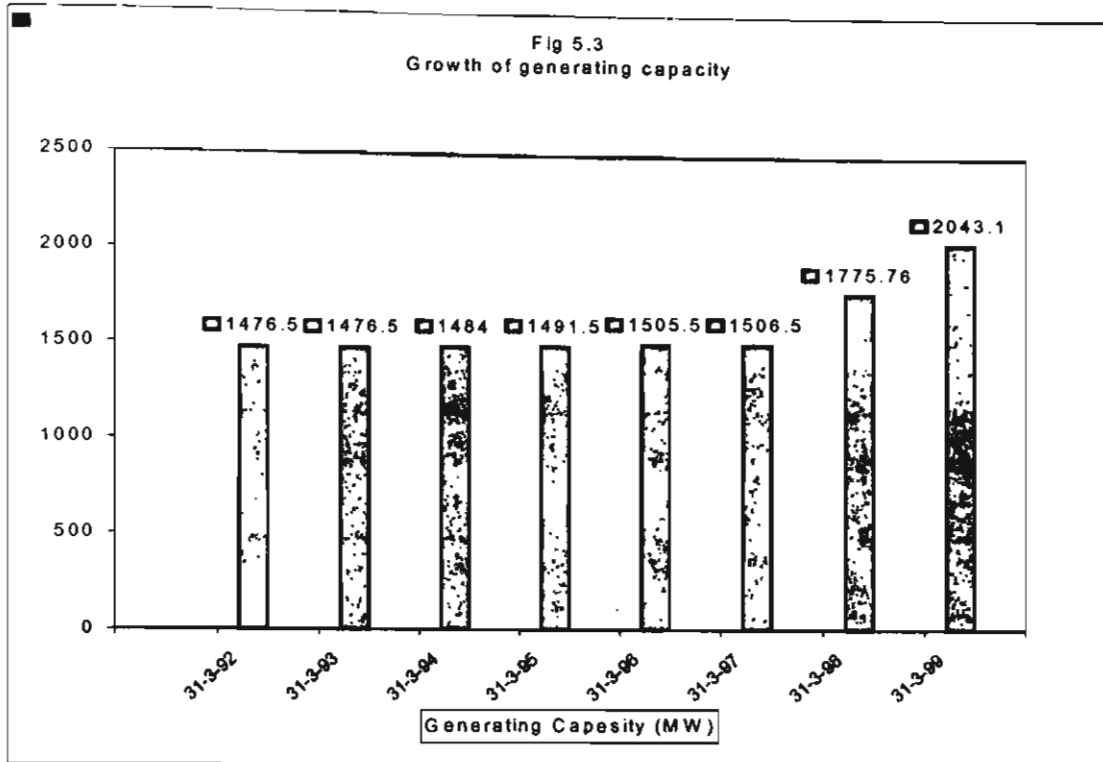




Fig 5.4.2  
Installed Capacity (MW) as on 31/03/1999

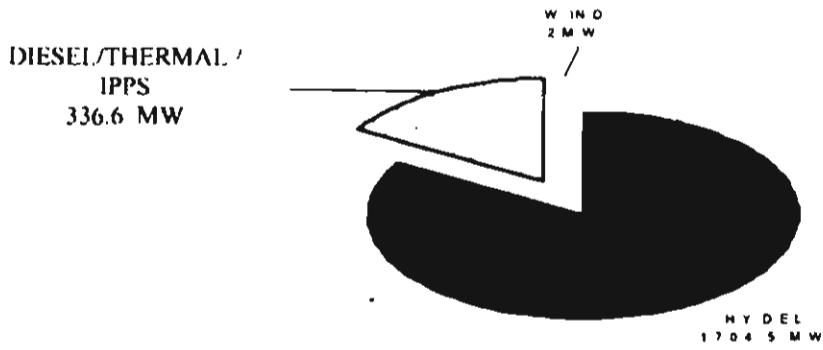
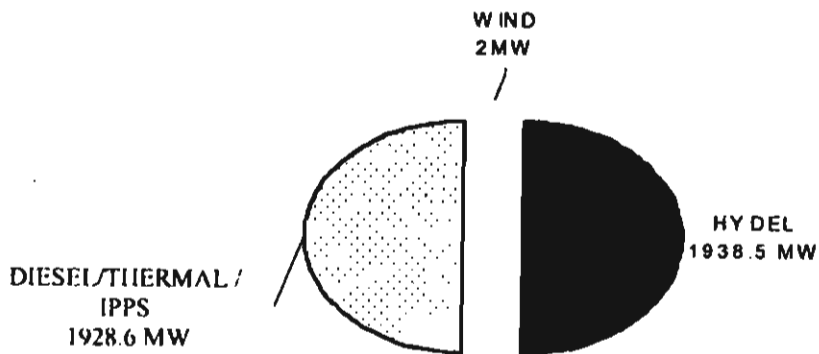


Fig 5.4.3  
Installed Capacity (MW) as on 2000 AD in Kerala (Projection)



**Table 5.1**  
Projects Commissioned during 1998-99

<i>Name of Project</i>	<i>Installed Capacity in MW</i>	<i>Date of Commissioning</i>
<b>Hydel</b> Peringalkuthu L.B.Extension	16.00	20/3/1999
<b>Thermal</b> Brahmapuram Diesel Power Project (5 <sup>th</sup> Unit)	21.32	24/11/1998
N.T.P.C., Kayamkulam (exclusively earmarked for Kerala)	230.00	1 <sup>st</sup> Unit (2/11/1998) 2 <sup>nd</sup> Unit (28/2/1999)
<b>Total</b>	<b>267.32</b>	

The power generation projects commissioned during the year 1999-2000 are listed in Table 5.2

**Table – 5.2**  
Power Projects Commissioned during 1999-2000

<i>Name of the Project</i>	<i>Installed Capacity in MW</i>	<i>Date of Commissioning</i>
Kozhikkode Diesel Power Project	128	Unit I -01/09/99
		Unit II -11/09/99
		Unit III -18/09/99
		Unit IV -22/09/99
		Unit V -30/09/99
		Unit VI -11/10/99
		Unit VII -25/10/99
		Unit VIII -06/11/99
Kakkad Hydel Project	50	14/10/99
Malampuzha	2.5	Trial run conducted
N.T.P.C., Kayamkulam (3 <sup>rd</sup> Unit)	119.4	1/11/99

5.7 The ongoing hydel projects are listed in Table 5.3.

**Table – 5.3**  
Ongoing Hydel Projects of KSEB

<b>Name of Project</b>	<b>Installed Capacity in MW</b>
Kuttiadi Tail Race	3.75
Malankara	10.50
Kuttiadi Extension	50.00
Kuttiadi Additional Extension	100.00

5.8 Appendix 5.2 presents the details regarding location, original and latest estimates of costs and expenditure up to 1998-99 and expected year of commissioning of ongoing power projects.

5.9 A major policy initiative of the State Government in recent years is to involve private

sector participation in augmenting power supply to meet the growing demand for power. Memorandum of Understanding (MOU) and Power Purchase Agreement (PPA) have been signed with some private developers. Sanction has also been given for substantial investment in this sector. Table 5.4 presents the details of projects taken up in the private sector.

**Table 5.4**  
**Private Sector Power Projects**

Name of Project	Installed Capacity in MW	Present Status
<i>Hydel</i> Boothathankettu	16	In progress
Kuthungal	21	In progress
Ullungal	7	In progress
Karikkayam	15	Works stopped after doing initial works
<i>Thermal</i> BSES, Kochi	157	Ist Unit – 40.5 MW – Commissioned on 27/6/99. Other two units expected to be commissioned during 1999-2000
DCP Kasargode	105	PPA for combined cycle operation signed on 27 <sup>th</sup> Oct.99. Site demarcated. Environmental clearance and clearance from Airport Authority of India pending.
Kasargode Power Corporation Ltd., Kasargode	20	Final PPA signed. Site demarcated. Land allotment approved. Construction inaugurated on 27/11/99. All clearances are received for KSEB and are to be transferred to the company.
Kannur Power Project	513	Preliminary works of geological survey is being taken up. Most of the clearances are obtained.
SIASIN, Cochin	679	Agreement signed with SIASIN ENERGY LTD., CEA clearance obtained

Details of Joint Venture Power Project initiated by Cochin Refineries Ltd are given in Table 5.5.

**Table 5.5**  
**Joint Venture Power Project**

Name of Project	Installed Capacity In MW	Present Status
Cochin Refineries Ltd. Ambalamugal, Kochi	621	Environmental clearance obtained from Ministry of Environment and Forest. Govt. approved the selection of consortium of CAEC, Larson & Toubro and KSEB as joint venture partners. Land acquisition commenced. Water supply scheme is under implementation.

5.10 For implementing 18 Small Hydel Power Projects an agreement has been signed with Hangzhon International Centre, China. These projects are listed in Tables 5.6. and 5.7.

**Table 5.6**  
**Small Hydel Projects under Chinese Collaboration (Phase I)**

No.	Name of Project	Installed Capacity in MW
1	Chembukkadavu – Stage I	2.70
2	Chembukkadavu – Stage II	3.75
3	Urumi Stage – I	3.75
4	Urumi Stage – II	2.40
	<b>Total:</b>	<b>12.60</b>

**Table 5.7**  
**Small Hydel Projects under Chinese Collaboration (Phase II)**

No.	Name of Project	Installed Capacity in MW
1	Anakampoil	6.75
2	Kandappanchai	6.25
3	Pathankayam	4.00
4	Kakkadampoil HH 1	20.00
5	Kakkadampoil HH 2	5.00
6	Poovaramthodu	2.00
7	Olikkal	5.50
8	Kulirmutty	3.00
9	Chathankottunada II	7.00
10	Poozhithode	3.50
11	Vilangadu	7.00
12	Maniyar Tailrace	5.00
13	Thevarmudi	4.75
14	Perumthenaruvi	10.00
	<b>Total:</b>	<b>89.75</b>

5.11 Table 5.8 presents list of Small or Mini Schemes that are under direct execution by KSEB.

**Table – 5.8**  
**Small or Mini Schemes Being Executed by KSEB**

	<b>Name of Schemes</b>	<b>Installed Capacity MW</b>	<b>Energy MU</b>	<b>Expected year of Completion</b>
1	Barapole	9.0	26.23	By 2001-2002
2	Ladrum	3.50	10.468	
3	Sengulam Tailrace	4.50	12.57	
4	Chimoni	2.50	6.50	
5	Peechi	1.50	4.60	
6	Adakkathodu	2.5	7.70	
7	Pasukkadavu	2.5	4.61	
8	Kokkumullu	2.0	4.81	
	<b>Total:</b>	<b>28</b>	<b>77.5</b>	

5.12 The Mini Hydel Schemes to be undertaken by KSEB during 2000-2001 is given in Table 5.9 .

**Table 5.9**  
**Mini Hydel Schemes to be undertaken by KSEB during 2000-2001**

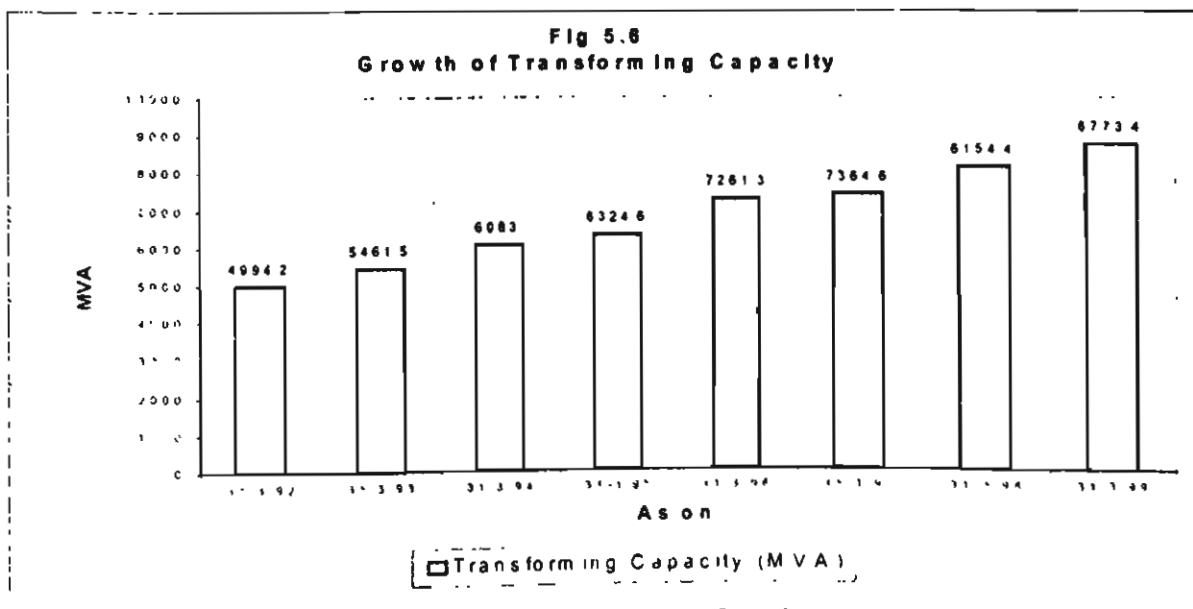
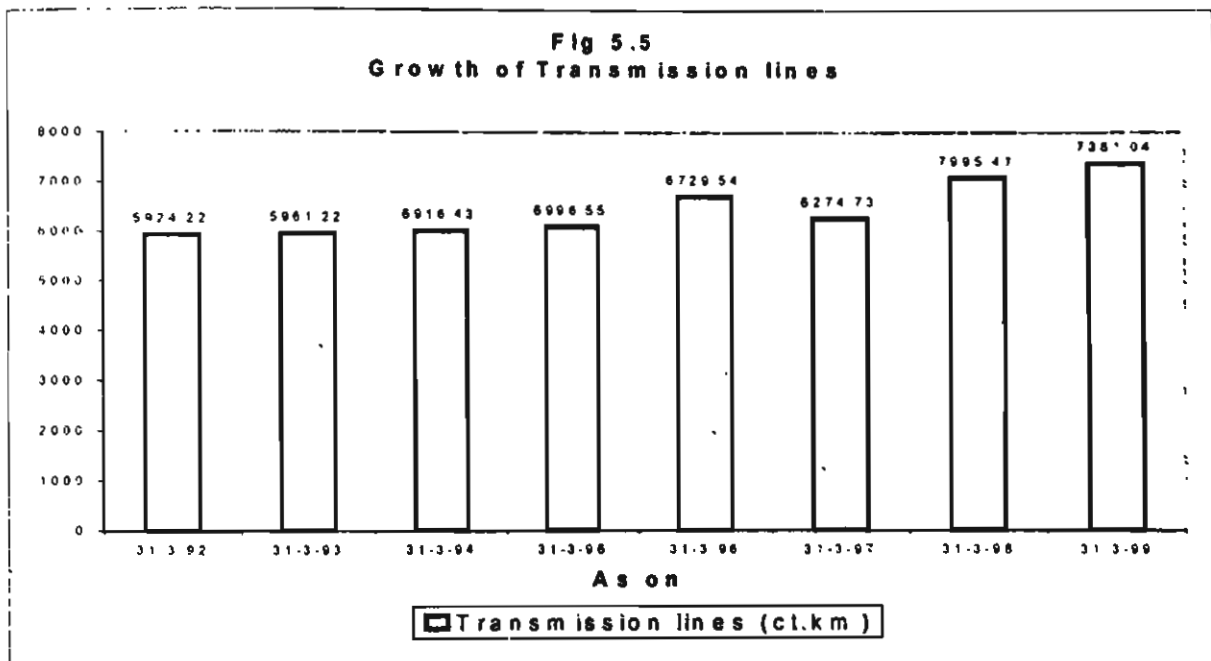
<b>No</b>	<b>Name of Schemes</b>	<b>Installed Capacity MW</b>	<b>Energy MU</b>	<b>Expected year of Completion</b>
1	Lower Meenmutty	3.5	9.9	2002-2003
2	Keezharkuthu	15	49.8	
3	Pitched	4	15.5	
4	Kurumpetty	3.5	14.5	
	<b>Total</b>	<b>26</b>	<b>89.7</b>	

5.13 Details of power generation from each Generating Station as on 31.3.1998 are given in Appendix 5.3

## Transmission and Distribution

5.14 Growth of transmission lines and transforming capacity since 1992 are given in Figures 5.5 and 5.6. Having achieved reasonable progress in improving the installed generating capacity, emphasis is now being given for strengthening the Transmission and Distribution system to ensure areal spread, efficiency and quality of power supply. Major transmission lines such as Lower Periyar-Kochi 220-KV DC line, Kayamkulam-Edappon-110

KV DC line, Tapline to Adimali-110 KV and DC Tapline-Kattakada-Thirumala 110 kV have been completed. Other 220 KV DC lines namely Idukki-Lower Periyar, Lower Periyar-Thrissur, 110 KV lines namely Kattakada-Parassala, upgradation of Edamon - Punalur - Kundara, Kalamassery-Aroor DC line, Tapline to Mallappally, Kasargode to Mulleria, Madakkathara-Valappadu and Edappal to Tirur are in progress.



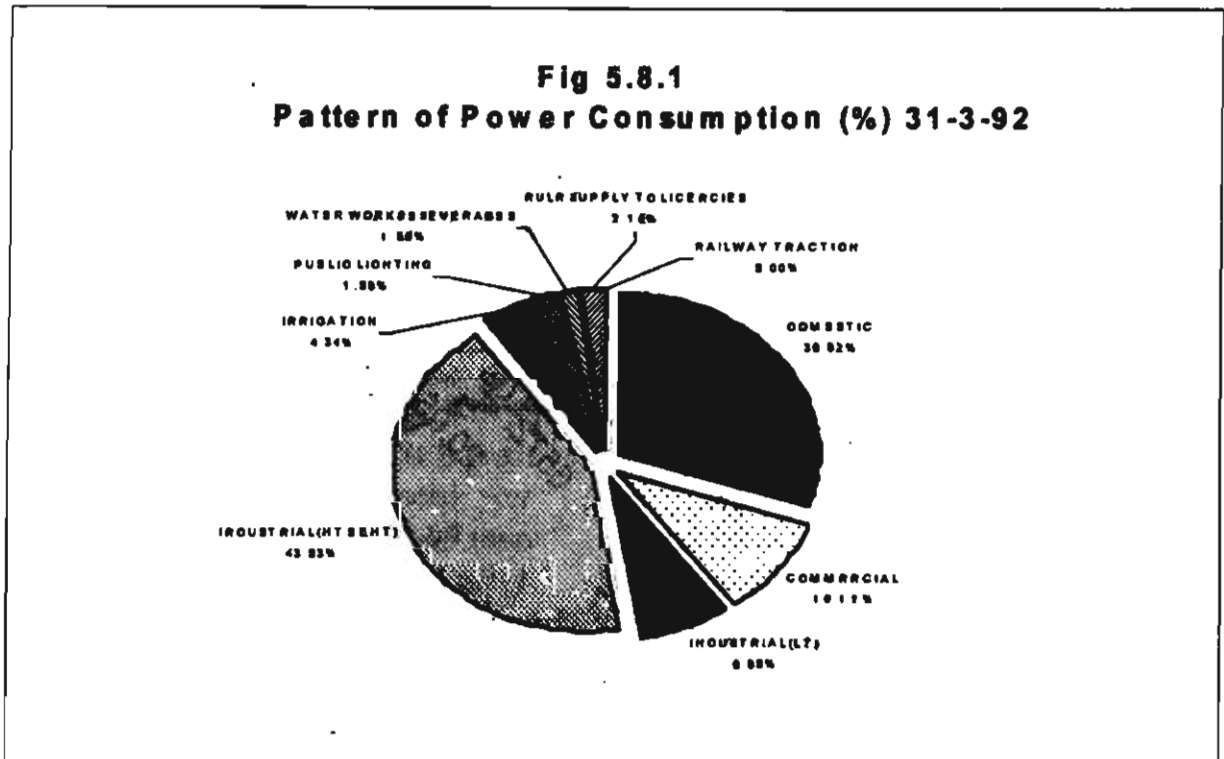
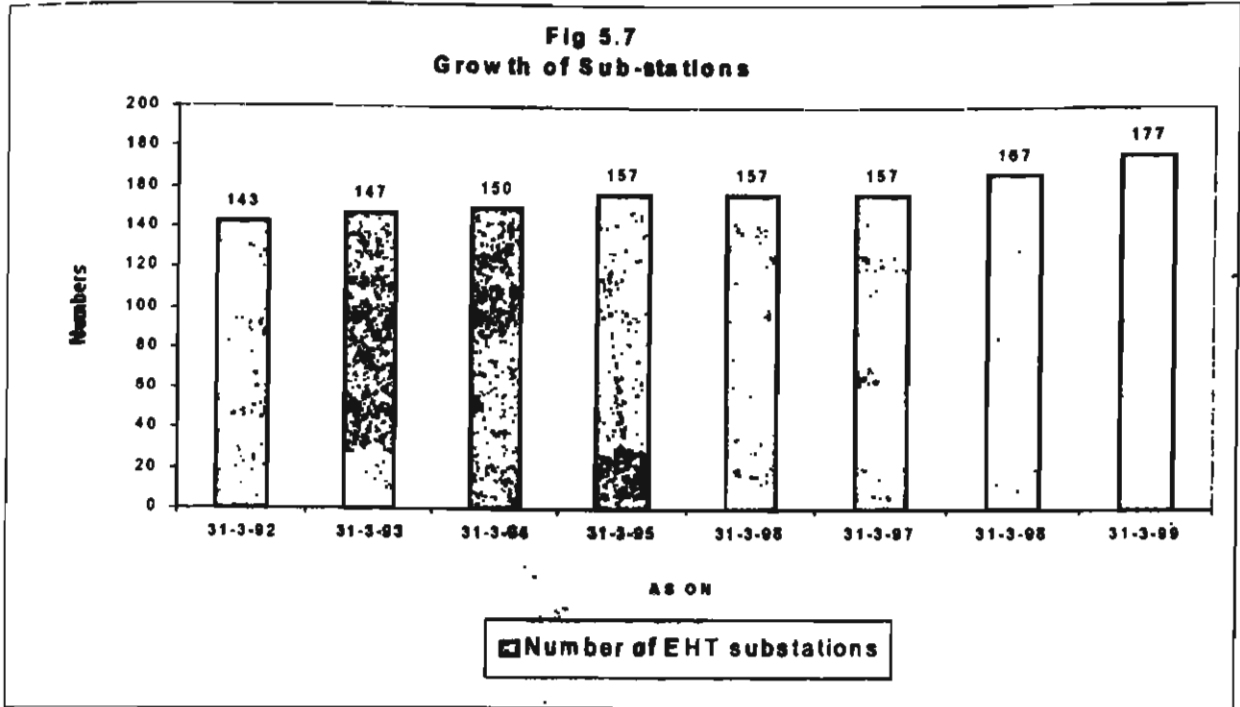
5.15 Physical achievements in transmission and distribution during 1998-99 under review are given in Table 5.10.

**Table – 5.10**  
**Physical Achievements in Transmission and Distribution**

Description	Unit	Achievement
<b>ADDITIONS</b>		
220 kV lines	Circuit KMs	155.47
110 kV lines	Circuit KMs	1063.92
LT lines	Circuit Kms	6276.85
Distribution Transformers	No.	1265 (366)
220 kV Sub station	No.	1 (Brahmapuram)
110 kV sub station	No.	5
66 kV sub station	No.	1 (Pampa)
<b>Upgradation</b> 110 kV sub station	No.	2 (Thirumala, Pathanamthitta)
<b>Capacity Enhancement</b> 110 kV sub stations	No.	3 (Cheyaur, Perinthalmanna, Viyur)
66 kV sub stations	Nos.	( Puthencruetz, Karimanal, Kakkanad, Ettumannur Parippally)
Total Consumers connected (including agricultural connections)	Nos.	392668
Street lights installed	Nos.	29233
No. of transformers energised	"	1326
11 KV line constructed	Km.	1006.85
LT line constructed	"	5957.006
Village Electrification		All villages electrified

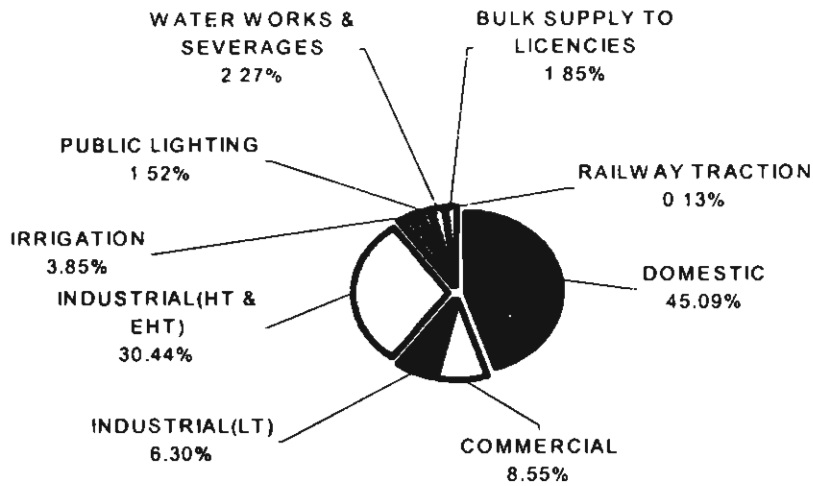
5.16 Growth of substations over a period of eight years is shown in Figure 5.7. The number of consumers increased by eight percent from 52.11 lakhs in 1997-98 to 56.39 lakhs in 1998-99. Domestic consumers constituted 45.09%, industrial consumers 36.74% and commercial consumers 8.55%. Consumption pattern is shown in Figs. 5.8.1 and 5.8.2 and Appendix 5.4. The number of

pumpsets energised during 1998-99 was 21189. The number of street lights installed during 1998-99 increased by 71%, from 17076 in 1997-98 to 29233. Loss in Transmission and Distribution improved marginally from 17.87% in 1997-98 to 17.75% in 1998-99. The installed capacity, generation and system loss since 1970-71 is depicted in Figure 5.9

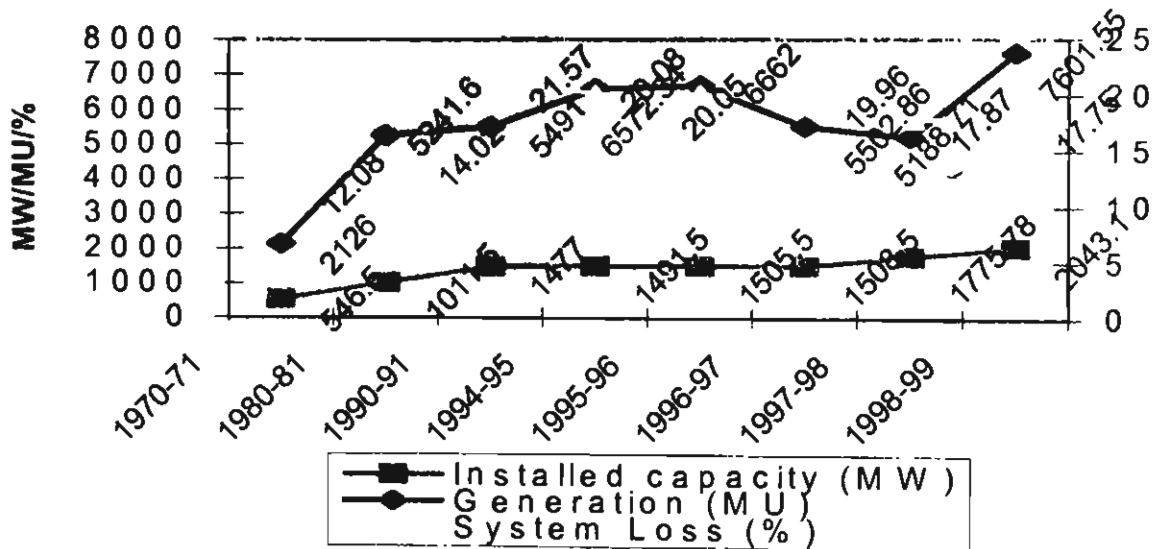




**Fig 5.8.2**  
**Pattern of power consumption (%) 31-3-99**

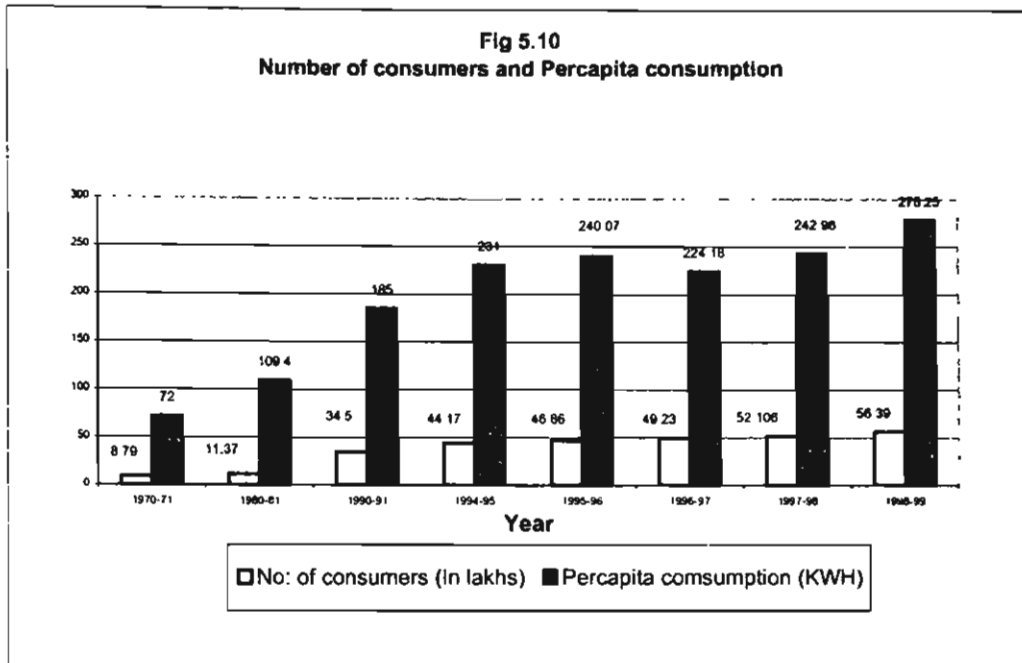


**Fig 5.9**  
**INSTALLED CAPACITY, GENERATION AND SYSTEM LOSS**



5.17 Per capita consumption of electricity in the state increased by over 14%. In 1998-99 it was 278.245 KWh as against 242.96 KWh during 1997-98 compared to the national per capita consumption of electricity

of 334.26 KWh Kerala's consumption level is still low. The number of consumers and percapita consumption are given in Figure 5.10.



5.18 The total energy sold in the state during the financial year 1998-99 was 8959.61 MU as against 7715.49 MU during the year 1997-98, which represents an annual growth of 16.12%. Revenue realised by the KSEB from the sale of power during the financial year decreased to Rs.1146.3 crores in 1998-99 from Rs.1303.52 crores in 1997-1998. Energy purchased during 1998-99 was lower by 15.12% being 3595.58 MU as against 4236.19 MU during 1997-98. The share of KSEB's own power in the total power availability increased from 55% in 1997-98 to 68% in 1998-99. Figures on average realisation from the sale of power during 1997-98 and 1998-99 are given in Appendix 5.5.

5.19 There was an automatic increase of 10% in tariff rates on 1/2/1998 and 1/2/1999 for consumers except those belong to domestic, agricultural and other minor sectors. The average selling rate per unit was 136 paise in 1998-99 and 144 paise in 1999-2000 till the

tariff revision was brought into effect from 15<sup>th</sup> May 1999. Tariff revision was effected for all categories of consumers and the average tariff rate increased to 189.5 paise per unit. Average tariff rates of various categories of consumers during 1997-98 and 1998-99 are given in Appendix 5.6.

#### Outlay and Expenditure

5.20 Figures on outlay and expenditure for energy development during various plan periods are given in Appendix 5.7. While the outlay provided for energy in the Annual Plan 1998-99 was Rs.650 crores, the expenditure amounted to Rs.754.41 crores. Outlay for energy provided in the Annual Plan for 1999-2000 is Rs.650 crores and expenditure is expected to conform to the provision made.

5.21 The broad details of Annual Plan outlay proposed during 1998-99 and 1999-2000 and expenditure during 1998-99 and anticipated expenditure during 1999-2000 are presented in Table 5.11

**Table 5.11**  
**Outlay and Expenditure**

(Rs in lakhs)

Sl.No.	Name of Sub Sector	1998-99		1999-2000	
		Proposed Outlay	Expenditure	Proposed Outlay	Expenditure
1	<b>Generation</b>				
1	Hydel	11670	11641	9072	9072
2	Thermal/Diesel	9760	27410	8010	8010
II	<b>Transmission</b>				
1	Transmission (Normal)	7000	5200	8000	8000
2	Transmission (World Bank Schemes)	2000	2300	585	585
III	<b>Distribution</b>				
1	Distribution (Normal)	7985	12500	15500	15500
2	Rural Electrification Corporation (REC)	10700	7500	7500	7500
IV	System Improvement Works	11500	2110	8700	8700
V	Renovation & Modernisation	1150	3960	1875	1875
VI	Others	1735	2514	4258	4258
VII	Non-Conventional Sources of Energy including ANERT, IREP & Others	1500	306.32	1500	1500
	<b>Total:</b>	<b>65000</b>	<b>75441.32</b>	<b>65000</b>	<b>65000</b>

5.22 Information on the source of funding power programmes is presented in Appendix 5.8.

### ***New Projects – Advance Action***

5.23 Power policy announced by the State Government in September 1998 contemplates not only making the State a power surplus within a short period, but also ensuring 16% return on equity. The following measures are proposed to be implemented.

- i hike in Generation and distribution (sales) of power
- ii reduction in T&D loss
- iii prevention of theft in energy
- iv collection of outstanding current charges in time
- v replacement of faulty meters on warfooting
- vi extension of spot billing through out the State
- vii installation of electronic meters
- viii prevention of wasteful expenditure .

5.24 As regards new projects, works on Athirappally and Kuttiady Extension are being

taken up on a turnkey basis. All clearances in respect of the thermal power project of Cochin Refinery Ltd. have been obtained. Kannur Power Project is also expected to commence execution shortly.

### ***Power Sector Reforms***

5.25 The State Government have decided to reorganise KSEB into three separate profit centres, one for generation, one for transmission and one for distribution. The profit centre on Distribution will be split into three regional profit centres one each at Thiruvananthapuram, Ernakulam and Kozhikkode. Apex Committees are studying the reports and the Profit Centers will come into operations in stages from 1<sup>st</sup> April 2000 onwards. The formation of a State Electricity Regulatory Commission is also under consideration.

### **Power Programme under Decentralised Planning**

5.26 With the decentralisation of planning process, opportunities have opened up for exploiting the potential available for harnessing mini and micro hydel projects. Initiatives have been taken by several local bodies to develop locally available sources of energy. A large number of households still remains without electricity, especially in remote hilly areas all

along the Western Ghats. Electrifying these households from the grid poses problems of access and high costs because of low density and the distance involved. In Idukki District a number of schemes have been implemented with peoples' participation. Initiatives are also being taken in accelerating the electrification of households at local level. The information on projects and the grant-in-aid allotted by local bodies is presented in Table 5.12.

**Table 5.12**  
**The nature of projects and the Outlay set apart by Local Bodies 1998-99.**

(Rs. in Lakhs)

Code- No.	Nature of Schemes	Grama Panchayat			Block Panchayat			District			Municipality			Corporation			Total	
		No. of Projects	Grant - In-aid	Total Outlay	No. of Projects	Grant - In-aid	Total Outlay	No. of Projects	Grant - In-aid	Total Outlay	No. of Projects	Grant - In-aid	Total Outlay	No. of Projects	Grant - In-aid	Total Outlay	Grant - In-aid	Total Outlay
10 1 1	Mini-hydro electricity feasibility	3	2.05	2.05	1	0.15	0.15	2	4.00	4.00	1	0.50	1.00	0	0.00	0.00	6.70	7.20
10 1 2	Mini-hydro electricity generation	9	26.93	40.05	22	29.29	61.19	5	86.78	1225.55	0	0.00	0.00	0	0.00	0.00	143.00	1326.79
10 2 1	Street lights	1716	877.37	1262.78	26	36.63	38.34	17	21.72	24.99	79	146.95	232.04	8	132.90	194.30	1846	1215.58
10 2 2	Colony electrification	407	164.80	229.08	93	69.67	71.27	8	9.70	10.30	35	29.24	34.70	1	0.00	0.96	273.41	346.31
10 2 3	House electrification	861	323.59	489.53	25	15.09	19.68	1	5.00	5.00	64	45.82	73.59	5	52.36	56.71	956	644.51
10 2 4	Voltage enhancement & reduction	110	40.69	76.54	7	10.08	10.34	2	3.50	3.73	9	6.86	19.00	0	0.00	0.00	61.13	109.61
10 3 1	Solar Lamps	39	5.82	153.68	5	2.80	3.94	1	2.00	2.00	1	0.50	0.50	3	2.03	26.03	13.14	186.15
10 3 2	Other solar thermal power project	10	3.52	23.91	2	0.59	0.65	0	0.00	0.00	1	0.27	0.35	1	2.93	5.10	7.31	30.01
10 3 3	Wind energy programmes	0	0.00	0.00	0	0.00	0.00	1	1.00	1.35	0	0.00	0.00	0	0.00	0.00	1.00	1.35
10 3 4	Bio-energy programmes	8	3.02	18.90	1	1.15	4.72	0	0.00	0.00	0	0.00	0.00	1	0.20	0.25	4.38	23.87
10 4 1	Improved ovens/hearths	101	21.99	56.01	7	1.40	16.90	0	0.00	0.00	8	2.71	6.26	2	1.50	7.25	27.59	86.42
10 4 2	Electricity efficient appliances	77	25.02	80.28	1	2.50	5.44	0	0.00	0.00	10	10.78	13.60	1	2.94	3.75	41.23	103.07
10 4 3	Other fuel efficient equipments	111	21.27	71.42	1	0.74	0.74	1	1.00	1.00	9	3.28	6.74	1	2.25	3.15	28.55	83.06
10 5 1	Energy survey	22	11.21	19.34	0	0.00	0.00	0	0.00	0.00	3	1.20	1.90	0	0.00	0.00	12.41	21.24
10 5 2	Awareness creation	25	1.70	2.58	1	0.10	0.10	0	0.00	0.00	2	0.29	0.34	0	0.00	0.00	2.09	3.01
10 5 3	Powerline mapping	11	1.81	2.98	0	0.00	0.00	0	0.00	0.00	3	0.56	0.93	0	0.00	0.00	2.37	3.91
10 5 4	Energy auditing	1	0.01	0.01	0	0.00	0.00	1	1.00	1.00	1	1.48	6.14	0	0.00	0.00	2.49	7.15
	Energy	3511	1530.80	2529.16	192	170.18	233.45	39	135.71	1278.92	226	250.42	397.10	23	197.10	297.49	2284.22	4736.12

### ***Power Finance Corporation***

5.27 The corporation was incorporated on 20<sup>th</sup> of March, 1998, with an authorised capital of Rs.100 crores and obtained Certificate of Business Commencement on 13<sup>th</sup> July 1998. The company is promoted as a joint venture between Government of Kerala and Kerala State Electricity Board (KSEB) for financing projects for the generation, transmission and distribution of power in the State of Kerala, undertaken by KSEB and other Independent Power Producers (IPP's).

5.28 The corporation sanctioned financial assistance by way of term loan aggregating Rs.41.60 crores to Kerala State Electricity Board for Two System-Improvement Projects at Chittur Division in Palghat and Punalur Division in Kollam. An amount of Rs.18.50 crores had been released up to 31-3-1999.

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

5.29 Agency for Non-conventional Energy and Rural Technology (ANERT) is the nodal agency in the State for propagating and implementing various programmes under non-conventional sources of energy. This agency is also engaged in spreading the message of new and renewable sources of energy (NRSE), NRSE devices and energy conservation among various sections of the society.

Following are the important activities of ANERT

- a. National Programme on Improved Chulah
- b. Bio-energy Programme
- c. Solar Thermal Extension Programme
- d. Solar Photo Voltaic Programme
- e. Wind Energy Programme

- f. Energy Conservation and Energy Audit
- g. Research and Development

### ***Integrated Rural Energy Programme (IREP)***

5.30 The Programme is implemented with the following objectives.

1 To provide energy for meeting the basic means of cooking, lighting, water supply irrigation and drinking especially for the weaker sections, by utilising locally available energy resources to the extent possible.

2 Provision of energy as a critical input in the economic development of the rural areas, which would result in the creation of employment, increasing productivity and income and accelerating the process of decentralised development. This also includes energy for sustainable agricultural production as well as promoting sustainable rural development activities.

5.31 During the period 1998-99, IREP was implemented through 28 IREP blocks spread over the 14 districts of Kerala. Under IREP, 22000 fixed and 6000 portable chulahs were installed/distributed during 1998-99. As part of the implementation of energy saving activities, ANERT distributed 110000 CFL with electronic chokes, 15000 electronic chokes etc. during the period under report. During the same period, 749 home lighting systems, 25000 solar lanterns, 74 solar water pumps etc. were distributed/installed through the 28 IREP offices. Moreover 70 user/awareness programmes and 7 exhibitions were also arranged during 1998-99.

### ***Electrical Inspectorate***

5.32 The functions of the Department of Electrical Inspectors are technical inspections, inspection of the accounts relating to the electricity duty, issue of competency certificate and licence, calibration and testing of meters etc. Technical inspections include inspection of electrical installation of the licensee and KSEB, inspections of all HV consumers' installation and KSEB new generating sets, power station, substation, distribution transformers substation and HV line, inspection and issue of safety certificate for commissioning equipments in power station, substation, scrutiny of the proposals of HV consumers for new installation as well as additional and alteration and methods of construction and power stations and other electrical installations, and proposals of installation of generating sets, Neon – Signs and X –ray units etc. The department conducts investigation of electrical accidents.

5.33 The Meter Testing and Standards Laboratory is functioning under the Department of Electrical Inspectorate. The procurement of testing equipment for the full-fledged set up and accreditation of the Meter Testing and Standard Laboratory with National Accreditation Board

for calibration and Testing Laboratory (NABL) and Bureau of Indian Standards (BIS) is in progress.

5.34 Electrical inspectorate has facility for calibration of calibrators, multimeters, other electrical meters and CT / PT unit upto 11KV, harmonic analysis, relay testing, transformer oil testing and testing of conductors.

### ***Energy Management Centre***

5.35 Energy Management Centre, is an autonomous body established under the Department of Power. The centre devoted to the promotion of improved energy efficiency and energy conservation and encouraging development of technologies related to energy through research, training, demonstration programmes and awareness creation. The centre designed and organised a number of training programmes, seminars, and brain storming sessions, workshops and awareness programmes during 1998-99. It also took initiatives for the speedy development of small hydropower in Kerala with people's participation and prepared a master plan for tapping the State's hydel potential and has undertaken energy conservation studies in public sector industries.

## CHAPTER 6

### INDUSTRY AND MINING

The secondary sector in general and industrial sector in particular have witnessed remarkable recovery during the last two years compared to that in 1996-97. In secondary sector the growth rate in 1996-97 was 0.65%, which has gone up to an average of 5.68% in the next two years. At the same time industries sector recorded a growth rate of 7.18% during the year 1998-99. At the national level the rate

of growth in the Industrial sector in 1998-99 was only 3.6%. In the year under review industrial sector contributed 13.27% of GDP. It is noticeable that the growth of industrial sector during 1997-98 and 1998-99 has been significantly high. The contribution to GDP by the secondary sector and industrial sector at constant prices and the growth rate of industrial sector in Kerala and India are given in Table 6.1.

**Table - 6.1**  
**Contribution to GDP and growth rate at constant prices.**

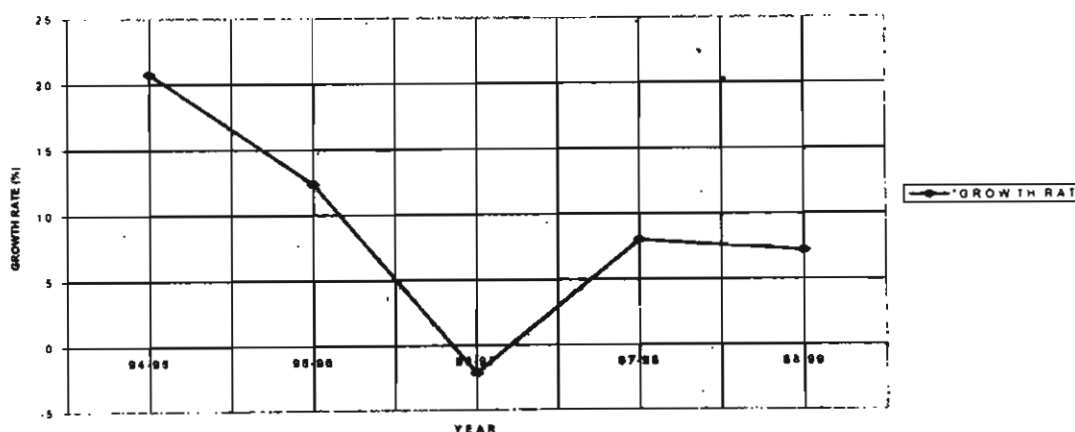
*Base year 1993-94*

Year	Contribution to GDP - Kerala Percentage		Growth rate in Industrial Sector Percentage	
	Secondary sector	Industrial Sector	Kerala	India
1996-97	20.98	12.71	(-2.15)	7.9
1997-98	21.17	13.08	7.99	4.0
1998-99	21.15	13.27	7.18	3.6

The growth rate in the industrial sector in the state in terms of Net State

Domestic Product over the last three years, 1996-97 to 1998-99, is presented in figure 6.1

**"PERCENTAGE GROWTH RATE IN INDUSTRIAL SECTOR"**  
**Fig 6.1**



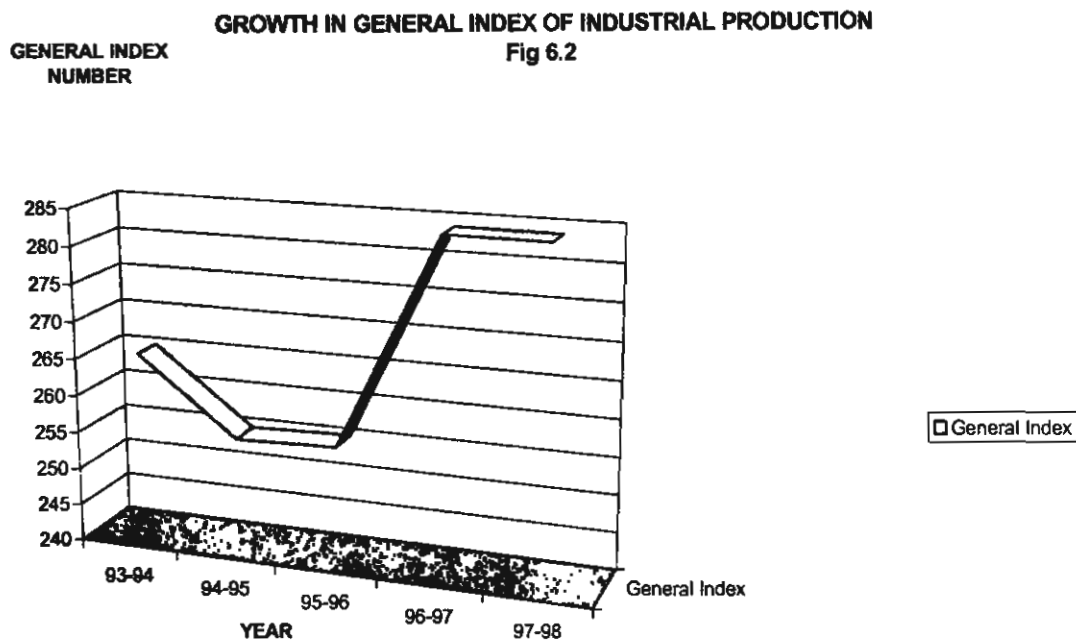
6.2 Group-wise analysis of production during the year 1997-98 reveals that there were

increases in production of basic metals and alloys industries (68%), metal products and parts except machinery and equipment



(22.22%), basic chemicals and chemical products (15.02%), beverages, tobacco and related products (9.56%), cotton textiles (4.9%) and machinery and equipment other than transport equipment (4.68%). A close examination reveals that the increase was only marginal in the case of manufacture of textile products (2.8%) and manufacture of rubber, plastic, petroleum and coal products and processing of nuclear fuels (2.2%). The index (1196.20) for manufacture of machinery and

equipment other than transport equipment ranked the highest position. The remaining major industry groups reported decline in production during the year under review. The industry-wise indices for industrial production for the year 1996-97 and 1997-98 (Base year 1980-81) are given in Appendix-6.1. The variation in the General Index of Industrial production from 1993-94 to 1997-98 is given in fig. 6.2



6.3 The number of medium and large scale industries increased from 474 in 1998 (as on 31/3/1998) to 511 in 1999 (as on 31/3/1999). The number of small scale industrial units registered increase from 1,80,091 in 1998 to 1,99,827 in 1999. Value of output in the SSI sector recorded marginal improvement during this period i.e. from Rs. 1118.29 crores in 1997-98 to Rs. 1156.02 crores in 1998-99. Special emphasis was laid on creation of additional infrastructure facilities through promotional agencies. Steps were taken also for effective qualitative improvement in the traditional sector. Due care was also given on creation of

an investor friendly atmosphere. The number of disputes that led to strikes/lock outs declined from 50 in 1997-98 to 39 in 1998-99, and that of workers affected due to strikes and lockout declined from 75,183 to 12,070 during the period under review. Man-days lost due to strike declined from 4,97,078 in 1997-98 to 3,69,234 in 1998-99.

6.4 A notable effort of the State Government is the establishment of the Kerala Industrial Revitalisation Fund Board (KIRFB), a statutory body for mobilising funds for potentially viable Public Sector Undertakings

under the Industries Department. The KIRFB's approved fund base of Rs. 240 crores consists of Rs. 60 crores as contribution from Government and the balance of Rs. 180 crores to be sourced through placement of bonds. The KIRFB has succeeded in mobilising Rs. 180 crores through private placement of bonds in January 2000 itself. Assistance to the tune of Rs. 15.49 crores has already been provided to four public sector units viz.: Transformers and Electricals Kerala

Ltd., Kerala State Textile Corporation Ltd., Autokasts Ltd. and Kerala Garments Ltd.

6.5 Industrial development continues to be allocated a fair share of allocation in the State's Five-Year Plans and Annual Plans. The share of the sector in the IX<sup>th</sup> Plan is 11.15% of the total State Sector outlay. The sub sector – wise outlays and expenditure in the IX<sup>th</sup> Plan and Annual Plans 1997-98, 1998-99 and 1999-2000 are given in Table 6.2.

Table - 6.2  
IX<sup>th</sup> Five-Year Plan: Outlay & Expenditure

Sector/Sub Sector	IX Plan Outlay	1997-98		1998-99		1999-2000
		Outlay	Expenditure	Outlay	Expenditure(p)	Outlay
1	2	3	4	5	6	7
<b>A. Village and Small Industries</b>						
1.Small Scale Industries	25900.00	2990.00	3194.63	2345.10	2345.13	2655.00
2.Handloom & Powerloom	8000.00	1222.00	1203.11	1300.00	1273.88	1300.00
3.Handicrafts	1000.00	288.00	312.24	145.00	95.00	190.00
4.Coir Industry	10000.00	1587.00	3096.54	1600.00	1924.26	1600.00
5.Khadi & Village Industries	2000.00	346.00	253.00	275.00	275.00	275.00
6.Sericulture	2000.00	600.00	600.00	500.00	75.00	250.00
7.Cashew Industry	2000.00	100.00	-	150.00	150.00	550.00
<b>Sub Total-A</b>	<b>50900.00</b>	<b>7133.00</b>	<b>8659.52</b>	<b>6315.00</b>	<b>6338.27</b>	<b>6820.00</b>
<b>B. Medium &amp; Large Industries</b>	<b>60186.00</b>	<b>13800.00</b>	<b>14333.66</b>	<b>15910.00</b>	<b>11580.00</b>	<b>15560.00</b>
<b>C. Biotechnology for Industrial Development</b>	<b>500.00</b>	<b>0.00</b>	<b>0.00</b>	<b>75.00</b>	<b>75.00</b>	<b>0.00 *</b>
<b>D. Mining</b>	<b>1000.00</b>	<b>200.00</b>	<b>121.54</b>	<b>200.00</b>	<b>68.94</b>	<b>140.00</b>
<b>Total (A+B+C+D)</b>	<b>112586.00</b>	<b>21133.00</b>	<b>23114.72</b>	<b>22500.00</b>	<b>17862.21</b>	<b>22520.00</b>

(\*) Transferred to Science & Technology.

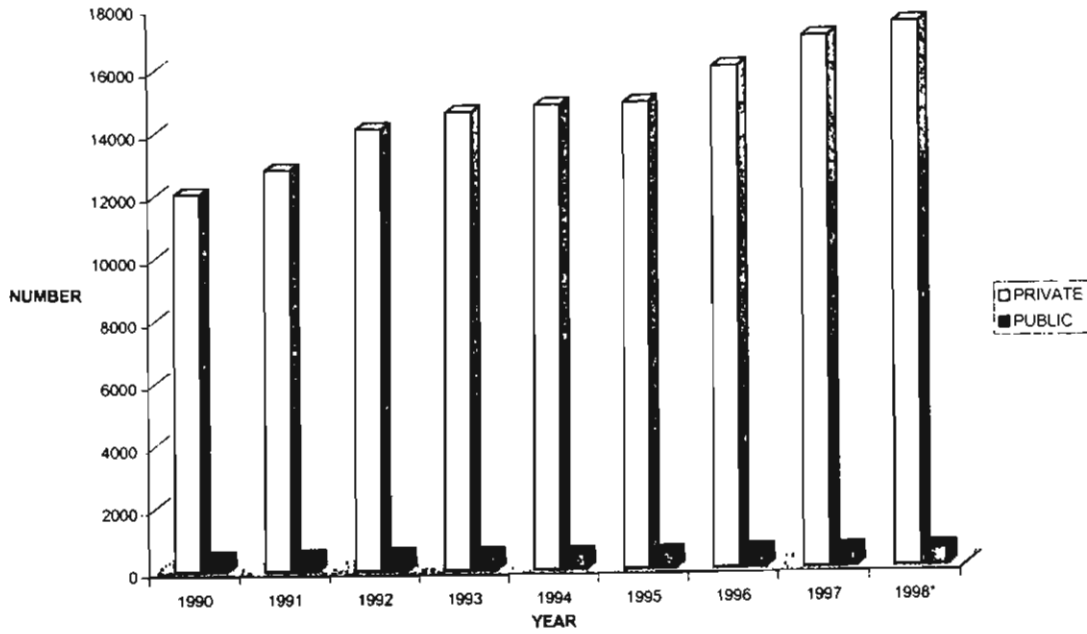
(p) Provisional.

### Working Factories and Employment

6.6 There were 17,719 registered working factories in the State comprising of 17,179 units in the private sector and 540 units in the public sector as at the end of 1998. In 1997 the comparable figure was 17,336 factories (16,803 in private sector & 533 in public sector) in December 1997. The total number of workers employed in the registered working factories in the state increased by 7,535 to 4.363 lakhs over the previous year's level of 4.288 lakhs. Of the

total number of workers employed in factories as at the end of 1998, 1,11,672 were employed in the public sector and 3,24,703 in the private sector. Details regarding the growth of working factories and average daily employment during the period from 1990-1998 can be seen from Appendix 6.2. Growth in number of working factories and employment from 1990 to 1998 is presented in figure 6.3.1 and 6.3.2.

GROWTH OF WORKING FACTORIES IN KERALA 1990 to 98  
Fig 6.3.1



EMPLOYMENT IN THE FACTORY SECTOR IN KERALA 1990 to 98  
Fig 6.3.2



6.7 The number of working factories in all the districts except Idukki, Palakkad, Kozhikode and Wayanad increased during the year under review. Ernakulam district stood first in regard to total number of factories with 2700 factories in 1998 followed by Thrissur District (2,364), Palakkad (1,966) and Kottayam (1,797). Thrissur district witnessed the largest increase (176) in the number of factories, from

2,188 in 1997 to 2,364 in 1998. District-wise distribution of registered working factories in Kerala from 1990 to 1998 is furnished in Appendix 6.3. The number of workers in all districts except in Idukki increased during this period. The maximum increase in the number of factory workers was noticed in Kollam district where it rose by 2,227 in December 1998, followed by Thrissur (1,669) and

Alappuzha (781) district. The district-wise distribution of registered working factories and workers employed as on 31/12/1998 is given in Appendix-6.4.

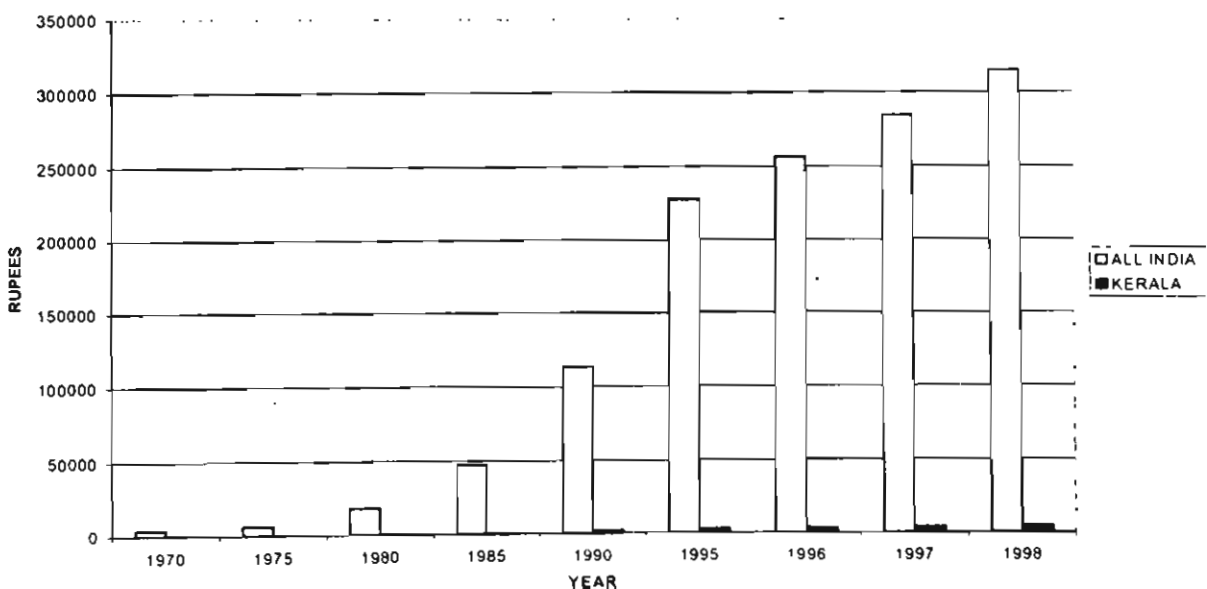
### **Industrial Disputes**

6.8 According to the provisional data furnished by the Labour Commissioner, the number of industrial disputes handled in the state was 8,266 in 1997-98 and 9,166 in 1998-99. But the total number of fresh disputes that arose during 1998-99 was 5,272 as against 5,455 in 1997-98. Out of 9,116 disputes handled in 1998-99 as many as 5,829 cases (63.94%) could be settled during that year itself. The number of disputes that led to strikes and lockouts indicated a declining trend from a total of 50 to 39 during the year under review. The number of workers affected by strikes and lockouts showed a substantial decline of 83.94 percent, from 75,183 in 1997-98 to 12,070 in 1998-99. The total number of man days lost due to strikes and lockouts during 1998-99 was 10.89 lakhs. Details of industrial disputes arose, handled, settled etc. in the state during the period from 1995-96 to 1998-99 are furnished in Appendix. 6.5

### **Central Sector Investment**

6.9 The share of central sector investment in Kerala has been steadily declining from 3.24 percent in 1975 to 1.50 percent as on 31.3.1998. Central sector industrial investment, in terms of gross block in the public sector in the State was Rs. 4,716 crores by the end of March 1998, accounting for 1.50 per cent of the total central sector investment of Rs. 3,14,635 crores in the whole country. The State received nearly 2.39% of the incremental investment of Rs. 30,305.75 crores made by the Central Government in the country as a whole during the year 1997-98. Six states of Maharashtra (Rs. 56,677.16 crores), Gujarat (Rs. 23,160.87 crores) Uttar Pradesh (Rs. 22,902.66 crores) Madhya Pradesh (Rs. 22,069.54 crores), West Bengal (Rs. 21,037.92 crores) and Bihar (Rs. 21,000.26 crores) accounted for more than 53 per cent of the total central investment in the country as on 31.3.1998. Data relating to the central sector investment in the country and Kerala at different intervals are furnished in Appendix 6.6. Central sector investment in Kerala since 1970 is depicted in fig 6.4. The trend in the percentage share of central investment is given in fig 6.5.

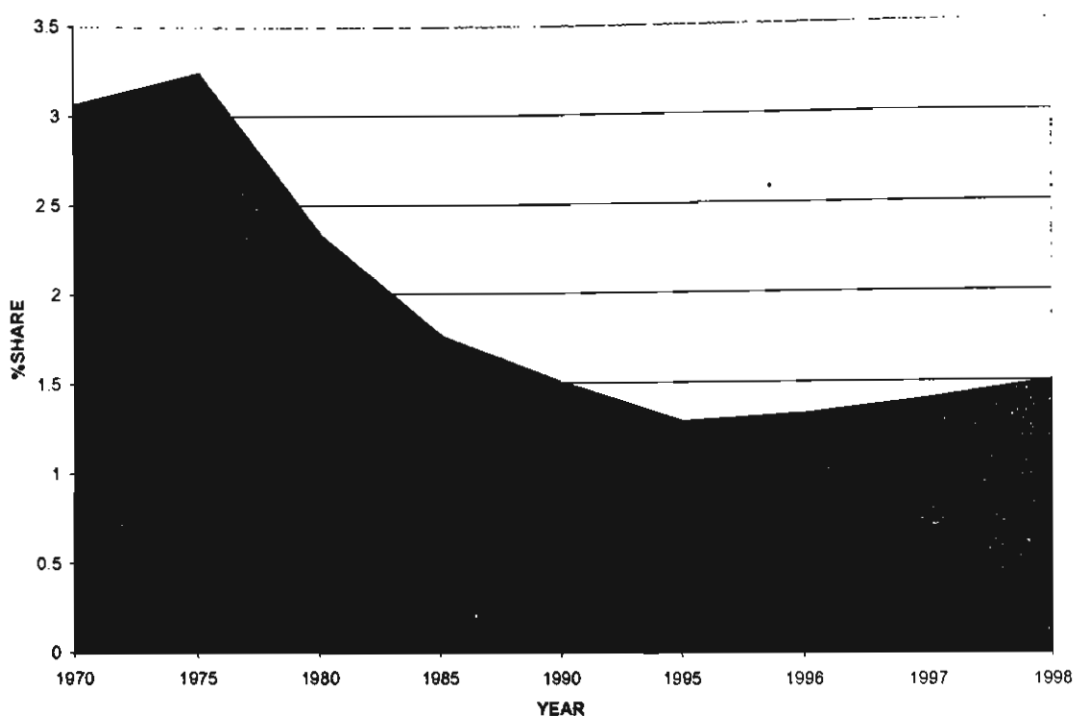
**CENTRAL SECTOR INVESTMENT IN KERALA FROM (GROSS BLOCK)  
1970 TO 1998**  
Fig 8.4



6.10 Including five textile mills under the management of the National Textile Corporation

Ltd. central sector industrial undertakings functioning in Kerala are

**%SHARE OF CENTRAL INVESTMENT IN THE STATE**  
Fig 6.5



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

6.11 Out of 19 Government of India companies, 14 have reported their performance during 1998-99. Total capital invested in respect of 13 companies amounted to Rs. 1,955 crores as on 1998-99 against Rs. 1,883 crores in the previous year. Major share of the capital invested as on 31.3.1999 was accounted for by FACT, followed by Cochin Refineries Ltd. and Hindustan Newsprint Ltd. The number of employees working in these companies was 21,933 in 1998-99. The value of production of 13 enterprises marginally increased to Rs. 5,371 crores during the year 1998-99 from Rs. 5,352 crores in the previous year. Performance in respect of value of production of six companies was encouraging compared to that of the previous year. The sales turn over of six enterprises showed improvement during the year under review and the highest turn over is indicated by the Hindustan Newsprint Ltd. Capacity utilisation of the following companies namely Hindustan Newsprint Ltd., Hindustan Latex Ltd., Indian Telephone Industries, HMT Ltd. and Fertilizers & Chemicals Ltd. was found satisfactory during the year under review. Relevant data pertaining to the central sector industrial undertakings working in Kerala are given in Appendix 6.7, 6.8 & 6.9.

### ***Large & Medium Industries***

6.12 The number of medium and large industrial units established in Kerala was 511 as on 31.3.1999. This included 19 in the central sector, 62 in the State sector, 16 in the co-operative sector, 29 in the joint sector and 385 in the private sector. Among various categories of industries the chemical industries stood first with regard to investment (Rs. 2,039 crores) followed by textiles (Rs. 643 crores) as on 31.3.1999. District-wise, Ernakulam district stood first with 163 industrial units, whereas in Kasaragod the number of units was only two. Palakkad district stood second with 70 units followed by Thiruvananthapuram and Thrissur with 50 and 49 industrial units respectively. District-wise and category-wise dispersion of medium and large industrial units is given in Appendix 6.10. As on 31.3.99 a total of 379 industrial units were assisted by KSIDC, consisting of 30 public sector and 349 private

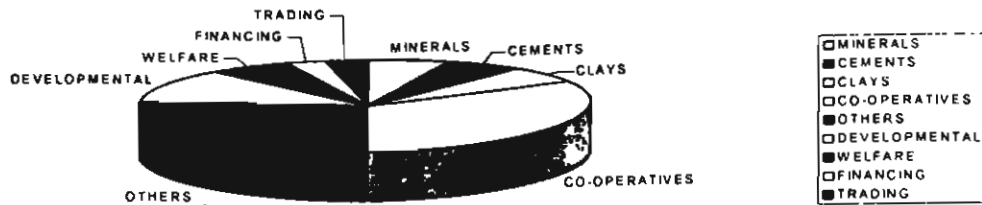
sector units. Assistance extended by KSIDC to units amounted to Rs. 3,227.29 crores, of which public sector units accounted for Rs. 394.77 crores, and private sector units Rs. 2,832.52 crores. District-wise details regarding the number of both private and public sector large and medium units in the State assisted by KSIDC is furnished in Appendix 6.11.

### ***Public Sector Manufacturing Industrial Enterprises***

6.13 As on 31-3-1999, there were 60 Public Sector Undertakings which included 44 manufacturing industrial enterprises under the administrative control of the Industries Department. Their classification according to the nature of operations is given in figure 6.6. While 20 units were fully owned by the State Government, the majority shares of the remaining 24 units were jointly held by the State Government and its holding companies. Out of the above 44 companies, 32 companies have furnished details of their working results during the year 1998-99. Two companies are already liquidated and another, Sidkel Television, is more or less in the closure stage.

6.14. Among the 20 fully Government owned companies, 16 have furnished details regarding their performance during 1998-99. The total capital invested in respect of these 16 companies increased from Rs. 662 crores in 1997-98 to Rs. 667 crores in 1998-99. Major share of the capital invested as on 31.3.1999 was accounted for by 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. The number of employees working in these companies was 10,923. Fifteen enterprises have furnished the details of their performance in terms of value of production and 16 in terms of sales turnover during 1998-99. Out of these, the performance in respect of value of production of six companies was encouraging during the year under review. Value of production of all these enterprises increased to Rs. 527 crores in 1998-99 from Rs. 449 crores in the previous year. Sales turnover of seven enterprises showed

PUBLIC SECTOR UNDERTAKING UNDER INDUSTRIES DEPARTMENT  
(Figure 6.8)



improvement during the year under report and the highest turnover was reported by the Kerala Minerals and Metals Ltd. Total sales turn over of all the 16 enterprises during the year 1998-99 worked out to Rs. 603 crores against Rs. 524 crores of the previous year. With regard to capacity utilisation, Malabar Cements Ltd., Kerala Electrical and Allied Engineering Company Ltd., Kerala Ceramics Ltd., and Kerala Automobiles Ltd. reported better performance during the year 1998-99. Relevant details regarding capital invested, employment, value of production, sales turn over and the capacity utilisation in respect of government owned companies are furnished in Appendices 6.12 to 6.14.

6.15 Among the 24 companies in which the State Government and its holding companies are holding majority shares, 16 enterprises have furnished details of performance during 1998-99. Total capital invested in these companies was Rs. 239 crores as on 31.3.1999. Total number of employees in these units was 7,173 in 1998-99. Out of the 16 companies, the performance of eight enterprises in terms of value of production during 1998-99 was encouraging compared to that in the previous year. Value of production of all the 16 companies indicated an increase by about Rs. 31 crores during 1998-99 from that of the previous year. Among the 16 companies, performance in respect of sales turn over by 10 companies was better in 1998-99 than that in the previous year. Total sales turn over of these companies during the year under review

increased by about Rs. 33 crores compared to that of the previous year. With respect to capacity utilisation, enterprises which showed satisfactory performance during 1998-99 compared to the previous year were Travancore Titanium Products Ltd., Travancore Cochin Chemicals Ltd., Travancore Cements Ltd., United Electrical Industries Ltd. And Travancore Sugars & Chemicals Ltd. Details of capital invested, employment, value of production, sales turn over and capacity utilisation in respect of Government majority companies are given in Appendix 6.15, 6.16 and 6.17. Sectorwise performance of the Public Sector Undertakings is shown in Appendix 6.18.

6.16 Public Sector Restructuring and Internal Audit Board (RIAB) is the agency which functions as an interface between PSUs, Government and Management consultants/Research/Support Agencies. RIAB performs the role of an appraiser of proposals from Public Sector Undertakings, monitors performance and fund utilisation of PSUs on a monthly basis and conducts enquiry referred to by the Industries Department. RIAB is also entrusted with the management of the Kerala Industrial Revitalisation Fund Board (KIRFB) for revitalising potentially viable units under the Industries Department. During 1998-99, the amount of Rs. 65 crores was released from the plan provision for the revival, restructuring and diversification of 19 units and to the Revitalisation Board as detailed below in Table 6.3.

**Table - 6.3**  
**Amount released for Revitalisation 1998-99**

<i>Sl. No.</i>	<i>Name of Company</i>	<i>Amount Released (Rs. in lakhs)</i>
1	Kerala State Drugs and Pharmaceuticals	217.05
2	Kerala State Salicylates and Chemicals Ltd.	25.00
3	Kerala Soaps & Oils Ltd.	100.00
4	Transformers and Electricals Kerala Ltd.	591.24
5	Kerala Electrical and Allied Engg. Company Ltd.	160.00
6	Steel Complex Ltd.	392.00
7	Autokasts Ltd.	400.00
8	Steel Industrials Kerala Ltd.	148.00
9	Scooters Kerala Ltd.	55.00
10	Alleppey Co-operative Spinning Mills	198.15
11	Kerala State Textile Corporation Ltd.	127.28
12	Sitharam Textiles Ltd.	275.00
13	Trivandrum Spinning Mills	19.28
14	Malabar Spinning and Weaving Mills Ltd.	50.00
15	Keltron Counters Ltd.	55.00
16	Keltron Power Devices Ltd.	321.00
17	Keltron Crystals Ltd.	66.00
18	Travancore Plywood Industries Ltd.	100.00
19	CAPEX	200.00
20	Kerala Industrial Revitalisation Fund Board	3000.00
	<b>Grand Total:</b>	<b>6500.00</b>

### ***Joint Stock Companies***

6.17 The total number of joint stock companies working in Kerala as on 31.3.1999 was 10,856 which included 8,935 private limited and 1,921 public limited companies. The number of companies newly registered during 1998-99 was 749, consisting of 54 private limited and 695 public limited companies. Two companies of other states, one public limited and one private limited, moved to Kerala during the year under report, while 72 companies including 62 public limited and 10 private limited were either dissolved/struck off/amalgamated during 1998-99. Three of the companies working in Kerala were transferred to other States during the year. Thus the net addition to the total number of joint stock companies in Kerala during the year under review was 676 which included 634 public limited and 42 private limited companies. The

total number of government companies in Kerala as on 31.3.1999 stood at 105. Among them, 73 were private limited and 32 were public limited companies. Details of joint stock companies working in Kerala are given in Appendix 6.19.

### **VILLAGE AND SMALL INDUSTRIES**

#### ***Small Scale Industries***

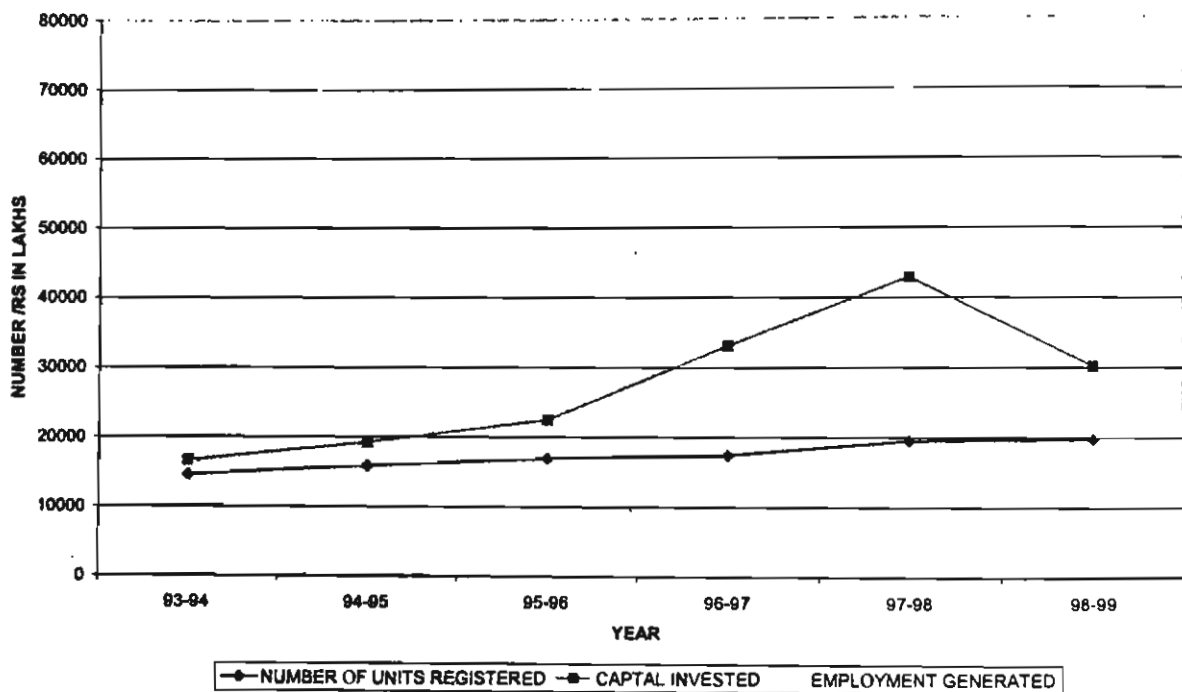
6.18 During 1998-99, 19,736 small scale industrial (SSI) units were newly established in the State with a capital investment of Rs. 302.09 crores creating employment opportunities for 71,632 persons. The output of SSIs during 1998-99 was estimated at Rs. 1,156.02 crores as against Rs. 1,118.29 crores in 1997-98. Out of 19,736 SSI units newly registered during 1998-99, 492 (2.49%) units were run by Scheduled Caste entrepreneurs, 73 (0.37%) by Scheduled Tribe entrepreneurs and 4,459 (22.59%) units by



women entrepreneurs. District-wise performance revealed that Ernakulam District ranked first with 11.42% of the total number of new SSI units, followed by Trichur 10.24% and Kottayam 10.20%, while the districts of Wayanad and Idukki accounted for the lowest number of new SSI units with a share of 1.79% and 2.34% respectively. Industrial parks and thrust industries are proposed in Wayanad and

Idukki as part of planned effort for the development of industries in those industrially backward districts. District-wise details of SSI units registered in Kerala during the year 1998-99 are given in Appendix 6.20. Growth in the number of units registered, capital invested and employment generated in the SSI sector over the last 6 years are shown in fig 6.7.

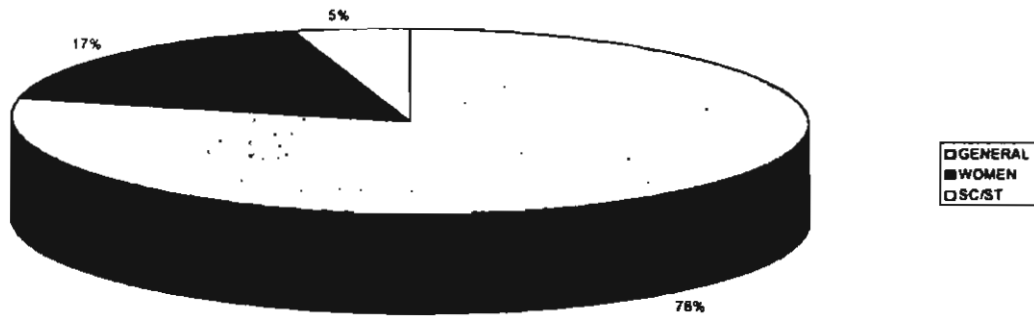
**NUMBER OF UNITS REGISTERED, CAPITAL INVESTED AND EMPLOYMENT GENERATED IN THE SSI SECTOR**  
(Fig 6.7)



6.19 The total number of SSI units registered in Kerala as on 31.3.1999 stood at 1,99,827. Aggregate investment made by these units amounted to Rs. 2,653.44 crores, with an employment potential of 9,81,491. The value of output of these units amounted to Rs. 8,604.43 crores. Out of the total registered units, 9,411(4.71%) units were promoted by

SC/ST entrepreneurs and 34,435 (17.23%) units by women entrepreneurs. Category wise distribution of entrepreneurs registered during the year 1998-99 is shown in fig 6.8. District-wise details of registered SSI units in Kerala as on 31.3.1999 are furnished in Appendix 6.21.

CATEGORY OF ENTREPRENEURS PROMOTED SSI UNITS  
(Fig 6.8)



6.20 Of the total number of 1,99,827 SSI units in the state 3,816 units were identified as sick, 1,826 units were registered as sick, of which 974 units have been revived as on 31.3.1999. Government have already set up professional groups in the Districts of Thiruvananthapuram, Ernakulam and Kozhikode to provide necessary assistance to sick SSI units. Specialised teams survey individual sick units and suggest measures for revitalisation of such units. District-wise working status of SSI units as on 31.3.99 is given in Appendix 6.22.

6.21 A total of 3034 prospective entrepreneurs were trained under Entrepreneurship Development Programme during 1998-99. They included 595 SC trainees

and 95 ST trainees. Of the number trained, 69 (2.27%) have started SSI units during the year 1998-99. To add to this, under PMRY programme also 11,041 entrepreneurs were trained during the same period. District-wise details of Entrepreneurship Development Programme conducted during 1998-99 are given in Appendix 6.23.

6.22 As regards achievement under PMRY scheme during the year 1998-99, an amount of Rs. 9,192.96 lakhs was sanctioned to 17,142 persons. Disbursement was Rs. 4,887.59 lakhs to 8,965 beneficiaries, against the target of 20,000 beneficiaries. During the previous year

the amount sanctioned was Rs. 8,252.94 lakhs to 14,868 persons. District-wise details of achievement under PMRY scheme during 1998-99 are indicated in Appendix 6.24.

6.23 During 1998-99, 125 industrial co-operative societies were registered afresh. The total number of industrial co-operatives registered as on 30.6.1999 was 2,384. Of these, 401 (16.82%) societies were promoted by scheduled caste entrepreneurs, 83(3.45%) by scheduled tribe entrepreneurs and 825 (34.60%) societies by Women. Details of Industrial Co-operative Societies in Kerala as on 30.6.1999 are given in Appendix 6.25.

#### ***Handloom Industry***

6.24 Handloom Industry is a major traditional industry of Kerala providing employment to about 2 lakh persons. Most of its development programmes are directed through primary Handloom Weavers Co-operative Societies. The total number of those societies as on 31.3.1999 was 755. Procurement and marketing of handloom fabrics in the State are being undertaken by two state level organisations, Hantex and Hanveev. Total number of handlooms in the co-operative sector has increased from 47,318 in 1997-98 to 48,462 as on March 1999.

6.25 Out of the 755 co-operative societies, 162 were factory type and 593 were cottage type. Of the 162 factory type societies only 33 were working and of the 593 cottage type only 459 were working. The largest number of societies were in Thiruvananthapuram (360) and lowest in Wayanad district (4). District-wise details of handloom societies in the state are furnished in Appendix 6.26. Overall production of cloth by Handloom societies in Kerala marked marginal increase from 74.99 million meters in 1997-98 to 76.12 million meters in 1998-99. Total value of production increased from Rs. 3,71.41 crores in 1997-98 to Rs. 382.45 crores in 1998-99. In order to upgrade the skills of the weavers, Handloom Export Promotion Council organised demonstration projects at Kannur and Balaramapuram during 1998-99. Production and productivity under handloom industry in Kerala from 1996-97 to 1998-99 are given in Appendix 6.27.

6.26 The Kerala State Handloom Weavers Co-operative Society established in 1961 is the apex marketing organisation with a commercial brand name of 'HANTEX'. 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 members (societies) registered under HANTEX up to March 1999 remained at 430. HANTEX markets finished product collected from its members through 182 sales depots including agency depots and depots outside the state. Total sales turnover of Hantex increased from Rs. 4.99 crores in 1997-98 to Rs.20.62 crores in 1998-99 that is by 37.56% over the previous year. Working results of Hantex are given in Appendix 6.28.

6.27 Kerala State Handloom Development Corporation (HANVEEV) which started functioning in 1968 is an agency for the development of handlooms. The corporation has 32 clusters registered with it. The licensed capacity is 6,500 individual weavers (registered). Total share capital of 'Hanveev' as on 31<sup>st</sup> March 1999 was Rs. 737.20 lakhs. Total sales turnover of the corporation increased from

Rs. 1,329 lakhs in 1997-98 to Rs. 1,947.96 lakhs in 1998-99, that is by 46.57% over the previous year. The corporation incurred a net loss of Rs. 28.60 lakhs and accumulated loss increased to Rs. 735.29 lakhs during the period under review. Working results of Hanveev are given in Appendix 6.29.

6.28 Kerala Garments Limited is subsidiary of HANVEEV, incorporated in 1974. Its main activities are manufacture of garments and sale of readymade. The company provided employment to 307 persons as on 31.3.1999 and has an installed production capacity of 3.15 lakh garments per annum. The company produced 2.06 lakh garments in 1998-99 as against 1.78 lakhs in 1997-98. The value of garments produced was Rs. 86 lakhs in 1998-99 as against Rs. 79 lakhs in 1997-98. The company incurred a loss of Rs. 37.96 lakhs in 1998-99 as against Rs. 31.70 lakhs in 1997-98.

6.29 India's cotton handloom exports has recorded a high of Rs. 2,000 crores for the first time during 1998-99 as against Rs. 1,854 crores in 1997-98, while the export from handloom sector in Kerala was to the tune of only Rs. 105.50 lakhs in 1998-99 (Erunavu Handloom Society - Rs. 21 lakhs, Kanjirode Handloom Society - Rs. 76 lakhs, Hantex - Rs. 2.5 lakhs, and Hanveev - Rs. 6.00 lakhs). Figures on production and productivity of the Powerloom Industry also are furnished in Appendix 6.30.

### *Coir Industry*

6.30 Coir Industry is also a major traditional industry in Kerala, providing employment to 3.83 lakh persons, of whom 3.25 lakh are women. Kerala accounts for nearly 90% of the total coir production in India. The state produces 85% coir as white fibre (1,27,000 tonnes) and only 15% as brown fibre (20,000 tonnes).

6.31 Coir Geo-textiles is an emerging area of coir industry. The International Trade Centre has estimated the present global demand for coir geo-textiles as 1000 million sq. meters which is likely to increase to 1,400 million sq. meters by the year 2000. The quantity of coir yarn

required to produce such quantity of geo-textiles is estimated at 7,00,000 tonnes. At present the coir yarn used for the production of geo-textiles is only 5%. With the objective of developing and popularising the coir geotextiles it is proposed to implement a comprehensive scheme.

6.32 There are 829 coir co-operative societies in the State as on 31.3.1999. Of these 481 are working societies, 83 are new, 103 are dormant and the rest are those under liquidation. The number of coir workers brought under the co-operative fold is estimated at 2.7 lakhs. 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.

6.33 With a view to modernise the coir industry, the State Government is implementing an 'Integrated Coir Development Project' with financial assistance of Government of India and NCDC for setting up 200 spinning units and 100 defibering mills. Financial assistance has been obtained for the setting up of 58 defibering mills and 125 spinning units. 17 defibering mills and 74 spinning units have been commissioned already and the remaining units are under various stages of implementation.

6.34 The export of coir and coir products recorded a growth rate of 11.31%, from 49,850 tonnes in 1997-98 to 55,490 tonnes in 1998-99. While value of exports increased from Rs. 23,892 lakhs in 1997-98 to 29,280 lakhs in 1998-99, registering a growth rate of 22%. The item-wise exports during the last two years are given in Appendix 6.34.

6.35 The Kerala State Co-operative Coir Marketing Federation (COIRFED) is the apex society for the procurement and marketing of coir yarn and products produced in the co-operative sector. It has 101 show rooms in India. During 1998-99, a sum of Rs. 275 lakhs has been released to Coirfed for its market development activities. The procurement of coir

and coir products has increased from 6,560.70 tonnes to 8,414.48 tonnes.

6.36 Kerala State Coir Corporation Ltd. and the Foam Mattings (India) Ltd. are the two public sector undertakings in the coir sector. Kerala State Coir Corporation's major activity consists of purchase of mats, mattings and rugs from small scale manufacturers and finishing and selling them. The corporation has a modern dye house and a model coir factory. The sales turnover of the corporation during 1998-99 was Rs. 502 lakhs. In 1998-99 the corporation incurred a net loss of Rs. 87.07 lakhs.

6.37 The turnover of Foam Mattings (India) Ltd. during 1998-99 was Rs. 881.68 lakhs and the net profit earned during the year amounted to Rs. 153.60 lakhs. Now the company is implementing an expansion programme consisting of establishment of three plants viz.: (a) Powerloom Plant (b) Dyeing/Bleaching Plant and (c) Rug/Carpet Plant.

6.38 Centre for Development of Coir Technology (C-DOCT), a research organisation in the coir sector, has developed a technique in the application of coir geo-textiles which was put to use in the construction of National Highway at Kozhikode. C-DOCT has also formulated a project for establishing a unit for the mechanical extraction of coir fibre at Kuzhiyam in Perinad Panchayat, which is now ready for commercial production. A similar project is being established in Edamulakal Panchayat in Kollam District. The establishment of a High-tech Coir Park formulated by C-DOCT is under active consideration.

### *Cashew Industry*

6.39 Cashew ranked fifth as a foreign exchange earner among the agricultural products exported from India during 1998-99. The Cashew Export Promotion Council a government of India agency, is the sole agency responsible for quality control and perishment inspection of cashewnut exported. Export of cashew kernels from India amounted to Rs. 1,609.90 crores in 1998-99, as against

Rs. 1,396.10 crores during the previous year. Cashewnut shell liquid valued at Rs. 3.26 crores was exported in 1998-99 against Rs. 7.17 crores during 1997-98. Import of raw cashew nuts into the country during 1998-99 was 1,80,686 metric tonnes (Provisional) valued at Rs. 693.17 crores as against 2,47,181 metric tonnes worth Rs. 769.60 crores in the previous year. Details of foreign exchange earnings and the import of raw cashew nuts into India are given in Appendices 6.35 & 6.36.

6.40 The Kerala State Cashew Development Corporation and Kerala State Cashew Workers Apex Industrial Co-operative Society (CAPEX) are the two state agencies engaged in the development of Cashew Industry. The major works of the corporation consist of processing of raw cashewnuts into kernels, exporting them throughout the world, dealing in cashewnut shell liquid and tannin. The corporation has 34 factories, of which 9 belong to the corporation and 25 factories are leased out. Total number of workers employed in these factories as on 31.3.1999 stood at 21,269, majority of the workers were women belonging to SC/ST community.

6.41 Total installed capacity of 34 factories stood at 12,000 MTs. of cashew kernels and 900 MTs. of tannin. A total quantity of 11,406 MT of raw nuts valued at Rs. 47.75 crores was processed by the corporation during the year under report. Cashew kernels to the tune of 2,706 tonnes valued at Rs. 77.30 crores was produced by the corporation during the year under review against 3,832 tonnes of the same valued at Rs. 45.30 crores in the previous year. The corporation produced only 68 tonnes of tannin during the year 1998-99 against 107 tonnes of the same during the previous year. Employment was offered for 143 days (till October 1999) to the labourers in its 34 factories during the year under review. Till 31.12.1999 the corporation had attained a turnover of Rs. 115 crores. The total income of the corporation during the year under report amounted to Rs. 86.77 crores while expenditure for the period was Rs. 88.55 crores and thus the corporation incurred a loss of Rs. 1.78 crores. Shortage of raw materials and working capital

are the major problems faced by the corporation. Measures for modernisation /expansion of the corporation had already been initiated and it is expected that loss could be substantially reduced in the coming years.

6.42 The main objective of CAPEX, the Apex industrial co-operative society is to provide maximum number of days of work to the workers in the cashew industry. At present ten primary societies are registered as members of CAPEX and a total number of 5,188 cashew workers are on their roll as on 31.3.1999. CAPEX provided 115 days of work to the employees against a target of 150 days during the year under review. 3,207 tonnes of raw nuts valued at Rs. 14.12 crores was procured by the primary societies during the year 1998-99. Total sales turnover of this apex body during the report year was to the tune of Rs. 11.36 crores. Business handled by CAPEX during the year comprised of 1,360.39 tonnes of cashew kernels, skin and shell during the year 1998-99. CAPEX incurred a financial loss of Rs.1.71 crores during the year under report.

### *Khadi and Village Industries*

6.43 Khadi and Village Industries Board is the main agency to implement the Khadi and Village Industries Programmes in the State. These programmes are implemented by the Board, through co-operative societies, registered institutions, individuals and departmental units by availing financial assistance from the State Government, Khadi Commission (KVIC) and Nationalised Banks.

6.44 Under consortium bank credit scheme of Khadi Commission, loan assistance is given to individuals up to Rs. 10 lakhs and co-operative societies/charitable institutions up to Rs. 25 lakhs on the basis of their projects at an interest rate of 15%. 25% margin money is also given subject to a maximum of Rs. 25 lakhs, which will be treated as interest free loan and on prompt repayment of loan is treated as grant. The Board has sanctioned Rs. 725.73 lakhs as loan to 230 units by creating employment opportunities to 2,419 persons under this

scheme during 1998-99. Till the end of November 1999 the board had sanctioned a total of Rs. 43.08 lakhs to 1,500 units and generated employment opportunities to 11,923 persons under this scheme.

6.45 For acceleration of employment generation in rural areas, KVIC has introduced a Margin Money Scheme which consists of Special Employment Programme, Priority Block Development Programme and special projects under KVI sector. During 1998-99, an amount of Rs. 177.54 lakhs was released as margin money to 193 village industrial units creating employment opportunities to 2,242 persons. Till the end of November 1999, 534 units were sanctioned margin money generating employment to 3,608 persons. Total margin money released amounted to Rs. 334.98 lakhs (including 61 women units with an employment potential of 578 persons).

6.46 The Khadi Board recommended nine applications worth of Rs. 45.96 lakhs for various village industries units under the interest subsidy scheme during 1998-99 and created employment opportunities for 145 persons. The Board constructed 2 workshops for khadi production centres and started the construction of a shopping complex at Ernakulam.

6.47 The Board also repaired and modernised 570 charkhas and 250 looms during 1998-99. Silk weaving was started under the Payyannur Khadi Centre. As a part of creating employment opportunities for women, the Board has started training in artificial gem cutting in two districts (35 women in Alappuzha and 50 women in Kozhikkode).

6.48 Board disbursed an amount of Rs.30 lakhs to six Federations as managerial grant and working capital fund for their activities during 1998-99. These Federations are engaged in the procurement and supply of raw materials to member units. The Board has implemented a scheme for donating houses to 100 khadi workers in collaboration with the Housing Board and introduced Insurance Scheme for the first time for 13,000 khadi workers in the State

by utilising the savings received from All India Khadi Exhibitions conducted by the Board.

6.49 The Board now supports 345 Khadi production centres and 13 village industries units under various projects. The Board has also financed 2006 co-operative societies, 2150 registered institutions and 15,544 individuals so far. Under the Special Component Plan, the Board received an amount of Rs. 25 lakhs and disbursed the same to 33 societies and 45 individuals so as to benefit 500 families during the period under reference. Out of the total number of 480 units under various schemes sanctioned by the Board during 1998-99, 119 units were for women, two for institutions and 117 are for individuals. Upto November 1999, 165 units were sanctioned (including 17 women units) providing employment opportunities to 1488 persons.

6.50 During 1998-99 products worth Rs. 159.22 crores have been produced by various Khadi & Village Industries Units under the Board. The total number of persons employed in these units were 1,92,998 out of which 49,039 were women. Sales from departmental outlets amounted to Rs. 716.07 lakhs during 1998-99. Industry-wise details on sales, employment etc. are shown in Appendices 6.37 and 6.38.

### *Handicrafts Industry*

6.51 The Kerala State Handicrafts Co-operative Apex Society (SURABHI), Artisans' Development Corporation, Bamboo Corporation and Handicrafts Development Corporation are the various state agencies engaged in the promotion of Handicrafts Industry.

6.52 SURABHI, functioning under the co-operative sector in the state aims at the upliftment of handicrafts artisans by marketing their products and assists in implementing various development schemes in consultation with State and Central Governments. Total paid up share capital of the society as on 31.10.99 amounted to Rs. 175.96 lakhs which includes contribution by Central (Rs. 47 lakhs) and State (Rs. 104.10 lakhs) Governments and primary

societies (Rs. 24.06 lakhs). The Apex Society had purchased handicrafts products worth Rs. 1.49 crores from its 101 primary co-operative societies. A total sales turn over of Rs. 2.17 crores was effected through its 17 sales emporia in 1998-99. Also a new show room was opened at Thiruvananthapuram and set up another at Chennai.

6.53 Kerala Artisans' Development Corporation Limited has been nominated as one of the state channelising agencies for the implementation of schemes announced by the National Backward Classes Finance and Development Corporation (NBCFDC). The main activities of the corporation include assistance to artisans for establishing production units, promoting marketing of products and providing financial assistance for employment abroad. The Corporation is providing financial assistance of Rs. 25,000/- to each artisan at a nominal rate of interest with easy instalments for meeting their initial expenses for going abroad for foreign employment. The corporation sanctioned loan to 30 artisans under this scheme so far. For promoting the sales of products of artisans throughout Kerala, they started marketing centres at Ernakulam and Kollam and its construction at Thiruvananthapuram and Kottayam is nearing completion. The corporation conducted 22 Artisan's Trade Fair in Kerala during the year 1998-99. The total sales turnover of the corporation during the year under report amounted to Rs. 83.41 lakhs as against Rs. 61.74 lakhs during 1997-98, registering an increase by over 35%. The budgetary support availed by the corporation worked out to only Rs. 7 lakhs (grant) during the year 1998-99. The total income of the corporation during the year under report amounted to Rs. 50.97 lakhs, while expenditure for the period worked out to Rs. 66.70 lakhs and the corporation incurred a loss of Rs. 15.73 lakhs during 1998-99.

6.54 The main development objective of the Handicrafts Development Corporation is to increase the export of handicrafts, especially those wood based, on a sustainable basis to generate income and employment for the artisans and also to earn foreign exchange. At

present 550 registered artisans are affiliated to the corporation. The organisation conducted exhibitions at four centres outside the State at Pune, Nasik, Baroda and Vishakapatnam and 22 exhibitions at the different parts of the State itself. The corporation achieved a gross turnover of Rs. 8.69 crores in 1998-99 as against Rs. 8.62 crores in 1997-98. The corporation is having a sales network of 22 show rooms throughout the country. The corporation earned a net profit of Rs. 3.65 lakhs in 1998-99. The Corporation received financial support to the tune of Rs. 47.28 lakhs (Rs. 32.23 lakhs loan and Rs. 15.00 lakhs share capital) for its various activities during the year.

### *Beedi Industry*

6.55 The Kerala Dinesh Beedi Workers central co-operative Society and 22 primary co-operative societies affiliated to it play a dominant role in promoting the industry in the State. The paid up share capital of the Central Society as on 31.3.1999 stood at Rs. 35.75 lakhs, of which Rs. 20.10 lakhs was the contribution of the State Government. The central and its 22 primary societies provided employment to 25020 persons as on 31.3.1999. They produced 484.14 crores of beedi worth Rs. 73.82 crores. While an amount of Rs. 10.35 crores was expended towards wages, salaries and bonus to the workers and staff of the primary and central societies, the sales turnover in 1998-99 amounted to Rs. 78.29 crores and the net profit of the society to Rs. 26.41 lakhs.

6.56 As part of diversification programme, the co-operative societies also started production of coconut milk, various type of pickles, curry powders, re -packing of spices of various kind and marketing of these food items throughout Kerala. The labour force required for these additional activities was selected from among the Beedi workers. As a further step to diversification the Society has set up with technical support from Software Technology Park of India, a computer training centre called "Dinesh Information Technology Systems" (DITS) at Kannur for training the children of society's members.



### ***Sericulture***

6.57 Kerala State Sericulture Co-operative Federation promotes sericulture activities in the State. In Kerala mulberry is cultivated mostly as inter-crop in rainfed conditions. During the Ninth Plan period, thrust has been given for implementing programmes in selected areas which have potential for sericulture development. During 1998-99, a further area of 2,492 acres were brought under mulberry cultivation covering 3,645 farmers. The total area now under mulberry cultivation as on 31.3.1991 is 5,402 acres. High yielding mulberry variety was also introduced for the first time in the State during the year. 96,960 Disease Free Layings (DFL) were supplied to the farmers and produced 33.15 tonnes of cocoons which was 6.48% higher than that in the previous year. District-wise details of mulberry cultivation, number of farmers, DFLs supplied and cocoon production are given in Appendix 6.39.

6.58 An irrigation scheme was introduced and popularised during 1998-99 to improve mulberry productivity. About 220 acres involving 268 farmers were covered under this scheme. Various subsidy schemes were availed of by more than 1000 farmers. Silk weaving was also initiated through the Kairali Harijan Weavers Industrial Co-operative Society. The progress of sericulture development programmes of the State is given in Appendix 6.40.

### **INDUSTRIAL PROMOTION AGENCIES**

6.59 State Government have set up a number of promotional institutions for assisting the industrial units by providing infrastructure, technical training and financial assistance. Major establishments include Kerala State Industrial Development Corporation (KSIDC), Kerala State Financial Corporation (KFC), Kerala State Infrastructure Development Corporation (KINFRA), Kerala State Electronics Technology Parks (TECHNOPARK), Small Industries

Development Corporation (SIDCO), Small Industries Service Institute (SISI), Kerala Industrial and Technical Consultancy Organisation (KITCO) etc.

### ***Kerala State Industrial Development Corporation (KSIDC)***

6.60 The gross financial sanctions (comprising share capital, underwriting and loans) by KSIDC for various industries during 1998-99 amounted to Rs. 111.79 crores and disbursements amounted to Rs. 65.71 crores. The comparable figures for 1997-98 were Rs. 64.70 crores and Rs 36.94 crores respectively. The corporation's total recovery of principal and interest on loans from assisted units amounted to Rs. 49 crores as against Rs. 35 crores of the previous year. The net recovery ratio worked out to 36.11% while loans overdue as on 31.3.1999 stood at Rs. 170.12 crores. The corporation earned a gross income of Rs. 29.25 crores during 1998-99 and its operating profit was Rs. 5.34 crores as compared to gross income of Rs. 18.90 crores and operating profit of Rs. 5.84 crores in the previous year.

6.61 During the year 1998-99, 52 projects costing Rs. 848.52 crores and having direct employment potential of 4,513 were completed and commissioned with the assistance of the corporation. The cumulative number of units promoted/assisted by the corporation since its inception as on 31.3.1999 stood at 476 while the number of units completed was 379. These consisted of 303 new units and 76 expansion/diversification/modernisation/rehabilitation projects of existing units. Out of the 379 completed units 39 were in the joint sector. The corporation took investment decisions for 52 projects worth about Rs. 1,048 crores in 1998-99. The total direct employment potential of the project was estimated at 8088. During the same year Memorandum of Understandings was signed with private business groups for developing and establishing 73 projects worth about Rs. 348.36 crores. As at the end of March 1999, 106 projects with an aggregate cost of about Rs. 1478 crores were under various stages of implementation. When completed and



commissioned, they will provide employment to 10,751 persons. The particulars of physical and financial achievements of KSIDC from 1995-96 to 1998-99 are furnished in Appendix-6.41.

### ***Kerala Financial Corporation (KFC)***

6.62 The Corporation received 2119 applications for Rs. 273.69 crores during the year 1998-99. The total sanctions during 1998-99 amounted to Rs. 209.69 crores to 2043 units. Sanctions during 1997-98 were to 2929 units. So far the corporation has sanctioned Rs. 956.14 crores to 20,571 SSI units and Rs. 807.61 crores to 13,416 non-SSI units. An amount of Rs. 191.13 crores was disbursed to 1914 units during 1998-99 as against Rs. 199.44 crores disbursed to 2712 units in 1997-98. Overdues as on 31.3.1999 amounted to Rs. 300.83 crores. Total recovery during 1998-99 was Rs. 203.29 crores against Rs. 165.56 crores in the previous year. One time settlement facility was extended during the financial year and the total recovery of Rs. 203.29 crores worked out to 41.34% of the collectable demand of Rs. 491.65 crores, which included Rs. 262.82 crores for 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 1998-99 are given in Appendix 6.43. Out of a total of Rs. 191.13 crores disbursed to 1,914 units during 1998-99, an amount of Rs. 78.26 crores (41%) was disbursed to 969 units in backward areas.

6.63 Industry-wise classification of Sanctions during the year (see Appendix-6.44) shows that manufacturing sector such as rubber, mining, leather, food products (24%), hotels, hospitals etc. (5.23%), transport and others (16.65%) were the major beneficiaries. The corporation continued to support the tiny and small scale units. The total income of the corporation was Rs. 105.10 crores and it earned a net profit of Rs. 2.43 crores during 1998-99 as against Rs. 2.25 crores during the previous year.

6.64 The Government holds 85.64% of the paid up share capital of the corporation. The corporation has 15 district level offices and 34 schemes in operation catering to different types

of entrepreneurs for meeting their varied credit needs. The financial support from the Government of Kerala to K.F.C's share capital for the year 1998-99 amounted to Rs. 13 crores. Progress of the working of Kerala Financial Corporation for the period, 1994-99, is reported in Appendix 6.45.

### ***Kerala Industrial Infrastructure Development Corporation (KINFRA)***

6.65 Kerala Industrial Infrastructure Development Corporation (KINFRA) was formed in 1993, with the objective of developing industrial infrastructure specifically Industrial Parks/ Townships/Zones etc. The cumulative investment made as on 31.3.1999 by State Government on KINFRA amounts to Rs. 110.81 crores (Rs. 97.38 crores as loans and Rs. 13.43 crores as grant). The amount received as grant from Govt. of India as on 1.3.'99 was Rs. 13.43 crores. The industry specific parks established by KINFRA provide ready-made manufacturing environment. The main objective is to enable easy start up of industrial units with minimum time and at reasonable cost. Eleven projects of KINFRA are under various stages of implementation. Following are the four projects completed by KINFRA.

#### ***(i) KINFRA Export Promotion Industrial Park (KEPIP) (Kakkanad, Ernakulam)***

6.66 The total cost of this park is estimated at Rs. 49.48 crores. Land development and construction works of the project have been completed except the work of drawing 110 KV powerline which is in progress. The construction of IT building is nearing completion. Six companies have been allotted land/building in this park. M/s Kerala Chemicals Proteins Ltd., one of the six, has already started production in their gelatin plant in the park employing 100 persons.

**(ii) KINFRA International Apparel Park (KIAP) Thumba, Thiruvananthapuram**

6.67 KIAP caters mainly to textile and manufacturing units and the total estimated cost of the project works out to Rs. 15.72 crores. The park as industries specific infrastructure facilities like treated water, bonded warehouse, training centre etc. All the development activities envisaged in the park have been completed and plots have already been allotted to five organisations. One company, Star Clothing private ltd. Bangalore has taken possession of land. An investment of Rs. 2500 lakhs is expected over a period of four years, generating employment to 4500 persons.

**(iii) KINFRA Techno Industrial Park – (K-TIP) Kakkancherry, Malappuram.**

6.68 The project with an estimated cost of Rs. 19.50 crores caters to fruits & vegetable processing industries, milk products, poultry and meat products, grain processing etc. The various development activities have been completed. Ten entrepreneurs have taken possession of land. The projected investment over a period of four years is Rs. 6700 lakhs, generating employment of 2500 persons.

**Integrated Infrastructure Development Centre (IIDC), Thiruvananthapuram**

6.69 The Centre caters exclusively to small scale industries in sectors like general engineering, garments, software, food and beverages etc. The estimated cost is Rs. 6.12 crores. All the development works have been completed and the land allotments are in the final stage.

**Electronics Technology Parks, Kerala (TECHNOPARK)**

6.70 Technopark at Thiruvananthapuram was established in 1990. The present campus covers an area of 142.42 acres. For further expansion another 56.08 acres have been acquired. The park has by now, built up space of 4,88,500 sq.ft. State Government have invested an

amount of Rs. 75.05 crores (Rs. 72.95 crores grant and Rs. 2.10 crores loan). As on 31.3.99, the total number of companies which have been allotted space and started work is 33. This includes Tata Consultancy Services. At present there are 41 units set up in the campus and a total of 4796 persons (2596 females and 2100 males) including trainees in the Tata Consultancy Services are working. An amount of Rs. 98.83 lakhs was collected during 1998-99 by way of rent and other charges. Exports from the park grew to Rs. 55 crores during 1998-99 from Rs. 29 crores in the previous year.

**Kerala Small Industries Development Corporation Ltd (SIDCO)**

6.71 SIDCO is a promotional agency, wholly owned by the State Government with a total investment of Rs. 19.33 crores. The activities of the corporation include raw materials distribution, the maintenance of 17 conventional industrial estates and 36 mini industrial estates and performance of civil works for Industries Department and some other governmental agencies. A total quantity of 5,889 MT of major raw materials were distributed to 2,400 SSI units during the year under report and the turnover accrued from Raw Material Division during 1998-99 amounted to Rs. 18.22 crores.

6.72 The Marketing Division of SIDCO benefited about 127 SSI units resulting in generation of Rs. 11 crores and service income of Rs. 83 lakhs during the year under report. SIDCO is appointed as the sole channelising agency for 22 products manufactured by SSI units. Also, in association with the Kerala State Women Development Corporation, Kudumbasree Project and Community Development Societies, assistance is extended by SIDCO to SSI units run especially by women. Under the Factoring Service Scheme, the Corporation will pay maximum 75% of the total bill amount to the supplier SSI units and the buyer, Government Department/Agency, is liable to pay the bill amount to SIDCO within 90 days. Further, SIDCO is the nodal agency for the implementation of industrial park, in each Assembly constituency and the Corporation proposes to set up nine such parks in various constituencies. All the eleven

commissioned, they will provide employment to 10,751 persons. The particulars of physical and financial achievements of KSIDC from 1995-96 to 1998-99 are furnished in Appendix-6.41.

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production units working under the Corporation has generated a total turn over of Rs. 525 lakhs during the year 1998-99. The collection under Margin Money Loan/Rehabilitation loan upto 31-8-99 is Rs. 1.79 crores against the collectable demand of Rs. 2.07 crores from 220 units. Civil works worth Rs. 265 lakhs were undertaken by the Corporation during the year 1998-99. SIDCO is also conducting training (PMRY) courses for the beneficiaries selected by the District Industries Centres in Thiruvananthapuram, Ernakulam, Kottayam, Alappuzha and Kozhikode districts. Income of the corporation include income from sale of raw materials to SSI units, service charge on sale of products manufactured by SSI units, collection of rent, water charges, electricity bill, other income (auction sale of trees, usufructs, unserviceable items) etc. from industrial estates and centage during the year 1998-99. Gross income of the corporation during the year under report amounted to Rs. 26.76 crores while the loss incurred during 1998-99 worked out to Rs. 1.11 crores. Performance details of the production units of SIDCO during the year 1998-99 are furnished in Appendix 6.46.

#### ***Small Industries Service Institute (SISI)***

6.73 Small Industries Service Institute (SISI) is a field level agency of Small Industries Development Organisation (SIDO) functioning under Government of India. A Nucleus Cell under the administrative control of SISI, Thrissur is functioning at Amini Island of Lakshadweep to cater to the needs of SSI entrepreneurs in the Island. SISI offers a wide variety of consultancy services as well as training programmes for the promotion and development of small scale industries. The major services rendered by it includes project assistance, modernisation and technology upgradation, ancillary development programme, training/skill development programmes, quality awareness/upgradation programmes, managerial/export assistance, economic research information services and studies on energy conservation and pollution control and motivation programmes. SISI services are mainly focussed to help the existing entrepreneurs who start new own venture.

During the year 1998-99, SISI received a total allocation of Rs. 17.65 lakhs towards plan schemes and expended Rs. 10.74 lakhs as on 30.11.99. The achievements of SISI for the year 1998-99 are furnished in Appendix 6.47.

#### ***Kerala Industrial and Technical Consultancy Organisation (KITCO)***

6.74 During the year under review, KITCO undertook a variety of assignments, such as preparation of Detailed Project Reports, Asset Valuation Reports, Special Studies, Engineering Works, Turnkey Assignments, Energy Audit and Training Programmes. There was a small shift from the conventional areas of its activities like preparation of project reports to engineering consultancy, particularly in infrastructure development. The Cochin International Airport was the one projects that had given KITCO a boost to its reputation and expertise. Another noticeable project completed was the Rs. 36 crore cattle feed project for Kerala Feeds Limited. The capital structure of KITCO consists of equity share to the tune of Rs. 19.69 lakhs, and reserves and surpluses of Rs. 7.58 lakhs.

6.75 Of the total equity share of Rs. 19.69 lakhs, 49.77% is held by IDBI, 20.26% by Industrial Finance Corporation of India, 5.7% by ICICI, 4% by KSIDC, 3% by Government of Kerala, 1.47% by KFC and the balance of 15.71% by Nationalised Banks. KITCO achieved a turnover of Rs. 2.27 crores in 1998-99 as against Rs. 2.02 crores in previous year. The net profit increased to Rs. 8.25 lakhs in 1998-99 from Rs. 5.54 lakhs in previous year.

#### ***Small Industries Development Bank of India (SIDBI)***

6.76 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 5 Regional Offices and 33 Branch Offices in all the states. The Kerala unit of SIDBI is established at Ernakulam. The 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 India 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. 2,092 crores

which forms 4.63% of sanction to all India. The amount disbursed increased from Rs. 91 crores in 1990-91 to Rs. 1,635 crores in 1998-99 which worked out to 4.96% of disbursement at all India level. Details of sanction and disbursement are furnished in Appendix 6.47.

### ***Industrialisation under People's Plan***

6.77 With the advent of decentralised planning, local self governments act as a facilitator for industrial development at local levels. Local bodies in the State put together earmarked an allocation of Rs. 71.68 crores from Grant-in-aid in 1998-99 for various industrial activities. Distribution of outlay to various categories of industries is given in table 6.4.

Table - 6.4

## NATURE OF INDUSTRY AND OUTLAY PROVIDED BY LOCAL BODIES-1998-99

(Rs.in lakhs)

Code. No.	Nature of Schemes	Grama Panchayat			Block Panchayat			District			Municipality			Corporation			Total		
		No. of Projects	Grant - In-aid	Total Outlay	No. of Projects	Grant - In-aid	Total Outlay	No. of Projects	Grant - In-aid	Total Outlay	No. of Projects	Grant - In-aid	Total Outlay	No. of Projects	Grant - In-aid	Total Outlay	No. of Projects	Grant - In-aid	Total Outlay
3.1.1	Food Processing	332	167.72	341.60	87	43.56	200.46	15	34.63	43.25	20	12.63	29.99	4	9.39	12.67	458	267.92	627.97
3.1.2	Ready made garment / sewing	594	511.58	862.08	107	60.96	148.68	18	51.67	52.17	26	39.15	90.03	4	29.20	161.26	749	692.55	1314.22
3.1.3	Mini Industrial estates	139	420.47	464.22	63	253.28	390.56	12	72.45	110.35	41	334.54	516.21	4	92.99	101.30	259	1173.73	1582.64
3.1.4	Entrepreneurial development training	208	139.05	185.60	121	116.65	527.21	27	73.12	78.15	51	61.81	80.58	9	154.90	209.35	416	545.53	1080.88
3.1.5	Industrial cluster	105	289.98	340.08	35	142.59	162.29	16	172.27	552.79	10	55.69	56.76	0	0.00	0.00	166	660.53	1111.90
3.1.6	Construction materials	164	110.67	163.14	54	28.45	88.47	3	10.50	13.50	5	7.37	16.35	0	0.00	0.00	226	157.00	281.46
3.1.7	Furniture industry	22	16.47	33.11	19	6.15	39.65	1	1.12	1.13	2	0.38	6.30	1	2.00	4.20	45	28.11	84.39
3.1.8	Other small scale industries	584	434.68	846.88	503	318.38	2554.27	33	127.53	192.45	62	98.60	220.62	9	100.47	119.73	1191	1079.65	3933.94
3.2.1	Handicrafts	345	168.25	241.61	50	42.31	53.47	11	23.40	27.24	23	13.69	29.78	2	10.20	18.54	431	257.85	368.64
3.3.1	Handloom	96	100.40	197.70	34	49.59	110.28	3	44.50	48.30	6	10.16	62.79	1	10.00	10.60	140	214.66	429.67
3.4.1	Coir	135	145.05	265.39	46	43.72	124.64	8	75.20	167.66	13	18.15	146.78	0	0.00	0.00	202	280.12	704.68
3.5.1	Khadi	114	66.94	123.99	16	25.00	29.51	18	62.83	96.18	5	2.54	4.78	0	0.00	0.00	153	157.32	254.46
3.6.1	Sericulture	7	1.42	2.62	1	2.10	2.14	2	6.70	6.70	0	0.00	0.00	0	0.00	0.00	10	10.22	11.46
3.7.1	Other industries	145	136.02	206.34	69	58.78	510.38	33	181.62	207.52	27	194.92	398.08	5	174.36	184.95	279	745.70	1507.27
3.8.1	Co-operative societies in industrial service	248	318.02	523.90	111	147.52	301.56	109	317.08	409.03	43	73.33	132.17	3	42.96	76.09	514	898.91	1442.76
	<b>Total</b>	3238	3026.72	4798.25	1316	1339.04	5243.76	309	1254.62	2006.41	334	920.95	1791.23	42	626.46	896.69	5239	7167.79	14736.33

## MINING

6.78 Mainly the two agencies, Viz. Department of Mining Geology and the Kerala State Mineral Development Corporation Ltd. (KEMDEL) are undertaking the development and exploration of mineral resources in Kerala. Department of Mining and Geology has two divisions exploratory and prospecting division and Mineral Development and Mining Leases Division. The former division deals with exploration of minerals and latter is concerned with regulation of mining and movement of minerals. Major activities undertaken by the department during 1998-99 included investigation for china clay, lignite, limeshell, limestone, tile and brick clay. Based on the investigations conducted at Veiloor Village, Trivandrum, the department could identify a thickness of white clay ranging from 12 M to 30 M. Besides this, the exploratory drilling programme in Kayyur-Klayikode area (Kasargod) was undertaken and 13 baseholes were completed for lignite/carbonaceous clays. Investigations for limeshell in Vaikom Kayal (Vembanad) were also undertaken. Deposit having thickness ranging from 0.30 M to 1.20 M was found. A reconnaissance survey was conducted at Walayar, which revealed the presence of limestone bands in 4 localities. A preliminary survey could locate an area of 75 sq.km. In Thrissur district, having potential for tile and brick clays.

6.79 During 1998-99, the department could collect revenue of Rs. 1162 lakhs (major minerals worth of Rs. 424 lakhs and minor minerals worth of Rs. 638 lakhs). The total area covered by mining lease (major minerals) is 7442 hectares. The department has granted 105 mining leases, 372 quarrying leases and 3,940 quarrying permits. The total area (item-wise) covered by mining leases during 1998-99 by the Department is shown in table 6.4 The production and sales of major minerals other than mineral sand, and also of mineral sand are given in Appendices 6.49 and 6.50.

**Table 6.4**

**Total Area Covered by Mining Leases**

Minerals	Area (in Hactors)
Clay	91.39
Silica sand	36.63*
Bauxite	1.37
Graphite	0.59
Lime Shell	1780.14
Lime Stone	247.5
Mineral Sand	219.84
Quartz	6.01

## INFORMATION TECHNOLOGY

6.80 Information Technology (IT) Industry is one of the fastest growing industry segments in the country. The share of the Indian Software Export Industry in the world market is less than 1%. Non-availability of adequate infrastructure is one of the prime reasons for such a low share in the world market. Consequent on the introduction of the scheme "Software Technology Park" in the sphere of Indian Software Industry by Govt. of India, it has grown ten fold since 1991 and Government of India has drawn up an ambitious programme to make "India a Software Super Power" by 2010. The Department of Electronics has formulated a vision document 'Software Industry Vision 2010' to achieve this goal. Measures are in vogue for sustaining the existing growth and to expand this industry to more centres resulting in the spread of technology, better communications, education and basic infrastructure. One of the critical requirements to attract this industry is to make the High-Speed Datacom (Soft Net) services (Internet Services & International High Speed Links) available at these locations.

6.81 In tune with the national policy, the Govt. of Kerala also announced an IT Policy in 1998 and a separate Govt. Department was formed for effective co-ordination and implementation of the same. As part of this, the Advisory Council on Information Technology constituted by the government of Kerala had suggested a 15 point agenda for the transformation of Kerala into an intelligent State. The IT Department and the Administrative Reforms Committee convened a



series of departmental workshops and detailed interaction with service organisations. The major concerns that emerged out of these interactions were the need for administrative reforms before the introduction of IT, the future scope of data warehousing and consequent content generation within Government. Wide-ranging consultations have been initiated with different segments of the industry especially the small hardware manufacturers, software entrepreneurs and the training institutions across the districts. These interactions helped for an effective and coordinated approach to sustained development of IT. Further as part of peoples' campaign for decentralised governance, five District Panchayats have started mini STPs at the district level. An autonomous body would be promoted at the district level with the support of Government, which could provide the leadership and initiative in networking the local efforts and institutions.

6.82 Government had constituted a High Power Committee chaired by the Chief Minister and comprising representatives of key departments and agencies of Govt. A Mission Group under IT to co-ordinate and implement the IT strategies of the Government has also been positioned. The Mission Group and IT Department will play the key role of a facilitating and co-ordinating agency. The steps taken so far have been based on the recommendations of the Task Force on IT in Govt. It had recommended computerisation of 31 departments that have substantive public interface. The Govt. had also appointed a committee for studying the hardware and software procurement policies to be followed in other parts of the country.

6.83 A project for networking the local bodies in the State is under implementation. The first phase of the project for networking all the sub treasuries in the State has been completed with five sub treasuries and the extension counters in Thiruvananthapuram district being linked online. The project for linking the sub offices, check posts and other main modes of

commercial taxes department has also been completed. Co-operative banking net work interlinking State Co-operative Bank, 14 District Co-operative Banks and Primary Agricultural Co-operative Societies is also being implemented in phases. The Secretariat Wide Area Network linking the offices of all the ministers, secretaries and individual sections and office complexes are also being put in place. A common Web Portal for the Government Kerala has been launched which functions as a single point linkage to various Government Departments and other agencies. The most ambitious project implemented is the dissemination of IT at the very grass roots level. Further a project for computerisation of local bodies seeks to use IT as a tool for transparency and effective governance at the lowest tiers of administration. A programme for introducing computer based information system for the State Legislature is also being implemented. A plan to introduce computers in Government schools and colleges has also been prepared involving private training institutions. Further an MOU has been signed with World Tel, to set up a state-wise Internet Project in Kerala.

6.84 Under the Ministry of IT, Government of India, an autonomous body namely Software Technology Parks of India was set up to promote Software Development and Exports from the country. Software Technology Parks of India, Thiruvananthapuram was established in 1992 with 10,000 Sq.ft of space for allotment to entrepreneurs. Eighty-two companies have so far registered with it, of which 37 companies are exporting software items. Total exports valued at Rs.53.7 crores was registered in the year 1998-99 which indicated an increase by 77% over that of the previous year. The STPI, Thiruvananthapuram has conducted a total of six Seminars/Industry meets at various places within Kerala during the year under report. STPI centres at Kochi, Kozhikode, Palakkad, Thrissur, Kottayam, Kollam and Thiruvalla are proposed to be set up by local bodies in association with STPI, Thiruvananthapuram.

## CHAPTER 7

### TRANSPORT AND COMMUNICATIONS

**T**ransport and communications constitute major infrastructures on which the development of the economy critically rests. The major indicators which reveal the development of Transport and Communication sectors since 1975 are given in appendix 7.1.

#### ROADS

7.2 The road net work of Kerala extended over 1,10,480 Kms as on 31.3.1999. It accounts for 3.68% of total road length in the country. Agencies maintaining roads in the State include state PWD, Panchayats, Corporations, Municipalities, Irrigation Department, National Highway etc.

7.3 Out of the total road length, 77,356 kms. were maintained by Panchayats (70%), followed by State PWD with 21,938 Kms.(19.8%), Municipalities and Corporations with 7,410 Kms (6.7%) and Irrigation Department with 2,426 Kms (2.2%). National Highways cover 1350 Kms.(1.2%). Out of the total road length of 77.356 kms under panchayats 46,956 kms(61%) were gravelled and earthen roads while 30,399 kms. (39%) were black topped/cement concreted. District-wise and

category -wise length of roads maintained by PWD (R&B) as on 1.4.99 is shown in appendix 7.2. Details on district-wise, surface-wise and category-wise length of roads maintained by PWD are shown in appendix 7.3. Out of the total road length of 21,938 kms of PWD roads, 90% ie.19,822 kms were black topped roads. Details are shown in appendix 7.4.

7.4 An analysis of district-wise data in respect of the roads maintained by state PWD during 98-99 reveals that Ernakulam district ranks top with a total road length of 2,179 kms followed by Kottayam with 2,110 kms. Wayanad district is having the lowest PWD road length of 575 kms.(See appendix 7.5).

7.5 There were 1,935 bridges and 48,425 culverts on the PWD roads as on 31/3/99. Out of these, 38 bridges and 1,434 culverts are categorised as unsafe. Details of bridges and culverts on different category of roads are given in appendix 7.6.

7.6 National Highways in the State constitute only 2.6% of total of 52,010 kms. of National Highways in the country. 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	416.8 kms.
2	NH 17 - Thalappadi-Edappally	420.8 kms
3	NH 49 - Bodimettu-Kundannoor (Cochin - Madura)	167.6 kms
4	NH 47 A - Kundannoor- Willington Island	5.90 kms
5	NH 208 - Kollani-Aryankavu	81.00 kms
6	NH 212 - Kozhikkodc-Muthanga	117.00 kms
7	NH 213 - Palakkad-Kozhikodc	141.00 kms
	<b>Total Length</b>	<b>1350.1 kms</b>

## DETAILS OF TRANSPORT SECTOR DEVELOPMENT UNDER PEOPLES PLAN

amount of Rs.13558.85 lakhs was set apart by local bodies for the road development works and Rs. 557.06 lakhs for other transport related activities in 1998-99.

7.7 Details of the development works in the Transport sector undertaken by local self governments are shown in table 7.2. An

**Table 7.2**  
**Nature of Road Development works and Outlay set apart by local bodies during the year 1998-99.**

Code No.	Nature of Schemes	Grama Panchayat			Block Panchayat			District			Municipality			Corporation			Total		
		No. of Projects	Grant - In-aid	Total Outlay	No. of Projects	Grant - In-aid	Total Outlay	No. of Projects	Grant - In-aid	Total Outlay	No. of Projects	Grant - In-aid	Total Outlay	No. of Projects	Grant - In-aid	Total Outlay	No. of Projects	Grant - In-aid	Total Outlay
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
11 1 1	Construction of new roads	2122	1050.61	1930.19	415	434.78	1722.22	203	673.62	787.22	222	151.81	603.63	51	79.98	233.09	3013	2390.79	5276.35
11 1 2	Road maintenance	4473	1816.41	3945.11	254	212.07	674.81	104	128.10	293.88	382	273.32	940.38	95	67.75	248.99	5308	2497.65	6103.17
11 1 3	Road improvement	9011	4701.58	9735.79	1279	1231.32	4534.77	456	1078.03	1265.68	645	461.43	1018.51	256	235.35	795.52	11647	7707.71	17350.28
11 1 4	Construction of new bridges	730	291.04	767.95	111	129.45	259.52	55	186.06	273.15	14	20.51	64.12	7	1.50	72.58	917	628.55	1437.32
11 1 5	Bridge maintenance/improvements	59	21.32	42.02	9	6.93	10.17		0.00	0.00	3	1.35	29.30	1	1.63	2.04	72	31.24	83.54
11 1 6	Construction of new culverts	642	210.50	424.98	108	24.56	151.91	23	30.74	42.51	30	11.01	21.32	3	0.00	4.62	806	276.80	645.33
11 1 7	Culvert maintenance/improvements	65	18.34	32.98	3	0.86	0.87	1	2.50	2.50	3	2.60	2.75	6	1.81	37.62	78	26.11	76.72
11 1 8	Transport related facilities	1525	319.94	688.84	106	44.49	153.92	13	38.56	40.99	68	60.33	135.47	90	93.74	286.33	1802	557.06	1305.55
	Total	18627	8429.74	17567.87	2285	2084.46	7508.20	855	2137.61	2705.93	1367	982.34	2815.47	509	481.75	1680.79	23643	14115.91	32278.25

(Rs in lakhs)

## ROAD TRANSPORT

7.8 Motor vehicles Department, Kerala State Road Transport Corporation (KSRTC) and Kerala Transport Development Finance Corporation (KTDFC) are the Government agencies engaged in road transport development activities in the State.

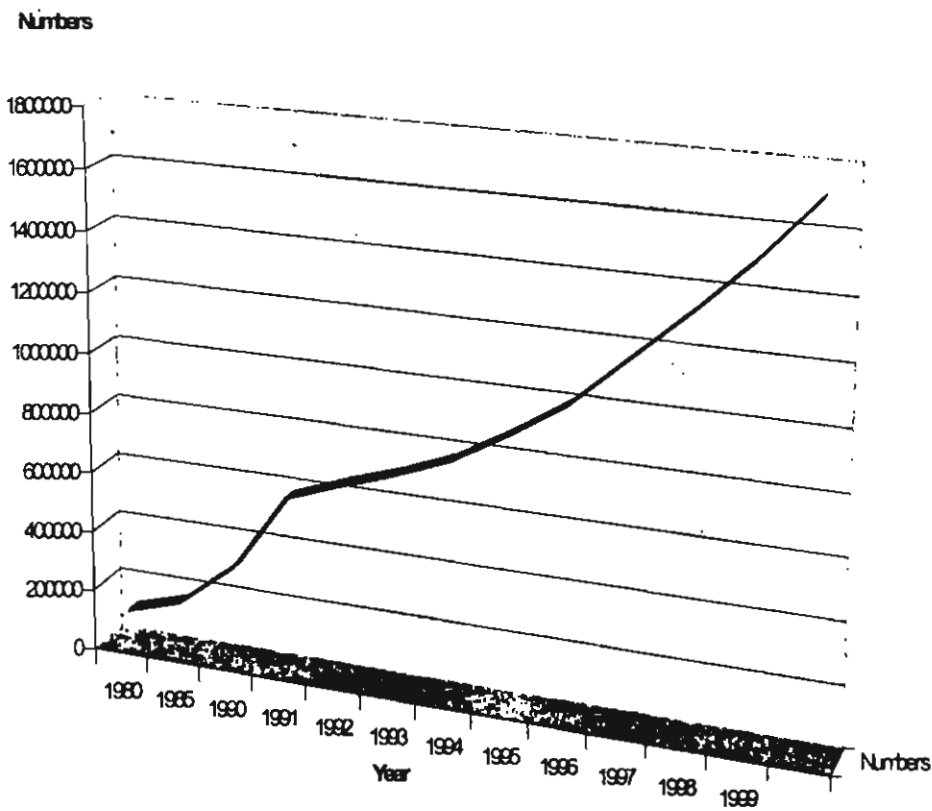
### *Motor Vehicles Department*

7.9 Motor vehicles Department is one of the major revenue earning Departments of the state. The main activities of the Department are registration of Motor

vehicles, collection of tax on motor vehicles, issuing permits and licenses for plying vehicles on road etc.

7.10 Total number of vehicles registered in the State as on 31<sup>st</sup> March 1999 stood at 17.09 lakhs as against 15.08 lakhs as on 31<sup>st</sup> March 1998 recording an increase of 13%. Out of the total vehicle population of 17.09 lakhs, 9.05 lakhs are two wheelers, 2.29 lakhs are cars and the remaining vehicles are goods vehicles, buses, three wheelers etc (See appendix 7.7). The growth of motor vehicles in Kerala since 1975 is shown in fig.7.1.

**Growth of Motor Vehicles in Kerala since 1975**  
**Fig.7.1**



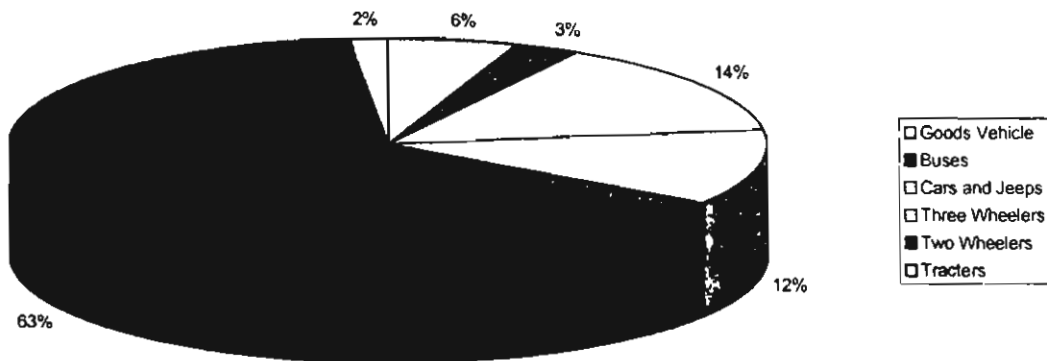
7.11 During the year 1998-99, 167491 vehicles were newly registered under

different categories as shown in appendix 7.8. The type of vehicles registered during

the year is given in fig.7.2 .Details showing the number of motor vehicles having valid registration as on 31/3/99 is given in appendix 7.9.On an analysis of the district - wise growth of motor vehicles it is noted that highest motor vehicle population was

recorded at Ernakulam district (2,97,682) followed by Thiruvananthapuram (2,41,932) and the least at Wayanad(22,243). Details on the district wise growth of motor vehicles are given in appendix7.10.

**Type of Vehicles registered during the year 1998-99.**  
Fig.7.2

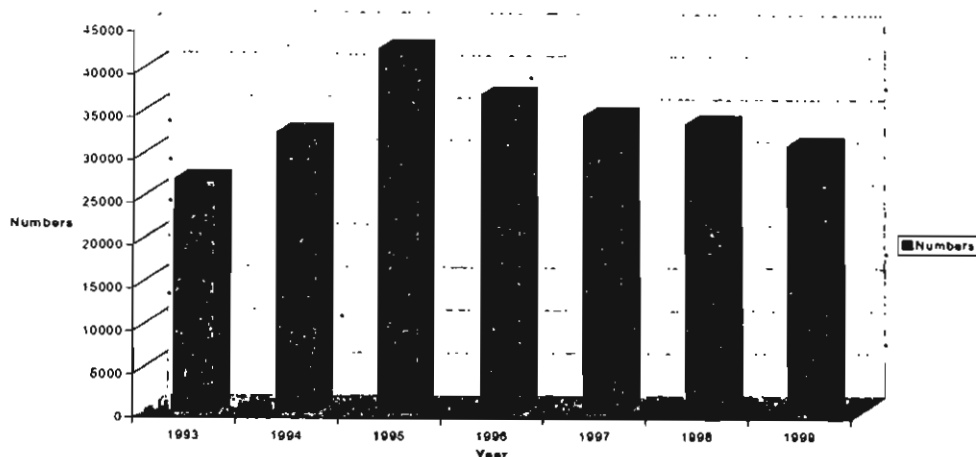


### **Road Accidents**

7.12 33,296 road accidents were reported in the State during 1998-99 as against 33,820 accidents in the previous year, registering a decrease of 1.5%. There is an increase in the number of accidents in the southern districts upto Thrissur except Kollam. In the northern districts, there was substantial decrease ( See Appendix 7.11). The number of road accidents in the State since 1993 is given in Fig.7.3. 98% road accidents were due to the fault of drivers.

Details of road accidents in various districts are given in Appendix 7.12. Among the vehicles involved in accidents, two wheelers accounted for 24.26%, followed by autorikshaws and buses by contributing 18.39% and 18.11% respectively. The statistics pertaining to the vehicles by type are detailed in Appendix7.13. About 72% of accidents happened during day time, 26% happened in darkness and the time is not known in respect of the remaining. These details are given in Appendix 7.14.

Fig 7.3  
Number of road accident since 1993



### ***Kerala State Road Transport Corporation (KSRTC)***

7.13 KSRTC is the largest Public sector undertaking which carries out transport operations in the state. There were 22,809 buses in the State as on 1.4.1999 which were used for passenger services. Out of this 3,928 buses (17.2%) were owned by KSRTC. Performance indicators of KSRTC, such as number of fleet strength, number of schedules operated, earnings per vehicle per day, earnings of buses per km, average earnings per passenger, average route length, average kms run per bus per day, number of buses held daily and number of passengers carried, show positive sign during the year 1998-99. The details are shown in Appendix 7.15. The Corporation started subdepots at Kaniyapuram, Edathua, Thottilpalam, Erumeli and Mallappally. A total of 291 chasis were taken delivery and 350 new buses were commissioned for service during the year. The corporation continued to meet its social commitment by operating in uneconomic routes as well as giving concessions to students and weaker sections of the society.

7.14 Unit-wise details of operational statistics are given in Appendix 7.16. When compared to the fare structure of other State Road Transport Corporations/agencies, fare structure of KSRTC is competitive. The fare structure of KSRTC is given in Appendix 7.17. Operational ratios of the Corporation are given in Appendix 7.18.

7.15 Among the total number of buses, more than 50% are above five years old. But in the previous year, this was only 47%. Age-wise details of buses owned by the Corporation are given in Appendix 7.19. During the reporting year the Corporation reduced its staff strength considerably. The details in Appendix 7.20 reveal this fact. This resulted in reduction of bus-staff ratio compared to that of previous year.

### ***Kerala Transport Development Finance Corporation (KTDFC)***

7.16 KTDFC is a non banking financial institution registered with Reserve Bank of India. The authorised capital of the company is Rs.50 crores and the paid up

capital Rs.40.83 crores. The company mobilises deposits from the public. The deposits outstanding with the company as on 30.11.1999 is Rs.12.49 crores. The corporation has been running on profit since its inception. The net profit during 1997-98 is Rs. 211.42 lakhs and that during 1998-99 is anticipated to be Rs.160 lakhs. Cumulative profit generated is Rs.627.63 lakhs since its inception.

7.17 During the year 1999-2000 between April and November the Corporation granted loan to KSRTC and individuals separately to the tune of Rs.840.44 lakhs and Rs.235.28 lakhs respectively. It could also mobilise Rs.759.93 lakhs as fixed deposits during the same period.

## **RAILWAYS**

7.18 Total railway route length of Kerala for 98-99 stood at 1198 km, while that in the country 62,809 km. Railway operations in the state are controlled by Thiruvananthapuram, Palakkad and Madurai divisions of Southern Railway. As regards Trivandrum Division, total revenue receipts from passengers in 1998-99 amounted to Rs.15,875 lakhs as against Rs.14,834 lakhs in the previous year. Receipts from goods traffic rose to Rs.18640 lakhs in 1998-99 as compared Rs.17,421 lakhs in the previous year. But total number of passengers declined to 980 lakhs in 1998-99, from 1,023 lakhs in 1997-98.

## **PORTS**

7.19 Kochi is the only major port in Kerala among the eleven ports all over the country. State Government has control over 3 intermediate ports and 13 minor ports.

### **Major Port**

7.20 Kochi Port handled 126.81 lakhs tonnes of traffic during 1998-99 as against 123.24 lakhs tonnes in 1997-98 registering

an increase of 2.9%. The total traffic handled by all the Ports in the country stood at 2,517 lakh tonnes. As regards containers handled, there was an increase to 1,28,912 TEUS in 1998-99 from 1,21,649 TEUS in the preceding year, recording an increase of 6%. During 1998-99, 1113 vessels called at the port as against 1006 vessels in the previous year, registering 10.6% increase. Details of ships called at Cochin Port during 1997-98 and 1998-99 and their Net Registered Tonnage (NRT) are given in Appendix 7.21.

7.21 The operating income of the port during 1998-99 was Rs.162.90 crores as against Rs.15,5.45 crores during 1997-98. The port generated an operating surplus of Rs.33.41 crores as against Rs.44.19 crores in the previous year. The net surplus also declined by 30.7%, from Rs.45.07 crores in 1997-98 to Rs.31.25 crores in 1998-99.

7.22 Regarding operational efficiency the average turn round time of ships recorded a decrease to 3.4 days from 3.9 days and average pre-berthing waiting time to 0.8 day in 1998-99 from 1 day in 1997-98.

### ***Intermediate and Minor Ports***

7.23 The three intermediate ports are at Neendakara, Alappuzha and Kozhikode (including Beypore) and Minor Ports include Kovalam – Vizhinjam, Valiathura, Thankasserri, Kayamkulam, Munambam / Kodungallur, Ponnani, Vadakara, Thalasserri, Kannur, Azhikkal, Neeleswaram, Kasaragod and Manjeswaram. Among these ports, shipping operations are being undertaken at Vizhinjam, Neendakara, Beypore and Azhikkal only. BOT agreements on private participation has been made for the development of Vizhinjam, Beypore and Munambam ports. Memorandum of Understanding were signed for the development of Azheekal and Thangassery ports with private entrepreneurs/companies. Details of commodity – wise cargo handled at the intermediate and minor ports during

98-99 are given in appendix 7.22. During 1998-99, 333 vessels including 312 coastal ships called at these ports against 344 in the last year. Details are given in Appendix 7.23. Altogether a total of 1483 harbour crafts were registered during 1998-99 in the state against 1522 in the previous year. Details are shown in appendix 7.24. Details of revenue collection from different sources are given in Appendix 7.25.

## **INLAND WATER TRANSPORT**

7.24 The increase in volume of traffic through the roadways and the resulting congestion makes the development of inland waterways more and more essential. The agencies engaged in the development of inland water ways in the State includes the following Government departments / organisations

- (1) Coastal Shipping and Navigation Department
- (2) State Water Transport Department
- (3) Kerala Shipping and Inland Navigation Corporation, Kochi which is under the administrative control of Coastal Shipping and Inland Navigation Department.

7.25 The Coastal Shipping and Inland Navigation Department orient its activities mainly towards the development of inland water canals and infrastructure facilities. State Water Transport Department and Kerala Shipping and Inland Navigation Corporation provides transport services to the public in the waterlogged areas of Alappuzha, Kollam, Kottayam, Kasargode and Kannur Districts.

### ***State Water Transport Department***

7.26 State Water Transport Department renders water transport services in the water logged areas of the State. There has been an increase in number of boats from 78 in 1997-98 to 81 in 1998-99 and the number of boats put into operation increased from 55 in 1997-98 to 59 in 1998-99. Number of trips operated and gross route distance operated are

399 and 1,549.86 Km in 1998-99 in place of 401 and 1,475.60 Km in 1997-98.

7.27 During the year under review, number of passengers carried increased to 240.79 lakhs as against 220.95 lakhs passengers in the previous year. Revenue receipts of the department recorded a marginal increase from 339.68 lakhs in 1997-98 to Rs.408.8 lakhs in 1998-99. There was an increase in revenue expenditure of the department from Rs.864.30 lakhs in 1997-98 to Rs.927.10 lakhs in 1998-99. The department could reduce its loss to Rs.518.30 lakhs in the year under review as against a loss of Rs.524.62 lakhs in the previous year.

7.28 During the period under review, the performance indicators like passengers carried, route distance operated, revenue receipts could show a positive trend, but there was an increase in the revenue expenditure.

### ***Kerala Shipping and Inland Navigation Corporation***

7.29 The Corporation offers its services in transportation of cargo and passengers through inland water ways of Kerala and is making operational profits for the last 7 years. The present fleet strength of the corporation consists of 4 bulk cargo carriers, 3 petroleum tankers, 2 phosphoric acid barges, 2 portable water barges, 12 passenger boats, 2 Jhankars and 1 speed launch. The company achieved an all time record in the movement of cargo by transporting 6.014 lakhs MTS in 1998-99 from 4.93 lakhs MTS in 1997-98. With two barges, the Corporation is transporting drinking water to the island of Vypeen and Murukkumpadam. Number of trips on schedule increased to 43617 in 1998-99 from 34967 in 1997-98. Gross distance operated declined to 479800 Km in 1998-99 from 525717 Kms. in 1997-98. Number of passengers carried was reduced to 55.78 lakhs during the year under review as against 99.85 lakhs in the previous year. During the year under review the Corporation achieved a net profit of Rs.87.39 lakhs as against a profit of Rs.10.36 lakhs during the previous year.



Expenditure of the Corporation stood at Rs.569.23 lakhs in 1998-99 as against an expenditure of Rs.441.28 lakhs in 1997-98.

7.30 During the period under review, the Corporation completed the construction of 3 Nos. of 50 passenger capacity boats and 4 Nos. of 150 passenger capacity boats. Out of this, three 50 PC boats and two 150 PC boats were delivered to State Water Transport Department and two 150 PC boats were put into service by the Corporation itself.

### **AIR TRANSPORT**

7.31 There are three airports operating in the state, at Thiruvananthapuram, Kochi and Kozhikode. Preliminary activities including land acquisition has been commenced for establishment of an Airport at Kannur. Out of this the Airport at Kochi (Nedumbassery) having international standards started operations from June 1999. A total number of 2,366 flights comprising of 1,705 domestic flights and 656 international flights were operated from Nedumbassery Airport from June 1999 to January 2000 and the number of passengers handled included 2,33,710 domestic and 1,53,078 international. Thiruvananthapuram occupies the status of International Air Port and accounts for major portion of air traffic. During 1998-99, 15,752 flights were operated from Thiruvananthapuram and Kozhikode airports which included 9,519 international flights. During the reporting period, a decline is noted in number of flights by one percent compared to previous year. Number of passengers carried (both domestic & international) was 16,71,196 against 16,40,907 in the last year. Details of operation of flights, transport services, cargo etc are given in Appendix 7.27 (A) and 7.27(B). Figures furnished above exclude Nedumbassery Air Port.

7.32 The cargo handled from Thiruvananthapuram Airport during the year 1998-99 is 30,670 tonnes( 5800 domestic and 24,870 tonnes international) and that from Kozhikode Airport is 3,130 tonnes

2,051 domestic and 1,079 international). Cargo movement from Nedumbassery Airport included 671.4 tonnes of domestic and 697.95 tonnes international from June 1999 to January 2000.

### **PASSPORTS**

7.33 The total number of passports issued in the State was 3.33 lakhs in 1998-99 compared to 3.40 lakhs in 1997-98, showing a marginal decrease. Number of applications received and number of passports issued from the passport offices in Kerala during the last ten years is given in Appendix 7.28

### **COMMUNICATIONS**

#### ***Postal Systems***

7.34 There were 5,051 post offices functioning in Kerala during 1998-99 excluding 14 numbers situated in Mahe & Lakshadweep which also come under Kerala Postal Circle, consisting of 51 Head Post Offices, 1977 Sub Offices and 3,023 Branch Offices, representing an increase of 13 post offices in 1998-99 compared to those in the previous year. Besides this there were 92 Other Postal Service Offices and 7 Speed Post Centres. Growth of postal offices in Kerala during the last ten years and category wise details of postal and other postal service offices are given in Appendix 7.29 and 7.30 respectively.

7.35 On an average, one post office served an area of 7.69 sq.kms and 6,479 persons during the year under report and division wise details of post offices under different categories and district-wise details of area and population served by one post office are given in Appendix 7.31 and 7.32 respectively.

#### ***Telecommunications***

7.36 Telecommunication sector has 11 secondary switching areas in the State. With

the commissioning of 32 new exchanges, total number of telephone exchanges in Kerala circle increased to 850. Consequently the equipped capacity was enhanced to 17,04,395 terminals with the new addition of 3,99,297 terminals. Number of working connections in Kerala during the reporting period rose to 13,55,084 from the previous year's figure of 10,84,019 showing an increase of 25%. All the 850 telephone exchanges in the State are connected to the STD / ISD net work. Every 1000 persons in the circle have 47 telephone connections against last year's number of 37. There were 35 telephone connections per sq. km. in the state during 98-99 against 28 in the previous year. Waiting number of applicants in the list for telephone connections for 98-99 was 5,77,943 against 6,79,169 in 1997-98. Ernakulam district is having the maximum number (86) telephone exchanges and Wayanad has the minimum with 22 exchanges. District-wise details of telephone network during 98-99 are shown in Appendix 7.33.

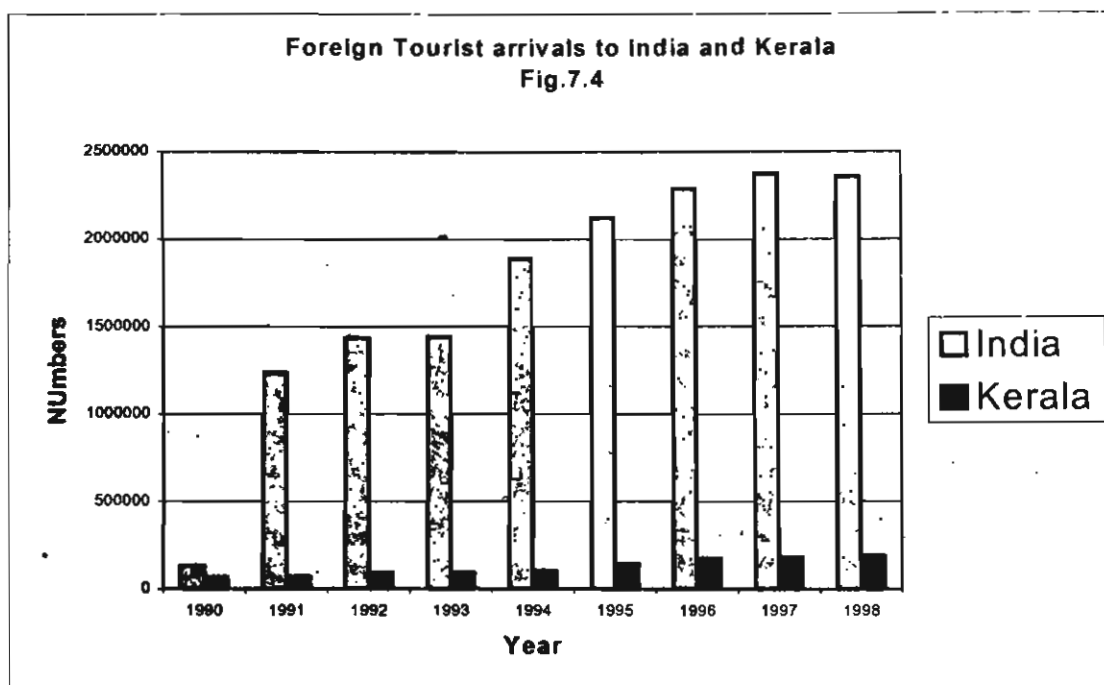
## TOURISM

7.37 The National Geographic Traveller, in an assessment last year, identified 50 '*must see*' places in the world. In India two spots have been identified, one is Kerala and the other is TajMahal. Kerala is listed among the ten destinations in the *Paradise Found* category.

7.38 Tourism in Kerala has recorded remarkable growth in the last four years. The percentage share of Kerala in the country's tourism earnings is a good eight per cent with revenues approximately at Rs.500 crores in 1999. The state has become a multi-dimensional tourism destination, with tourists able to choose from a variety of options, backwaters, sea beaches, ayurvedic resorts and high ranges, all within a radius of 200 sq.km.

7.39 The major area of concentration by the State Government has been on developing physical infrastructure, tourism promotion and publicity and the development of unique tourism products of Kerala viz. Backwaters, Ayurvedic centres and Eco-tourism.

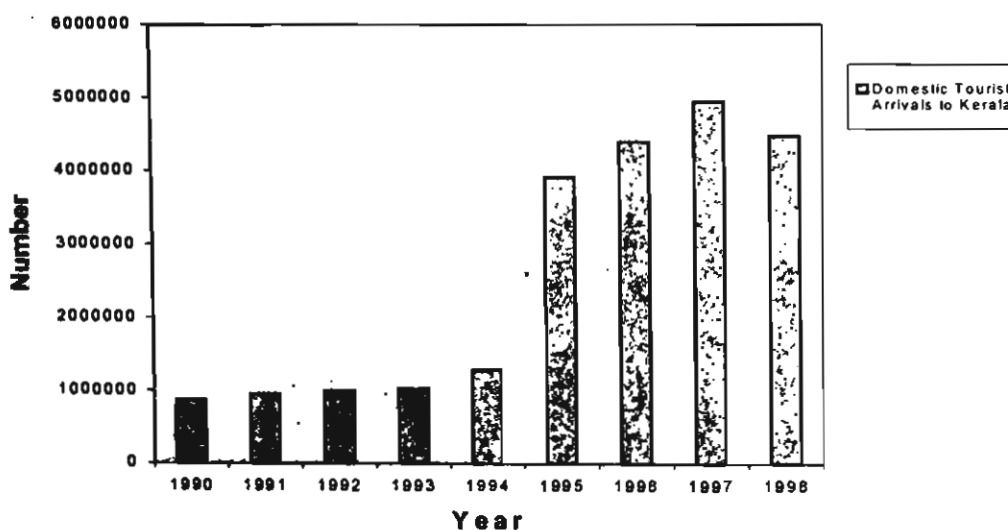
7.40 The number of foreign tourist arrivals to Kerala has grown from 1,82,427 in 1997 to 1,89,941 in 1998, i.e. by 4.12% whereas foreign tourist arrivals to the whole country declined by 0.65% between the two years. Accordingly, the share of Kerala in the Indian tourist market has gone up to 8.05% in 1998 as against 7.68% in 1997. The trend in foreign tourist arrivals to the country as a whole and the State is shown in fig 7.4.



7.41 The share of Kerala in domestic tourism has remained quite large with the number of domestic tourists to the state being as large as 44.8 lakhs in 1998 although the

number was lower than in 1997 when it was 49.5 lakhs. The trend in the flow of domestic tourists to the State is shown in figure 7.5.

**Domestic Tourist Arrivals In Kerala (1990-1998)**  
Fig 7.5

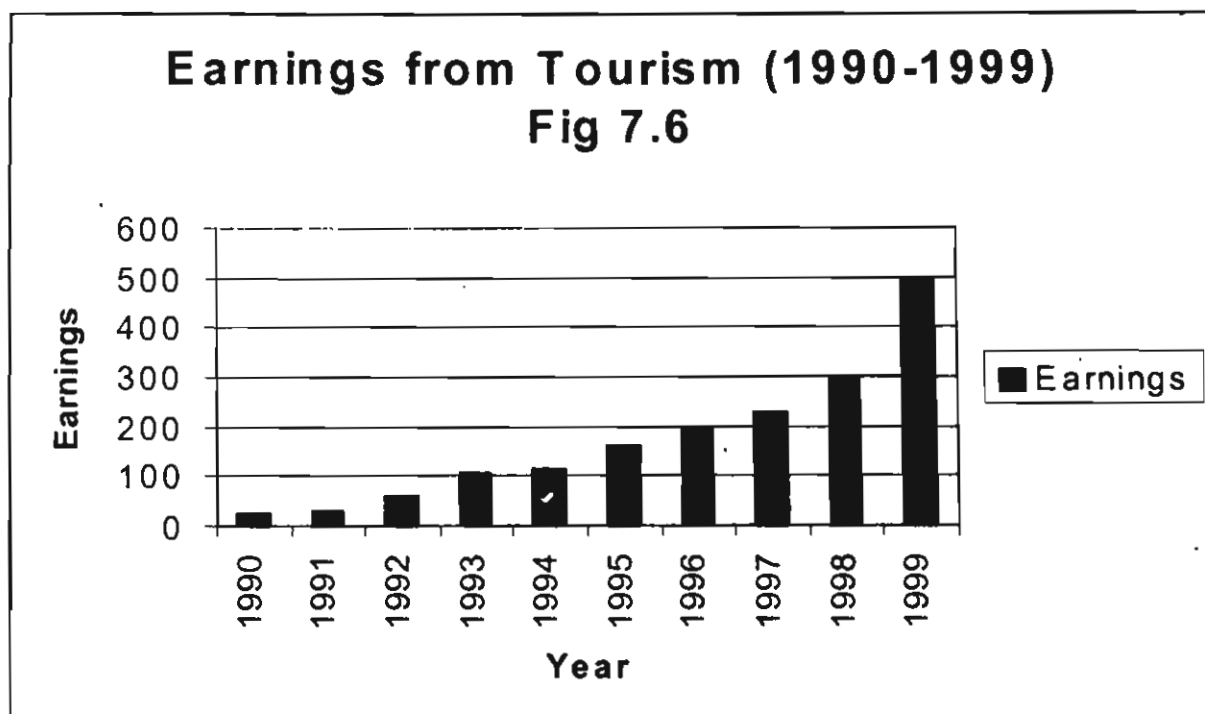


7.42 Foreign and domestic tourist flows to Kerala are presented in Appendix 7.34 and 7.35 respectively. The foreign tourist arrivals in India and Kerala are presented in Appendix 7.36.

7.43 Earnings from tourism during the period 1990-99 are presented in Appendix 7.37. Earnings from tourism have been increasing consistently all the years. It is estimated that earnings from tourism had increased from

Rs.26.99 crores in 1990 to Rs.500 crores in 1999. The growth in earnings from tourism over

the years 1990 to 1999 is shown in Figure 7.6



7.44 The bed availability in the category of classified hotels has remained at 6402, the same as that of the previous year and that in the category of unclassified hotels stands at around 50000.

7.45 The plan outlay for tourism during the year under report was Rs.36 crores. The expenditure exceeded the outlay by about Rs.2 crores (Rs.38 crores) In addition to this, nearly 1.6 crores has been spent by the local self-government institutions on various tourism projects and also Rs.2 crores for centrally sponsored projects. The major areas of expenditure were (1) infrastructure development (90%) (2) tourism promotion and publicity (8%) and (3) others (2%).

7.46 The organisations/agencies engaged in tourism related activities are Department of Tourism and two Public Sector Corporations viz. Kerala Tourism Development Corporation

(KTDC) Ltd. and Tourism Resorts (Kerala) Ltd. (TRKL). In addition Bekal Resorts Development Corporation (BRDC), the Department of Forests, District Tourism Promotion Councils (DTPC), Thenmala Eco-Tourism Development Society, Kerala Tourism and Travel Studies (KITTS) are other agencies, which also contribute to tourism development in the state.

7.47 During the year under report, the Department of tourism mainly concentrated on the provision of infrastructure facilities for tourism. The Department acquired 14 acres of land at Veli at a total cost of Rs.420 lakhs for the development of an amusement park, oceanarium and children's park.

7.48 Under the 'Destination Kerala Programme', Rs.189 lakhs have been spent for the development of tourist centres identified for the purpose. Important programmes carried out

under this scheme include boating facilities at Aruvikkara, picnic spot and park at Alappuzha etc. Development of Kannur, Payyambalam and Muzhappilangad beaches were also carried out during the year under report.

7.49 Backwaters, Ayurveda and Eco-tourism have been identified as the major special tourism products of the State. Sites have been identified along the backwaters and the waterways for the development of basic tourism infrastructure. A scheme for the approval of Ayurvedic Centres has been introduced and the Department of Tourism organised a 10-day Monsoon rejuvenation camp in July 1998. A society for the development of Thenmala Eco-tourism project has been formed.

7.50 Private sector initiatives in the development of tourism have been significant in recent years.. A new scheme called 'Grihastali' has been introduced for the conservation of heritage buildings. Investment Guidance Cell is introduced to give guidance to the private investors. Awards under various categories were distributed to those excelled in the tourism sector. An amount of Rs.87 lakhs has been disbursed as subsidy to the private sector initiatives

7.51 Publicity and promotional efforts were intensified, with the help of information technology, for providing tourist information. Department of Tourism had launched a website on tourism on the internet and developed a CD-ROM with comprehensive tourist information. Besides, the Department also participated in all major international and national tourism trade fairs in addition to participation in promotional fairs at the time of state's festivals. The amount spent for promotion, publicity, local cultural programmes and festivals is Rs.333 lakhs.

7.52 The Kerala Institute of Tourism and Travel Studies undertakes human resources development in the field of tourism by running different courses on tourism and travel management.

7.53 The Kerala Tourism Development Corporation (KTDC) is the agency which

undertakes provision of accommodation and transport facilities to the tourists, innovative tourism products and also offers various well researched tour packages like the Ayurvedic rejuvenation programmes, backwater house boat holidays and leave travel concession tours. The State Government gives assistance in the form of share capital. The authorised share capital of the corporation is Rs.30 crores and the paid up capital as on 31-3-1999 is Rs.28.61 crores. Other financial resources of the Corporation comprise institutional finance, internal resources as well as assistance from Government of India. The Corporation generated internal resources to the tune of Rs.4.50 crores, to supplement the budgetary support of Rs.6 crores provided by the State Govt. during 1998-99. Information on the performance of KTDC is given in Appendix 7.38.

7.54 During 1998-99, the Corporation's activities were mainly concentrated on the hotel projects of Munnar, Kumarakom and Bolgatty. The Corporation has invested more than Rs.6.80 crores in these projects. Works like upgradation of Mascot Hotel into 5 Star Deluxe Hotel and construction of Corporate Office building are also on progress. The work on a new guest house at Chennai has also been started on the land leased out by Government.

7.55 The foreign tourists who visited the KTDC hotels shows a marginal increase over the previous year, where as the domestic tourists have gone down by 21%. The number of domestic tourists declined from 1,21,021 in 1997-98 to 95,539 in 1998-99. While the fall in the number of domestic tourists had its effect on the income of the Corporation, which declined by Rs.19.45 lakhs, total expenditure of the Corporation increased by Rs.115.34 lakhs. This is explained by the rise in administrative expenditure due to the pay revision and also the rise in rent rates by 10-20% of the establishments taken on lease by the Corporation. This fall in income and rise in the total expenditure have naturally led to a substantial reduction in the profit of the corporation from Rs.350.32 lakhs in 1997-98 to Rs.207.26 lakhs in 1998-99.

7.56 The Tourist Resorts (Kerala) Ltd. was set up as a subsidiary company of KTDC in 1989 aimed at mobilisation of private sector investment and institutional finance. The State Government assistance is in the form of share capital. The authorised share capital of the company is Rs.20 crores and paid up capital Rs. 16.40 crores as on 31-01-2000. The company invested in joint sector ventures with Taj and Oberoi Group and Veli-Akkulam project. The net profit of the company during 1998-99 was Rs.88.19 lakhs. The company declared a dividend of 2% for the year 1998-99. The company could so far attract investments of about Rs.40 crores from the private sector and financial institutions.

7.57 Bekal Resorts Development Corporation was set up in 1995 to develop an integrated tourism project at Bekal. The total cost of the project envisaged is Rs.130 crores. The State Government's contribution is Rs.35 crores, against which Rs.30 crores has already been paid to the Corporation. The aim of the BRDC was to identify, acquire and develop potential resort sites, develop and strengthen infrastructure, invite promoters and investors, market Bekal as an integrated tourist

destination and co-ordinate development at every level. The first site developed by BRDC has been handed over to KTDC for developing a star hotel. Four other resort sites are also ready for leasing out.

7.58 Apart from state plan funds, Centrally Sponsored Schemes for the construction of Yatriniwases, Wayside amenities, renovation of heritage buildings etc. are meant to promote tourism. During 1998-99, Govt. of India sanctioned 18 schemes. Of these, construction of Yatriniwases at Alappuzha and Kochi and flood lighting of Vadakkunnatha Temple have been completed. Construction of Tourist resorts at Athirappally and Changanacherry, beach resort at paravoor, Yatri Niwases at Malayattoor, Peerumedu, Kozhikkode and waterside amenities at Alumkadavu, Kayamkulam and Aranmula have been started.

7.59 Although the overall performance has been satisfactory, the fall in the number of domestic tourists has to be given attention. Their contribution to the State's income and employment generation could not be ignored.

## CHAPTER 8 EXPORT AND IMPORT

### Balance of Payments

The country's balance of payments continue to be under severe strain, with a huge trade deficit of US\$ 13.25 billion in 1998-99. However, there has been slight improvement as compared to the position in 1997-98. In 1998-99 the deficit in balance of payments stood at US \$ 4.04 billion. Exports in 1998-99 recorded a negative growth causing the strain on the balance of payment front.

8.2 According to provisional data released by DGCI&S India's exports at US \$ 34298 million recorded a decline of 3.9% during 1998-99 as against an increase of 4.5 percent registered during 1997-98. As a consequence, India's trade deficit stood at US \$ 13246 million during 1998-99.

### Commodity Composition of India's exports

8.3 Agriculture and allied products account for about 17.3 percent of total exports and manufactured commodities account for about 77.8 percent. Ores and minerals and other products account for the balance.

### Commodity composition of India's Imports.

8.4 While share of food items and manufactured goods has increased in India's imports during 1990's, the share of the import bill for petroleum and petroleum products declined from 27 percent in 1991-92 to 15 percent in 1998-99. The share of capital goods and raw

materials and intermediate goods had also declined during 1990's.

### India's Share in World Exports

8.5 India's exports accounts for less than one percent of world exports. After reaching a peak of 1.04 percent in 1966, India's share dipped to 0.44 percent in 1981. In the second half of 1990's the share remained at around 0.6 percent.

### Cargo handled by Kochi Port

8.6 Total cargo handled by Kochi Port during 1994-95 to 1998-99 shows an upward trend in the case of coastal exports and foreign exports. Total coastal exports of Kerala during 1994-95 was 5.24 lakh M.T which increased to 15.04 lakh M.T in 1997-98, but thereafter slightly declined to 14.78 lakh M.T during 1998-99. Export through Kochi Port was 14.38 lakh M.T in 1994-95. Export increased to 25.43 lakh M.T in 1997-98. But it marginally declined to 24.3 lakh M.T in 1998-99.

8.7 Coastal import through Kochi Port shows an erratic picture. From 42.46 lakh MT in 1994-95, the import reached its peak level in 1995-96 with 56.03 lakh MT Cargo, thereafter coastal import started showing a declining trend when it declined to 43.34 MT in 1997-98 and to 40.82 lakh MT in 1998-99. On the contrary foreign Import through Kochi Port was growing at a faster rate, from 29.47 lakh MT Cargo in 1994-95, the import has grown to 54.40 lakh MT during 1997-98 and to 61.69 lakh MT in 1998-99.

**Table 8.1**  
**Cargo Handled by Kochi Port During 1994-95 to 1998-99**

	<i>Export</i>					<i>Import</i>				
	1994-95	95-96	96-97	97-98	98-99	1994-95	95-96	96-97	97-98	98-99
Traffic	5.24	11.94	10.65	15.04	14.78	42.46	56.03	49.90	43.34	40.82
Coastal	9.14	11.84	11.90	10.39	9.52	29.47	35.22	44.97	54.48	61.69
Foreign	<b>14.38</b>	<b>23.78</b>	<b>22.55</b>	<b>25.43</b>	<b>24.30</b>	<b>71.93</b>	<b>91.25</b>	<b>94.87</b>	<b>97.82</b>	<b>102.51</b>
<b>Total</b>										

Source : Kochi Port Trust.

### Commodity Composition of Kerala's Exports

8.8 Commodity composition of exports from Kerala is given in Appendix 8.1. Out of the total quantity of export traffic, about 82% is categorised as Miscellaneous, which includes Petroleum Products.

8.9 Total quantity of coffee exported through Cochin Port during 1997-98 was 104854 MT. As against this, the export in 1998-99 stood at 127467 MT contributing 5.2 percent of total export. Total quantity of seafood exported from Kerala during 1997-98 was 91959 MT which came down to 74076 MT in 1998-99.

8.10 Exports of tea during 1997-98 stood at 79829 MT against which 101466 MT was exported in 1998-99. Coir products export through Cochin port during 1994-95 was 43972 MT. This has gone upto 52637 MT in 1998-99. But the percentage share to total export declined to 2.2 in 1998-99. Export of Cashew Kernels in 1997-98 was 48390 MT which in 1998-99 increased to 49467 MT.

8.11 Export of Spices through Cochin Port in 1997-98 was 48956 MT, which accounted for 1.9 percentage of the total export. It rose to 44752 MT in 1998-99, but its percentage to total declined to 1.8.

8.12 Total value of foreign export through Kochi Port was Rs. 5673.14 crore in 1998-99 against Rs. 4898 crore in 1997-98. Among the total value of export in 1998-99 the value of seafood amounted to Rs. 830.03 crore, coffee Rs. 747.85 crore, Cashew kernels Rs. 744.95 crore, Tea Rs. 623.09 crore, Pepper Rs. 311.67 crore and Coir products Rs. 297.67 crore.

### Commodity Composition of Kerala's Imports

8.13 Appendix 8.2 gives commodity wise imports through Cochin Port. The category 'Miscellaneous' mostly consisting of crude petroleum accounted for 87.69 percentage of the total imports in 1998-99. Fertilizers and raw materials constitute the next important import item with 755789 MT and its percentage share to the total

import is 7.37 during 1998-99. Foodgrains with a quantity of 288861 MT ranks next during 1998-99. Iron, steel and machinery, cashew nuts, newsprint are the other notable import items. Import of foodgrains increased from 165693 MT in 1997-98 and to 288861 MT during 1998-99, Iron & Steel and machinery from 45369 MT in 1997-98 and to 93630 MT in 1998-99. This sharp increase can be noted in all the above imported items except fertilisers and raw materials which was 847183 MT during 1997-98 and it is 755789 M.T in 1998-99. Import of 87.69% under Miscellaneous include Petroleum Products.

### Marine Products

8.14 Marine products continue to occupy an important share in India's exports industry. It contributes 3.4% of the countries earnings. Export of marine products from India has declined from 385818 MT in 1997-98 to 302934 MT in 1998-99. In value terms, it slightly declined from Rs. 4697.48 crore in 1997-98 to Rs. 4626.87 crore in 1998-99. The average unit value realised has increased from Rs. 121.75 per Kg. in 1997-98 to Rs.152.73 per Kg. in 1998-99.

8.15 Kerala's share in the export of marine products from India declined both in quantity and value during 1998-99. Marine products exports from Kerala was 89366 MT valued at Rs. 948.02 crore in 1997-98. This has declined to 70641 MT valued at Rs. 816.55 crore during 1998-99.

8.16 Out of the total quantity of marine exports from Kerala in 1998-99 nearly 36.17% was frozen shrimp, 24.39% frozen cuttlefish, 17.24% frozen fish, 16.23% frozen squid. Appendix 8.3 shows the item-wise quantity and value of marine export from Kerala.

8.17 Major importers of India's marine products are European Union, United States, Japan, Middle East and South East Asia. Kerala's major market is European Union both in volume and value in 1998-99 sharing 44.43 percent and 40.16 percent respectively.



**Table 8.2**  
**Country-wise Export of Marine Products during**  
**1998-99 from Kerala and India.**

*[Qty in MT & Value in Rs. crores]*

<i>Destination</i>		<i>All India</i>	<i>Kerala</i>	<i>Share of Kerala (%)</i>
Japan	Q	67277	10419	15.49
	V	229548	182.22	7.94
U.S.A	Q	34472	13799	40.03
	V	61732	200.48	32.48
European Union	Q	54261	24107	44.43
	V	68462	274.96	40.16
South East Asia	Q	116610	15494	13.29
	V	766.06	94.14	12.29
Middle East	Q	17274	2618	15.16
	V	147.97	27.27	18.43
Others	Q	13040	4204	32.24
	V	115.42	37.48	32.47
Total	Q	302934	70641	23.32
	V	4626.87	816.55	17.65

*Source: - Marine Products Export Development Authority*

### **Spices**

8.18 Provisional estimates show that total export of spices from India during 1998-99 was 231,389 MT valued at Rs. 1758.02 crore compared to 242,071 MT and Rs. 1466.82 crore respectively in 1997-98.

### **Pepper**

8.19 Quantity of pepper export from India is showing a decreasing trend in quantity. During 1997-98 the total export was stood at 35907 MT. This has decreased to 34864 MT in 1998-99. Total value of pepper export from India has increased from Rs. 496.36 crore in 1997-98 to Rs. 638.11 crore in 1998-99. Total value of pepper export from Cochin Port went up from Rs. 163.62 crore in 1997-98 to Rs. 311.67 crore in 1998-99.

### **Cardamom**

8.20 The quantity of cardamom (both small and large) exported from India was 2018 MT in 1997-98 which declined to 1899 MT during 1998-99. Total value of cardamom exported from India amounted to Rs. 25.31 crore in 1997-98, which rose to Rs. 37.12 crore in 1998-99. Cardamom was not exported from Cochin Port during 1996-97 to 1997-98. In 1998-99 Rs. 68 lakh worth of Cardamom was exported.

### **Ginger**

8.21 Total quantity and value of ginger exported from India sharply declined from 28268 MT valued at Rs. 72.63 crore in 1997-98 to 8778 MT valued at Rs. 40.65 crore in 1998-99. Value of ginger export through Cochin port was also declined from Rs. 33.63 crore in 1997-98 to Rs. 14.3 crore during 1998-99.

### **Turmeric**

8.22 Total quantity and value of turmeric exported from India increased from 28875 MT valued at Rs. 83.07 crore in 1997-98 to 36522 MT valued at Rs. 124.55 crore in 1998-99.

### **Curry Powder.**

8.23 Export of curry powder from India increased from 5132 MT valued at Rs. 29.73 crore in 1997-98 to 5210 MT valued at Rs. 35.97 crore respectively in 1998-99.

### **Spice Oils and Oleoresins**

8.24 India exported 2419 MT spice oils and oleoresins in 1997-98 valued at Rs. 231.53 crore. This has gone upto 2750 MT in quantity and to Rs. 300.77 crore in value during 1998-99.

### Raw cashew nuts

8.25 Production of raw cashew nuts declined from 1.34 MT in 1996-97 to one lakh tonnes in 1997-98, which remained at the same level in 1998-99. Production in other states marginally declined from 3.5 lakh tonnes in 1997-98 to 3.4 lakh tonnes during the same period.

**Table 8.3**  
**Production of Raw Cashew Nuts:**  
**Kerala and India (1996-'97 to 1998-'99)**  
*(Quantity in Tonnes)*

Year	Kerala	India
1994-95	1,19200	321640
1995-96	1,40000	417830
1996-97	1,34000	430000
1997-98	100000	360000
1998-99	100000	350000

### Export of Cashew Kernels

8.26 Export of Cashew Kernels from India during 1998-99 was 75026 MT valued at Rs. 1609.90 crores. It showed a 2 percentage decrease in quantity and 15 percentage increase in value over the export of 76593 M.T valued at Rs. 1396.10 crore during 1997-98. Export from Kochi Port was 49467 M.T valued at Rs. 744.95 crore during 1998-99. The major markets were America (45%) Europe (34%) South East & Far East Asia (10%) West Asia and Africa (8%) and Oceania (3%).

**Table 8.4**  
**Export of Cashew Kernels: Kerala and India**  
*(Quantity in MT Value in Rs: Crore)*

Year	Kerala		India		Share of Kerala	
	Quantity	Value	Quantity	Value	Quantity	Value
1990-91	44060	390.67	49874	442.20	88	88.3
1991-92	31630	432.46	47738	669.10	66	64.6
1992-93	26981	385.49	53436	745.50	51	51.7
1993-94	30684	454.66	69884	1046.0	44	43.5
1994-95	34379	538.11	77000	1246.30	45	43.2
1995-96	33275	606.55	70334	1240.50	47	48.9
1996-97	38546	731.79	68633	1285.50	56	56.9
1997-98	41171	757.73	76593	1396.10	54	54.3
1998-99	42323	938.69	75026	1609.90	56	58.3

Source: D.G.C.I & Calcutta

### Cashew Exports

8.27 Total export earnings from Cashew Kernels and Cashew shell liquid during 1998-99 was Rs. 1613.16 crore as against Rs. 1407.1 crore in the previous year. Among agricultural products exported from India during 1998-99, cashew stood fifth in position as a foreign exchange earner contributing 1.14 percent of the total export earning of the country.

8.28 Export of cashew nut shell liquid from India in 1998-99 was 1572 MT valued at Rs. 3.26 crore as against 4446 MT valued at Rs. 717 crore during 1997-98 recording a decrease of 64.6% in terms of quantity and 54.5% in terms of value. The major markets were U.K, Japan and Republic of Korea.

**Table 8.5**  
**Export of Cashew Nut Shell Liquid: Kerala and India**  
*(Qty in MT and Value in Rs. crore)*

Year	Kerala		India	
	Quantity	Value	Quantity	Value
1990-91	2490	1.65	5658	5.56
1991-92	2755	2.16	4542	4.02
1992-93	2628	2.20	4258	3.81
1993-94	2432	1.77	3625	2.89
1994-95	1990	1.21	3807	2.44
1995-96	80	0.15	760	1.45
1996-97	814	0.78	1735	2.77
1997-98	3021	3.69	4446	17.17
1998-99	1085	1.70	1572	3.26

Source: D.G.C.I & S Calcutta

### Import of Raw Cashew Nuts

8.29 Total raw cashew nuts imported into India in 1998-99 was 1,80,686 M.T valued at Rs. 693.17 crore which is 27 percent less in quantity and 10 percent less in value as against 2,47,181 MT of raw cashew nut valued at Rs. 769.6 crore

imported during 1997-98. About 54.77 percent of raw cashew nuts imported to India was from East Africa, 33.01 percent from West Africa, 8.48 percent from South East Africa, and 3.74 percent from other countries.

**Table 8.6**  
**Import of Raw Cashewnut: Kerala and India**  
*(Quantity in MT Value in Rs. crore)*

Year	Kerala		India	
	Quantity	Value	Quantity	Value
1990-91	4898	7.71	82639	134.00
1991-92	1774	4.21	106080	266.68
1992-93	11051	39.05	134985	376.33
1993-94	20821	52.56	191322	482.70
1994-95	5576	15.34	228109	690.94
1995-96	6292	19.13	222819	760.08
1996-97	49169	159.76	212866	687.60
1997-98	78625	261.07	247181	769.60
1998-99	48425	184.29	180686	693.17

Source:- Cashew Export promotion Council

### Coffee

8.30 India's export earnings from coffee stood at Rs. 1703.3 crore in 1998-99 as against Rs. 1696.1 crore in 1997-98. Coffee export contributed 1.2% of India's total export earnings. Production of Coffee in Kerala during 1997-98 was 48300 MT, which increased to 61150 MT in 1998-99. Coffee exported through Cochin Port increased to 127467 MT valued at Rs. 747.85 crore in 1998-99 as against 104854 MT valued at Rs. 690.7 crore in 1997-98.

### Coir and Coir Products

8.31 Export performance of coir and coir products from India showed a progressive trend from 1993-94 to 1998-99 while export of coir and coir products from India stood at 49850 MT valued at Rs. 238.93 crore in 1997-98. In 1998-99 55490 MT valued at Rs. 292.19 crore was exported. Coir products exported through Cochin Port has gone up from 47249 MT valued at Rs. 238.72 crore in 1997-98 to 52637 MT valued at Rs. 297.67 crore in 1998-99.

## CHAPTER 9 SOCIAL AND COMMUNITY SERVICES

### Introduction

The proportion of State Govt. expenditure on social services has been substantial from the First Plan to Eighth Plan. The plan and non-plan expenditure for social services sector was Rs. 689

crores in 1985-86 and Rs. 3162 crores in 1997-98. This represented 35 per cent of total govt. expenditure on revenue and capital account. As can be seen from Table 9.1 social services have accounted for within close range of 40 per cent between 1991-92 and 1999-2000.

**Table 9.1  
Expenditure on social services**

(Rs. Crores)			
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 (RE)	10612.96	3793.03	36
1999-2000 (BE)	12361.32	4643.98	38

*Source: Annual Financial Statements*

### EDUCATION

#### Literacy

9.2 According to 1991 Population Census, Kerala achieved the highest literacy rate of 89.81 per cent among the states in India as against the all India average of 52.21 per cent. According to N.S.S 1997, Kerala has attained 93 per cent literacy. The literacy rates among males and females in Kerala as per 1991 Census stood at 93.62 per cent and 86.17 per cent respectively whereas for all India it was only 64.13 per cent and 39.29 per cent. In states like UP, Bihar and Madhya Pradesh the literacy rates are distinctly lower, as shown in Appendix 9.3. The literacy rates for

Scheduled Castes and Scheduled Tribes in the state stood at 69.38 per cent and 48.62 per cent respectively. The district-wise literacy rates of SCs and STs in Kerala are given in Appendix 9.5.

### SCHOOL EDUCATION

#### Infrastructure

9.3 In Kerala, the infrastructure at the school level consisted of 6755 Lower Primary Schools, 2966 Upper Primary Schools and 2585 High Schools in 1999. In addition, 730 High Schools and 2241 U.P Schools had L.P. sections and 2046 High Schools had U.P. sections. Thus the effective L.P. school education infrastructure consisted of 6755 L.P

schools and 2971 L.P. sections and U.P. education comprised of 2966 U.P. schools and 2046 U.P. sections. On an average, for every 3330 persons in the state there is one LP school/section and one UP school/section for every 6462 population.

9.4 The total number of schools in Kerala increased from 9359 in 1961-62 to 11,102 in 1975-76, 12,092 in 1994-95 and further to 12,306 in 1999. There was an increase of 33 schools in 1999 as compared to 1998, which was mainly on

account of starting more LP schools in government sector. The growth of educational institutions during the period from 1962 to 1999 is given in Appendix 9.11.

9.5 Besides, there are 8 Anglo-Indian High Schools and 33 schools for the disabled. There are also 102 Teacher Training Institutes in the state, of which 38 are government institutions and 64 are private aided institutes including one Anglo- Indian Institute.

**Table 9.2**  
**Distribution of Schools- District-wise**

SI NO	District	Area in Sq. Km.	Projected Population 1999 (in '000)	Number of Schools			
				LP	UP	HS	Total
1	Thiruvananthapuram	2192	3279	500	216	240	956
2	Kollam	2491	2680	47	208	211	896
3	Pathanamthitta	2642	1323	425	141	167	733
4	Alappuzha	1414	2227	405	148	190	743
5	Kottayam	2203	2035	466	205	241	912
6	Idukki	5019	1200	215	105	134	454
7	Ernakulam	2407	3136	488	211	294	993
8	Thrissur	3032	3047	520	226	246	992
9	Palakkad	4480	2652	546	237	151	934
10	Malappuram	3550	3446	840	350	188	1378
11	Kozhikode	2344	2916	724	328	179	1231
12	Wayanad	2131	748	152	77	61	290
13	Kannur	2966	2506	734	366	168	1268
14	Kasaragod	1992	1192	263	148	115	526
	<b>Total</b>	<b>38863</b>	<b>32387</b>	<b>6755</b>	<b>2966</b>	<b>2585</b>	<b>12306</b>

9.6 The spatial distribution of schools shows that there were 651 schools in the three Corporation areas, which consisted of 289 LP schools, 144 UP schools and

218 HS. In the Municipality areas, there were 929 schools, which represented 8 per cent of the total schools, which consisted of 459 LP schools, 207 U.P.

schools and 263 High schools. In the rural areas there were 10,726 schools which represented 87 per cent of the total schools in Kerala. Out of this 6007 were LP schools, 2615 were UP schools and

2104 High schools. The distribution of schools by Corporations, Municipalities and Panchayats can be seen from Table 9.3 and Appendix 9.9.

**Table 9.3**  
**Schools Transferred to Different Tiers of Local Self Govt. System**

Sl. No	Local Body	No. of Institutions Transferred			
		LP	UP	HS	Total
1	Corporations	289	144	218	651
2	Municipalities	459	207	263	929
3	District Panchayats	-	2615	2104	4719
4	Block Panchayat	-	-	-	-
5	Grama Panchayats	6007	-	-	6007
	<b>Total</b>	<b>6755</b>	<b>2966</b>	<b>2585</b>	<b>12306</b>

9.7 Management-wise distribution of schools in Kerala shows that out of 12,306 schools, 4493 were government schools (37 per cent) 7304 private aided schools (59 percent) and 509 private unaided schools (4 per cent). A further analysis shows that out of total LP schools, aided private sector constituted 60 per cent, unaided schools 2 percent and the remaining 38 per cent were under government sector. The position in regard to UP schools was that 63 percent of the schools were in the aided private sector and 4 per cent in unaided sector. In the case of high schools government schools constituted 38 per cent and private aided 54 per cent.

#### **Infrastructure facilities in Government Schools**

9.8 While over 90 per cent of schools are housed in proper buildings, 16.6 per cent of the schools are still in thatched sheds. The position varies between districts. Thus 207 schools in Thiruvananthapuram district are functioning in thatched sheds which constituted 28 per cent of the thatched schools in Kerala. Regarding other basic facilities 85 per cent of schools have

drinking water facilities and 84 per cent schools have urinals/latrines facilities. Relevant details are furnished in Appendices 9.12 and 9.13.

#### **School Enrolment – Sharp decline**

9.9 Enrolment of students in schools, which stood at 58.68 lakhs in 1992 declined to 54.37 lakhs in 1998 and further to 53.36 lakhs in 1999. Thus there was a drop in enrolment of 5.32 lakh students between 1992 and 1999, which represented 9.07 per cent decline during the eight year period. The fall in school enrolment between 1998 and 1999 was 1.01 lakhs. The fall in enrolment at the LP level was 0.67 lakh and UP level 0.35 lakh, whereas at the high school level there was an increase in enrolment of 0.01 lakh students. The relevant details are given in Table 9.4. Though total enrolment of students in schools declined by 1.01 lakhs between 1998 and 1999, in the unaided sector, enrolment marginally increased from 2.33 lakhs to 2.35 lakhs. Enrolment of students in govt. schools and aided schools declined by 0.49 lakh and 0.65 lakhs respectively, as can be seen in Appendix 9.16.

**Table - 9.4**  
**Enrolment in Schools- Stage wise- 1997 to 1999 (in lakhs)**

Stage	1997			1998			1999		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Lower Primary	10.94	10.46	21.40	10.62	10.16	20.78	10.26	9.85	20.11
Upper Primary	9.22	8.68	17.90	9.08	8.53	17.61	8.92	8.34	17.26
Secondary	7.91	8.13	16.04	7.90	8.08	15.98	7.93	8.06	15.99
<b>Total:</b>	<b>28.07</b>	<b>27.27</b>	<b>55.34</b>	<b>27.60</b>	<b>26.77</b>	<b>54.37</b>	<b>27.11</b>	<b>26.25</b>	<b>53.36</b>

#### **Enrolment of Girls**

9.10 Enrolment of girls in schools (std. 1-X) is almost on par with boys. Out of 53.36 lakh students in 1999, enrolment of girls constituted 26.25 lakhs, which was 49.19 per cent. The percentage enrolment of girl students in LP, UP, and HS. levels was 48.98, 48.34 and 50.40 respectively in 1999. It is noteworthy that girl students out- number boys at the high school stage whereas at the national level the percentage of girl students at LP. Level (I – V class) was 43.2, UP Level (VI to VIII class) 39 and HS level 35.3.

#### **Enrolment of SC/ST students**

9.11 In 1999, SC/ST students enrolment constituted 6.31 lakhs which accounted for 11.83 per cent of the total school enrolment of 53.36 lakhs. However, as compared to 1998, enrolment of SC/ST students declined from 6.49 lakhs to 6.31 lakhs during 1999. Out of 6.31 lakh SC/ST school students, 2.75 lakh students (43.58 per cent) studied in government schools, 3.49 lakh students (55.31 per cent) in private aided schools and 0.07 lakh students (1.11 per cent) in the private unaided schools. While 4.4 per cent of the students studied in unaided schools, the proportion of SC/ST students constituted only 1.11 per cent. Of the total 6.31 lakh SC/ST students, SC students constituted 5.71 lakhs (10.70 per cent) and ST students 0.60 lakh (1.31 per cent). The relevant details are given in Appendices 9.20 and 9.21.

#### **Teacher-Pupil Ratio**

9.12 There were 1.85 lakh school teachers in the state in 1999, out of whom govt. school teachers constituted 35.41 per cent, private aided school teachers 60.37 per cent and private unaided school teachers 4.22 per cent. Of the total number of school teachers, LP teachers were 43,746 (23.66 per cent), UP teachers 48,506 (26.24 per cent) and HS teachers 92,627 (50.10 per cent). The teacher pupil ratio in Kerala was 1:29. The relevant facts are given in Appendices 9.23 and 9.24.

#### **Uneconomic Schools and Protected Teachers**

9.13 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 minimum strength per standard in Sanskrit and Arabic schools also shall be 15.

9.14 There were 1950 uneconomic schools in the state. Out of this 835 schools were in government sector and 1115 schools in private aided sector. 1685 (86 per cent) uneconomic schools were in the LP sector. The number of uneconomic schools increased from 1170 in 1992 to 1950 in 1999. A district-wise analysis would show that Kannur district had more uneconomic schools followed by Pathanamthitta and Kozhikode. The relevant details giving district-wise distribution of the uneconomic schools are given in Table 9.5.

**Table 9.5**  
**Uneconomic Schools in Kerala District-wise and stage-wise - 1999**

Sl. No	Name of District	Government				Private Aided				Grand Total			
		H.S	U.P	L.P	Total	H.S	U.P	L.P	Total	H.S	U.P	L.P	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	Thiruvananthapuram	2	15	60	77	-	2	8	10	2	17	68	87
2	Kollam	-	5	43	48	-	1	22	23	-	6	65	71
3	Pathanamthitta	1	20	71	92	1	17	178	196	2	37	249	288
4	Alappuzha	2	11	61	74	2	10	48	60	4	21	109	134
5	Kottayam	1	36	74	111	2	21	87	110	3	57	161	221
6	Idukki	2	9	34	45	-	7	22	29	2	16	56	74
7	Ernakulam	-	16	80	96	-	15	68	83	-	31	148	179
8	Thrissur	-	6	33	39	-	9	67	76	-	15	100	115
9	Palakkad	-	-	34	34	-	-	47	47	-	-	81	81
10	Malappuram	-	1	7	8	-	-	11	11	-	1	18	19
11	Kozhikode	-	7	66	73	-	8	142	150	-	15	208	223
12	Wayanad	-	2	13	15	-	-	2	2	-	2	15	17
13	Kannur	-	9	67	76	-	19	279	298	-	28	346	374
14	Kasargode	-	5	42	47	-	1	19	20	-	6	61	67
<b>Total:</b>		<b>8</b>	<b>142</b>	<b>685</b>	<b>835</b>	<b>5</b>	<b>110</b>	<b>1000</b>	<b>1115</b>	<b>13</b>	<b>252</b>	<b>1685</b>	<b>1950</b>

9.15 There were 1493 protected teachers in 1994 which increased to 2220 during 1999 showing a net increase of 727 protected teachers during 1994-99. Out of 2220 protected teachers 1191 were P.D teachers (54 per cent), 679 special teachers

(31 per cent) and 350 high school teachers (15 per cent). The district-wise analysis shows that Ernakulam district had the largest number of protected teachers followed by Thrissur and Alappuzha. The relevant details are given in Table 9.6.

**Table - 9.6**  
**Protected Teachers In Kerala District-wise and Stage-wise -1999**

Sl.No.	Districts	H.S.A	Primary Division Teachers	Special Teachers	Total
1	Thiruvananthapuram	16	101	13	130
2	Kollam	53	102	84	239
3	Pathanamthitta	7	-	22	29
4	Alappuzha	31	91	118	240
5	Kottayam	34	60	66	160
6	Idukki	11	39	32	82



7	Emakulam	66	172	145	383
8	Thrissur	83	116	91	290
9	Palakkad	11	95	36	142
10	Malappuram	1	90	14	105
11	Kozhikode	11	185	24	220
12	Kannur	5	12	4	21
13	Wayanad	21	108	27	156
14	Kasargode	-	20	3	23
<b>Total</b>		<b>350</b>	<b>1191</b>	<b>679</b>	<b>2220</b>

### Higher Secondary Education

#### 9.16 Higher Secondary (Plus Two)

Education was introduced in the state in 1990-91. At present there are 528 higher secondary schools of which 256 are government schools, 260 aided schools and 12 unaided schools as can be seen from Table 9.7. The district-wise/batch-wise distribution of schools is given in Appendix 9.25. In the 256 Govt. Higher Secondary Schools, there are 353 science batches, 220 humanities batches and 159 commerce batches whereas in 260 aided schools, 581 science batches, 175

humanities batches and 181 commerce batches are offered. The intake of students in higher secondary schools in 1999 stood at 70,571 with 39,313 science group students, 16,403 humanities students, 14,820 commerce students and 35 students in other subjects. Girl students constituted 58 per cent of the total enrolment. A total of 49 higher secondary schools were transferred to local bodies of which one was transferred to Corporation, 5 schools to Municipalities and 43 to District Panchayats.

**Table 9.7**  
**Number of Higher Secondary Schools**  
**in Kerala (1994 to 1999)**

<i>Year</i>	<i>Government</i>	<i>Aided</i>	<i>Unaided</i>	<i>Total</i>
Upto 1994	49	33	2	84
1995			6	6
1996	-		-	-
1997	101	1	..	102
1998	106	226	4	336
1999	-	-	-	-
<b>Total</b>	<b>256</b>	<b>260</b>	<b>12</b>	<b>528</b>

### Vocational Higher Secondary Education

9.17 Vocational Higher Secondary Education was introduced in the state during 1983-84. At present 45 subjects are offered through 322 schools (231 govt. schools and 91 aided schools). The district-wise distribution of schools is given in Appendix 9.28. The intake of students stood at 19,675 in 1999 of which

53 per cent were girls. The enrolment of students in Std. XI and Std. XII from 1992-93 are furnished in Appendix 9.30. During March 1999, 18,565 students appeared for examination and 12244 students passed out.

### University Education

9.18 There are seven universities in Kerala viz., Kerala University, Mahatma Gandhi University, Calicut University, Kannur University, Sree Sankaracharya University of Sanskrit, Cochin University of Science and Technology and Kerala Agricultural University. Out of 186 Arts and Science colleges in the state (excluding unaided colleges) 38 are in the government sector and 148 in private aided sector. The university-wise distribution of colleges is that 51 colleges are under Kerala University, 60 under University of Calicut, 57 under Mahatma Gandhi University, and 18 under Kannur

University. The university-wise and district-wise distributions of colleges are given in Appendices 9.31 and 9.32.

### Enrolment at Higher Education Level

9.19 The enrolment of students in Arts and Science colleges in Kerala stood at 3.09 lakhs during 1999. Out of this, 60 per cent were girls and 12 per cent SC students. Stage-wise details showed that there were 1.65 lakh students at the pre-degree level, 1.32 lakh students at the degree level and 0.12 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 – 1999**

University	Enrolment			
	Pre-degree	Degree	Post graduate	Total-
Kerala	44124	45763	4677	94564
M.G. University	64803	36170	3785	104758
Calicut	43599	38268	3024	84891
Kannur	12782	11747	620	25149
<b>Total</b>	<b>165308</b>	<b>131948</b>	<b>12106</b>	<b>309362</b>

9.20 During 1999 the enrolment of PDC students stood at 1,65,308 of which 94,959 were girl students. Course-wise analysis shows that of the total students, 37,821 were first group students, 48,012 second group students, 47,325 third group students, 28,197 fourth group students and 3,953 were fifth group students. The enrolment of students at degree level stood at 1.32 lakhs with 55 per cent girl students. The course-wise details of degree students are furnished in Appendices 9.35, 9.36 and 9.37.

9.21 At the post graduate level there were 12,106 students of which 8,492 (70 per cent) were girl students. Of the total, 5804 (48 per cent) were M.A students, 4703 (39 per cent) M.Sc. students and 1599 (13 per cent) M.Com. students. The course-wise details of post graduate

students are given in Appendices 9.38, 9.39 and 9.40.

9.22 There were 13,276 college teachers, out of whom 3983 came under Kerala University, 3540 under Calicut University, 4696 in Mahatma Gandhi University and 1057 under Kannur University. There were 4984 women teachers, which constituted 38 per cent. The relevant details are given in Appendix-9.41.

### Technical Education

#### Engineering Colleges

9.23 There are 21 engineering colleges in the state. Of these 8 are govt. colleges, 5 private aided colleges including one college each under the Cochin University of Science and Technology and M.G University, 6 are 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 increased to 5798 during 1999 as against 4223 in 1998 at the graduate level resulting in a net increase of 1575 students. This increase was due to starting of 4 engineering colleges in the government sector, 2 in the self financing sector and introduction of new courses and increase of seats in the existing colleges.

9.24 A branch-wise analysis shows that out of 5798 seats, 881 were in Mechanical Engineering, 880 Electronics and Communication Engineering, 735 Computer Science and Engineering, 720 Electrical and Electronics Engineering, 602 Civil Engineering, 360 each in Computer Engineering and Electronics engineering, 280 in Information Technology etc. The branch-wise distribution of seats in various engineering colleges are furnished in Appendix 9.45. There were 1010 teachers in the government and private aided engineering colleges during 1999 of which 683 were male teachers and 327 female teachers. The student enrolment and teachers in government and private aided engineering colleges are given in Appendix 9.46.

#### ***Polytechnics and Technical High Schools***

9.25 The number of Polytechnics in the state in 1999 was 54 of which 41 were govt. Polytechnics including 7 women's polytechnics, 6 private aided polytechnics and 7 self-financing institutions. During 1998 and 1999, 9 polytechnics were started in the government sector. Annual intake of students in polytechnics excluding self financing institutions increased from 7080 in 1998 to 8710 in 1999. The relevant details are given in Appendix 9.48. Out of the total 20,286 students in polytechnics during 1999, 1476 were SC students and 135 ST students. Also the girl students in polytechnics constituted 28 per cent of the total students. The relevant details are furnished in Appendices 9.49 and 9.50.

There were 1592 teachers in polytechnics during 1999.

9.26 There were 39 technical high schools in the state during 1999 and the annual intake of students remained at 2085. Out of the total 5768 students in technical high schools, girl students constituted only 7 per cent. The details are presented in Appendix 9.51. There were 1015 teachers in technical high schools during 1999.

#### ***Cochin University of Science and Technology***

9.27 This University was established in 1972 as an advanced institution in teaching and research in technical education. The university has 26 departments with an annual intake of 1450 students in 1999. Out of the total intake of 1450 students 277 students are in M.Sc. courses, 60 in M.Phil, 110 LLB students, 36 LLM students, 308 B.Tech. students, 80 M.Tech. students etc. The department-wise courses of studies offered are presented in Appendix 9.44.

#### ***Institute of Human Resources Development (IHRD)***

9.28 The Institute of Human Resources Development was established by the State Govt. in 1987 as an autonomous organisation. At present, two regional centres, four engineering colleges, seven model polytechnics, eight technical higher secondary schools, nine colleges of applied science and one extension centre are functioning under IHRD. The enrolment under various courses in these institutions is about 7000. The total number of seats available for admission in model polytechnics and technical higher secondary schools is 1830 and 2100 respectively. The intake of students in four engineering colleges is 880.

9.29 The Lal Behadur Shastri Centre for Science and Technology, Kerala State Audio Visual and Reprographic Centre and Kerala State Science and Technology

Museum are the major autonomous state sector institutions in the technical education sector.

### Expenditure on Education

9.30 Total plan and non-plan expenditure on education (including Art & Culture & Sports and Youth services) increased from Rs. 415 crores in 1985-86 to Rs. 1791 crores in 1997-98. The per capita expenditure on education had increased from Rs. 154 to Rs. 563 during

1985-86 to 1997-98. Kerala's education expenditure as a proportion to GDP stood at 4.71 per cent during 1997-98. The total expenditure on education during 1998-99 (RE) was Rs. 2215 crores, out of which primary education accounted for 48 per cent, secondary education 33 per cent and university and higher education 14 per cent. The expenditure on technical education increased from Rs. 90.85 crores in 1997-98 to Rs. 92.91 crores in 1998-99. The relevant details are given in Table 9.9.

**Table 9.9**  
**Expenditure on Education (1992-93 to 1998-99)**

Stage	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99
	Accounts	Accounts	Accounts	Accounts	Accounts	Accounts	Revised Estimate
Primary Education	591.12	530.46	660.87	675.10	753.40	847.98	1067.71
Secondary Education	273.41	339.10	406.83	451.94	510.70	642.15	728.29
University & Higher Education	156.62	214.82	212.80	227.02	256.60	295.62	308.10
Adult Education	0.43	1.60	1.03	0.60	0.63	0.69	5.90
Language Development	4.13	4.86	5.40	5.38	7.59	9.05	12.02
Tech. Education	32.61	59.25	62.23	68.53	78.07	90.85	92.91
<b>Total:</b>	<b>1058.32</b>	<b>1150.09</b>	<b>1349.16</b>	<b>1428.57</b>	<b>1606.99</b>	<b>1747.34</b>	<b>2214.93</b>

### Cost of Education per Pupil

9.31 The cost of primary education per pupil increased from Rs. 2107 in 1997-98 to Rs. 2857.81 in 1998-99. Cost of secondary education per pupil increased from Rs. 3449.53 in 1997-98 to Rs. 4552.99 in 1998-99. Details are furnished in Table 9.10.

**Table - 9.10**  
**Cost of Education- per pupil**  
**cost in different stages**  
**1965-1966 to 1998-99**

(Cost per pupil -Rs.)

Year	Primary Stage	Secondary Stage
1	2	3
1965-66	43.80	90.31
1966-67	54.17	103.81
1967-68	65.07	130.07
1968-69	73.23	139.71
1969-70	82.38	164.08

1970-71	85.91	176.25
1971-72	89.26	187.29
1972-73	94.61	194.15
1973-74	102.24	211.70
1974-75	117.52	217.90
1975-76	170.02	361.02
1976-77	186.16	386.02
1977-78	193.61	363.02
1978-79	206.21	356.34
1979-80	238.27	369.34
1980-81	265.24	454.25
1981-82	298.18	536.37
1982-83	326.13	589.41
1983-84	372.62	657.60
1984-85	414.43	737.60
1985-86	479.23	906.91
1986-87	563.03	1043.00
1987-88	550.35	1089.38

1988-89	617.80	1161.93
1989-90	690.12	1248.15
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	2857.81	4552.99

### Computer Courses

9.32 There is an extensive net work of institutions in the State offering computer training at various levels. As can be seen from Table 9.11, the total intake in various computer courses offered in the State is as large as 18,923, with government institutions accounting for over 80 per cent of the students intake. Details are given in Appendix 9.52.

**TABLE 9.11**  
**Computer Courses in Kerala and their Annual Intake**

<i>Course</i>	<i>Total intake</i>	<i>Govt. institutions including CUSAT, IHRD, LBS etc.</i>
P.G.degree (M.Tech.)	25	25
P.G.Degree (M.C.A.)	284	184
P.G.Degree(M.Sc.)	45	45
Degree (B.Tech)	840	840
Degree (B.Sc. + BCA)	1035	835
Diploma(Tech)	1140	1140
PG Diploma	4270	3640
Diploma	5100	2500
Certificate(NCVT or EQVT)	6184	6184 §
<b>Total</b>	<b>18923</b>	<b>15393</b>

*Note: Certificate courses on Programming tools & Application Software not included*

*§ These courses have accreditation from Government or Governmental agencies*

## HEALTH

### Basic Indicators of Health Care

9.33 The basic development indicators of health in Kerala can be gauged easily. Kerala has succeeded in solving the first generation problem of Infant Mortality Rate (IMR) to 12 whereas at all India level it was as high as 72 in 1998. The child mortality rate for Kerala was 4.6 as against the all India average of 26.3. The perinatal mortality rate was 17 and neo-natal mortality rate 10, which are considerably low in Kerala as against the all India rate of 44 and 47 respectively. The major development indicators reflecting birth rate,

death rate and infant mortality rate are given in Table. 9.12. Maternal mortality in Kerala has remained between 1.5 and 2 for every 3000 deliveries whereas the all India rate is 4.6 for 1000 deliveries.

9.34 Life expectancy at birth in Kerala, an important indicator of human development is 68.23 years for men and 73.62 years for women in Kerala compared to the all India level of 62.8 years for men and 64.2 years for women. Life expectancy at birth in Kerala from 1951 to 1996 and the relative position for all India are shown in Table 9.13.

**Table 9.12**  
**Birth, Death and Infant Mortality Rate in Kerala**

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	12	72

**Table 9.13**  
**Expectation of Life at Birth in Kerala**

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**

9.35 The major factor that contributed to the present level of health development in the state is the vast health care infrastructure, which facilitated access to institutional care. The infrastructure consists of 142 hospitals with 30,035 beds comprising of 5 general hospitals, 11 district hospitals, 8 W&C hospitals, 6 Medical College hospitals, 36 Taluk hospitals, 3 leprosy hospitals and 3 Mental hospitals. The ophthalmic hospital at Thiruvananthapuram has been converted into Regional Institute of Ophthalmology. If we include primary health centres and community health centres, it can be seen that

there are 1317 medical institutions (including grant-in-aid institutions) in the state with 39,678 beds. The health infrastructure with beds is reflected in Appendix 9.54 and its spatial distribution is given in Appendix 9.55. The summary statement showing beds under government, private and co-operative sectors is given in Table 9.14. The growth of institutions and beds from 1966 through 1999 is shown in Appendix 9.53. As can be seen from Appendix 9.53, the beds in the government sector increased to 44,500 in 1999 as against 35,740 in 1986, which represented an increase of 25 per cent of beds over the period. During the period 1992-99 additionally 4004 beds were added which were largely allocated to backward districts. During 1998-99 alone, 828 beds were added in the government sector.

#### **Accessibility of Rural Health Infrastructure**

9.36 There are 105 community health centres, 944 primary health centres and 5094 sub centres in Kerala. But at the national level, there are 2708 CHCs, 22962 PHCs and 1,36,815 sub centres. On an average, each sub centre covers a population of 5712 in Kerala as against 4595 at the all India

level. Average area covered by a sub centre in Kerala and all India are 7.28 sq.kms and 22.89 sq.kms respectively. On an average, each primary health centre covers a population of 30,732 and each community health centre a population of 2.76 lakhs. Compared to all India situation, in Kerala,

sub centres, PHCs and Community health centres serve a larger population due to higher density, but area covered is less as compared to all India. Details of rural health infrastructure in Kerala for the period from 1986 to 1999 are given in Appendix 9.58.

**Table 9.14**  
**Summary statement showing beds under Government, Private, Co-operative sector and ESI (Allopathy) during 1999.**

<i>Category</i>		<i>No. of Beds</i>	<i>Percentage to total</i>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
1	Government Sector		
A	DHS	30689	27.4
B	Medical College Hospitals including Kannur M.C.H.	9559	8.5
2	Directorate of Insurance Medical Services	1262	1.1
3	Co-operative Sector	2507	2.2
4	Private Sector	67517	60.3
5	Regional Cancer Centre	320	0.3
6	Sree Chithira Thirunal Institute of Medical Sciences	217	0.2
	<b>Total</b>	<b>112071</b>	<b>100.00</b>

### **ii) Health Infrastructure and Manpower in Private Sector**

9.37 According to a survey by the Department of Economics and Statistics conducted in 1995, there were 4288 private allopathic medical institutions with 67,517 beds, 4922 ayurvedic private institutions with 2595 beds, 3118 homoeopathic institutions with 394 beds and 290 other institutions with 418 beds. More over, 19,963 doctors worked in the private sector.

### **iii) Co-operative Sector**

9.38 There were 52 co-operative hospitals with 2507 beds and 992 doctors and nurses. Details of infrastructure, doctors and nurses under co-operative sector are given in Appendix 9.85.

### **Health Manpower - Allopathy**

9.39 There are 3421 medical officers and 72 dentists working in various institutions attached to the Directorate of Health Services and 2271 doctors in six medical college hospitals. The doctor - population ratio, counting only doctors working in government system stood at 1:5694. In addition there are 29,091 registered medical practitioners in allopathy system, 8,212 under homoeopathy and 13,782 in ayurveda. Data relating to the registered medical and paramedical practitioners are shown in Appendix 9.75 and 9.76.

### **Overall Bed Population Ratio**

9.40 The bed population ratio per lakh of population is 137 under allopathy sector in government. District -wise distribution of institutions, beds and beds per lakh of population is given in Appendix 9.53.

Besides there are 2514 beds in ayurveda hospitals and 970 beds in homoeo hospitals and 1262 beds in ESI hospitals. The combined bed population ratio of all the three systems of medicines put together in the government sector is 152 beds per lakh of population where as the all India level is 103 beds per lakh of population. Taking into account the total number of beds in the government, private and co-operative sectors, the number of beds per lakh population in the state is 357.

#### ***Institutional Deliveries***

9.41 While analysing the performance of the family welfare programme during 1998-99, out of 4,83,327 cases registered in various government allopathic medical institutions, in Kerala, the reported institutional deliveries stood at 4,45,956. Out of this, the number of delivery cases attended by the medical college hospitals stood at 61,609, of which normal delivery cases were – 47,941 and caesarian cases – 13,668. This level of institutional delivery has been possible due to widespread availability and accessibility of health infrastructure and high level of health consciousness of the people. The institutional deliveries facilitated immunisation and health care follow up service etc.

#### ***Immunisation Status***

9.42 Kerala has unique achievement in immunisation status. The coverage of infants for Polio, BCG and Measles was 100 per cent in 1998-99. The coverage stood at 90.8 per cent for pregnant women with T.T., 64 per cent of D.T for children aged 5 years, 73 per cent of T.T for children aged 10 years and 72 per cent of T.T for those aged 16 years. The coverage of DPT stood at 108.8 per cent.

#### ***Other Supporting Services and Laboratory Facilities***

9.43 The state has a large net work of laboratory and other supporting services also. There are laboratory facilities at block level PHCs, Community Health Centres,

Intermediary hospitals, Taluk hospitals and District hospitals. Besides public health laboratories, government analyst laboratories, drugs control department are also functioning in the state.

#### ***Blood collected in Blood Banks - Kerala***

9.44 In the state 105 blood banks are functioning, of these 29 blood banks are in the government sector and 76 in the private sector. 1,71,004 units of blood was collected during 1998, out of which government sector blood banks accounted for 87,287 units which represented 51 per cent. The six medical college blood banks together accounted for 66,486 units, which constituted 39 per cent 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 all together collected 73,392 units during 1998, which represented 43 per cent. The institution wise units of blood collected can be seen in Appendix 9.84(a) and 9.84 (b).

#### ***Major Principal Diseases***

9.45 Kerala has made rapid strides in the prevention of communicable diseases. The prevalence rate of leprosy, tuberculosis, filaria and malaria for every 1000 population has declined to 1.24, 1.27, 0.25 and 0.15 respectively. The prevalence rate for 10 diseases is given in Appendix 9.63. Attack and death due to major principal diseases during 1998-99 is shown in Appendix 9.62. An analysis of the data reveals that attack due to acute diarrhoeal diseases, diphtheria, respiratory infections, measles, pneumonia, enteric fever etc. has increased slightly. During 1998-99 only 5 deaths were reported against diphtheria, Acute Polio Myelitis, Tetanus, neonatal tetanus etc. A total of about 201.6 lakh attacks were reported against which death reported stood at 4472. Attacks due to viral hepatitis, syphilis and rabies recorded a decline as can be seen in Appendix 9.62.

#### ***Medical Education***

9.46 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 total 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, 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 9.69.

9.47 There are 8959 beds in all the six medical college hospitals. Distribution of hospital beds and patients treated in medical college hospitals during 1998 are given in Appendix 9.66. During 1998-99, 3,97,388 inpatients were treated in all the medical colleges and the out patients treated stood at 24,17,644. Details of medical college hospital wise delivery cases attended during 1998 are shown in Appendix 9.67. Out of 47,941 deliveries in medical college hospitals, 13,668 (28.5 per cent) were caesarian deliveries.

#### ***Nursing Education***

9.48 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.

9.49 There were 22 government nursing schools under the department of health services of which 9 schools conducted general nursing (3 year course) and 13 schools impart Junior Public Health Nurses courses (18 months course). The annual intake of nursing courses in different categories during 1998 is shown in Appendix 9.70. More-over a total of 2346 nurses both - general nurses and junior public health nurses are trained every year in the 70 approved institutions.

#### ***Ayurveda***

9.50 The number of ayurveda hospitals in the state is 111 with 2514 beds and 631 dispensaries. Out of 631 dispensaries 6 are Visha Dispensaries, and one each are under Sidha and Unani. Besides there are 112 grant-in-aid institutions. The 111 hospitals consist of 14 district hospitals, 30 taluk head quarters hospitals, one marma hospital, one visha hospital, one mental hospital at Kottakal, one panchakarma hospital at Alappuzha, nature cure centre at Varkala and 62 other hospitals. The growth of institutions and beds from 1975-99 is given in appendix 9.71. In the ayurvedic institutions 205.71 lakh persons were treated as outpatients and 29,909 persons as inpatients during 1999. The district-wise details of institutions, beds, doctors and patients treated are given in Appendix 9.72. The list of institutions transferred to local bodies is given in Appendix 9.81.

9.51 There are five ayurveda colleges in the state with an annual intake of 50 students in Government Ayurveda College, Thiruvananthapuram and 30 students each in Government Ayurveda College Thrippunithura and Kannur and private ayurveda college Ollur and Kottakkal (Quasi Government) for BAMS courses. M.D course is being conducted only in the Government Ayurveda College at Thiruvananthapuram with an annual intake of 42 students.

#### ***Homoeopathy***

9.52 There are 474 homoeo dispensaries and 31 hospitals with 970 beds in the state. The number of institutions and beds in Kerala from 1971 to 1999 is given in Appendix 9.73. During 1998-99, 92,08,167 patients were treated in the various homoeopathic institutions. District-wise details of institutions, beds, doctors and patients treated are given in Appendix 9.74.

9.53 Out of four homoeopathic colleges in the state two, Thiruvananthapuram Homoeo Medical College and Kozhikode Homoeo Medical College are in government

sector and the other two colleges Athurashramam NSS Homoeo College, Kurichy and Dr. Padian Medical College, Ernakulam are in the private sector. BHMS degree courses are being conducted in all the colleges together with an annual intake of 200 students (50 students in each colleges). Besides three year MD courses are imparted in the government colleges with an annual intake of 24 students (12 students in each college).

### *Family Welfare Infrastructure*

9.54 Family Welfare Programme in Kerala is being implemented through a network of 962 rural main centres (PHCs, CHCs) and 5094 sub centres. The achievements under family welfare programmes for the last two years are presented in Appendix 9.78 and district-wise details of family welfare relating

to 1998-99 are given in Appendix 9.79. The expenditure on family welfare programmes from 1980-81 to 1998-99 amounted to Rs. 704.43 crores. The expected expenditure during 1999-2000 is Rs. 84.8 crores. The most direct evidence of the effectiveness of the family welfare programme is provided by the couple protection rate. The percentage of couples 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 physical achievements under family welfare programme in regard to sterilisation, IUD insertion and CC users far exceeded in 1999 as against the 1998 position.

**Table 9.15**

**Plan and Non-Plan Expenditure on Medical and Public Health -  
excluding Family Welfare Programme - Kerala**

<i>Year</i>	<i>Plan</i>	<i>Non-plan</i>	<i>Total</i>
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(RE)	8887.87	46982.08	56333.37
1999-2000(BE)	6945.00	61244.83	68189.83

**Table 9.16**  
**Expenditure on Family Welfare Programme**

<i>Year</i>	<i>Both Plan &amp; Non-plan (Rs. In lakhs)</i>
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	6030.49(RE)
1999-2000	8480.00(BE)

*Health Expenditure*

9.55 During the year 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. 192.56 in 1998-99 and Rs. 233.59 in 1999-2000. The total plan and non-plan government expenditure including family welfare was Rs. 623.64 crores in 1998-99 as against Rs. 537.58 crores during 1997-98, registering an increase of 16 per cent. The expenditure on health as percentage to state domestic product stood at 1.40 per cent. The relevant data for the period 1985-86 to 1998-99 are given in Table 9.17.

**Table 9.17**  
**Per Capita Expenditure on Medical and Public Health**

<i>Year</i>	<i>Population (lakhs)</i>	<i>Expenditure on Health Including Family Welfare (Rs. in lakhs)</i>	<i>Index of Growth</i>	<i>Expenditure Per Head (Rs.)</i>	<i>Index of Growth</i>
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	62363.86	492	192.56	416
1999-2000	328.23	76669.83	605	233.59	505

## WATER SUPPLY AND SANITATION

### Introduction

9.56 According to 1991 Census, Kerala State had 197 towns including 3 Corporations and 55 Municipalities, with an urban population of 76.86 lakhs and its rural population was 214.18 lakhs. It is estimated that in 1999 the urban population had increased to 97.33 lakhs and rural population to 223.42 lakhs. Out of the estimated 60.51 lakh households, only 6.34 lakhs (10.47 per cent) were connected with house taps in October, 1999. In addition, there were 1,36,000 stand posts in October 1999 with each stand post expected to benefit a population of 250 as per Accelerated Rural Water Supply norms. More over, there are more than 5 lakh private drinking water wells in the state.

9.57 According to 1991 Census, there were 1384 villages in Kerala, of which 1341 were identified as problem villages. Out of these, only 70 villages were fully covered with safe drinking water at the beginning of Ninth FiveYear Plan. As on 31<sup>st</sup> October, 1999, 1377 villages were

partially covered with protected water supply benefiting 113.44 lakh population. The thrust during Ninth FiveYear Plan has been on 100 per cent coverage of urban as well as rural population by 2002 by protected water supply. The lpcd consumption level in urban areas is targeted to be increased from 70 to 150 and in rural areas from 40 to 55.

### Rural Population Covered Under Protected Water Supply

9.58 The number of rural water supply schemes in operation in the state as on 31<sup>st</sup> December, 1999 were 1576 as against 1429 schemes in 1998. During 1998-99, 128 water supply schemes including extension schemes were completed. Table 9.18 shows district-wise distribution of water supply schemes and schemes completed in the state with population coverage in 1999. The coverage of rural population increased from 83.36 lakhs in 1992 to 121.97 lakhs in 1999. But in terms of quantity of water supplied, the position is far from satisfactory, as in a number of cases, the coverage is measured as mere accessibility of piped water connections.

Table 9.18

### Rural Water Supply Schemes in Operation and the Schemes Completed as on 31/03/1999 Excluding SCP/TSP Schemes

Sl. No.	Name of District	Number of schemes in operation during 1999	Number of schemes completed during 1999 (This includes extensions)	Population Covered In 1999 (in lakhs)
1	Thiruvananthapuram	108	12	12.85
2	Kollam	82	15	11.86
3	Pathanamthitta	29	5	4.84
4	Alappuzha	96	8	10.38
5	Kottayam	106	3	8.23

6	Idukki	163	21	5.24
7	Ernakulam	116	8	11.84
8	Thrissur	174	13	14.92
9	Palakkad	154	7	12.96
10	Malappuram	133	4	13.33
11	Kozhikkode	150	6	4.64
12	Wayanad	51	2	3.00
13	Kannur	123	4	4.05
14	Kasargode	91	20	3.83
<b>TOTAL</b>		<b>1576</b>	<b>128</b>	<b>121.97</b>

9.59 The coverage increased from 116.16 lakhs in 1998 to 121.97 lakhs in 1999, registering an increase of 4.34 per cent. In terms of total coverage of water

supply Thrissur district ranks first followed by Malappuram and Palakkad. The district-wise rural population covered is reflected in Table 9.19.

**Table 9.19**  
**District-wise Population Covered by Rural**  
**Water Supply Scheme**

<b>Sl. No</b>	<b>District</b>	<b>1992</b>	<b>1995</b>	<b>1999</b>
1	Thiruvananthapuram	879000	1165278	1284767
2	Kollam	807000	878900	1186495
3	Pathanamthitta	295000	418564	484081
4	Alappuzha	803000	917105	1037564
5	Kottayam	674000	743999	822631
6	Idukki	321000	379600	524042
7	Ernakulam	717000	1036495	1183780
8	Thrissur	1109000	1171027	1491508
9	Palakkad	1098000	1204790	1295638
10	Malappuram	591000	646570	1333405
11	Kozhikode	379000	257287	464244
12	Wayanad	162000	220730	298391
13	Kannur	220000	315043	404816
14	Kasaragod	261000	328458	383291
<b>TOTAL</b>		<b>8336000</b>	<b>9685841</b>	<b>12196652</b>

9.60 During the period 1992-1999, 47.44 lakh population were additionally covered as shown in Table 9.20. The additionally covered population stood at 7.53 lakhs in 1999 as against an average increase of 5.93 lakh population per year during 1992-1999. Out of the additional coverage of 7.53 lakh population in 1999, the SCs and STs constituted 69121(9.17 per cent) and 3718 (0.49 per cent) respectively. It was observed that the highest additional coverage is recorded in Kollam (12517) followed by Kozhikode and Malappuram districts, whereas lowest additional coverage is in Wayanad, followed by Ernakulam district.

**Table 9.20**  
**Additional Population Covered with Protected Water Supply During 1992-1999**

Year	Total Population	Scheduled Caste Population	Scheduled Tribe Population
1992	598524	87434	8829
1993	499757	101067	11888
1994	378331	70508	6374
1995	5413625	106142	11232
1996	1184752	139482	10654
1997	321468	107349	11730
1998	463991	56418	7123
1999	753396	69121	3718
<b>TOTAL</b>	<b>4743844</b>	<b>737521</b>	<b>71548</b>

#### **Urban Water Supply Schemes and Population Covered**

9.61 There were 50 urban water supply schemes in operation in the state covering 59.33 lakh population in 1999 and representing 61 per cent of the urban population. There was an increase of 2.45 per cent coverage in 1999 compared to 1998. (See Appendix 9.86)

#### **Demand - Supply Gap in Water Supply in Corporation/Municipal Areas**

9.62 According to 1991 Census, Corporation/Municipal areas of Kerala had a total population of 37.78 lakhs and was estimated at 42.59 lakhs in 1999. As per 1pcd norms, the demand for water in these areas stood at 6745 million litres as against a supply of 4065 million litres of water during 1999. The demand-supply gap was 2679 million litres of water per day. It may be noted that demand-supply gap of water in Corporation/Municipal areas marginally narrowed down from 2855 million litres in 1998 to 2679 million litres of water in 1999. The details are presented in Appendix 9.87. There were 9610 stand posts in the three Corporation areas of Kerala as on 31<sup>st</sup> October, 1999 and each stand post served 162 persons on an average. In municipal areas, 21,203 stand posts were there as on 31<sup>st</sup> October, 1999. The relevant information is furnished in Appendix 9.88

#### **Production and Supply of Piped Water**

9.63 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 1998, showing an increase of 44,840 (13.39 per cent) million litres 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 per cent over 1992. The leakage in 1992 stood at 1,29,381 million litres which worked out to 38.65 per cent of the water produced. This declined to 93,075 million litres in 1998, ie., 24.52 per cent in 1998 from 38.65 per cent in 1992. Table 9.21 shows the details on production, supply and leakage of water during the period

1992 – 1999. This would imply that 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 of 1998.

**Table 9.21**  
**Production and Supply of Water under Piped Water Supply**

(in million litres)

Year	Production	Supply	Leakage	Percentage of column 4 to 2
1	2	3	4	5
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	126169.95	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

#### **House Taps and Stand Posts**

**9.64** As on 31<sup>st</sup> October, 1999 house tap connections covered 6.34 lakh families which constituted 10.51 percent of the house holds in Kerala. It increased from 6.32 lakh families in 1998 to 6.34 lakh families in 1999 reflecting an increase of 0.32 percent. The stand posts installed increased from 1.21 lakhs in 1996 to 1.36 lakhs in 1999. According to norms, each stand post is expected to serve a population of 250. But as revealed from various studies, the ground reality is different and the population served is far less as compared to norms. The relevant data giving district wise coverage through house tap connections and stand posts installed are given in Table No.9.22.

**Table 9.22**

**Service Level of Existing Water Supply System in Kerala Through House Taps and Stand Posts as on 31/10/1999**

Sl. No.	Name of District	Number of House connections	Number of Stand Post installed
1	Thiruvananthapuram	161000	14000
2	Kollam	44800	9800
3	Pathanamthitta	10100	3300
4	Alappuzha	63300	16200
5	Kottayam	36500	9350
6	Idukki	8600	4100
7	Ernakulam	163700	27000
8	Thrissur	46500	14300
9	Palakkad	37500	11000
10	Malappuram	22000	9350
11	Kozhikode	10000	9200
12	Wayanad	2050	2050
13	Kannur	17600	4250
14	Kasargode	10600	2100
<b>TOTAL</b>		<b>634250</b>	<b>136000</b>

#### **Habitation Wise Coverage of Water Supply Scheme**

**9.65** According to a survey conducted by Rajiv Gandhi Drinking Water Supply

Mission in 1992, out of the 9776 habitations, 2289 were non-covered, 2074 were partially covered (WS level less than 10 lpcd) 5348 with 10 – 40 lpcd level, 52 were fully covered and 13 not covered (Forest area) in the state. Between 1992 and 1999, the non-covered habitations declined from 990 in 1998 to 880 in 1999 (by 9 per cent). Partially covered habitations decreased to 6921 (70.80 per cent) and fully covered habitations increased to 1962 (20.07 per cent) in the state. The status of water supply coverage in habitations is given in Table 9.23.

**Table 9.23**  
**Status of Water Supply Coverage**  
**as on 30/04/1999**

Month/ Year	Habitats			
	Fully covered	Partially covered	Non-covered	Forest Area
4/97	1474	7141	1148	13
4/98	1682	7091	990	13
4/99	1962	6921	880	13

9.66 The position in 1999 was that among the partially covered habitations, 1637 (16.75 per cent) had below 10 lpcd supply, 1445 (14.80 per cent) between 10 – 25 lpcd, 1816 (18.60 per cent) between 25-50 lpcd and 4865 (49.83 per cent) had between 50 –100 lpcd supply of water. The coverage in terms of percentage of population is furnished in Table 9.24.

**Table 9.24**  
**Habitation-wise Distribution and**  
**Percentage of Population Provided with**  
**Drinking Water as on 31/10/1999**

Population covered	Number of Habitations		
	1997	1998	1999
Below 10%	2279	1764	1637
Between 10 to 25 %	1746	1851	1445
Between 25 % to 50 %	2242	2799	1816
Between 50 % to 100 %	3496	3349	4865
Sub Total	9763	9763	9763
Non-covered forest area	13	13	13
<b>TOTAL</b>	<b>9776</b>	<b>9776</b>	<b>9776</b>

9.67 District-wise distribution of habitation coverage status of water supply is provided in Table 9.25. Malappuram district has the highest coverage of 1036 habitations followed by Thrissur and Palakkad whereas, Wayanad ranks lowest in coverage, followed by Kasaragod in 1998.



**Table 9.25**  
**District-Wise Habitation Coverage Status of Water Supply in 1998**

<i>Sl. No.</i>	<i>District</i>	<i>Number of NN habitations</i>	<i>Number of NC habitations</i>	<i>Number of PC habitations</i>	<i>Number of FC habitations</i>	<i>Total</i>
1	Kasargod		3	336	79	418
2	Kannur		4	419	76	499
3	Wayanad	1	5	228	56	290
4	Kozhikkode	1	33	595	71	700
5	Malappuram	1	109	757	169	1036
6	Palakkad		37	758	143	938
7	Thrissur	1	51	711	221	984
8	Ernakulam	4	43	554	134	735
9	Idukki		177	289	83	549
10	Kottayam	1	111	509	127	748
11	Alappuzha	3	140	408	117	668
12	Pathanamthitta	1	62	417	57	537
13	Kollam		119	583	131	833
14	Thiruvananthapuram		96	527	218	841
<b>TOTAL</b>		<b>13</b>	<b>990</b>	<b>7091</b>	<b>1682</b>	<b>9796</b>

*NN – Not accessible and Not covered habitations*

*NC – Not covered habitations*

*PC – Partially covered habitations with water supply level less than 40 lpcd*

*FC – Fully covered habitations with water supply level above 40 lpcd*

***Expenditure on Water Supply***

9.68 The Ninth Five Year Plan outlay for water supply and sanitation is fixed at

Rs.1032 crores, which constitutes 10.22 per cent of the total state sector plan outlay

of Rs.10100 crores. During the first three years of Ninth plan, an expenditure of Rs.419 crores is reported against a budgeted outlay of Rs.412 crores. Further, local bodies are expected to utilize Rs.630 crores for water supply sector during Ninth plan from their plan allocation of Rs. 6000 crores.

9.69 An analysis of plan expenditure by KWA during 1998-99 shows that 64.80 per cent of total allocation was spent for plan schemes other than ARP/LIC/HUDCO and ARP assisted schemes, 15.64 per cent on expenditure by loan from LIC/HUDCO and ARP constituted 18.86 per cent. The non-plan expenditure in 1998-99 was Rs.143.88 crores in 1998-99 as against Rs 79.12 crores in 1993-94, thus register an increase of 81.87 per cent during the period. Among the different components of non plan expenditure during 1998-99, expenditure on electricity charges alone constituted 25.46 percent, O&M expenditure 16.95 per cent and 21.48 per cent salary cost. The interest on loan

excluding loan from Government of Kerala constituted about 23.70 % of the total expenditure. Appendix 9.89 provides the details of expenditure.

#### *Financing Water Supply Schemes*

9.70 The total receipts of KWA that was Rs. 30.66 crores in 1992 had increased to Rs.69.54 crores in 1999, by 126.86 per cent. Among the different components of income, internal revenue collection constituted 20.25 per cent, state government plan assistance 38.65 per cent, Government of India assistance 14.39 per cent and LIC-HUDCO assistance 11.51 per cent. The financing of water supply from various sources is presented in Appendix 9.90. The total borrowings received from LIC stood at Rs.178.88 crores during 1992-99 and that from HUDCO was Rs.110.63 crores. The details on assistance received from LIC and HUDCO, repayment made and balance outstanding, etc are furnished in Table 9.26.

**Table 9.26**  
**Year-Wise Details of Assistance from LIC and HUDCO**

(in lakhs)

Year	LIC			HUDCO		
	Assistance Received	Repayment made	Outstanding Balance	Assistance Received	Repayment made	Outstanding Balance
Up to 31/3/1992	6430	1848	7863	466		466
1992-93	1000	335	8528	1395	81	1780
1993-94	1230	401	9357	1174	223	2731
1994-95	2151	436	11072	1449	336	3844
1995-96	2028	517	12583	1060	367	4537
1996-97	2266	523	14326	294	425	4406
1997-98	2783	605	16504	1272	567	5111
1998-99	NIL	661	15843	3953	606	8458
<b>TOTAL</b>	<b>17888</b>	<b>5326</b>	<b>96076</b>	<b>11063</b>	<b>2605</b>	<b>31333</b>

### **Per Capita Cost of Providing Water Supply**

9.71 The per capita cost of providing water supply in Kerala has been estimated to be 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. 8 per 1000 litres in 1999. The existing water rate per domestic and non-domestic connection is given in Table 9.27.

**Table 9.27**  
**Existing Water Rates for Domestic and Non-Domestic Connections (from 01/04/1999)**

	Rate
<b>Domestic</b>	
Up to 10000 litres	Rs 20 per month
10000 litres to 30000 litres	Rs 20 plus @ Rs.3.00 per 1000 litres in excess of 10000 litres
30000 litres to 50000 litres	Rs 80 plus @ Rs.5.00 per 1000 litres in excess of 30000 litres
Above 50000 litters	Rs 180 plus @ Rs.7.35 per 1000 litres in excess of 50000 litters
<b>Non-Domestic</b>	
Upto 50000 litters	Rs 7.35 per 1000 litres with minimum charge of Rs.100 @ Rs.368 plus @ Rs.10.60 per
Above 50000 litters	1000 litres in excess of 50000 litres
<b>Industrial Category</b>	
For entire consumption	@ Rs.10.60 per 1000 litres with minimum charge of Rs.200
<b>Stand Posts</b>	
Urban	@ Rs.2628 per year per tap
Rural	@ Rs.1750 per year per tap

### **Sanitation**

9.72 According to 1991 Census, 51 % of the households in the state had sanitary latrines facilities. But the National Sample Survey 1991 results showed that out of the 55 lakh households, 26 lakhs did not have latrines. The major departments concerned with sanitation are the Rural Development Department, Panchayat Department, Corporations and

Municipalities, Kerala Water Authority, Socio-Economic Unit etc. It is estimated

that 40,000 to 50,000 latrines are constructed by different agencies in the state every year. At this rate, 4 lakh latrines should have been constructed during 1991-99. Besides, every year about 75,000 new houses are constructed by individuals without state assistance. Assuming that each of these houses would have constructed at least one latrine, another 6.75 lakh latrines would have been added during the period. Thus

during 1991-1999 more than 10 lakh latrines would have been constructed in the state.

### *Decentralisation of Water supply*

9.73 The Kerala Water Authority identified 1,050 water supply schemes for transfer to local bodies. Local Bodies have in their plans formulated 19,209 projects for water supply and sanitation and earmarked Rs.166 crores in their plans for 1997-98 and 1998-99. The anticipated expenditure by local bodies towards water supply sector is Rs.286.61 crores during the first three years of Ninth plan.

## **HOUSING**

### **Demand for Housing in 2001**

9.74 According to 1991 Census, there were 54.59 lakh houses and 55.13 lakh households in Kerala. The shortage of houses worked out as the difference between number of households and number of houses, was 54,000 in 1991. Out of total houses 55.97 percent of the houses were pucca houses, 19.13 percent semi pucca houses and 24.9 percent kutcha houses. Taking into account of the semi pucca and kutcha houses, the housing demand in Kerala in 1991 was worked out as follows: -

	<i>Lakhs</i>
Numerical shortage of houses in 1991	0.54
Substandard houses which are to be reconstructed	5.50
Houses which required major repair/reconstruction	2.70
<b>TOTAL</b>	<b>8.74</b>

9.75 The household size in Kerala, according to 1991 Census, was 5.3. As against 290 lakh population in 1991 it has been projected that population would

increase to 328 lakhs in 2001. For working out the additional requirement of housing consequent on the growth of population, the family size of 5.3 per household was used and accordingly 7.20 lakh houses are needed to be constructed. Thus the total demand in Kerala for housing in 2001 works out to 15.94 lakhs.

### *Shift in Approach towards Housing Policy*

9.76 The state government, through its policy and approach has accorded highest priority in providing the basic need for housing to the economically weaker sections. Of the housing support provided by the state, 79 percent is for economically weaker sections. The subsidy provided for houses to Economically Weaker Sections (EWS) was increased from Rs.9000 in 1996 to Rs. 35000 per house in 1998. Under Maithri Housing Scheme, over and above the subsidy of Rs. 9000 an interest subsidy of 8.5 percent was sanctioned which amounts to about Rs.13000 per house. In order to assist maximum number of beneficiaries institutional finance is also being availed for house construction. During the Ninth FiveYear Plan period about Rs.700 crores was mobilised from institutions for housing. Government have decided to construct 5 lakh houses from 1999-2000. The Panchayats assisted construction of 99,000 houses during 1997-'99. District panchayats of Thiruvananthapuram, Kollam and Thrissur have formulated total housing programme to be completed in two or three years period.

### *Houses Constructed during 1996-98*

9.77 A review of physical achievements of various housing schemes implemented shows that 3.74 lakh houses were constructed during the 7 year period, 1991-98, by government and its agencies. The local bodies assisted construction of about 99,000 houses during the period 1997-98 and 1998-99. A State Planning Board

Survey found that during the four-year period, 1991-'92 to 1994-'95 about 75,000 houses were constructed in the private sector per year. Based on the survey it is assumed that during 1996-98 2.25 lakh houses would have been constructed in the private sector. The total number of houses constructed approximately are 9.98 lakhs of which 3.74 lakh houses were built by government and its agencies, 99,000 by Local Bodies and 5.25 lakh houses by private sector. The accelerated effort is well seen from the fact that during 1998-99, about 79,245 houses were constructed by various government agencies in the state as against 69,409 houses during 1997-98. The houses constructed by state sector agencies are given in table 9.28. The notable feature is that in Kerala about 50 percent of the houses are constructed with state support as against about 25 percent for all India. Taking into account of the number of houses reconstructed in the private sector, the total number of houses constructed by March, 1999 would have been 11.52 lakhs.

#### ***Kerala State Housing Board***

9.78 Kerala State Housing Board is the major government organisation catering to different income groups including economically weaker sections and low income groups. It has assisted construction of about 4.34 lakh houses upto 1998-99. Out of the total number of 52,459 houses constructed by the Board during 1998-99, EWS houses accounted for 81.6 percent, low income group (LIG) 4.2 percent and middle income group (MIG) 3.8 percent. So far the Board has completed 11,128 units under 141 public housing schemes and 1,755 units under rental housing schemes. The details of various housing schemes under implementation and physical progress achieved are given in Appendix 9.91

9.79 Maithri Housing Scheme introduced in 1996 is the major scheme implemented by the Housing Board for the benefit of economically weaker sections.

From 1996-97 to October 1999 the Board disbursed a subsidy of Rs.112.78 crores and loan assistance of Rs.393.15 crores for the construction of 1,63,598 houses of which 1,25,314 units were completed. The district-wise achievement under Maithri Housing Scheme is shown in Appendix 9.92. In order to implement various housing schemes, the Board availed itself of institutional funds from HUDCO Rs.149.63 crores in 1997-98 and Rs.304 crores in 1998-99. The board also raised Rs.8 crores from banks. It disbursed Rs.346.58 crores during 1998-99. Between April, 1999 and November 1999, it mobilised Rs.81.85 crores from HUDCO and disbursed Rs.92.70 crores.

#### ***Kerala State Co-operative Housing Federation***

9.80 The Kerala State Co-operative Housing Federation which is the apex financing agency in the co-operative housing sector had advanced loan amounting to Rs.470.88 crores for the construction of 1,07,631 houses upto 31/3/1998. The Federation assisted construction of 7,348 houses during 1998-99 for which it raised Rs.31.45 crores. The funds raised from LIC amounted to Rs.2,700 lakhs, National Housing Bank Rs.365.35 lakhs and the share capital contribution from state government was Rs.80 lakhs. The Federation disbursed Rs.59.13 crores during 1998-99. Between April and October 1999, the amount disbursed was Rs.37.43 crores for the construction of 4,648 houses.

9.81 The Rural Development Department assisted construction of 14,164 EWS houses under Indira Awas Yojana (IAY) and Jawahar Rozgar Yojana (JRY) during 1998-99. Besides, the Fisheries Department supported construction of 2,274 houses for the economically weaker sections. There are as many as 22 major schemes implemented by different agencies and the details are given in table 9.28.

Table - 9.28

## Achievements under Major Housing Schemes

Sl.No	Schemes	Upto 31-3-1986	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	Provision of House sites to rural landless workers	7863	5517	1869	2903	2179	2634	2585	2214	2402	3364	2322	937	1583	..
2	Huts/Houses for rural workers	8440	974	366	852	335	396	335	..	..	..	..	..	..	..
3	Village Housing Project	10453	..	..	..	29	52	72	..	..	..	..	..	..	..
4	Low Income Group Housing	10698	..	..	..	28	66	2240	1131	3767	5169	6184	1701	1821	2190
5	Middle income group housing	4515	59	22	27	53	68	1119	603	1621	714	1018	1367	2181	1986
6	Co-operative housing scheme for economically weaker sections	51964	2625	..	..	..	..	..	..	..	..	..	..	..	..
7	Subsidised aided self help housing scheme with co-operation of voluntary agencies	27585	2090	..	..	..	..	..	..	..	..	..	..	..	..
8	Rental Housing Scheme	4889	..	..	11	78	258	84	..	16	..	..	..	42	..
9	Public Housing Scheme	11645	613	544	488	278	276	878	822	188	2878	68	449	249	247
10	Kudikidappukkar Housing	7094	212	..	..	..	..	..	..	..	..	..	..	..	..
11	Scheduled Castes/ Scheduled Tribes Development Corporation	24917	2215	1918	675	1283	1249	739	1060	1683	2805	2515	771	322	..
12	Tribal Welfare Department	4250	90	350	377	286	404	583	626	880	871	628	583	342	500
13	Scheduled Case Development Department	18389	159	1166	957	1131	818	985	1135	2030	1844	419	173	..	1200
14	Fishermen Housing	33332	2290	3870	6143	869	2211	63	2423	1547	1023	2287	594	3857	2274
15	Kerala State Co-operative Housing Federation	25612	8387	8658	6716	3502	4577	5313	5563	6231	9386	2236	8360	8228	7348
16	Rehabilitation Housing Scheme	..	88837	9840	22062	8497	29611	5239	5621	32	..	..	..	..	..
17	N.R.E.P	3871	9544	7560	9451	..	..	..	..	..	..	..	..	..	..
18	R.L.E.G.P	6847	14388	11040	8554	..	..	..	..	..	..	..	..	..	..
19	Jawahar Rozgar Yojana / Indira Awas Yojana	..	..	..	..	22932	14225	22182	16533	16999	16283	29368	29952	17803	14164
20	Other Schemes implemented by KSHB	..	..	..	..	..	..	4755	6045	2256	11123	1967	5922	4032	5101
21	Completed / Discontinued Schemes	12308	..	..	..	..	..	..	..	..	..	..	..	..	..
22	ROMHS Housing complex	..	..	..	..	..	..	..	..	996	1486	903	205	45	..
23	EWS (Maitri) Housing Scheme	..	..	..	..	..	..	..	..	..	..	..	27689	30487	42935
	<b>TOTAL:</b>	<b>274622</b>	<b>136000</b>	<b>47201</b>	<b>59216</b>	<b>39450</b>	<b>56845</b>	<b>47172</b>	<b>43778</b>	<b>40648</b>	<b>56948</b>	<b>49915</b>	<b>78703</b>	<b>70992</b>	<b>79245*</b>

\* This does not include achievements by Local Bodies

## LABOUR AND LABOUR WELFARE

### *Industrial Training*

9.82 In 1960 there were 4 Industrial Training Institutes in government sector. The number increased to 15 in 1980 and 32 in 1999, with an enrolment of 12,560 students. Now there are 353 Industrial Training Centres (ITCs) in the private sector. The Government Industrial Training Institutes (ITIs) and Industrial Training Centres (ITCs) together had a total enrolment of 48,864 students under various courses. The district wise details of ITIs and ITCs and their seat strength in 1999 are given in Appendix 9.93.

### **Trade-wise Enrolment in the Industrial Training Institutes (ITIs) and Industrial Training Centres (ITCs)**

9.83 Out of the total seat strength of 48,864 in Industrial Training Institutes (ITIs) and Industrial Training Centres (ITCs), 26 percent were in ITIs and 74 percent in ITCs. Further analysis showed that of the 12,272 students admitted under one year course, 32 percent were in Government ITIs and 68 percent in private ITCs. In Government ITIs 3980 students were admitted in 17 trades for one year course. Of this girls constituted 15 percent (595) and Scheduled Caste students, 18 percent (717). In the case of ITCs, 8292 students were in one year course in 17 trades. Of this girls represented 8 percent (662) and Scheduled Caste students 11 percent (902).

9.84 The enrolment in the two year course in 1999 stood at 36,464 of which

ITIs accounted for 23 percent and ITCs 77 percent. Out of 8484 students enrolled under 18 trades in ITIs, girls accounted for 21 percent (1804) and Scheduled Castes 18 percent (1546). It is revealed that 27,980 students are enrolled in ITCs under 2 year course in 12 trades of which girls constituted 3 percent (812) and Scheduled Castes 14 percent (3804). An analysis of the intake under various trades revealed that 26 percent are undergoing draftsman civil trade in ITCs followed by Electrician and Electronics Mechanic Trades in 1999. The trade-wise intake in Government ITIs and Private ITCs are given in Appendices 9.94 and 9.95.

Besides there is an annual intake of 48 students in Government ITIs under 3 year course in tool and die making trade and in ITCs with an annual intake of 16.

9.85 Apprenticeship training is under implementation since 1963, which now covers 55 trades. During 1999, 5687 persons were trained through 9 Related Instruction Centres and 5 ITIs in non-RIC districts. Of the total trainees, 525 were women, 14 physically handicapped, 472 scheduled castes and 22 scheduled tribes and 1274 minorities. Besides 356 trainees sponsored by the Kerala Labour Welfare Fund Board were trained in 13 ITIs. Further, 212 scheduled caste and scheduled tribe students were given special training in 14 ITIs during the year 1998-99

## CHAPTER 10 SPECIAL PROGRAMME FOR WEAKER SECTIONS

### RURAL DEVELOPMENT

Rural development programmes are essentially anti-poverty programmes and are also partially or fully Centrally assisted schemes. The programmes benefit majority of rural population especially people below poverty line. Important poverty alleviation programmes that were implemented in the state during 1998-99 were Integrated Rural Development Programme, Training of Rural Youths for Self Employment, Development of Women and Children in Rural Areas, Supply of Modern Tool Kits to Rural Artisans, Indira Awas Yojana, Employment Assurance Scheme, Central Rural Sanitation Programme, Integrated Waste Land Development Project etc. All these were implemented by the Rural Development Department and were aimed at generating additional employment and income to the identified rural poor. Government of India have made certain modifications and changes in the contents and approaches of Centrally assisted poverty alleviation programmes with effect from 1st April 1999. Six self employment programmes, 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 introduced. Similarly, Jawahar Rozgar Yojana has been restructured and renamed as Jawahar Gram Samridhi Yojana. The funding pattern in poverty alleviation programmes sponsored by Government of India has also been revised as 75:25 between Central and State Governments.

10.2. Brief details on major programmes under rural development being implemented in the State are given below. The details of physical targets and achievements of the programmes are given in Appendix 10.1.

#### *Integrated Rural Development Programme*

10.3. Integrated Rural Development Programme (IRDP) was introduced in the state for the first time in 1978-79 in 58 selected Community Development Blocks. Subsequently it was extended to all the 152 blocks in the state. IRDP was a 50 percent centrally sponsored programme to assist identified poor families in the rural areas so as to enable them to take up self-employment ventures generating additional income thereby helping them to cross the poverty line. Out of the total fund for the programme, 50 percent is earmarked for families belonging to Scheduled Castes and Scheduled Tribes. Women and physically handicapped are given priority. Group strategy has also been introduced in this scheme to make this programme a more effective tool for poverty alleviation.

10.4. According to the IRDP survey of Rural Development Department in 1992, there were nearly 17.87 lakhs families in the State below poverty line, including 2.31 lakh SC / ST families. The list had been 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 been assisted under various poverty alleviation programmes: As per the list of 1996, there were 18.79 lakh families below poverty line. The details are given in Table - 10.1.



**Table – 10.1**  
**Rural Households Below Poverty Line (1996)**

<i>Districts</i>	<i>Households identified in October 1992</i>	<i>SC/ST households added in January 1994</i>	<i>Households added in July 1995</i>	<i>Total Households (2+3+4)</i>	<i>Households assisted 1992-93 to 1995-96</i>	<i>Balance households as on 1-4-96 (5-6)</i>
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>
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
Kasaragod	63743	834	8614	73191	5495	67696
<b>Total</b>	<b>1786874</b>	<b>8888</b>	<b>277487</b>	<b>2073249</b>	<b>193866</b>	<b>1879383</b>

10.5. During the Eighth Plan, the number of families assisted was 2.42 lakhs. An amount of Rs.97.51 crores was disbursed as subsidy, loan assistance of Rs.206.54 crores. Investment per family worked out to Rs.12,535 during the plan period. The first two Annual Plans of Ninth Plan witnessed a decline in the number of families assisted, compared to the corresponding Annual Plans

of Eighth Plan, whereas total loan component and per family investment showed considerable increase. This is due to the shift from individual approach to group strategy adopted in the implementation of the programme. The details are given in Table 10.2.

**Table – 10.2**  
**Achievements under IRDP**

<i>Plan Period</i>	<i>Families Assisted (No.)</i>	<i>Subsidy (Rs. Lakhs)</i>	<i>Loan (Rs. lakhs)</i>	<i>Per family (Rs.)</i>
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
1992-93	50517	1485.29	2250.78	7369
1993-94	53698	1797.63	2645.93	8275
1994-95	46294	2173.12	3987.02	13307
1995-96	43357	2008.70	5239.08	16717
1996-97	48690	2285.82	6530.87	18108
<b>Total: Eighth Plan</b>	<b>242556</b>	<b>9750.56</b>	<b>20653.68</b>	<b>12535</b>
1997-98	44191	2168.51	6885.80	20489
1998-99	39836	2081.45	6607.76	21812

10.6. At the end of Eighth Five Year Plan (1996-97) the share of primary sector was 41% followed by 34% in tertiary sector and 25% of secondary sector in IRDP schemes. By the end of

1998-99, the share of primary sector increased to 43%. Table 10.3 shows sector-wise investment under IRDP, in 1992-93 and in 1995-96 to 1998-99.

**Table – 10.3**  
**Sector-wise Investment in IRDP**

<i>Year</i>	<i>Primary sector</i>		<i>Secondary sector</i>		<i>Tertiary Sector</i>	
	<i>Number of Schemes</i>	<i>%</i>	<i>Number of Schemes</i>	<i>%</i>	<i>Number of Schemes</i>	<i>%</i>
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>
1992-93	22142	42	11757	23	18398	35
1995-96	20058	42	11505	24	15654	34
1996-97	21625	41	13282	25	8364	34
1997-98	20872	43	12281	25	15508	32
1998-99	18879	43	10769	24	14711	33

### **Development of Women and Children in Rural Areas (DWCRA)**

10.7. DWCRA is an important sub-component of IRDP for providing self employment opportunities on sustained basis to poor women on group basis. Each group consists of 10-15 women,

which may take up economic activities suitable to their skills, aptitude and local conditions. The approach emphasizes on convergence of activities of social welfare, health, nutrition, employment and education. During the year 1998-99 against the target of 1532 groups, 1397 groups were formed, of whom 1098 groups have started income generating

activities. An amount of Rs.278.73 lakhs was distributed as subsidy under the programme. In 1997-98 only 1355 groups were formed, of whom 1016 groups started income generating activities. The

subsidy given during that year was only Rs.246.88 lakhs. Table 10.4 shows physical and financial achievement of the programme during Eighth Plan and first two Annual Plans of Ninth Plan.

**Table – 10.4**  
**Achievements of DWCRA**

<i>Plan Period</i>	<i>No. of Groups Formed</i>			<i>No. of Groups Started Functioning</i>	<i>Percentage</i>	<i>Expenditure as Subsidy (Rs. lakhs)</i>
	<i>Target</i>	<i>Achievement</i>	<i>Percent age</i>			
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>
1992-93	260	241	93	202	84	41.10
1993-94	800	551	69	297	54	77.92
1994-95	797	753	94	629	84	105.78
1995-96	720	797	95	649	82	147.95
1996-97	1080	962	89	738	77	202.07
1997-98	720	1355	188	1016	75	246.88
1998-99	1532	1397	91	1098	79	278.73

### ***Training of Rural Youths for Self***

#### ***Employment (TRYSEM)***

10.8. This is one of the two components of IRDP aimed at imparting training in basic technical and managerial skills to rural youths in the age group 18-35 from families below poverty line to make them competent to take up self employment ventures in any of the development sectors. 50 percent of the beneficiaries of this scheme have to be Scheduled Caste and Scheduled Tribe youths. The training is imparted through formal training

institutes, commercial and business establishments etc. On successful completion of training, the beneficiaries can avail themselves of loans and subsidies for starting own enterprises. During 1998-99, 2995 persons were trained. Among them 989 youths have settled in self-employment ventures and 1551 in wage employment. Physical and financial targets and achievements under TRYSEM during the Eighth Plan and during the first two Annual Plans of Ninth Plan are given in Table 10.5.

**Table - 10.5**  
**Achievements of TRYSEM**

<i>Plan Period</i>	<i>Target</i>	<i>Achievement</i>	<i>% of Achievement</i>	<i>No. of Youths Assisted for Self-Employed</i>	<i>No. of Youths on Wage Employment</i>	<i>Expenditure on Training (Rs. lakhs)</i>
	<i>No. of Youths for Training</i>	<i>No. of Youths Trained</i>				
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>
1992-93	7570	7919	105	1553	3856	222.85
1993-94	6682	5544	83	1212	2891	247.29
1994-95	6080	5854	96	1890	3431	281.32
1995-96	6080	4860	80	1437	2828	237.66
1996-97	6080	5036	83	1234	3172	158.65
1997-98	1358	3846	283	1068	1854	141.57
1998-99	6112	2995	49	989	1551	137.04

***Supply of Modern Tool Kits to Rural Artisans.***

10.9. This is an allied programme of IRDP fully assisted by Central Government. The prime objective is to equip rural artisans with modern tools so

as to enable them to earn more income through their traditional skills. Under the scheme, 90 percent subsidy is given to the beneficiaries for purchase of tools. A survey during 1992 showed that there were 93,733 rural artisans in the State. Of them 7,759 artisans were assisted during 1998-99. The details are given in Table 10.6.

**Table – 10.6**  
**Progress Under Supply of Modern Tool Kits to Rural Artisans (1998-99)**

<i>District</i>	<i>Number of Rural Artisans (1992 survey)</i>	<i>Progress</i>		
		<i>Target</i>	<i>Artisans Supplied with Tool Kits</i>	<i>Expenditure (Rs.lakhs)</i>
<i>(1)</i>	<i>(2)</i>	<i>(3)</i>	<i>(4)</i>	<i>(5)</i>
Thiruvananthapuram	17669	3453	3148	58.25
Kollam	9649	549	473	17.34
Pathanamthitta	3602	366	337	18.36
Alappuzha	5674	828	824	30.36
Kottayam	6195	152	77	5.23
Idukki	6159	213	208	8.76
Ernakulam	3626	629	104	3.87
Thrissur	13158	1019	100	39.90
Palakkad	7412	1010	1010	19.34
Malappuram	7473	433	433	15.56
Kozhikode	5881	153	153	16.16
Wayanad	957	61	61	2.42
Kannur	3377	508	676	7.18
Kasaragod	2901	255	155	8.28
<b>Total</b>	<b>93733</b>	<b>9629</b>	<b>7759</b>	<b>251.01</b>

***Kerala Rural Development and Marketing Society (KERAMS)***

10.10. KERAMS was established in 1986 as an autonomous body to provide marketing support to IRDP beneficiaries, rural artisans, DW CRA units, mahila samajams, voluntary organisations etc, and to make available raw materials required for the production units. Through "Grama Sree", sales outlet of

the organisation, rural products worth Rs.67.60 lakhs was sold during 1998-99. KERAMS with the co-operation of District Rural Development Agencies organise trade fairs during festival seasons in all districts and promote sales of IRDP products. The sale value of products through this society has been increasing during the past years. The details are given in Table 10.7.

**Table – 10.7**  
**Sale Value of IRDP Products through KERAMS**

<i>Year</i>	<i>Sale Value (Rs. lakhs)</i>
<i>(1)</i>	<i>(2)</i>
1993-94	33.27
1994-95	37.14
1995-96	49.33
1996-97	54.82
1997-98	60.15
1998-99	67.60

**Jawahar Rozgar Yojana (JRY)**

10.11. Jawahar Rozgar Yojana is an intensive wage employment generation programme started in 1989 by merging NREP and RLEGP into a new programme. It aims to create additional gainful wage employment for the unemployed and under employed persons in rural areas by undertaking public works to strengthen rural economic infrastructure and creation of durable

community assets. It is implemented by the District Rural Development Agencies through Block and Grama Panchayats. The details of employment generation and financial achievements under Jawahar Rozgar Yojana during Eighth Plan and 1997-98 and 1998-99 are given in Table 10.8. The decline in the target and achievement under the programme during the first two years of Ninth Plan was due to change in the composition of the programme during 1997-98.

**Table - 10.8**

**Employment Generation and Financial Achievements under JRY**

<i>Plan Period</i>	<i>Employment Generation (lakh man days)</i>			<i>Expenditure (Rs. Lakhs)</i>
	<i>Target</i>	<i>Achievement</i>	<i>Percentage</i>	
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
1992-93	138.63	134.57	97	6843.94
1993-94	113.47	120.43	106	7788.38
1994-95	97.10	101.01	104	7234.60
1995-96	108.01	127.75	118	8888.24
1996-97	59.73	105.87	177	7271.28
<b>Total – Eighth Plan</b>	<b>516.94</b>	<b>589.63</b>	<b>114</b>	<b>38026.44</b>
1997-98	66.74	41.82	63	3851.76
1998-99	51.49	39.39	77	4239.95

10.12. In 1996-97 Government of India changed the composition of JRY. The components of India Awaz Yojana and Million Wells scheme were separated as special programmes and separate

allotments were provided. The details of major assets created and houses constructed under JRY are given in Table 10.9 and Table 10.10 respectively.

**Table – 10.9**

**Details of Major Assets created under JRY**

<i>Assets</i>	<i>1992-93</i>	<i>1993-94</i>	<i>1994-95</i>	<i>1995-96</i>	<i>1996-97</i>	<i>Total VIII<sup>th</sup> Plan</i>	<i>1997-98</i>	<i>1998-99</i>
1. Million Wells (No.)	3893	3064	3218	3468	2268	15911	3976	4070
2. Irrigation Wells (No.)	293	143	73	55	51	615	95	46
3. Drinking Water Wells (No.)	309	359	340	288	404	1700	372	804
4. Roads (km)	1767	1587	990	848	802	5994	722	672.9
5. School Buildings (No.)	47	70	35	32	23	207	9	7
6. Sanitary Latrines (No.)	4516	4620	4313	4556	12453	30458	11588	8154

**Table – 10.10**

**Houses Constructed under JRY**

<i>Period</i>	<i>Number of Houses Constructed</i>
<i>(1)</i>	<i>(2)</i>
1992-93	16533
1993-94	16999
1994-95	18549
1995-96	29368
1996-97	29952
<b>Total - VIII Plan</b>	<b>111401</b>
1997-98	17803
1998-99	9452

**Employment Assurance Scheme (EAS)**

10.13. Employment Assurance Scheme was launched first in 21 Community Development blocks in seven districts in the state 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 1998-99 55.75 lakh man days of employment has been generated under the programme with an expenditure of Rs.5425.26 lakhs. The district-wise details are given in Table 10.11.

**Table – 10.11****Achievements under Employment Assurance Scheme – 1998-99**

<i>District</i>	<i>Blocks Covered (No.)</i>	<i>No. of Works Completed</i>	<i>No. of Works in Progress</i>	<i>Employment Generated (lakh man days)</i>	<i>Expenditure (Rs. lakhs)</i>
(1)	(2)	(3)	(4)	(5)	(6)
Thiruvananthapuram	12	267	267	7.25	604.54
Kollam	13	163	163	2.87	272.48
Pathanamthitta	9	134	145	2.1	240.45
Alappuzha	12	38	343	5.91	551.40
Kottayam	11	228	228	6.4	604.47
Idukki	8	223	256	4.33	454.10
Ernakulam	15	216	76	4.19	402.99
Thrissur	17	266	266	5.10	371.53
Palakkad	13	252	302	5.78	566.10
Malappuram	14	357	357	5.77	550.59
Kozhikode	12	102	93	2.16	207.25
Wayanad	3	118	227	1.47	158.75
Kannur	9	166	271	1.46	348.36
Kasaragod	4	75	75	.96	92.25
<b>Total</b>	<b>152</b>	<b>2605</b>	<b>3069</b>	<b>55.75</b>	<b>5425.26</b>



### ***People's Action for Development - Kerala***

10.14. 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 242 projects costing Rs.983.08 lakhs during Eighth Plan. 13 projects costing Rs.73 lakhs were sanctioned during 1998-99 on the basis of the recommendations of People's Action for Development - Kerala.

### ***District Rural Development Agencies***

10.15. 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 planning campaign to avoid duplication, gaps and to improve the effectiveness of schemes. Keeping this in mind, 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 as from 1999-2000, with provision for separate and rigorous accounting and monitoring of the centrally sponsored programmes.

### ***Kerala State Rural Development Board***

10.16. Kerala State Rural Development Board undertakes remunerative development schemes in panchayats like construction of market stalls, bus-stands, lodges and office buildings. The funds for the implementation of the schemes are raised by issuing debenture bonds through nationalised banks with the permission of Reserve Bank of India, on the guarantee of State Government. The Board received Rs.5 crores as Government loan during the last five years. It has so far raised debenture loans worth Rs.23.33 crores out of which Rs.11.67 crores has been repaid on maturity.

### ***Kerala Institute of Local Administration***

10.17. 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 starting 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 1998-99 about 5732 persons were given training on different subjects. The details are given in Table 10.12.

**Table – 10.12**  
**Training Programmes in KILA – (1997-98, 1998-99).**

<i>Particulars</i>	<i>1997-98</i>		<i>1998-99</i>	
	<i>Number of Programmes</i>	<i>Number of Participants</i>	<i>Number of Programmes</i>	<i>Number of Participants</i>
<i>(1)</i>	<i>(2)</i>	<i>(3)</i>	<i>(4)</i>	<i>(5)</i>
KILA's own programmes	39	1603	21	633
Collaborative Programmes	-	-	6	137
People's Campaign	21	2983	19	2371
Sponsored Programme	4	255	6	208
External Programmes	26	1707	31	2383
<b>Total</b>	<b>90</b>	<b>6548</b>	<b>83</b>	<b>5732</b>

10.18. In order to study the ongoing decentralised administration and people's planning campaign several agencies/group of dignitaries from within the country and abroad have visited the institute. The World Bank Team, Swiss Agency for Development and Cooperation, delegates of University of Manchester, Planning Commission (Government of India). Andaman and Nicobar, Tripura etc are important among them. 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 crores intended for improving the training capabilities and strengthening the facilities in the training institutions.

#### ***Kudumbasree***

10.19. Kudumbasree is a women based participatory poverty eradication programme launched by State Government with the financial support of NABARD and Central Government. The project envisages a total investment of Rs. 858.80 crores. The objective of the programme is to involve the

poor actively in planning, managing and monitoring of programmes for their development. The strategy of self-help group approach has to be followed. The project is implemented through the organizational structure of community development societies. Identified poor women and men from each family will be 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. The target group of the project is to be identified through visible and verifiable characteristics by the beneficiaries themselves.

10.20. The major components of the project are generation of employment to poor women and men, housing for the poor, low cost sanitation, community water supply, literacy centres, training programmes for skill upgradation, urban public health centres etc. The project also envisages to establish 'Informal Bank of the Poor' at local body level

under three tier system, to act as the sub system of the formal banking sector.

### **LAND REFORMS**

10.21. The major component of Land Reforms is distribution of surplus land. An extent of 66,078 acres of land has been distributed to 1,54,219 families as on 31-12-1999. The beneficiaries of land reforms include 66,681 Scheduled Castes and 7,381 Scheduled Tribes. The extent of land distributed is 26,037 acres to Scheduled Castes and 5,206 acres to Scheduled Tribes. District-wise details are given in Table 10.13. Re-survey in the state is being implemented since 1996-97 onwards. Twelve re-survey parties, 3 range parties and 3 mapping units are attending to the re-

survey operation. The re-survey works are in progress in all districts except Kasaragod. Out of 32,510 sq. km. to be surveyed in the state, an extent of 22,965.65 sq. km. under field work and an area of 20,748.03 sq. km. under office work have been completed as on 30-9-1999. Out of 903 villages taken-up for re-survey, field work of 790 villages have been completed. office records of 650 villages have been finalised and the records in respect of 625 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 9,04,898 petitions have been received in adalaths of which 8,77,712 have been disposed off.

**Table – 10.13**  
**District-wise distribution of Surplus Land up to 31-12-1999**

*(In Acres)*

District	Number of Beneficiaries				Land Distributed			Total
	SC	ST	Others	Total	SC	ST	Others	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Kasaragod	424	801	7422	12468	3285	672	5845	9802
Kannur	5381	1910	9792	17083	2922	1477	6221	10620
Wayanad	1383	2748	2878	7009	483	1538	1327	3348
Kozhikode	5023	245	5991	11259	1244	102	1286	2632
Malappuram	9242	37	8617	17896	3493	14	4087	7594
Palakkad	14206	1039	14889	30134	5764	965	6477	13206
Thrissur	7590	67	12346	20003	1411	50	2223	3684
Ernakulam	4074	50	2580	6704	747	6	427	1180
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
Pathanamthitta	355	-	419	774	87	-	69	156
Kollam	3434	-	3209	6643	777	-	874	1651
Thiruvananthapuram	3099	-	2390	5489	355	-	275	630
<b>Total</b>	<b>66681</b>	<b>7381</b>	<b>80157</b>	<b>154219</b>	<b>26037</b>	<b>5206</b>	<b>34835</b>	<b>66078</b>

### **Western Ghats Development Programme**

10.22. The Western Ghats Development Programme had its origin during the Fifth Five Year Plan as part of the Hill Area Development Programme initiated by the Planning Commission of India. However, it 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 programme is being implemented in 31 taluks coming under 13 districts in the State.

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 1998-99 programmes worth Rs. 1174.74 lakhs has been implemented against those for Rs. 978.52 lakhs in 1997-98. The details of financial and physical achievements under Western Ghats Development Programme from 1995-96 onwards are furnished as tables 10.14 and 10.15 respectively.

**Table 10.14**  
**Financial Achievements under Western Ghats Development Programme**  
**During 1995-96 to 1998-99**

(Rs. in lakhs)

<i>Sl. No.</i>	<i>Sector</i>	<i>Expenditure</i>			
		<i>1995-96</i>	<i>1996-97</i>	<i>1997-98</i>	<i>1998-99</i>
1	2	3	4	5	6
1.	Soil Conservation	232.27	242.66	244.37	238.12
2.	Agriculture Development	62.70	62.82	53.40	57.04
3.	Animal Husbandry	9.05	12.09	16.56	34.12
4.	Dairy Development	68.97	58.11	62.55	73.10
5.	Forestry Schemes	208.38	208.94	179.31	221.48
6.	Afforestation	9.87	5.94	1.75	1.90
7.	Horticulture & Floriculture	29.85	24.04	19.06	20.00
8.	Minor irrigation	183.24	218.50	237.09	320.76
9.	Village & Small scale Industries	16.53	20.95	25.44	16.00
10.	Foot Bridges	53.20	55.50	61.99	105.10
11.	Water supply & Sanitation	40.38	12.50	10.00	0.50
12.	Plantation & Eco-preservation	-	-	50.00	61.00
13.	Survey, Study & Evaluation	6.77	6.52	6.46	11.90
14.	Non conventional source of energy	6.81	2.24	3.32	4.30
15.	Western Ghat Cell	6.81	6.08	7.22	9.42
<b>Total</b>		<b>934.83</b>	<b>936.89</b>	<b>978.52</b>	<b>1174.74</b>

Source: Western Ghats Cell, Planning & Economic Affairs Dept.

**Table 10.15**  
**Physical Achievements under Western Ghats Development Programme**  
**During 1997-98 & 1998-99**

SL No.	Sector/Sub Sector	Unit	Achievements	
			1997-98	1998-99
I	Soil Conservation	Ha	1560	1761
II	Dairy Development			
1	Supply of milk cows	Nos	903	998
2	Construction of cattle sheds	Nos	705	1024
3	Fodder Development	Nos	22	118
III	Animal Husbandry/Poultry Development			
1	Poultry Units	Nos	3370	1210
2	Supply of Milk Goat	Nos	480	2736
3	Supply of Duck rearing units	Nos	-	89
IV	Agriculture Development			
1	Distribution of Seedlings	Nos	61545	67550
2	Distribution of Pump sets/Sprayers	Nos	279	752
3	Construction of Wells	Nos	-	588
4	Renovation of Wells	Nos	-	280
5	Water Harvesting Structures	Nos	-	12
V	Minor Irrigation			
1	Check Dam/Cross bars/Weirs	Nos	30	46
2	Wells/Ponds/Tanks	Nos	155	260
3	Pump sets	Nos	77	150
VI	Foot Bridges	Nos	52	110

Source: Western Ghats Cell, Planning & Economic Affairs Dept.

### Urban Development

10.23. Major programmes implemented under urban development sector during 1998-99 were poverty reduction project in Kochi Corporation, National Slum Development Programme, Swarna Jayanthi Shahari Rozgar Yojana, Integrated Development of Small and Medium Towns, Modernisation of Slaughter Houses, Solid Waste Management etc.

10.24. The National Slum Development Programme, a 100 percent centrally sponsored scheme aims to provide adequate water supply, sanitation, primary education, health care, preliminary adult literacy and

informal education, housing, community environment, garbage and solid waste management etc. The scheme is being implemented in 58 towns in Kerala.

10.25. The new 75 percent centrally sponsored poverty alleviation scheme introduced by Government of India is Swarna Jayanthi Shahari Rozgar Yojana, for providing assistance to individual urban poor for setting up gainful self employment ventures, assistance to group of urban poor women for setting up gainful self employment ventures and undertakes training of potential beneficiaries associated with the urban employment programme for acquisition or upgradation of vocational and

entrepreneurial skills. These services come under the component Urban Self-Employment Programme of the scheme. The other component of the scheme is Urban Wage Employment Programme, which provide employment to urban poor through the creation of socially and economically useful public assets. Municipal towns having a population below one lakh are eligible for getting assistance under this component. The scheme is being introduced in 58 towns. Achievements during 1998-99 include 1953 self employment units under Urban Self Employment Programme, 14 group units under Development of Women and Children in Urban Areas, 2595 thrift and credit societies, training of 9074 persons and generation of 1.79 lakh man days of employment under Urban Wage Employment Programme.

10.26. Integrated Development of Small and Medium Towns, a 40 percent centrally sponsored scheme primarily aimed at slowing down migration from rural areas and smaller towns to large cities through the development of selected small and medium towns capable of generating economic growth and employment. Towns having a population below five lakhs are eligible for selection under this scheme. 31 towns are being brought under this scheme.

10.27. Modernisation of slaughterhouses, a 50 percent centrally sponsored scheme is being implemented in Thrissur, Irinjalakuda, Thiruvalla and Thrippunithura Municipalities and Thiruvananthapuram Corporation. The scheme provides hygienic meat to consumers, minimises avoidable sufferings of animals and prevents environmental pollution around slaughter houses.

10.28. Urban Basic Service Programme envisages provision of basic services and essential amenities like water supply, low cost sanitation, environmental improvements, awareness motivation, immunisation etc. During 1998-99, this

programme was under implementation in 13 urban local self governments.

10.29. The Cochin Urban Poverty Reduction Project assisted by Department for International Development, United Kingdom, aims at sustained improvement in livelihood and living conditions of about 1.95 lakhs urban poor below poverty line in Cochin Corporation area. The project has two phases of which the pilot project started in April 1996 was completed in March 1998. The focus of the pilot project was only 6 slum colonies of Cochin Corporation. The main phase started in April 1998 for a period of 5 years is under implementation. Improvement works in colonies including metalling of roads, drain construction, construction of retaining walls, street lighting, water supply and sanitation, flood control and solid waste management are the infrastructure activities completed. Works were estimated for first and second year of the main phase out of which 53 works were completed and 248 works are under various stages. Under the health component of the project about 4314 beneficiaries have been given assistance.

10.30. Under the community development activities of the project, 714 vocational training programmes were completed and 1232 are progressing, 235 households in puramboke land were identified for assigning ownership, and 15 training programmes on neighbourhood level and 21 programmes for staff were conducted.

### ***Social Security And Welfare***

10.31. Kerala State is a pioneer in providing social security measures for different vulnerable segments of the society. The successive governments in Kerala have introduced a variety of schemes. These include pension schemes and welfare fund schemes. As a result, 30 schemes are under implementation over and above the institutional security measures. The

budgetary commitment on social security measures is about Rs. 150 crores per year.

#### ***Institutional Social Security Care:***

10.32. Kerala has organised a wide security net through a variety of institutions such as orphanages, beggar houses, houses for the aged and infirm, after care homes, homes for the disabled, home for cured mental patients and so on. Through a net work of more than 400 orphanages in the state, 44,728 children benefited during 1999. The number of aged and infirm benefited stood at 4920 during 1999. The district wise coverage of beneficiaries under major institutional social security measures is provided in Appendix 10.2.

#### ***Major Pension Schemes***

10.33. The major pension schemes implemented in the state are- Kerala Agricultural Workers Pension Scheme, Widow Pension Scheme, Kerala Destitute Old Age Pension scheme and Special Pension for the Physically Handicapped. The major pension schemes benefited 5,78,798 persons during 1999 as against 5,49,779 in the previous year. Under agricultural workers pension scheme 3,04,638 persons were covered and Rs.3,720 lakhs was spent during 1999. The destitute/old age and widow pension scheme benefited 1,80,894 persons. The district-wise coverage under major pension schemes is presented in Appendix 10.3. The information on rate of assistance paid to each of the above segments from 1995-1999

and eligibility conditions is furnished in Appendix 10.5 for a detailed understanding.

#### ***Major Welfare Fund Initiatives***

10.34. The major land mark in social security in Kerala is the introduction of welfare fund/pension schemes for the unorganised segments of workers like coir, cashew, handloom, khadi, toddy workers, building construction workers etc., The major 13 welfare fund boards have a total of 40.46 lakh members in 1999. Of these the Kerala Building and other Construction Workers Welfare Fund Scheme had 15.75 lakh members and Kerala Agricultural Workers Welfare Fund Board had 14.51 lakh members. Only 8.77 per cent of the members are women, as reported by the different boards. The district-wise coverage of members with women in different welfare fund schemes and the eligibility and benefit patterns are presented in Appendix 10.4 and in 10.5.

#### ***Prison Department***

10.35. The prison department is playing a significant role by initiating the modern concept of prevention of crimes and treatment of offenders. The infrastructure consists of 3 central prisons, one open prison, one women prison, one district jail, one special sub jail, one borstal school and 32 sub jails in the state. In 1999 there were 4933 short-term prisoners and 1196 long-term prisoners. The details of prisoners are shown in Table 10.16.



**Table 10.16**  
**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 31-12-1998	As on 1-12-1999	As on 31-12-1998	As on 1-12-1999	As on 31-12-1998	As on 1-12-1999	As on 31-12-1998	As on 1-12-1999	As on 31-12-1998	As on 1-12-1999	As on 31-12-1998	As on 1-12-1999				
	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	3515	264	2075	189	2654	250	1443	177	1176	20	1017	20	144	2	84	-
2. Sub Jails	2980	202	2341	89	2126	170	1547	1152	165	14	24	15	24	3	13	3
3. Women's Prison, Neyyattinkara	-	13	-	18	-	5	-	8	-	11	-	5	-	-	-	-
4. Open Prison	-	-	-	-	62	-	81	-	62	-	81	-	62	-	81	-
5. Special Sub Jail,	146	-	204	-	130	-	202	-	3	-	-	-	3	-	-	-
6. District Jail, Kozhikode	11	1	8	6	-	-	3	1	19	7	26	4	-	-	3	-
7. Borstal School, Trikkakara	3	-	3	-	-	-	-	-	6	-	4	-	2	-	-	-
<b>Total</b>	<b>6655</b>	<b>480</b>	<b>4631</b>	<b>302</b>	<b>4972</b>	<b>425</b>	<b>3276</b>	<b>1338</b>	<b>1431</b>	<b>52</b>	<b>1152</b>	<b>44</b>	<b>235</b>	<b>5</b>	<b>181</b>	<b>3</b>

### ***Welfare of Physically Handicapped***

10.36. The Kerala State Physically Handicapped Persons Welfare Corporation is the important agency which is implementing several social security and development measures for the handicapped. During 1992-99 it received 10,953 applications for self

employment assistance and all of which have been forwarded to banks. But the banks sanctioned 3435 applications only and released Rs.281.56 lakhs during the above period. The corporation distributed different types of appliances to 2677 persons during 1999. Their major achievements are reflected in Table 10.17

**Table 10.17**

#### **Kerala State Handicapped Persons Welfare Corporation- Details of Self Employment Programme and Distribution of Aids and Appliances**

<i>Year</i>	<i>No. of Applicants</i>	<i>No of Applications forwarded to Banks</i>	<i>No. of Applications sanctioned</i>	<i>Amount released by Bank</i>	<i>Amount Released by Corporation</i>	<i>No. of aid and appliances distributed</i>
<i>(1)</i>	<i>(2)</i>	<i>(3)</i>	<i>(4)</i>	<i>(5)</i>	<i>(6)</i>	<i>(7)</i>
1992	486	486	177	996800	88500	297
1993	385	385	159	1325000	307500	326
1994	1378	1378	741	2912500	1482000	751
1995	782	782	306	2332200	611500	2635
1996	1492	1492	762	5625000	1524000	2331
1997	1664	1664	424	3852100	848000	2271
1998	2369	2369	497	6282249	988500	934
1999	2397	2397	369	4830666	736000	2677

### ***Women Development Corporation***

10.37. The Women Development Corporation is the channelising agency of the National Backward Classes Finance and Development Corporation and National Minorities Development Finance Corporation for promoting self employment among women. During the

period 1995-99 the corporation trained 5858 women under various self employment schemes. It assisted 3091 women towards income enhancement activities. The details are furnished in Table 10.18.

**Table 10.18**  
**Kerala State Women Development Corporation – Details of Activities Implemented**  
 (Rs. in lakhs)

Year	No of Women		Flow of fund from various agencies				
	Trained for Self-employment	Assisted for Self-employment	NMDFC	NBCFD C	GOI	GOK	TOTAL
1995	-	1640	327.14	480.30	31.7	-	839.14
1996	-	-	-	-	-	-	-
1997	421	218	82.67	-	-	55	137.67
1998	1699	530	125.78	-	47.42	190	363.2
1999	3738	643	168.45	149.55	23.68	100	441.68
<b>Total</b>	<b>5858</b>	<b>3031</b>	<b>704.04</b>	<b>629.85</b>	<b>102.8</b>	<b>345</b>	<b>1781.69</b>

### **Nutrition**

10.38. During 1998 there were 39 non ICDS blocks which covered about 40200 women beneficiaries and 93800 children through a net work of 782 regular feeding centres. But during 1999, 20 ICDS projects were introduced and consequently the non ICDS blocks came down to 19. There are now 140 ICDS projects in the state with 21746 anganawadis. Under ICDS III, 43 new projects are proposed to be started during 1999-2000 and 2000-2001. Out of this 20 projects were started during 1999-2000. The district-wise and project-wise details of anganawadis sanctioned/ functioning is reflected in Appendix 10.6. The education department implemented the school meal feeding for deserved LP/UP children. During 1997-98, 28 lakh children were benefited through 11568 centres.

### **Development of Scheduled Castes and Scheduled Tribes**

10.39. Special Component Plans and Tribal Sub Plans are intended to provide

special protective measures to safeguard the interests of Scheduled Castes and Scheduled Tribes and promote their educational and economic progress. Yet even after about five decades of development efforts the Scheduled Castes and Scheduled Tribes continue to constitute relatively the most backward and vulnerable sections of the population in the State with extremely weak economic base. According to 1991 Census the Scheduled Caste population of Kerala is 28,86,522 ie. 9.9 % of the total population of the State. The proportion of Scheduled Caste population to total district population is the highest in Palakkad District (15.9%) and the lowest in Kannur district (4.1%). The four districts of Palakkad, Thiruvananthapuram, Thrissur and Kollam together account for nearly half the States' Scheduled Caste population. District-wise details are given in Table 10.19.

**Table 10.19**  
**Distribution of Scheduled Castes and Scheduled Tribes**  
**Population by Districts (1991)**

<i>Sl. No.</i>	<i>District</i>	<i>Total Population (Lakhs)</i>	<i>Scheduled Castes (Lakhs)</i>	<i>Scheduled Tribes (Lakhs)</i>
(1)	(2)	(3)	(4)	(5)
1	Thiruvananthapuram	29.38	3.43	0.16
2	Kollam	23.98	3.06	0.04
3	Pathanamthitta	19.90	1.9	0.03
4	Alappuzha	11.87	1.58	0.07
5	Kottayam	18.25	1.36	0.18
6	Idukki	10.77	1.57	0.50
7	Ernakulam	28.12	2.42	0.05
8	Thrissur	27.35	3.35	0.04
9	Palakkad	23.76	3.78	0.35
10	Malappuram	30.93	2.56	0.11
11	Kozhikode	26.14	1.85	0.05
12	Wayanad	6.71	0.28	1.15
13	Kannur	22.44	0.91	0.18
14	Kasaragod	10.70	0.82	0.29
	<b>Total</b>	<b>290.32</b>	<b>28.87</b>	<b>3.20</b>

10.40. The Scheduled Tribe population of 3,20,967 (1991 census) constitutes 1.1 % of the total population and is even more unevenly distributed in the districts. Wayanad alone accounts for nearly 36 percent of the tribal population. Idukki and Palakkad account for another 26 percent. The lowest proportion of tribal population is in Alappuzha District (0.87%)

10.41. The tribal communities with pre agricultural stage of development and very low literacy rate are recognised as primitive tribes by Government of India. In Kerala, Cholonaikan, Kattunaikan, Kurumba, Kadar and Koraga have been identified as

primitive tribes and they constitute nearly 4.8% of the total Scheduled Tribe population in the State. According to a survey by the Forest Department in 1992, 17,156 Scheduled Tribe families are living in the interior forests in 671 settlements. Majority of them is engaged in the collection of minor forests produces and forest protection works.

#### *Economic Status*

10.42. The occupational pattern of the Scheduled Castes and Scheduled Tribes would reveal their relative economic backwardness. Among Scheduled Castes,

agricultural labourers constitute 53.78% and 55.47% among Scheduled Tribes. The land reform measures implemented in the State ensured ownership of home stead land to the Scheduled Caste families and thus reduced the incidence of landless among them, but failed to transform them to cultivators. The proportion of cultivators among Scheduled Castes is only 3.1% as against the State average of 12.2 %.

10.43. Most of the tribal agricultural labourers, particularly in the southern districts, have been victims of tribal land alienation, caused by immisserisation process or outright cheating. Even now about 17 percent of the tribal workforce are cultivators. The Scheduled Castes and Scheduled Tribes outside the agricultural sector are employed mostly in other agricultural related activities or in various types of rural wage employment.

10.44. Employment among Scheduled Castes and Scheduled Tribes in the organised sectors is relatively low. However due to the reservation policy there has been significant improvement in employment in government jobs. Between 1988 and 1994 the proportion of Scheduled Castes and Scheduled Tribes in Government employment increased from 9.96 % to 11.56 %. It has further increased to 12.04% in 1996.

10.45. The work participation rate among the Scheduled Castes is 41.21% and among Scheduled Tribes 46.04 % as against State average of 31.43 %. Major reason for the higher participation rate is relatively higher participation of Scheduled Castes/Tribes women. While the average participation of women in the State is 15.85%, the rates for Scheduled Castes and Scheduled Tribes women are 31.73 and 36.90 percent respectively. Details are given in Table 10.20.

**Table 10.20**  
**Selected Characteristics of Scheduled Castes and**  
**Scheduled Tribes Population (1991)**

<i>Sl. No.</i>	<i>Description</i>	<i>Units</i>	<i>Scheduled Castes</i>	<i>Scheduled Tribes</i>	<i>Total Population</i>
<i>(1)</i>	<i>(2)</i>	<i>(3)</i>	<i>(4)</i>	<i>(5)</i>	<i>(6)</i>
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

10.46. Despite the high work participation rate of Scheduled Castes and Scheduled Tribes, the incidence of poverty is relatively higher among them indicating their low occupation earning and asset income. As per the IRDP survey 33.10% of the Scheduled Caste families are below

poverty line. The rate is 48.47% for Scheduled Tribes (1998 data).

#### Social Indicators

10.47. The literacy rate among Scheduled Castes has shown significant improvement from 24.4 percent in 1961 to 79.66 % in 1991. Yet it is 10 % below the

general literacy rate. Among the tribals the literacy rate is even lower at 57.22%.

10.48. The representation of Scheduled Caste and Scheduled Tribe students in schools as on 1.7.1999 constitute 10.69 % and 1.13 % respectively, ie relatively

higher than the population share. Details are given in tables 10.21 and 10.22. Among college students 12.11% belong to Schedule Castes and 0.75% to Scheduled Tribes. District-wise details of School Students are given in Appendix 10.7

**Table 10.21**

**Scheduled Caste and Scheduled Tribe Students at School Level (1998-99)**

<i>Section</i>	<i>General</i>	<i>Scheduled Castes</i>	<i>Percentage to Total</i>	<i>Scheduled Tribes</i>	<i>Percentage to Total</i>
(1)	(2)	(3)	(4)	(5)	(6)
Lower Primary Section	1278210	140486	10.99	15628	1.22
Upper Primary Section	1397620	149801	10.72	18357	1.31
High School Section	2643438	278520	10.54	26075	0.99
<b>Total</b>	<b>5319269</b>	<b>568807</b>	<b>10.69</b>	<b>60060</b>	<b>1.13</b>

**Table 10.22**

**Scheduled Caste and Scheduled Tribe Students in  
Arts and Science Colleges (1998-99)**

<i>Course</i>	<i>Total Strength</i>	<i>Scheduled Castes</i>	<i>Percentage to Total</i>	<i>Scheduled Tribes</i>	<i>Percentage to Total</i>
(1)	(2)	(3)	(4)	(5)	(6)
Pre-Degree	165308	24375	14.75	1254	0.75
Degree	131948	11960	9.06	960	0.73
Post - Graduation	12106	1142	9.43	113	0.93
<b>Total</b>	<b>309362</b>	<b>37477</b>	<b>12.11</b>	<b>2327</b>	<b>0.75</b>

10.49. The Enrolment of Scheduled Castes and Scheduled Tribes in technical institutions during 1998-99 was 938 and

234 respectively. Details are given Table 10.23.

**Table 10.23**  
**Scheduled Caste and Scheduled Tribe Students in**  
**Technical Institutions during 1998-99**

<i>Institutions</i>	<i>Total</i>	<i>Scheduled Castes</i>	<i>Scheduled Tribes</i>
<i>(1)</i>	<i>(2)</i>	<i>(3)</i>	<i>(4)</i>
Engineering Colleges	2683	214	53
Polytechnics	7100	568	142
Technical High Schools	1962	156	39
<b>Total</b>	<b>11745</b>	<b>938</b>	<b>234</b>

10.50. During 1998-99 altogether 216 students including 201 Scheduled Caste and 15 Scheduled Tribes have been enrolled for various medical and Para medical courses. Of them 43 Scheduled Castes and 10 Scheduled Tribes were admitted to MBBS course. Details are given in Appendix 10.8.

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 Castes and Scheduled Tribes would be around 1.5 lakh houses.

10.52. With respect to the Scheduled Tribes the social sector improvement have been meagre. The housing conditions are extremely poor and often the houses provided as part of the development programmes are inappropriate to their requirements. Mal-nutrition and poverty related diseases plagued the tribal population. Case studies have proved

prevalence of much higher infant mortality rate and morbidity rate among them.

#### ***Special Component Plan***

10.53. 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. The persistence of backwardness of Scheduled Castes drew attention to the need for a new plan strategy. Later it was proposed that main thrust of development of Scheduled Castes should come from the general sector and every general department should earmark funds for the welfare of Scheduled Castes. Detailed guidelines for the preparation of the Special Component Plan were issued as part of the Fifth Five Year Plan.

10.54. 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, the schemes often were not relevant to the local needs and there was 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.



10.55. District Level Working Group for SC/ST were formally constituted with the District Collector as Chairman and the 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.

10.56. The responsibility for implementation of schemes rests 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.

10.57. The practice followed for providing SCP outlay till 1996-97 was to set apart certain percentage of the plan provision under the respective head of account of 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.

10.58. Through pooling of funds, SCP/TSP allocation is being provided under one head of account (ie, that of SC/ST Development) rather than distributing 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 SCP/TSP funds and made it possible to effect re allocation based on mid term assessment of expenditure patterns and arising demands of various sectors. Pooling of funds thus

lent greater flexibility and greater responsiveness to Special Component Plan / Tribal Sub Plan.

#### ***Tribal Sub Plan***

10.59. Unlike Scheduled Castes, Scheduled Tribes are living in close proximity with forests and are therefore relatively isolated from the main stream of social life. 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 make them free 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 Sugandhagiri 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 and tribal families in 3295 hacter of land. These families have been given houses with other facilities and employment opportunities in the plantations raised in the project area.

10.60. As part of the Tribal Sub Plan strategy, 5 Integrated Tribal Development Project were started in the State between 1975 and 1980. Since these projects were formed along east - west forest regions, there were a lot of problems regarding their administrative structure. With a view to solve the problems, the projects were reconstituted in 1989, thereby raising their number from 5 to 7. This reconstitution

helped to bring 75% of the tribal population within these project areas. Now each Integrated Tribal Development Project is situated within a district.

10.61. The Tribal Sub Plan concept could never be fully operationalised with in 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 safe regards have led to many undesirable results. As in the case of SCP, lack of co-ordination between the various implementing agencies and absence of integration of the schemes implemented were the characteristics of the Tribal Sub Plan in the 1970's. District level decentralisation of Tribal Sub Plan was introduced from 1983-84 onwards. From 1997-98, an in the case of SCP, a major portion of Tribal Sub Plan funds have been devolved to the local bodies.

10.62. The decentralization of SCP/TSP resulted in an improvement in the SCP/TSP allocation and plan implementation. There was also an improvement in the quality of schemes undertaken. In the absence of effective beneficiary participation the decentralization of SCP/TSP tended to be increasingly bureaucratic. In 1997-98 Annual Plan a decisive step was taken towards democratic decentralization by devolving the planning of SCP/TSP to the local bodies. Greater direct participation of the people helped to bring about a significant improvement in the effectiveness of the programme. During 1998-99 an amount of Rs.239.93 crores was spent under Special Component Plan and Rs.44.12 crores under Tribal Sub Plan. The Table 10.24 shows the details of expenditure under Special Component Plan and Tribal Sub Plan during 1998-99.

**Table 10.24**  
**District - wise Expenditure under Special Component Plan**  
**and Tribal Sub Plan (1998-99)**

*(Rs. in lakhs)*

Sl. No.	Districts	Special Component Plan	Tribal Sub Plan
(1)	(2)	(3)	(4)
1	Thiruvananthapuram	1584.20	117.53
2	Kollam	1636.91	34.25
3	Pathanamthitta	1150.50	19.90
4	Alappuzha	1034.50	60.98
5	Kottayam	660.24	113.70
6	Idukki	885.59	479.60
7	Ernakulam	1946.71	61.03
8	Thrissur	1679.97	59.92
9	Palakkad	3148.92	482.26
10	Malappuram	2296.15	141.87
11	Kozhikode	1083.49	28.96
12	Wayanad	180.77	858.91
13	Kannur	629.89	124.08
14	Kasaragod	497.24	311.34
Sub Total - District Level Schemes		18415.08	2894.33
Sub Total - State Level Schemes		5578.65	1517.55
Grand Total		23993.73	4411.88

***Development of Scheduled Castes:***

10.63. The schemes of Scheduled Castes and Scheduled Tribes Development Departments implemented during 1998-99 cover wide area comprising of education, health, housing and other social welfare activities. The Scheduled Castes Development Department is implementing various educational development programmes, benefiting Scheduled Castes. Educational assistance are given to the pre-matric students, students undergoing ITI/ITC courses, vocational courses etc. Cash awards are also given to the students who obtain first class in SSLC, Pre-Degree, Degree and Post Graduate courses. 1812 students have benefited under the scheme during 1998-99. There are 18 post-matric hostels, for providing accommodation and other facilities to the students.

'Bharatdarshan' 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 1998-99, 50 Scheduled Caste students benefited under the scheme. Special coaching is also imparted to students having talents in sports and games by admitting them in sports hostels. 65 students benefited from this scheme during 1998-99. Library facilities have been provided in all pre-matric hostels to enable students to develop their reading habits. At present 36 Production-cum-Training Centres and Industrial Training Centres are functioning in the State. The sanctioned strength in these centres is 1304. Under the book bank scheme, technical and professional institutions are given assistance to purchase books for the use of Scheduled Caste students. 64 institutions

have benefited under the scheme during 1998-99.

10.64. Three pre-examination training centres are working under the Department. Payment of boarding grant to Schedule Caste Students in subsidised hostels, tutorial system in premetric hostels, better education facilities to the bright students are the other educational programmes that are being implemented. Under better education facilities to bright students, students are admitted in standard V of the high standard 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 2. During 1998-99, 253 students benefited from this scheme. Two model residential schools, one each in Palakkad for girls and in Ernakulam for Boy's has started functioning during 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 been benefited during the year.

10.65. Other programmes like Enforcement of Protection of Civil Rights Act and development schemes for those who were engaged in cleaning occupations in the past also being implemented. Under the Prevention of Atrocities Act, financial assistance is provided to victims of atrocities. During 1998-99, 76 beneficiaries were given assistance under the scheme. Financial assistance to intercaste married couple is another welfare programme and 471 couples were benefitted. A distress relief scheme to help the poor who are under going costly treatments, who lost their properties in natural calamities or fire breakout was started in 1998-99. 438 persons got assistance.

10.66. There are 476 departmental colonies including five major colonies at Thonnakkal, Nilamboor, Karikattoor, Kadakkavoor and Maniyanthadam. All facilities like houses, latrine, bathroom, drinking water, roads, common buildings etc. have been provided in the colonies. The intensive habitat development programme was started in 1991-92 with the aim of providing amenities like drinking water, houses, electricity, roads etc. 1665 SC habitats have been covered under the scheme up to 1998-99.

10.67. An intensive drive for providing houses to the houseless people has been initiated recently. The beneficiaries of housing schemes implemented during 1998-99 consists of 2278 families under construction of houses, 2001 families under rehabilitation, 402 puramboke dwellers, 208 persons among vulnerable groups and 3590 beneficiaries under Suvarna jubilee housing scheme. Besides, 2667 families have benefited through the scheme, repair of houses. A special drive to provide houses to all houseless Scheduled Caste households in two years has been launched in 1999-2000. A scheme to provide 50 cents of land to the landless agricultural labourers has been started during 1998-99. About 680 families have been benefited by the scheme.

#### **Development of Scheduled Tribes**

10.68. Education being the most effective instrument for bringing high socio-economic setup to any community, prime importance is given to education promotional schemes for Scheduled Tribes. Educational concessions, scholarships and other kinds of assistance to the tribal students from pre-primary to post graduate level are given under various plan schemes. Scheduled Tribe students are given lumpsum grant meant for purchase of books, stationery and dress materials etc.

10.69. The educational programmes of Scheduled Tribes have benefited 64,304

students during 1998-99 as against the achievement of 62,347 students in the previous year. To provide better educational facilities and high standard of education nine model residential schools and two ashram schools (primary) for primitive tribes have been functioning during 1998-99. The model residential schools could achieve 100% success in the SSLC examination 1999. A scheme for providing financial assistance to SSLC/PDC failed students to continue their studies in private tutorial colleges is under implementation. Similarly the 'Better Education Facilities to Brilliant Students' is another scheme, the objective of which is to impart high standard of education for brilliant students from std V onwards 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.

10.70. In the State, 115 premetric hostels are functioning for providing free boarding, lodging and tuition facilities to Scheduled Tribe students. The students admitted in the subsidised hostels managed by voluntary organisations are also eligible for assistance.

10.71. With a view 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. District wise details of educational institutions under Scheduled Tribe Department are given in Appendix 10.12. In addition certain economic development programmes are also under taken for the Scheduled Tribes. Under the intensive habitat development programme, various activities in 184 colonies are under implementation.

10.72. Housing problem is too crucial among Scheduled Tribes. About 451 houses were completed during 1998-99. A special scheme for providing houses to all Scheduled Tribe families in two years has

been launched in 1999-2000. Several 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 Mananthavady Health Project is one of the projects under modern medicine established for them.

10.73. The health services department conduct periodical medical camps in tribal areas to diagnose diseases and provide free medicines etc. Patients with various diseases detected during the camps are referred to nearest hospitals. Necessary financial assistance is also given for their immediate treatment.

10.74. Another major programme under implementation is the food support programme. The aim of the programme is to ensure employment for the tribals during the rainy season and there by ameliorate poverty among them. Soil conservation and flood control works, cleaning of premises etc are certain indicative items of work taken up under programme. The programme is in operation in Wayanad, Idukki, Malappuram, Kasaragod, Palakkad, Thrissur, Kozhikode, and Pathanamthitta. During 1998-99, about 27,657 tribal families were benefitted under the programme. District/State level festivals of Scheduled Tribes, assistance to mahila samajams, assistance for marriage of girls, schemes for implementation of Prevention of Atrocities Act, social activists etc are other important schemes implemented for the benefit of tribes.

***Kerala Institute for Research Training and Development Studies (KIRTADS)***

10.75. The institute is an agency meant to conduct research and studies on scheduled castes and scheduled tribes in Kerala. It has three divisions, viz, research, training and development studies. The research unit is conducting anthropological

studies on the caste status of claimants including cases referred to by the Scheduled Castes and Scheduled Tribes Development Departments, Commissioner of Entrance Examinations, Backward Classes Commission etc. During 1998-99, about 248 investigation reports were submitted to various departments and agencies. The training unit has conducted 15 programmes including archery competition, workshop etc for SC and ST youths and the Scheduled Caste and Scheduled Tribe elected representatives of local self governments. The development studies wing has conducted evaluation studies on the welfare activities implemented by the various departments. The wing also prepared the evaluation reports on development programmes in the IHDP habitats in Kozhikode and Pathanamthitta districts. The vigilance cell of the institute has furnished 16 reports during 1998-99 regarding bogus community certificates.

***Kerala State Development Corporation for Scheduled Castes and Scheduled Tribes***

10.76. This corporation is the agency which implements development programmes for asset creation and employment generation for Scheduled Castes and Scheduled Tribes. About 50 types of schemes under various sectors of development are being implemented by the corporation. Important among them are: assistance for agricultural land purchase, securing foreign employment, margin money for technically trained and professionally qualified persons, for starting professional services, promoting traditional occupation, vegetable stall, hollow bricks manufacturing, poultry farm, typewriting institutions, photocopier, telephone booth, desk top printing, laminations, video camera, TV/VCR repairing and servicing centre, cool bar, floor polishing unit, mobile ironing unit, hair dressing unit, mini hotel, ready made garments etc.

10.77. Foreign employment scheme has been in existence since 1980-81 to enable the Scheduled Castes and Scheduled Tribe persons who possess valid visa and work agreement for obtaining employment in foreign countries. An amount of Rs.25,000 is given to an individual at 5% interest. 23 persons were benefited by the scheme during 1998-99. The corporation is also implementing various housing schemes. The Ambedkar Rural Housing Scheme, income generation linked housing scheme etc are the housing schemes which have benefitted 1300 beneficiaries during 1998-99. The margin money deposit scheme is being implemented since 1982-83 onwards utilising special central assistance. Under this scheme Rs.35,000 is given as financial assistance for economically and technically viable projects. 851 persons were benefitted by the scheme during 1998-99. The corporation has imparted various training programmes for the skill up-gradation for undertaking self-employment ventures. The area of training given are mainly in the fields of computer, enterprenurship development, autorikshaw driving, desk top printing, watch assembling and servicing, footwear manufacturing, fruit preservation etc. At present training in software, four wheeler driving etc is being imparted. Financial assistance is also given to traditional occupations like cane works, carpentry, pottery, handicrafts, handloom, smithy works etc. The maximum assistance of the scheme is Rs.10,000 of which Rs.5,000 or 50% of the project cost will be subsidy. The schemes have benefited 93 person during 1998-99. The scheme to assist technically trained candidates like welders, electricians, laboratory technicians, mechanics and professionally qualified persons has benefited 16 persons. To sum up, the corporation has extended financial assistance to 2783 beneficiaries for Rs.698.62 lakhs during 1998-99 as against 2447 beneficiaries and Rs.1143.20 lakhs during the previous year. The details are given in Appendix.10.15.

## **Development of other Backward Classes**

### ***Kerala State Development Corporation for Christian Converts from Scheduled Castes and the Recommended Communities***

10.78. The main objective of the corporation which was registered in 1980 is to promote social, educational, cultural, economic and other status of the Christian converts from the Scheduled Castes and other recommended communities in the state. The Corporation is mainly implementing two types of programmes viz. state schemes and sponsored schemes. Under State schemes, loan for agricultural land purchase, assistance for foreign employment, house construction, and house repair and incentive grants to the students are the major programmes implemented. Under sponsored scheme, the corporation is implementing certain self-employment schemes with the financial assistance of National Backward Classes Finance and Development Corporation and other apex bodies. The number of beneficiaries of the corporation during 1998-99 was 130 as against 200 in the previous year.

### ***Kerala State Backward Classes Development Corporation***

10.79. The main objective of the corporation registered in 1995 is to undertake various welfare and economic development programmes for the development of Backward Classes in the State. The corporation is the state level agency for channelising the fund from National Backward Classes Finance and Development Corporation, National Minorities Development and Finance Corporation and Housing and Urban Development Corporation. As per the pattern of finance 85% of the estimated cost of the project will be met by the apex bodies, 10% by the corporation and 5% by the beneficiaries. The corporation is giving loans for starting self-employment ventures, purchase of houses sites, construction of houses, purchase of computer for students, marriage expenses of girls etc. During 1998-99, the corporation has disbursed an amount of Rs.1660.99 lakhs benefiting 3817 beneficiaries as against Rs.1108.65 lakhs to 2192 beneficiaries during the previous year. The Source – wise expenditure and physical achievements of the corporation are given in Table 10.25

**Table 10.25**  
**Source – wise Expenditure and Physical Achievements of KSBCDC**

<i>Source</i>	<i>Expenditure (Rs. lakhs)</i>		<i>Physical Achievements</i>	
	<i>1997-97</i>	<i>1998-99</i>	<i>1997-98</i>	<i>1998-99</i>
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
NBCFDC	885.36	696.75	1671	1196
NMDFC	195.71	428.80	352	1127
HUDCO	--	382.62	--	826
Own Fund	27.58	152.82	169	668
<b>Total</b>	<b>1108.65</b>	<b>1660.99</b>	<b>2192</b>	<b>3817</b>

The details of families assisted and amount disbursed are given in Appendix – 10.16.



## LOCAL SELF GOVERNMENTS

**D**uring the year under review the focus of efforts in the area of local self-government were three fold: (a) to review critically the past two year's experience in decentralised planning and introduce necessary modifications in the third year's planning process, (b) to formulate and implement third year's annual plan and (c) enact amendments to the existing Panchayathi Raj Nagarapalika Legislations and carry out administrative reforms as recommended by the Sen Committee. Last two year's Economic Reviews had discussed the exercise initiated in plan decentralisation in order to empower the local bodies in the state to function as the agents of local development institutions of self government. Until recently, their role as institutions of local self-government were rather limited, restricted, as it tended to be, principally to traditional civic functions. It is still a period of transition. The year 1997-98 was one of experimentation. The subsequent year was largely one of rectification of weaknesses. During the year under review we have embarked on the road of institutionalisation.

11.2 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. Now in addition to the 990 grama panchayats there are 152 block panchayats and 14 zilla panchayats. The three-tier panchayathi raj system came into existence in the State on October 2, 1995. Besides these rural local bodies, there are 55 municipal councils and three municipal corporations in Thiruvananthapuram, Kochi and Kozhikode.

### ***Grama Panchayats***

11.3 The number of grama panchayats in the State has tended to come down due to upgradation of some of them to

municipalities. In 1985 there were 1001 grama panchayats. Now, the number is 990. 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.

11.4 In 1991 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 78343. 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***

11.5 The average population of a municipality in 1991 was 48785. The smallest is Kunnankulam in Thrissur district with a population of 19657 and the largest is Alappuzha in Alappuzha District with a population of 174606. In terms of area, Payyannur in Kannur District (54.63 sq. km) is the largest and Guruvayur in Thrissur district is the smallest (6.49sq km). Among the three Corporations, the most populous is Kochi (564589) followed by Thiruvananthapuram (524006) and Kozhikode (419831). In 1993-94, 14 municipalities had an annual income of Rs.70 lakhs, 21 municipalities had an annual revenue between Rs.40 to 70 lakhs and 20 municipalities had an annual revenue of less than Rs.40 lakhs.

### ***Development Authorities***

11.6 The three major Development Authorities, which were responsible for development activities in the corporations, are Thiruvananthapuram Development

Authority, Greater Cochin Development Authority and Kozhikode Development Authority. 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. Various developmental activities undertaken by the Authorities are in progress. Widening of Karamana-Killippalam road, Palayam-Pattor road, Vellayambalam-Vazhuthacad road in Thiruvananthapuram City, Sahodaran Ayyappan road in Ernakulam city are a few among them. Financial Targets and achievements of these authorities during 1997-98 and 1998-99 are furnished in Table 11.1

**Table 11.1**  
**Financial Targets and Achievements of Development**  
**Authorities during 1997-98 and 1998-99**

(Rs. Lakhs)

<i>Development Authority</i>	<i>1997-98</i>		<i>1998-99</i>	
	<i>Target</i>	<i>Achievement</i>	<i>Target</i>	<i>Achievement</i>
<i>(1)</i>	<i>(2)</i>	<i>(3)</i>	<i>(4)</i>	<i>(5)</i>
TRIDA	492.50	176.50	745.05	183.75
GCDA	2995.72	1246.33	1849.39	634.71
KDA	273.31	192.48	111.05	65.05
<b>Total</b>	<b>3761.53</b>	<b>1615.31</b>	<b>2705.49</b>	<b>883.51</b>

### ***Kerala Urban Development Finance Corporation***

11.7 The corporation provides financial assistance to urban local bodies for their development schemes. The corporation has rendered financial assistance to 688 schemes of various urban local bodies upto 31-03-1999 amounting to Rs.7687.05 lakhs. Out of this, 580 schemes have been completed. During 1997-98 the corporation has financed 12 schemes for Rs.135 lakhs. The achievement during 1998-99 was 29 schemes for Rs.898.38 lakhs. The net profit of the corporation has increased from Rs.11.45 lakhs in 1997-98 to Rs.118.19 lakhs during 1998-99. The corporation is the nodal agency of HUDCO for centrally assisted schemes of urban local bodies like Swarna Jayanthi Shahari Rozgar Yojna (SJSRY), low-cost sanitation, housing etc.

### ***Town Planning***

11.8 The Town Planning Department in the State is mainly concerned with the enforcement of building rules, preparation of development 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***

11.9 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*.

11.10 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***

11.11 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

11.12 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***

11.13 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.

### ***State Finance Commission***

11.14 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;

- (a) 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.
- (b) A provision has been made for assessing entertainment tax based on tickets sold or on gross collection capacity.
- (c) The profession tax slabs have been rationalised and enhanced.
- (d) 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.
- (e) 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.

- (f) 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.

11.15 The State Government, on 23<sup>rd</sup> 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."

11.16 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).

### ***Pattern and Trends in Expenditure***

11.17 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***

11.18 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***

11.19 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 crores in 1995-96.

11.20 The next major milestone was laid in the State Budget of 1996-97 when Rs.69 crores was provided for the urban local bodies and Rs.143 crores for the rural local bodies as untied plan grants. Of the untied funds to the rural local bodies, Rs.100 crores was allocated to village panchayats, Rs.15 crores for block panchayats and Rs.28 crores to the district panchayats. Out of the provision for the urban local bodies Rs.15 crores was for the three corporations and Rs.54 crores 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 crores.

11.21 The above significant enhancement of the untied funds to the local bodies in 1996-97 was made "in order 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.

11.22 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.

11.23 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 11.2 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 11.2**  
**Share of LSGIs in the State's Plan**

(Rs. crores)

<i>Year</i>	<i>Grant-in-aid</i>	<i>State Sponsored Schemes</i>	<i>Total</i>
1997-98	749	276	1025
1998-99	950	166.50	1116.50
1999-2000	1020	134.40	1154.40

11.24 The budgetary provision for grant-in-aid to the local bodies has 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 11.3 gives a comprehensive picture on the allocation of grant-in-aid among different tiers of local bodies.

*Table 11.3*  
**Distribution of Plan Grant-in-aid to the Local Bodies**  
**(1997-98, 1998-99, 1999-2000)**

*(Rs in crores)*

<b>1997-98</b>					
<b>Local Body</b>	<b>No. of local bodies</b>	<b>General</b>	<b>SCP</b>	<b>TSP</b>	<b>Total</b>
<i>(1)</i>	<i>(2)</i>	<i>(3)</i>	<i>(4)</i>	<i>(5)</i>	<i>(6)</i>
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
<b>Total</b>	<b>1214</b>	<b>516.00</b>	<b>194.00</b>	<b>39.00</b>	<b>749.00</b>
<b>1998-99</b>					
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
<b>Total</b>	<b>1214</b>	<b>716.00</b>	<b>195.00</b>	<b>39.00</b>	<b>950.00</b>
<b>1999-2000</b>					
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
<b>Total</b>	<b>1214</b>	<b>780.00</b>	<b>200.00</b>	<b>40.00</b>	<b>1020.00</b>



11.25 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 11.4.

**Table 11.4**  
**The Criteria for Intra Tier Distribution of Plan Grant-in-Aid**

<i>Indicators</i>	<i>Weightage (percentage)</i>			
	<i>Grama Panchayat</i>	<i>Block Panchayat</i>	<i>District Panchayat</i>	<i>Municipalities/ Corporations</i>
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
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

11.26 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 11.5). 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 11.5**  
**Guidelines on Sectoral Allocation Indicated to the Local Bodies**

<i>Sector</i>	<i>Rural Local Bodies</i>	<i>Urban Local Bodies</i>
Productive	40-50	20-30
Service	30-40	40-50
Infrastructure	10-30	10-35

11.27 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.

11.28 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.

11.29 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.

11.30 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***

11.31 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)***

11.32 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.

11.33 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

4/74/2000—15A

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.

11.34 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.

11.35 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.

11.36 The average participation in the grama sabhas was only 180. 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)***

11.37 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

11.38 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.

11.39 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)***

11.40 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.

11.41 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.

11.42 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.

11.43 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)***

11.44 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.

11.45 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.

11.46. 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)***

11.47 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.

11.48 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)***

11.49 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.

11.50 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.

11.51 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***

11.52 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.

11.53 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.

11.54 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

11.55 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.

11.56 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***

11.57 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.

11.58 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 11.6, 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 11.6 and Table 11.7.

**Table 11.6**  
**Classification of Participants in Training/  
Empowerment Programme**

<i>Phase</i>	<i>State Level</i>	<i>District Level</i>	<i>Block Level</i>	<i>Grama Panchayat / Municipality Level</i>
I	KRP	DRP	-	LRP
II	KRP	DRP	-	LRP
III	Faculty	KRP, Officials	DRP, Task Force, Elected Representatives	
IV	Elected Representatives, KRP	-	-	-
V	Elected Representatives, KRP	-	-	-
VI	Faculty	VTC	VTC	-
VII	Elected Representatives, Officials	-	KRP,DRP, VTC, Members, Officials	-

**Table 11.7**  
**Number of Participants in Training/ Empowerment Programme**

<i>Phase</i>	<i>State Level</i>	<i>District Level</i>	<i>Block Level</i>	<i>Panchayat /Municipalities</i>
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 conferences 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.



11.59 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***

11.60 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.

11.61 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 members were given training to act as facilitators.

11.62 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 11.8 presents the distribution of the participants at the state/district level faculty training programmes and the participants in the local level workshops.

11.63 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 11.8**  
**Distribution of Faculty Members and Participants in**  
**The Sectoral Training Programme (1998-99)**

<i>Sl. No</i>	<i>Sector</i>	<i>State/Core Faculty Members</i>	<i>District Faculty Members</i>	<i>Participants in the Workshops</i>
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

11.64 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***

11.65 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 11.9 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 11.9**  
**Institutional Training for Task Force Members**

<i>Organisation/ Institution</i>	<i>Training</i>	<i>July – December, 1999</i>		<i>January – March, 2000</i>	
		<i>No. of batches</i>	<i>Partici pants</i>	<i>No. of batches</i>	<i>Partici pants</i>
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
<b>Total</b>		<b>111</b>	<b>11412</b>	<b>197</b>	<b>17940</b>

11.66 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 11.10.

**Table 11.10**  
**Panchayat/Municipality Level Experience Sharing Workshops**

<i>Local Body</i>	<i>Topic</i>	<i>Duration</i>	<i>Dates</i>
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

11.67 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 lakhs over a period of three years. Kerala Institute of Local Administration has been identified

as the designated lead organisation. The Swiss support is completely 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 24<sup>th</sup> January, 2000 at Thiruvananthapuram.

### **Plan Formulation 1998-99**

11.68 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.

11.69 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 30<sup>th</sup> 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. Even though 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 future to make the planning and the general budgeting process coterminous and have the plans approved along with the budgets of the LSGIs.

### ***District Plans***

11.70 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.

11.71 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 feedback 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.

11.72 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.

11.73 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.**

11.74 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 has already started. The

guidelines through such a consultative process would be binding on the LSGIs.

#### *Review of Annual Plans*

11.75 We shall now undertake an analysis of the annual plans of the LSGIs during the past three years. We shall begin with an analysis of pattern of plan finance and then examine the investment pattern.

**Table 11.11**  
**Financing Pattern of Annual Plan 1998-99 of the LSGIs**

(Percentage)

Item	No. of Projects	State Assistance	Internal funds	State Sponsored	Centrally Sponsored	Loan from Co-op Instt.	Loan from fin. Inst.	Voluntary Contribution	Bene. Contribution	Others	Total
Grama Panchayats	73548	49.73	9.85	4.70	3.41	1.46	2.24	5.31	20.37	2.93	100
Block Panchayats	15036	25.07	0.15	7.32	40.05	0.79	18.94	1.54	2.51	3.63	100
District Panchayats	3874	63.67	0.18	8.55	4.85	0.66	8.39	2.08	53.15	6.46	100
Municipalities	5876	40.47	17.71	5.70	4.96	1.31	13.45	2.76	9.59	4.06	100
Corporations	1220	42.58	23.72	4.48	6.49	1.15	5.18	3.09	9.53	4.70	100
<b>Total</b>	<b>99554</b>	<b>43.85</b>	<b>7.81</b>	<b>5.81</b>	<b>12.89</b>	<b>0.31</b>	<b>8.14</b>	<b>3.73</b>	<b>12.99</b>	<b>3.63</b>	<b>100</b>
General	80326	39.76	9.07	5.31	13.79	1.27	8.91	4.03	14.83	3.82	100
SCP	15987	60.85	2.25	8.27	9.14	0.65	5.06	2.40	8.97	2.40	100
TSP	3241	71.44	1.28	6.82	6.74	0.29	2.03	2.16	4.24	5.00	100
Women	10635	53.67	1.33	2.11	4.68	2.29	7.92	3.37	21.53	3.10	100
Productive Sector	32585	46.50	1.30	3.09	10.15	1.33	7.71	4.28	23.84	1.79	100
Service Sector	37476	42.46	5.58	9.04	15.01	0.66	9.83	3.79	8.57	5.06	100
Infrastructure Sector	29493	41.75	22.89	4.80	13.85	1.71	5.90	2.68	2.16	4.26	100

11.76 Table 11.11 gives a comparative statement of the total outlay of local level plans and financing pattern with respect to different categories of projects during 1998-99. The grant in aid to the LSGIs constitutes only 43.85% 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.

11.77 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 nonplan surplus from own funds; voluntary labour and donations alone together came to 11.54 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.

11.78 The expected contribution from the state sponsored and centrally sponsored schemes to the plans was 5.81 percent and 12.89 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 previous year, 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.

11.79 The share of own funds in total outlay was around 7.81 per cent, an improvement from previous year's share of 5.8 percent. 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 revised guidelines for the second year's annual plan made great emphasis on integrating the non-plan revenue surplus of the local bodies with their annual plan.

11.80 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 has 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. 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.

11.81 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. The expected contribution of the cooperative sector is much lower than the share expected of the commercial banks. The cooperative 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.

11.82 The share of beneficiary contribution in total outlay was as high as 20.59 per cent in 1997-98. This could possibly entail an element 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 to 12.99 percent. 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 previous year.

11.83 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 district panchayat. This is because district panchayats have virtually no own funds of their own and their distance from grass root prevent significant mobilisation of voluntary labour or beneficiary contributions. 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. The contribution from internal resources is significant only for the grass root tiers and is highest for the municipal corporations. The share of beneficiary contribution and voluntary contribution are highest for the grama panchayats.

11.84 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*

11.85 Table 11.12 is a comparative statement of the distribution of plan grant-in-aid and the total outlay among different development sectors in 1997-98 and 1998-99. The total number of projects has increased from 67766 to 99554, reflecting the larger size of the plan and also an undesirable tendency to take up larger number of smaller projects. Out 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 11.12**  
**Sectoral Investment Pattern of State Plan Assistance**  
**Component of Local Plans**

	Items	1997-98			1998-99		
		No. of Projects	Grant-in-aid	Total Outlay	No. of Projects	Grant-in-aid	Total Outlay
			%	%		%	%
1.1	Paddy	1433	2.80	4.34	2021	3.47	3.57
1.2	Other Crops	5372	6.10	10.48	4333	4.83	5.82
1.3	Other Agricultural Programme	1303	1.35	1.12	1086	1.21	0.96
1.4	Animal Husbandry	6961	7.57	10.04	6475	6.76	6.94
1.5	Fisheries	933	1.06	1.55	1334	1.32	1.45
1.6	Afforestation	96	0.04	0.04	53	0.02	0.01
1.7	Co-operation (Agri & Allied)	135	0.16	0.46	261	0.50	0.38
2.1	Soil & Water Conservation	1860	2.65	2.43	4206	3.96	4.03
2.2	Minor Irrigation	3888	7.05	5.07	6783	9.19	6.80
2.3	Flood Control	145	0.36	0.60	794	0.88	0.68
3.1	Small Scale Industries	1991	3.64	4.64	3516	5.45	5.20
3.2	Handicrafts	243	0.25	0.23	431	0.30	0.19
3.3	Handloom	46	0.22	0.21	140	0.25	0.22
3.4	Coir	111	0.17	0.30	202	0.33	0.36
3.5	Khadi	109	0.08	0.10	153	0.18	0.13
3.6	Sericulture	25	0.01	0.07	10	0.01	0.00



3.7	Other Industries	161	0.24	0.28	279	0.88	0.78
3.8	Co-op. Societies in Industrial Sector	120	0.20	0.36	514	1.06	0.74
	<b>Productive sector - Total</b>	<b>24932</b>	<b>33.93</b>	<b>42.32</b>	<b>32585</b>	<b>40.66</b>	<b>38.34</b>
4.1	Environment Protection	29	0.04	0.03	31	0.02	0.02
5.1	Primary Education	3901	2.80	2.27	4411	1.70	1.44
5.2	High School	870	1.44	0.95	1064	1.29	0.98
5.3	Tech. Education	122	0.28	0.18	152	0.20	0.18
5.4	Sports	469	0.36	0.45	967	0.51	0.47
5.5	Arts & Culture	1563	1.25	0.92	2588	1.27	0.88
6.1	Health	2144	2.54	1.98	3219	2.06	1.83
6.2	Drinking Water	5089	7.79	5.61	5215	5.02	3.79
6.3	Sanitation	2658	5.14	5.37	3860	4.00	4.73
7.1	Housing Awareness	3	0.00	0.00	12	0.07	0.05
7.2	Housing	3546	14.48	11.77	5279	13.80	14.21
7.3	Slum Development	99	0.66	0.48	233	0.73	0.65
7.4	Housing co-operative Societies	10	0.01	0.21	6	0.01	0.01
8.1	Anganawadi	1144	0.93	0.76	2859	1.19	0.92
8.2	Food & Nutrition Programmes	78	0.08	0.06	1284	1.66	1.00
8.3	Employment & Labour Welfare	1610	1.75	4.10	2033	1.48	3.08
8.4	Other Social Welfare	1407	1.08	2.10	1912	1.13	3.40
9.1	Tourism	63	0.12	0.11	75	0.18	0.14
9.2	Public Distribution	232	0.37	0.56	383	0.50	0.63
9.3	Burial Ground	125	0.18	0.12	212	0.12	0.13
9.4	Planning Surveys, Studies	261	0.14	0.13	171	0.09	0.08
9.5	Consumer co-operative Societies	117	0.16	0.25	79	0.16	0.19
9.6	Plan Expenses	78	0.04	0.03	1431	0.76	0.38
	<b>Service Sector - Total</b>	<b>25618</b>	<b>41.63</b>	<b>38.44</b>	<b>37476</b>	<b>38.06</b>	<b>39.30</b>
10	Power Production	14	0.09	0.47	43	0.17	0.69
10	Power Distribution	2704	2.29	1.56	3474	2.35	1.48
10	Development of Non-conventional Energy	187	0.20	0.25	74	0.03	0.12
10	Energy Conservation	784	0.43	0.67	330	0.11	0.14
11	Integrated Energy Planning	61	0.03	0.09	70	0.02	0.01
11	Roads & Bridges	12752	19.80	13.80	23643	16.71	16.76
11	Inland Water Transport	15	0.10	0.05	25	0.01	0.01
11	Other Modes of Transport	9	0.02	0.02	107	0.03	0.13
11	Waiting Sheds/Bus Stands	205	0.36	0.57	425	0.38	0.68
12	Public Buildings	485	1.12	1.75	1302	1.43	2.30
	<b>Infrastructure Sector - Total</b>	<b>17216</b>	<b>24.44</b>	<b>19.24</b>	<b>29493</b>	<b>21.28</b>	<b>22.35</b>
	<b>Grand Total</b>	<b>67766</b>	<b>100.00</b>	<b>100.00</b>	<b>99554</b>	<b>100.00</b>	<b>100.00</b>

11.86 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. Even in 1997-98 if the

general sector alone are considered in all districts, the minimum floor of 40 percent investment in the productive sector by the grama panchayats was complied with. In 1998-99 the share of investment in the productive sector rose so much so that even when SCP and TSP components are taken into consideration the share rises above 40 percent. Similarly there is no district where the infrastructure sector exceeded the maximum limit imposed. 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. However, when individual local bodies were taken, there were some instances of deviation from the guidelines.

11.87 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 in 1997-98 and 1998-99 respectively. Among the crops, emphasis was placed however on garden crops rather than paddy. In 1998-99 the relative importance of paddy has improved, but garden crops still continue to dominate. The allocation for animal husbandry projects came to a close second to crop husbandry. Minor irrigation was also given its due importance. Total share of soil and water conservation and flood control in 1997-98 was 10.03 percent. The ratio rises to 14.05 percent in 1998-99.

11.88 The industry appeared to have been neglected 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.

11.89 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. 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. Sanitation came next with 5.14 percent. The share of education was 4.52 per cent. Eventhough all the three social sectors remained prominent in the annual plan for 1998-99, their share in the grant-in-aid declined. A major gainer in the service sub-sector 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.

11.90 Understandably roads and bridges claimed nearly 80 percent of the investment among the infrastructure sector. However, this worked out to only 19.80 per cent and 16.72 percent of the grant-in-aid in 1997-98 and 1998-99 respectively, 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. It is remarkable that the share of roads has tended to decline in the local plans. 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.

11.91 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.

### ***Special Component Plan and Tribal Sub Plan***

11.92 A remarkable feature of the Special Component Plan and Tribal Sub Plan for 1997-98 is that, as much as around 65 to 70 per cent of these plans stand devolved to the LSGIs. If the state sponsored schemes are also taken into consideration, the ratio would be around 80 percent. The experience of past two years have confirmed the correctness of adopting democratic decentralisation to make the plans of the weaker sections more effective.

11.93 In the past it was for 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.

11.94 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 crores. But it was seen that the grant-in-aid component of their SCP projects totalled Rs.191 crores. There was a marginal shortfall, a large proportion of which is explained by the

misclassification of the projects. Besides, more than 7 crores 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 crores. The grant-in-aid provision in the TSP projects prepared by them totalled Rs.38.5 crores. 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 crores to SCP and Rs 0.7 crore towards TSP from their own funds. 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

11.95 Additional local resources have been mobilised for SCP/TSP projects also. But as can be seen from table 11.11 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.

11.96 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 year 1997-98 is given in table 11.13 and for the year 1998-99 is given in table 11.14. Much higher weightage is given for the service sector. 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. Housing is the major claimant with a share of 30 – 32 percent of the grant-in-aid. Next in importance comes drinking water claiming around 7 percent of both SCP and TSP in 1997-98. In 1998-99 the share of drinking water sector in SCP rises to 9 percent. In the productive sector animal husbandry programmes are given much higher priority than crop husbandry.

**Table 11.13**  
**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
<b>Productive Sector – Total</b>	<b>33.93</b>	<b>40.09</b>	<b>19.35</b>	<b>21.83</b>	<b>60.48</b>
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	0.03	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
<b>Service Sector – Total</b>	<b>41.63</b>	<b>34.73</b>	<b>58.67</b>	<b>51.56</b>	<b>34.91</b>

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
<b>Infrastructure Sector - Total</b>	<b>24.44</b>	<b>25.17</b>	<b>21.98</b>	<b>26.61</b>	<b>4.61</b>
<b>Grand total</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>

Table 11.14

**Distribution of Grant-in-aid in SCP, TSP, WCP and General Sector Plan by Development Sectors 1998-99 (in percent)**

		<b>Total</b>	<b>General</b>	<b>SCP</b>	<b>TSP</b>	<b>WCP</b>
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
	<b>Grand Total</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>

11.97 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 shows that the share of road infrastructure in SCP and TSP declined to 15.28 and 14.81 respectively in 1998-99. Bulk of the outlay are individual or family oriented from which the chances of diversion are relatively low.

11.98 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.

#### *Women Component Plan*

11.99 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.

11.100 Almost all the local bodies did prepare special projects for women. However, 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 11.11, 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.

11.101 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.

#### ***Plan Implementation (1997-98, 1998-1999)***

11.102 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 cropped 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***

11.103 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 – is 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 has clearly stated the general sector, SCP and TSP grant-in-aid provided to each individual grama panchayats, block panchayats, district panchayats, municipalities and corporations.

11.104 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 grant-in-aid component.

11.105 There are designated officers authorised to issue allotments of grant-in-aid to the different types of local bodies. The release of funds are 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 a 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.

11.106 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.

11.107 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.

#### ***Implementation of Public Works***

11.108 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 present system of estimates prepared on totally unrealistic PWD or centrally determined rates makes it impossible for a beneficiary committee to implement a work without fudging the accounts. The technical sanction is not a transparent process and corruption is rampant. Since mobilisation advance is not provided and there is 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 are yet other hurdles that are difficult to cross without corruption.

11.109 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.

11.110 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.

11.111 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.

11.112 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.

11.113 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*

11.114 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.

11.115 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.

11.116 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.

11.117 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 beneficiaries under the TSP either "oorukootams" or special grama sabhas consisting of only tribal families are to be convened.

11.118 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).

### ***Against Corruption***

11.119 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.

11.120 Besides the normal Local Fund Departmental Audit, a performance audit has also been initiated. (G.O.(P) No.185/97LAD 26.7.1997). 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.

11.121 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).

11.122 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*

11.123 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.

11.124 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.

11.125 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 spend 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 11.15 gives the percentage of the outstanding deposits and advances in the total expenditure of the different tiers of local bodies as on 30<sup>th</sup> June, 1998.

**Table 11.15**  
**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.*

11.126 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 30<sup>th</sup> June, 1998. A total of Rs.43.39 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.

11.127 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 30<sup>th</sup> 1998.

11.128 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. Details of physical achievements in 1997-98 are given in Table 11.16

**Table 11.16**  
**Selected Physical Achievement in Annual Plan 1997-98**

<i>Items</i>	<i>Grama Panchayats</i>	<i>Block Panchayats</i>	<i>Municipalities</i>	<i>Corporations</i>	<i>District Panchayats</i>	<i>Total</i>
(1)	(2)	(3)	(5)	(6)	(7)	(8)
1. No. of beneficiaries for seeds, seedlings, fertilisers, etc.	1473688	180522	163333	111142	56047	1984732
2. No. of cows distributed	39321	9169	2278	129	1003	51900
3. No. of goats distributed	104732	7798	8757	952	3242	125481
4. No. of hens distributed	1224029	18040	105956	44935	30131	1423091
5. No. of new cowsheds	19943	2473	1580	90	280	24366
6. No of houses constructed	24704	8426	3676	1141	6433	44380
7. No. of latrines	104281	11338	5884	2117	748	124368
8. No. of new wells	20470	3413	900	0	681	25464
9. No. of new taps	6605	986	1460	1271	91	10413
10. No. of ponds cleaned	4972	4382	23	15	25	9417
11. New roads (km)	1966	335	164	13	224	2702
12. No. of new culverts	716	82	40	0	22	860
13. No. of new bridges	338	22	8	0	10	378

*Source: Statistical Statements of Local Bodies*

11.129 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 31<sup>st</sup> the expenditure fell short by 13.66 percent.

11.130 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 should be possible to solve this problem during the third year. The plan formulation was completed by the month of July. And it is expected that the overall expenditure during the current year would be above 75 percent.

11.131 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 11.17 we are

presenting the physical achievement for certain selected items for 1997-98 and 1998-99.

**Table 11.17**  
**Selected Physical Achievement in Annual Plan 1997-98, 1998-99**

<i>Items</i>	<i>1997-98</i>	<i>1998-99</i>
1. No. of beneficiaries for seeds, seedlings, fertilisers..etc	1984732	815447
2. No. of cows distributed	51900	30097
3. No. of goats distributed	125481	44512
4. No. of hens distributed	1423091	274690
5. No. of new cowsheds	24366	26549
6. No of houses constructed	44380	54114
7. No. of latrines	124368	115939
8. No. of new wells	25464	24698
9. No. of new taps	10413	9183
10. No. of ponds cleaned	9417	7126
11. New roads (km)	2702	5245
12. No. of new culverts	860	1343
13. No. of new bridges	378	451

*Source: Statistical Statements of Local Bodies.*

### ***The Process of Institutionalisation***

11.132 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.

11.133 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 higher levels. All that can optimally be 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 known 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.

11.134 The Committee was guided by the above guiding 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 post question/answer session with the participants and a panel for the Committee. There is 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.

11.135 The Committee in its multi volume reports has given clause by clause amendments that have 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.

11.136 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.

11.137 The amendments have also redefined the powers and functions of different tiers on the principle of subsidiarity, complementarity and role parity. 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.

11.138 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 Government have also decided to enhance the powers and functions of grama sabhas and also to raise 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, similar to the grama sabhas in the panchayats, are to be introduced. Special ward conventions for planning purposes may be convened even in the larger municipalities and corporations.

11.139 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 decided 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.

11.140 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.

11.141 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 joined 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 urban development authorities have been dismantled. An exercise is being undertaken to dismantle Fish Farmers Development Agencies and Brackish Water Fish Farmers Development Agencies also.

11.142 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

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."

11.143 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 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

already accepted the proposal

11.144 In order to reduce governmental control and in order to foster the concept of local self government, the Act provides for creation of independent institutions to deal with various aspects of local self government functioning. They are listed below:

- a. **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.
- b. **The State Finance Commission.** This has been given the mandate as required by the Constitution.
- c. **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.
- d. **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.
- e. **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.

f. **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.

11.145 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 a programme for computerised information networking of the local bodies in Kerala. Implementation of this scheme during 2000-2001 would facilitate smooth and timely flow of information and systematic monitoring and evaluation of the local plans.

11.146 Information Kerala Mission is a state level project in electronic governance aiming at developing a computer network for the local bodies in Kerala. It envisages computerisation of the operations of the local bodies with an emphasis on services available to the people. Information Kerala Mission is a project conceived in the context of the People's Planning movement, the unique experiment in democratic decentralisation taken up by the Government of Kerala. Therefore, it tries to address the plethora of issues that decentralisation has thrown up at the local bodies. This includes electronic governance support to transformation of local bodies into real agencies of development, their responsibility in coordinating the professional manpower deputed to them,

and handling the unprecedented quantum of funds entrusted with them.

11.147 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.

11.148 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 21<sup>st</sup> 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.

## CHAPTER 12 INSTITUTIONAL AND BANK FINANCE

**F**inancing Institutions play a vital role in economic development by way of supplementing resources to meet the mounting developmental needs. Budgetary resources alone cannot help in achieving the envisaged growth rate within a specified period. Therefore, a sizeable major share of the resource has to be mobilised from financial institutions including banks.

### **Institutional Finance**

12.2 Data, relating to disbursement of credit by three institutions-IDBI, NABARD and NCDC-only has become available for the year 1998-99. During the year under review, while credit disbursed by NABARD and NCDC has substantially improved, the credit disbursed by IDBI declined as compared to the previous year. These institutions together disbursed an amount of Rs.19311.76 crores during 1998-99, out of which Kerala's share stood at Rs.380.98 crores (1.97%). IDBI accounted for the major share of disbursement with Rs.14333.38 crores, followed by NABARD with Rs.4520.67 crores and NCDC with Rs.457.71 crores during the period.

12.3 An analysis of the data on institution wise credit disbursement during 1997-98 and 1998-99 shows that the credit disbursed by IDBI decreased by 5.12% during 1998-99 while that of NABARD and NCDC increased by 15.27% and 44.21% respectively. The institution wise credit disbursement of the three during 1998-99 is presented in Appendix 12.1.

12.4 During 1998-99, Kerala's share from IDBI increased by Rs.72.33 crores and that from the NCDC, by Rs.14.87 crores. But the assistance from NABARD to Kerala declined by Rs.115.97 crores during the period.

12.5 Out of the cumulative disbursement of Rs.157623 crores by the three institutions as at the end of March 1999, the major share

of Rs.113569 crores (72%) was accounted for by IDBI, followed by NABARD's Rs.39509 crores (25%) and NCDC's Rs.4545 crores (3%). In regard to state wise credit absorption, Maharashtra remained on top, by availing of Rs 25645 crores (16.27%), followed by Gujarat, Rs.19824 crores (12.58%) and Uttar Pradesh, Rs.15831 crores (10.04%). Kerala received an amount of Rs.3969 crores from these three institutions, which works out to only 2.5% of the total disbursement. The state-wise cumulative disbursements by the three institutions as at the end of March 1999 are given Appendix 12.2

12.6 During the period 1997-98, all India financial institutions such as IDBI, ICICI, IFCI, LIC, GIC, NCDC and NABARD disbursed an aggregate amount of Rs.48842 crores. This amount was higher by Rs.11014 crores than that during 1996-97. But Kerala's share during 1997-98 declined by Rs.98.3 crores. Details of state-wise financial assistance disbursed by all India financial institutions as at the end of March 1998 and during 1997-98 are given in Appendix 12.2(a) and 12.1(a) respectively. The per capita assistance disbursed by all the above institutions for the periods 1995-96, 1996-97 and 1997-98 are shown in Appendix 12.3.

### **Bank Finance**

12.7 After nationalisation of banks in 1969, there was rapid growth in the number of bank branches in India. The number of branches, which was only 8262 at the time of nationalisation grew steadily year after year and in 1999 the total number of bank branches stood at 64918, showing eight fold increase. As many as 60681 branches are spread over fifteen major states (93.47%). The largest number of branches are in Uttar Pradesh and the lowest in Assam. Kerala stands eleventh with 3184 branches. During the period from July 1998 to June 1999, 610 new branches were opened in the country, of

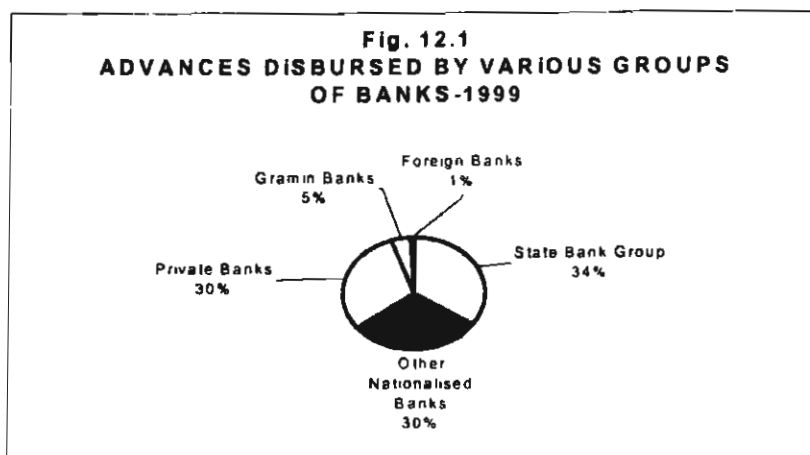
which the highest number was in Maharashtra (85) followed by Uttar Pradesh (64) and Karnataka (59). The number of new branches opened in Kerala during the period was only 33. The average population per branch in the whole country was 65000 in 1969. It declined to 14000 in 1995 and was 15000 in 1996. It remained at the same level in subsequent years and upto 1999. The corresponding figure with respect to Kerala was 35000 in 1969 and has remained at 10000 since 1995. Assam and Bihar are the two states with larger population per branch with about 21000 and 20000 respectively. The state-wise growth of bank offices and average population per bank etc are presented in Appendix 12.4

12.8 The volume of bank deposits and credits has been growing at a fast rate since bank nationalisation. The volume of business of nationalised banks increased from Rs.6932 crores in 1969 to Rs.859304 crores in June 1999 and further to Rs.898319 crores in September 1999. During the period of review, the volume of business increased by 124 times. Deposits increased by 144 times whereas credit by only 98 times. This clearly shows that the credit disbursements were not keeping pace with deposit mobilisation. The CD ratio at all India level in respect of public sector banks which was 99.67 in June 1969 declined steeply to 54 in 1998 and to 53.44 in June 1999, and further to 52.20 in September 1999. Among the fifteen major states, those with credit-deposit ratio above the all India level were Tamil Nadu (83.41), Maharashtra (75.78), Andhra Pradesh (68.80) and Karnataka (63.57). The CD ratio of Kerala was only 37.69, less by 15.75, when compared with all India level. The CD ratio of Kerala which has been declining over the years went down again irrespective of efforts made at various levels to raise the same. The CD ratio which was 65.8 in June 1969 declined to 37.69 in June 1999 and further to 37.42 in September 1999. Improvements in CD ratio were noted in respect of Maharashtra and Punjab. As on

June 1999, out of aggregate credit disbursement of Rs.299274 crores by all banks at all India level, the share of Kerala was Rs.8570 crores, amounting to 2.86% only. Tamil Nadu accounted for Rs.28626 crores and Andhra Pradesh, Rs.21531 crores. Details of state-wise deposits, credits and credit-deposit ratios are presented in Table 12.1

12.9 Bank deposits in Kerala increased at an average annual rate of 18% over the period from 1988 to 1999 whereas advance registered an average annual growth rate of 14% during the same period. This clearly reflects the declining trend of CD ratio in the state over the years. The credit-deposit ratio, which was 65.31 in 1989 steadily declined to 43.11 in 1994 and slightly moved up and touched at 45.22 in March 1998. Again the CD ratio declined to 43.37 in March 1999 and further to 40.42 by the end of September 1999. Among the various groups of banks, the highest CD ratio was recorded by the Gramin Banks (120.13) followed by the State Bank group (44.48), Private banks (41.43) and the group of other nationalised banks (40.25). Public sector banks including Gramin banks put together recorded a CD ratio of 44.28 in March 1999. The total deposit mobilised as at the end of March 1999 by all the banks functioning in the State increased by Rs. 3921 crores (14.44%), from Rs. 27144 crores in 1998 to Rs. 31065 crores in 1999. Out of the total deposit of Rs. 31065 crores mobilised as at the end of March 1999, the largest share of Rs. 10498 crores (34%) was mobilised by the State Bank group, followed by other nationalised banks with Rs. 10142 crores (33%), private banks with Rs. 9914 crores (32%) and Gramin banks with Rs. 511 crores (1.64%). But advances were not increasing in proportion to the deposits. Appendix 12.5 gives the details of deposits, advances and CD ratios of various groups of banks. Figure 12.1 shows advances disbursed by various groups of banks as at the end of March 1999.





12.10 An analysis of the credit deposit ratios of ten major banks operating in Kerala shows wide variations among various banks. The CD ratio of State Bank of India declined from 67.50% in 1991 to 41.95% in March 1999. In the case of State Bank of Travancore, it declined from 60% to 44.93% during the same period. The CD ratio of the lead bank of the State, Canara Bank has continued to be low over the years. Between 1991 to 1999, the CD ratios of Canara bank has been lower than that of the overall State level CD ratios, even by more than 10% in certain years. In 1999 while the state level CD ratio was 43.06%, that of Canara bank

was 39.05%. The CD ratio of ten selected banks for the period from 1991 to 1999 is presented in Table 12.2. On persisted demand from the state government, the Reserve Bank of India has set up the D.D. Avari Committee to examine the reasons for the declining CD ratio in the state. The Avari Committee had recommended that the banks in Kerala had to re-orient their credit operations in such a way that they were able to achieve CD ratio of 60% by 2001 in two stages, 55% by 1998-99 and 60% by 2000-2001. But even in 1999, the CD ratio attained was 43.06%, far below the target.

Table 12.2  
**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	1999 Sept.
1	2	3	4	5	6	7	8	9	10	11
1. State Bank of India	67.5	59.90	54.2	45.3	44.7	47.0	48.0	47.53	41.95	37.92
2. State Bank of Travancore	60.0	50.60	49.5	44.5	48.0	43.5	45.2	44.82	44.93	41.59
3. Canara Bank	49.4	41.50	37.1	29.0	28.0	30.4	35.1	40.37	39.05	39.50
4. Indian Overseas Bank	35.6	28.00	25.2	21.8	24.0	25.8	25.0	25.22	26.03	30.68
5. Syndicate Bank	48.6	37.30	33.7	27.9	26.4	33.0	29.2	31.25	33.13	32.68
6. Indian Bank	74.9	72.00	69.7	61.0	51.5	61.3	47.5	41.13	34.21	37.31
7. Bank of Baroda	36.9	36.00	39.3	37.3	35.9	39.2	34.0	34.21	28.80	30.15
8. Central Bank of India	62.6	58.00	58.8	46.0	53.0	50.3	44.0	42.38	42.84	39.03
9. Union Bank of India	69.7	57.00	47.6	44.5	45.0	45.7	47.3	47.3	51.47	43.75
10. Vijaya Bank	54.5	46.00	40.3	38.0	35.0	41.6	36.0	38.78	44.89	38.80
<b>State Average</b>	<b>59.0</b>	<b>51.00</b>	<b>48.0</b>	<b>43.1</b>	<b>44.7</b>	<b>44.4</b>	<b>45.5</b>	<b>44.88</b>	<b>43.06</b>	<b>40.42</b>

Source: Banking Statistics of Kerala, Reported by State Level Bankers' Committee

### NRE Deposits

12.11 NRE deposits mobilised by the banks in the State have shown an annual average growth rate of 25.40% till 1998. It is significant to note that in 1999 the growth in NRE deposits was only by 4.66%, perhaps a reflection of the trend of migration that is taking place. At the same time, the total deposits and domestic deposits grew by 14.45% and 22.85% respectively during 1999. The NRE deposits, which were Rs. 12735 crores in 1998, increased to Rs. 13329 crores in 1999. Out of the total NRE

deposit of Rs. 13329 crores mobilised by all banks as on March 1999, the major share amounting to Rs. 5300 crores (39.76%) was mobilised by the State Bank group, followed by the other nationalised banks with Rs. 4492 crores (33.70%) and private banks with Rs. 3204 crores (24.04%). Table 12.3 gives details of bank deposits for the period from 1988 to 1999. During 1998, the NRE deposit increased only by Rs. 594 crores (4.66%) from Rs. 12735 crores in March 1998 to Rs. 13329 crores in March 1999.

Table 12.3  
Growth of Bank Deposits in Kerala (Rs. Crores)

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
1998 Sept.	29246	-	13584	-	15662	-
1999 Sept.	35143	20.16	16805	23.71	18338	17.08

Source: Banking Statistics of Kerala Reported by State Level Bankers' Committee

### Priority Sector Advance

12.12 The priority sector advances as a percentage of net advances which has been declining since 1996, have shown some uptrend in 1999. It was 42.2% of the total advances in 1998, but increased to 44.17% by the end of March 1999. Out of the total bank advances of Rs. 13577 crores as at the end of the March 1999, Rs. 5997 crores was to priority sector (44.17% of the total advances). Even though the proportion of priority sector advances to net advances was 44.17% in 1999, the priority sector advance

as a proportion of total deposits was only 19.02%, the total deposit being Rs. 31532 crores.

12.13 Out of the total advances of Rs. 13577 crores, an amount of Rs. 1951 crores (14.37%) was for agriculture sector and Rs. 1783 crores (13.13%) for SSI sector. The declining trend in the share of priority sector advances to agriculture and SSI sector continued during 1999 also. The details are given in Table 12.4.



Table 12.4  
**Priority Sector Advance Disbursed by Commercial Banks- Kerala (Rs.Crores)**

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

Source:- Banking Statistics of Kerala Reported by State Level Bankers' Committee

# **APPENDIX TABLES**

## **LIST OF APPENDIX TABLES**

Appendix No.	Title	Page No.
<b>Chapter - 2 Income, Employment and Population</b>		
2.1	National Economy – Key Indicators	S 1
2.2	Gross National Product at Factor Cost	S 2
2.3	Net National Product at Factor Cost	S 3
2.4	Sectoral Real Growth Rates in GDP (at Factor Cost) – All India	S 4
2.5	Savings and Investment – All India	S 5
2.6	Gross Domestic Product at factor cost by industry of origin (at current prices) for the years from 1993-94 to 1998-99	S 6
2.7	Gross Domestic Product at factor cost by industry of origin (at constant prices) for the years from 1993-94 to 1998-99	S 7
2.8	Net Domestic Product at factor cost by industry of origin (at current prices) for the years from 1993-94 to 1998-99	S 8
2.9	Net Domestic Product at factor cost by industry of origin (at constant prices) for the years from 1993-94 to 1998-99	S 9
2.10	District-wise Distribution of the Net State Domestic Product and Per capita income of Kerala at Factor Cost by Industry of Origin for the year 1996-97 (at current prices)	S 10
2.11	District-wise Distribution of the Net State Domestic Product and Per capita Income of Kerala at Factor Cost by Industry of Origin for the year 1996-97 (at constant prices)	S 11
2.12	District-wise Distribution of the 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)	S 12
2.13	District-wise Distribution of the 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)	S 13
2.14	District-wise Distribution of the 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)	S 14
2.15	District-wise Distribution of the 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)	S 15
2.16	Total Work Seekers in Kerala as on 31-3-1999	S 16
2.17	Distribution of Work Seekers in Kerala by Educational Level	S 16
2.18	Number of Professional and Technical Work Seekers	S 17
2.19	District-wise Distribution of Work Seekers as on 31-3-1999	S 17
2.20	Unemployment Assistance and Self Employment Scheme	S 18
2.21	Employment in the Public and Private Sectors in Kerala	S 18
2.22	Number of Placements through Employment Exchanges and monthly average Number of Employers using Employment Exchange in Kerala	S 19
<b>Chapter - 3 Prices, Cost of Living and Wages</b>		
3.1	Consumer Price Index (Cost of Living Index) Numbers for Agricultural and Industrial Workers, Kerala - 1999	S 20
3.2	Month-end Average Retail Prices of Essential Commodities 1999	S 21
3.3	Wholesale Price Index of Agricultural Commodities - Kerala (1998 & 1999)	S 23
3.4	Index Number of Wholesale Prices in India by Groups and Sub-Groups (Averages)	S 24
3.5	Consumer Price Index Numbers for Industrial workers- All India and Selected Centres	S 25
3.6	Consumer Price Index Numbers for Agricultural Labourers - State-wise	S 26
3.7	Consumer Price Index Numbers for Urban Non-Manual Employees - All India & Selected Centers	S 27
3.8	Wholesale Price Index of Agricultural Commodities 1985-99	S 28
<b>Chapter - 4 Agriculture and Irrigation</b>		
4.1	Number of Operational Holdings and Area Operated by Size Class in Kerala (1990-91)	S 29
4.2	Percentage Distribution of Main Workers in Kerala	S 29

4.3	District-wise Actual and Normal Rainfall (in mm) with percentage Departure from Normal rainfall for 1999	S 30
4.4	Month-wise Distribution of Normal Rainfall and average Rainfall for last 10 years (in mm)	S 31
4.5	District-wise Monthly Rainfall (in mm) for 1999	S 32
4.6	Index of Area, Production and Productivity of Crops in Kerala Base - Average of Triennium ending 1978-79	S 33
4.7	Season-wise Area, Production and Productivity of Rice in Kerala	S 34
4.8	District-wise Area, Production and Productivity of Rice in Kerala	S 34
4.9	Season-wise Area, Production and Productivity of Rice in Districts (1998-99)	S 35
4.10	Coverage of High Yielding Varieties of Rice in Kerala, 1985-86 to 1998-99	S 36
4.11	Plantation Crops - Area, Production and Productivity	S 37
4.12	Average Market Price of Indigenous & Natural Rubber in Kottayam Market	S 38
4.13	Consumption of Rubber in Kerala & India	S 38
4.14	Consumption of Fertilizers / ha of Gross Cropped area in Kerala	S 38
4.15	Selected Indicators of Agricultural Development in Kerala	S 39
4.16	Average Price of Agricultural Inputs	S 40
4.17	Number of Students Admitted for various Courses in Kerala Agricultural University and Number of Students Passed Out During the Eighth Plan, 1997-98 & 1998-99	S 41
4.18	Crop Varieties Released and Equipments and tools Developed by Kerala Agricultural University during 1998-99	S 42
4.19	Activities in the Animal Husbandry Sector during 1993-94 to 1998-99	S 43
4.20	Production and Distribution of Frozen Semen in Kerala from 1993-94 to 1998-99	S 44
4.21	Artificial Insemination Centres in the State from 1993-94 to 1998-99	S 44
4.22	Other Important Activities of KLD Board During 1999	S 44
4.23	Average Price of Livestock Products and Feeds in the State from 1993-94 to 1998-99	S 45
4.24	Record of Performance of Kerala Co-operative Milk Marketing Federation (1993 to 1999)	S 46
4.25	Record of Performance of the Dairies under Kerala Co-operative Milk Marketing Federation during 1997 to 1999	S 47
4.26	Average Quantity of Milk Procured per day by APCOS (1993-94 to 1998-99)	S 48
4.27	Price Revision Details of Milk	S 48
4.28	Price Spread of Milk -Average Price per litre. (1997-98 to 1999-2000)	S 48
4.29	District-wise Distribution of Fishermen Population In Kerala (1998-99)	S 49
4.30	Details of Crafts in Operation in the Marine Sector 1999	S 50
4.31	Species-wise Composition of Marine Fish Landings in Kerala	S 51
4.32	Species-wise Inland Fish Production In Kerala.	S 52
4.33	Export of Marine Products from Kerala and India	S 53
4.34	NCDC Assisted Integrated Fisheries Development Project (1998-99) - Physical and Financial Achievements under Phase I, II & III	S 54
4.35	Details of Fisheries Works under Harbour Engineering Department	S 55
4.36	Details of Welfare and Relief Schemes Implemented by the Kerala Fishermen's Welfare Fund Board 1998-99	S 56
4.37	Division-wise Area of Forest in Kerala (as on 31.3.1999)	S 57
4.38	Species-wise Area under Forest Plantation -1997-98	S 58
4.39	Production of Major Forest Produce	S 59
4.40	Forest Revenue In Kerala	S 60
4.41	Kerala Forestry Project (World Bank Assisted) Year-wise Financial Targets Envisaged in the Project	S 61
4.42	Kerala Forestry Project (World Bank Assisted) Year-wise Physical Targets Envisaged in the Project	S 62
4.43	Operations of the Kerala State Co-operative Bank Ltd.	S 63
4.44	Purpose-wise Disbursement of Loans by the Kerala State Co-operative Bank Ltd.	S 63
4.45	Targets and Achievements of Deposit Mobilisation Programme of Co-operatives in Kerala	S 64
4.46	Selected indicators of the Credit Operations of the Primary Agricultural Credit Societies	S 65
4.47	Selected indicators of the Credit Operations of the Primary Agricultural Credit Societies	S 66
4.48	Purpose-wise Classification of Long Term Loans Issued by PCARD Banks	S 67

4.49	Loan Advanced and Debentures Floated by KSCARD Bank Ltd.	S 68
4.50	Agency -wise Disbursement of Refinance Assistance by NABARD in Kerala	S 69
4.51	Purpose-wise Refinance by NABARD	S 69
4.52	Progress under Rural Infrastructure Development Fund Projects in Kerala 1998-99	S 70
4.53	Physical Achievement Under Ground Water Development Schemes during 1995-96, 1996-97, 1997-98 & 1998-99	S 71
4.54	Details of Externally Aided Projects Implemented during 1998-99	S 72
4.55	Physical Achievement Under Command Area Development Programme	S 73
4.56	Commodities Handled by Marketfed	S 74
4.57	Operation CAMPCO during 1996-97, 1997-98 and 1998-99	S 74
4.58	Production and sales of Chocolate by CAMPCO	S 74
4.59	Performance details of KERAFED for the year 1995-96, 1996-97, 1997-98 & 1998-99	S 75
4.60	National Co-operative Development Corporation - Release of Fund for Kerala from 1994-95 to 1998-99	S 76
4.61	NCDC - Activity-wise Cumulative Sanctions / Release of Funds to Kerala as on 31-3-1999	S 77

### **Chapter - 5 Energy Development**

5.1	Growth of Kerala Power System at a Glance - 1992, 1998 and 1999	S 78
5.2	Profile of on -going Hydro-electric Projects in the State	S 79
5.3	Power Projects and Power Generation as on 31-3-1999	S 80
5.4	Pattern of Power Consumption and Revenue Collected during 1998-99	S 81
5.5	Average Realisation from Sale of Power	S 82
5.6	Average Tariff Rate	S 82
5.7	Outlay and Expenditure during the various Plan Periods on Energy Development	S 83
5.8	Sources of Funding the Power Programmes of KSEB	S 84

### **Chapter - 6 Industry and Mining**

6.1	Index of Industrial Production 1997-98 : Base (1980-81= 100)	S 85
6.2	Growth of Working Factories and Average Daily Employment in Kerala - 1990-98	S 86
6.3	District-wise Distribution of Registered Working Factories in Kerala from 1990 to 1998	S 87
6.4	District-wise Number of Registered Working Factories and Employment in Kerala as on 31 <sup>st</sup> December 1998	S 88
6.5	Industrial Disputes Arose, Handled, Settled etc. in Kerala (1995-96 to 1998-99)	S 89
6.6	Central Sector Investment In Kerala	S 90
6.7	Capital Investment and Employment in respect of Government of India Companies functioning in Kerala	S 90
6.8	Performance of Government of India companies in Kerala in terms of value of Production and Sales turnover	S 91
6.9	Production And Capacity Utilization In Government of India Companies Functioning In Kerala	S 92
6.10	District-wise break up of medium and large scale Industries in Kerala as on 31-03-99	S 94
6.11	Units Assisted By KSIDC as on 31.3.1999	S 95
6.12	Capital Invested and Employment in respect of Government owned Companies in Kerala	S 96
6.13	Performance of Government owned companies in Kerala in terms of value of Production and Sales Turnover	S 97
6.14	Production and Capacity Utilization of Government owned companies in Kerala , during 1997-98 and 1998-99	S 98
6.15	Capital Invested and Employment in respect of Government Majority Companies in Kerala	S 100
6.16	Performance of Government Majority companies in Kerala in terms of value of Production and Sales Turnover	S 101
6.17	Production and Capacity Utilization of Government Majority Companies in Kerala during 1997-98 and 1998-99	S 102
6.18	Sector-wise Summary of Performance of Public Sector Enterprises in Kerala 1998-99	S 104
6.19	Details of Joint Stock companies working in Kerala	S 105

6.20	District-wise details of Small Scale Industrial Units Registered in Kerala during the year 1998-99	S 106
6.21	District-wise details of Small Scale Industrial Units Registered in Kerala as on 31 <sup>st</sup> March 1999	S 107
6.22	Working Status of Small Scale Units as on 31 <sup>st</sup> March 1999	S 108
6.23	Details of Entrepreneurship Development programme conducted during 1998-99	S 108
6.24	Achievement under Self Employment Programme during 1998-99	S 109
6.25	Industrial Co-operative Societies in Kerala as on 30-6-1999	S 109
6.26	District-wise Number of Handloom Co-operative Societies in the State	S 110
6.27	Production and Productivity under Handloom Industry in Kerala	S 111
6.28	Working Results of Handloom Apex Society (Hantex)	S 113
6.29	Working Results of Kerala State Handloom Development Corporation Ltd. (Hanveev)	S 113
6.30	Production and Productivity under Powerloom Industry	S 114
6.31	Coir Co-operative Societies in Kerala	S 114
6.32	Activities of Coir Co-operative Societies	S 115
6.33	District-wise details of Coir Co-operative Societies (Position as on 31.3.99)	S 116
6.34	Export of Coir and Coir Products from India during 1997-98 and 1998-99	S 116
6.35	Foreign exchange earnings of India from Cashew Industry	S 117
6.36	Import of Raw Cashew nuts into India	S 117
6.37	Khadi & Village Industries: Production, Sales, Employment and Wages paid during 1997-98 & 1998-99	S 118
6.38	District-wise Number of Sales outlets and Sales under Khadi & Village Industries 1998-99	S 119
6.39	Physical Achievement under Sericulture for the year 1998-99	S 119
6.40	Progress of Sericulture Development Programme in the State	S 120
6.41	Kerala State Industrial Development Corporation - Physical and Financial Performance 1995-96 to 1998-99	S 121
6.42	Kerala Financial Corporation : Loan Operations as on 31-3-1999	S 122
6.43	District-wise details of Disbursement of Loan by KFC 1998-99	S 123
6.44	Industry-wise Classification of Loan sanctioned and Disbursed by the Kerala Financial Corporation as on 31-03-1999	S 124
6.45	Progress of Working of Kerala Financial Corporation at a Glance	S 125
6.46	SIDCO - Production Units - Performance during 1998-99	S 125
6.47	Small Industries Service Institute (SISI) Achievement during 1998-99	S 126
6.48	Small Industries Development Bank of India's Assistance to Small Scale Industries	S 127
6.49	Production and Sales of Major Minerals (Other than Mineral Sand)	S 127
6.50	Production and Sale of Mineral Sand in Kerala during 1998-99	S 127
<b>Chapter - 7 Transport and Communication</b>		
7.1	Growth of Transport & Communications in Kerala Since 1975	S 128
7.2	District-wise and Category-wise Length of Roads Maintained by PWD (R&B) as on 01-04-1999	S 129
7.3	District-wise, Surface-wise and Category-wise Length of roads maintained by Kerala P.W.D as on 1.4.1999	S 130
7.4	Surface-wise and Category-wise Length of PWD Roads added during 1998-99	S 131
7.5	District-wise and Surface-wise Length of Roads maintained by PWD as on 01-04-1999	S 132
7.6	Number of Bridges and Culverts in PWD Roads as on 1.4.1999	S 132
7.7	Category-wise Growth of Motor vehicles in Kerala since 1980	S 133
7.8	District-wise details of Vehicles newly Registered in the State during the year 1998-99	S 134
7.9	Number of Motor Vehicles Having valid Registration as on 31-03-1999	S 135
7.10	District-wise Growth of Motor Vehicles in Kerala and their Index ( Base 1980-81 = 100)	S 136
7.11	District-wise Road Accidents in Kerala in which number of persons held during 1997-98 & 1998-99	S 137
7.12	Motor Vehicle Accidents in Kerala by Primary causes of Accidents during 1998-99	S 138
7.13	Type-wise details of Motor Vehicles involved in Road Accidents in Kerala during 1998-99	S 139
7.14	Motor Vehicle Accidents by time of day during 1998-99	S 140
7.15	Major indicators showing Operational efficiency of KSRTC	S 141
7.16	KSRTC Operational Statistics during 1998-99	S 142

7.17	Fare Structure of KSRTC during 1999	S 144
7.18	KSRTC Operational Ratios during 1998-99	S 145
7.19	Age-wise Details of Vehicles owned by KSRTC as on 30.11.1999	S 147
7.20	Category-wise Staff Position of KSRTC	S 147
7.21	Number of Ships called at Cochin Port during 1997-98 and 1998-99 and their net registered tonnage (NRT)	S 148
7.22	Commodity-wise cargo handled at the intermediate and minor ports of Kerala during 1998-99	S 149
7.23	Number and Tonnage of Steamers and sailing vessels which called at the Intermediate and Minor Ports of Kerala during 1998-99	S 150
7.24	Number of Harbour Crafts registered at the Intermediate and Minor Ports of Kerala during 1998-99	S 150
7.25	Category-wise break-up of Revenue collected at the Intermediate and Minor Ports of Kerala during 1998-99	S 151
7.26	Operational Statistics of Inland Water Transport Agencies in Kerala	S 151
7.27 (A)	Details of Flights Operated by Various Agencies from Thiruvananthapuram International Airport	S 152
7.27 (B)	Details of Flights Operated by Various Agencies from Kozhikode Airport	S 152
7.28	Number of passports issued from the Passport Offices in Kerala from 1988-89 to 1998-99	S 153
7.29	Growth of Postal Offices in Kerala During the Last Ten Years	S 154
7.30	Category-wise Offices In Postal and Other Postal services in Kerala	S 155
7.31	Division-wise and Category-wise Post Offices under Kerala Circle as on 1-4-1999	S 156
7.32	District-wise details of area and population served by one Post Office during 1998-99	S 157
7.33	District-wise details of Telephone network during 1998-99	S 158
7.34	Foreign Tourist Arrivals to the State – 1990 to 1998	S 159
7.35	Domestic Tourist Arrivals to Kerala (1990 to 1998)	S 159
7.36	Foreign Tourist Arrivals to India and Kerala from 1990 onwards	S 160
7.37	Earning from Tourism (1990 to 1998)	S 160
7.38	Kerala Tourism Development Corporation Limited - Performance for 1998-99	S 161
<b>Chapter - 8 Export and Import</b>		
8.1	Commodity-wise Exports Through Kochi Port	S 162
8.2	Commodity-wise Imports Through Kochi Port	S 162
8.3	Market-wise Export of Marine Products from India	S 163
8.4	Export of Marine Products from India and Kerala	S 163
8.5	Item-wise export of Marine Products from Kerala	S 164
8.6	State-wise Production of Raw Cashew nuts 1992-93 to 1998-99	S 165
8.7	Export of Cashew Kernels : Kerala and India 1990-91 to 1998-99	S 165
8.8	Export of Cashew nut Shell Liquid : Kerala and India 1990-91 to 1998-99	S 166
8.9	Import of Raw Cashew nut : Kerala and India 1990-91 to 1998-99	S 166
8.10	Import of Raw Cashew nuts into India during 1996-97 to 1998-99	S 167
8.11	Export of Coir and Coir Products from India 1993-94 to 1998-99	S 168
8.12	Leading Export Market for Coir Products during 1998-99	S 169
8.13	Item-wise Export of Spices from India	S 170
<b>Chapter - 9 Social and Community Services</b>		
9.1	District-wise Population Profile -1991	S 171
9.2	Trend in Literacy- India and Kerala	S 171
9.3	State-wise Literacy Rates -1991	S 172
9.4	Major State-wise Literacy Rates (1951-91)	S 173
9.5	District-wise literacy Rates of Scheduled Castes and Scheduled Tribes - 1991	S 174
9.6	Number of Schools in Kerala -Government Schools	S 175
9.7	Number of Schools in Kerala -Private Aided Schools	S 175
9.8	Number of Schools in Kerala -Unaided Schools	S 175
9.9	Number of Schools in Different Panchayats, Municipalities and Corporations 1996-97	S 176
9.10	District-wise / Management-wise number of Schools in Kerala - 1999	S 178
9.11	Progress of Educational Institutions from 1961-62 to 1998-99	S 179
9.12	District-wise Details of Government Schools having Building Facilities-Kerala -1999	S 180

9.13	District-wise Details of Government Schools having Drinking water/ Latrines/ Urinal Facilities in Kerala -1999	S 180
9.14	Enrolment of Students in Schools - District-wise and Stage-wise 1999	S 181
9.15	Standard-wise/ Management-wise Enrolment of Students in Schools, Kerala - 1999	S 182
9.16	Standard -wise Enrolment of Students in Government - Aided and Unaided Schools in Kerala from 1971 to 1999	S 183
9.17	Enrolment of Students in Schools, Kerala - Stage-wise (1973-1999)	S 187
9.18	Strength of Pupils studying other than State Syllabus - 1997-98	S 188
9.19	Standard-wise Enrolment in 1999 and Age Group Children Projected for 2001 AD	S 189
9.20	Enrolment of SC/ST Students at Schools Level 1999	S 189
9.21	Standard-wise strength of SC/ST Students 1999	S 190
9.22	Number of School Teachers as on 31-3-1999	S 190
9.23	Stage-wise and Management-wise Number of teachers in Schools in Kerala 1999	S 190
9.24	Number of Teachers in Kerala (Excluding T.T.I Teachers ) - (1971-1999)	S 191
9.25	District-wise and Management -wise Details of Higher Secondary Schools in Kerala 1999	S 192
9.26	Intake of Students under Higher Secondary (Plus Two) courses - XI and XII Standard	S 194
9.27	Subject-wise Annual Intake of Students in Higher Secondary Schools (1999)	S 194
9.28	District-wise Number of Vocational Higher Secondary Schools in Kerala - 1999	S 194
9.29	Vocational Higher Secondary Courses Offered - 1999	S 195
9.30	Intake of Students under Vocational Higher Secondary Education From 1992-93 to 1998-99	S 196
9.31	University-wise Number of Arts and Science Colleges in Kerala - 1999.	S 196
9.32	District-wise Number of Arts & Science Colleges in Kerala - 1999	S 196
9.33	Enrolment in Arts and Science Colleges in Kerala - University-wise and Stage-wise, 1999	S 197
9.34	Enrolment of PDC Students during 1999	S 197
9.35	Details of Enrolment of BA Degree Students in Colleges in Kerala During -- 1998-99	S 198
9.36	Details of Enrolment of BSc Degree Students in Colleges in Kerala During -- 1998-99	S 199
9.37	Details of Enrolment of BCom Degree Students in Colleges in Kerala -- 1998-99	S 199
9.38	Details of Enrolment of MA Students in Colleges during 1998-99	S 200
9.39	Details of Enrolment of MSc Students in Colleges During -- 1998-99	S 200
9.40	Details of Enrolment of MCom Students in Colleges During -- 1998-99	S 201
9.41	Number of Teacher in Arts and Science Colleges (1995-97)	S 201
9.42	Year-wise Break up of Private Registration (1987 to 1997)	S 202
9.43	University-wise and Management-wise details of Training Colleges in Kerala - 1998	S 203
9.44	Details on Cochin University of Science and Technology 1998-99	S 204
9.45	Distribution of Total Seats in various Engineering Colleges (Branch-wise) - 1999	S 206
9.46	Number of Students and Teachers in Government and Private Aided Engineering Colleges 1998-99	S 207
9.47	Course-wise Annual Intake of Students in Engineering Colleges at Post graduate Level -1999	S 208
9.48	Annual intake and Students strength in Polytechnics in Kerala, (1995-96 to 1999-2000)	S 209
9.49	Number of Students and Teachers in Polytechnics (1998 and 1999)	S 209
9.50	Number of SC / ST Students and SC / ST Teachers in Polytechnics 1996 to 1999	S 209
9.51	No. of Students and Teachers in Technical High Schools (1994 -1999)	S 210
9.52	Details of Computer Course in Kerala	S 211
9.53	Medical Institutions and beds under Allopathy System in Kerala - 1966 to1999	S 212
9.54	Growth of Institutions and Beds ( Allopathy) 1950-51 to 1998-99	S 213
9.55	Spatial distribution of Medical Institutions and Beds under Allopathy - District-wise	S 214
9.56	District-wise institutions and Beds per lakh of Population - 1999	S 214
9.57	Medical Institutions and Beds in Kerala, Category -wise - 1999	S 215
9.58	Rural Health Infrastructure - 1986 to 1999	S 215
9.59	Medical and Paramedical personnel in the Health Services Department	S 216
9.60	District-wise Number of Medical and Paramedical Personnel Under DHS - 1999	S 216



9.61	District-wise availability of Vehicles under DHS - 1999	S 217
9.62	Statement Showing Number of attack and death due to major principal diseases during 1998-99	S 217
9.63	Prevalence rate of Public Health Diseases in Kerala -1999	S 218
9.64	Morbidity rates per 1000 for Chronic Illness	S 219
9.65	Chronic Illness to Women and Men (Per 1000)	S 219
9.66	Medical college-wise distribution of Hospital Beds, Inpatients and Outpatients treated during - 1998-99	S 220
9.67	Number of Delivery cases attended by Medical College Hospitals 1998	S 220
9.68	Details of Personnel (Clinical / Non-clinical) in Medical Colleges 1991 to 1999	S 221
9.69	Medical and Para-medical courses conducted in the medical College with an annual intake of Students	S 222
9.70	Annual Intake of Nursing Courses on different Categories during 1998-99	S 224
9.71	Medical Practitioners, Hospitals, Dispensaries and Beds under Ayurveda 1975 to 1999	S 225
9.72	District-wise distribution of Institutions, Beds and Patients treated under Ayurvedic system of Medicine in Kerala (1998 and 1999)	S 226
9.73	Number of Medical Institutions and Beds Homeopathy (1970-71 to 1998-99)	S 227
9.74	District-wise Distribution of Institutions and Beds under Homeopathy (1998-99)	S 228
9.75	Number of Practitioners	S 229
9.76	List of Registered Para-medical Practitioners	S 229
9.77	District-wise Number of Family Welfare Centers -1999	S 230
9.78	Target and Achievement of Family Welfare Programme	S 230
9.79	Family Welfare Programme in 1998-99 District-wise	S 231
9.80	List of institutions under DHS transferred to Local Bodies as on 30-09-1999	S 231
9.81	List of Institutions transferred to Local Bodies as on 31-03-1999 (Ayurveda)	S 232
9.82	List of Institutions transferred to Local Bodies as on 31-03-1999 ( Homeopathy)	S 233
9.83	Details of Infrastructure in the Directorate of Insurance Medical service District-wise as on 31-3-1999	S 234
9.84(a)	Details of Blood units collected in Blood Banks- Kerala	S 235
9.84(b)	Details of Blood units collected in Blood Banks - Kerala (Summary Statement of 9.84(a))	S 238
9.85	Details of infrastructure, Doctors and Nurses under Co-operative sector	S 239
9.86	District-wise Population covered by Urban Water Supply Schemes	S 243
9.87	Details of Water Supply and Demand in Corporations / Municipalities in Kerala	S 244
9.88	Service level of existing water supply systems in Corporations / Municipalities in Kerala through house taps and stand posts as on 30-10-99	S 245
9.89	Plan and Non-Plan Expenditure of Kerala Water Authority	S 246
9.90	Financing of Water Supply from various sources	S 247
9.91	Housing schemes implemented by Kerala State Housing Board	S 248
9.92	District-wise Number of Houses constructed and subsidy utilized under Maithri Housing Scheme	S 249
9.93	District-wise Number of ITIs and seat Strength in Kerala as on 31-11-1999	S 250
9.94	Trade wise Seat strength in ITIs and ITCs as on 30-11-99 (One year course)	S 250
9.95	Trade-wise seat strength in ITIs and ITCs as on 30-11-99 (Two year course)	S 251
<b>Chapter - 10 Special Programme for Weaker Sections</b>		
10.1	Physical and Financial Achievements under Rural Development programmes 1997-98 and 1998-99	S 252
10.2	District-wise Number of Beneficiaries in Welfare Institutions 1999	S 253
10.3	Major Pension Schemes in Kerala - District-wise Beneficiaries	S 254
10.4	Major Welfare Fund Boards in Kerala - District-wise Beneficiaries during 1998-99	S 255
10.5	Major Social Security and Pension Schemes in Kerala	S 256
10.6	District-wise List of ICDS Projects under Social Welfare Department	S 260
10.7	District-wise Details of Enrolment of Scheduled Caste / Scheduled Tribe Students at School level as on 1-6-1999	S 264
10.8	Admission Details of Scheduled Caste / Scheduled Tribe Students in Medical and Para- Medical Courses	S 265
10.9	Houses Constructed by the ST Development Department	S 266
10.10	Houses Constructed by the SC Development Department	S 267
10.11	Institutions under SC Development Department (1999)	S 268

10.12	Institutions under ST Development Department (1999)	S 269
10.13	Physical Achievements of major Schemes of Scheduled Castes	S 270
10.14	Major Physical Achievements under Special Component Plan and Tribal Sub Plan 1998-99	S 272
10.15	Details of Schemes implemented by KSDC for SCs/STs	S 273
10.16	Achievement of Kerala Sate Backward Classes Development Corporation	S 274
10.17	Registered Unemployed Schedule Castes and Scheduled Tribes.	S 275
<b>Chapter - 12 Institutional and Bank Finance</b>		
12.1	State-wise Financial Assistance Disbursed by All India Financial institutions during 1998-99	S 276
12.1(a)	State-wise Financial Assistance Disbursed by All India Financial institutions during 1997-98	S 277
12.2	State-wise Financial Assistance Disbursed by All India Financial institutions as at the end of March 1999	S 278
12.2(a)	State-wise Financial Assistance Disbursed by All India Financial institutions as at the end of March 1998	S 279
12.3	State-wise Per Capita Assistance disbursed by all India Financial Institutions during 1996-97 to 1998-99	S 280
12.4	State-wise Distribution of Commercial Bank Branches and Population Per Bank Office	S 281
12.5	Banking Statistics of Kerala (1990 to 1999)	S 282

**Appendix 2.1**  
**National Economy - Key Indicators**

	1996-97	1997-98	1998-99	1999-2000	1996-97	1997-98	1998-99	1999-2000
	Absolute Values				Per cent change over previous period			
<i>Gross national product</i> (Rs. thousand crore)								
At current Prices	1224.2	1371.2 P	1597.4 Q	1751.6 A	16.2	12.0 P	16.5 Q	9.7 A
At 1993-94 prices	953.7	1002.5 P	1070.7 Q	1134.3 A	7.8	5.1 P	6.8 Q	5.9 A
<i>Gross domestic Product</i> (Rs. thousand crore)								
At current Prices	1237.3	1384.4 P	1612.4 Q	1766.6 A	15.9	11.9 P	16.5 Q	9.6 A
At 1993-94 prices	964.4	1012.8 P	1081.8 Q	1145.4 A	7.5	5.0 P	6.8 Q	5.9 A
Agricultural production (1)	175.7	164.9	177.2	173.3 P	9.3	-6.1	7.4	-2.2 P
Foodgrains production (million tonnes)	199.4	192.3	203.0	199.1 P	10.5	-3.6	5.6	-1.9 P
Industrial production (2)	129.1	137.6	143.1	148.2 #	5.6	6.6	4.0	6.2 #
Electricity generated (Billion, KWH)	394.5	420.6	448.4	355.3 #P	3.8	6.6	6.5	7.4 #P
Wholesale price index(3)	320.1	337.1	353.3	364.9*	6.9	5.3	4.8	2.9 *
Consumer price index for industrial workers	351.0	380.0	414.0	431.0 @	10.0	8.3	8.9	0.5 @
Money supply (M3)(5) (Rs.thousand crore)	696.0	821.3 P	972.2 P	1088.7 (6)P	16.2	18.0	18.4	16.6 (6)
Imports at current prices (Rs.crore)	138920	154176	176099 P	149087 #	13.2	11.0	14.2 P	12.6 #
(US \$ million)	39133	41484	41858 P	34458 #	6.7	6.0	0.9 P	9.0 #
Exports at current prices (Rs. crore)	118817	130101	141604 P	118638 #	11.7	9.5	8.8 P	16.5 #
(US \$ million)	33470	35006	33659 P	27419 #	5.3	4.6	-3.9 P	12.9 #
Foreign currency assets (7) (Rs. crore)	80368	102507	125412	139389 (8)	37.5	27.5	22.3	11.1 (8)
(US \$ million)	22367	25975	29522	31941 (8)	31.2	16.1	13.7	8.2 (8)
Exchange rate (Rs./US \$) (10)	35.50	37.16	42.07	43.28 (9)	-5.8	-4.5	-11.7	-2.8 (9)

Note : Gross national product and Gross domestic product figures are at factor cost (new series with base 1993-94).

Q-Quick estimates;

A-Advance estimates;

P-Provisional

\* As on 29.1.2000 (Provisional). @ December 1999.

# April-December, 1999.

1. Index of agricultural production (of 46 crops, including plantations) with base triennium ending 1981-82=100.

2. Index of industrial production 1993-94=100.

3. Index with base 1981-82=100, at the end of fiscal year.

4. Index with base 1982=100, at the end of fiscal year.

5. Outstanding at the end of financial year.

6. As on January 14, 2000.

7. Outstanding at the end of fiscal year.

8. At the end of January, 2000.

9. April-January, 2000.

10. Per cent change indicates the rate of appreciation/depreciation (-) of the Rupee vis-à-vis the US dollar

**Appendix 2.2**  
**Gross National Product at Factor Cost**  
*(Rs. crore)*

Year	At current prices		At constant prices	
	Amount	% change	Amount	% change
<i>Old Series (Base 1980-81)</i>				
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
<i>New Series (Base 1993-94)</i>				
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(P)	1371241	12.0	1002500	5.1
1998-99 (Q)	1597416	16.5	1070665	6.8

Source: - Economic Survey 1999-2000

P- Provisional, Q- Quick Estimates

**Appendix 2.3**  
**Net National Product at Factor Cost**

(Rs. crore)

Year	At current prices			At constant prices		
	Rs. Crores	% change	Percapita NNP (Rs.)	Rs. Crores	% change	Percapita NNP (Rs.)
<i>Old Series (Base 1980-81)</i>						
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
<i>New Series (Base 1993-94)</i>						
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(P)	1220716	12.0	12729.1	889102	4.9	9271.1
1998-99 (Q)	1431527	17.3	14682.3	949525	6.8	9738.7

Source: - Economic Survey 1999-2000

P- Provisional, Q- Quick Estimates

## Appendix 2.4

### Sectoral Real Growth Rates in GDP (at factor cost) - All India

Industry	Percentage change over the previous year						
	1994-95	1995-96	1996-97	1997-98 (P)	1998-99 (Q)	1999-2000(A)	
<b>I. Agriculture and Allied Sectors</b>	5.0	-0.9	9.6	-1.9	7.2	0.8	
<b>II. Industry</b>	9.2	11.8	6.0	5.9	4.0	6.9	
1. Mining and Quarrying	9.1	5.6	0.5	9.0	-0.5	0.4	
2. Manufacturing	10.7	14.9	7.9	4.0	3.6	7.0	
3. Electricity, gas & water Supply	9.3	6.8	5.4	7.2	7.9	8.0	
4. Construction	4.8	7.4	2.4	10.3	5.7	9.0	
<b>III. Services</b>	7.0	10.3	7.1	9.0	8.3	8.2	
5. Trade, hotels, transport and communications	9.9	13.3	7.7	5.8	8.1	5.9	
6. Financial services	6.1	7.6	7.1	11.8	6.1	10.5	
7. Community, social and personal services	3.3	7.9	6.2	12.2	10.9	9.8	
<b>IV. Total GDP</b>	7.0	7.3	7.5	5.0	6.8	5.9	

A- Advance estimates

P- Provisional

Q- Quick estimates

Source:- Central Statistical Organisation

## Appendix 2.5

### Savings and Investment - All India

	1993-94	1994-95	1995-96	1996-97	1997-98(P)	1998-99(Q)
	<i>(As per cent of GDP at current market prices)</i>					
<b>Gross Domestic Savings</b>	<b>22.5</b>	<b>25</b>	<b>25.5</b>	<b>23.3</b>	<b>24.7</b>	<b>22.3</b>
Public	0.6	1.7	2	1.7	1.4	0
Private	21.9	23.3	23.4	21.6	23.3	22.3
Household sector	18.4	19.8	18.5	17.1	19	18.5
Financial savings	11	12	8.9	10.4	10.4	10.9
Physical savings	7.4	7.8	9.6	6.7	8.6	7.6
<b>Gross Domestic Investment *</b>	<b>23.1</b>	<b>26.1</b>	<b>27.2</b>	<b>24.6</b>	<b>26.2</b>	<b>23.4</b>
Public	8.2	8.8	7.6	7	6.7	6.6
Private	13	14.8	18.9	14.9	16.7	15.2
<b>Gross Domestic Investment *</b>	<b>23.1</b>	<b>26.1</b>	<b>27.2</b>	<b>24.6</b>	<b>26.2</b>	<b>23.4</b>
GFCF	21.4	22	24.6	23	22.7	21.4
Change in stocks	-0.2	1.6	1.9	-1.2	0.7	0.4
<b>Savings - Investment Gap @</b>	<b>-0.6</b>	<b>-1.2</b>	<b>-1.8</b>	<b>-1.3</b>	<b>-1.5</b>	<b>-1</b>
Public	-7.6	-7.1	-5.6	-5.3	-5.3	-6.6
Private	8.9	8.5	4.5	6.7	6.6	7.1

Note : (i) Gross domestic investment denotes gross domestic capital formation (GDCF)

(ii) figures may not add up to rounding off

\* : adjusted for errors and omissions

@ : refers to the difference between the rates of savings and investment

GFCF : Gross Fixed Capital Formation

P : Provisional estimates    Q : Quick estimates

Source: Central Statistical Organisation.

**Appendix 2.6**  
**Gross Domestic Product at Factor Cost by Industry of Origin**  
**(At current prices) For the Years From 1993-94 to 1998-99**  
*(Rs.in lakhs)*

Sl.No	Industry of Origin	93-94	94-95	95-96	96-97	97-98@	98-99@@
1	2	3	4	5	6	7	8
1	Agriculture	652558	802544	989987	1105224	1279746	1449436
2	Forestry and Logging	74646	94950	95636	102011	108744	115921
3	Fishing	71188	74805	93449	113754	130817	150440
4	Mining and Quarrying	6763	8086	9016	8647	9424	9939
	<b>Sub Total: Primary</b>	<b>805155</b>	<b>980385</b>	<b>1188088</b>	<b>1329636</b>	<b>1528731</b>	<b>1725736</b>
5	Manufacturing	304906	393498	509877	559330	650764	758742
5.1	Registered	160697	199506	272188	292028*	321528	365963
5.2	Un-registered	144209	193992	237689	267302	329236	392779
6	Electricity, Gas & Watersupply	36180	43584	45490	59560	68273	78652
8.1	Electricity	25884	30781	35041	47520	55218	64163
6.2	Gas	4539	6918	4351	5210	5819	6733
6.3	Water Supply	5757	5885	6098	6830	7236	7756
7	Construction	206818	241845	297225	359539	432525	525042
	<b>Sub total : Secondary</b>	<b>547704</b>	<b>678927</b>	<b>852592</b>	<b>978429</b>	<b>1151562</b>	<b>1362436</b>
8	Transport, Storage & Communication	220497	276301	357713	447655	568247	731655
8.1	Railways	9746	10949	12328	13570	15099	17007
8.2	Transport by other means*	170664	216781	283127	367331	473857	616014
8.3	Communication	39519	47938	61424	65854	78260	97440
8.4	Storage	568	633	834	900	1031	1194
9	Trade, Hotel & Restaurants	459231	579432	721414	840334	1014703	1205265
10	Banking and Insurance	114136	139085	178521	239207	274212	347704
11	Real estate & ownership, Business, legal	178090	192842	219818	248062	272372	300426
12	Public Administration	134567	140789	162304	182682	198941	219471
13	Other Services	200878	236717	285789	312235	355480	399914
	<b>Sub Total: Tertiary</b>	<b>1307399</b>	<b>1565166</b>	<b>1905359</b>	<b>2270175</b>	<b>2683955</b>	<b>3204435</b>
	<b>Gross State domestic Product</b>	<b>2660258</b>	<b>3224478</b>	<b>3946039</b>	<b>4578240</b>	<b>5364248</b>	<b>6292607</b>
	Mid Year Population ('000)	30048	30424	30805	31186	31539	31856
	<b>Per capita Income (Rs.)</b>	<b>8853</b>	<b>10598</b>	<b>12810</b>	<b>14680</b>	<b>17008</b>	<b>19753</b>

\* - Subject to change as and when final results are available

@ - Provisional Estimate

@@ - Quick Estimate

Source : Department of Economics & Statistics



**Appendix 2.7**  
**Gross Domestic Product at Factor Cost by Industry of Origin**  
**(At Constant prices) For the Years From 1993-94 to 1998-99**

[Base year 1993-94]

(Rs. in lakhs)

Sl.No	Industry of Origin	93-94	94-95	95-96	96-97	97-98@	98-99@@
1	2	3	4	5	6	7	8
1	Agriculture	652558	718215	727338	740236	746158	774677
2	Forestry and Logging	74646	81736	72013	75030	78031	81152
3	Fishing	71188	76358	66884	73305	76970	80819
4	Mining and Quarrying	6763	5676	8163	7110	7462	7887
	<b>Sub Total: Primary</b>	<b>805155</b>	<b>881985</b>	<b>874398</b>	<b>895881</b>	<b>908621</b>	<b>944335</b>
5	Manufacturing	304906	358391	407985	403932	434475	466231
5.1	Registered	160697	178769	219343	217008*	229681	252098
5.2	Un-registered	144209	179622	188642	186924	204794	214133
6	Electricity, Gas & Watersupply	36180	39264	36686	44118	50265	57595
6.1	Electricity	25884	27730	28259	35200	41156	48119
6.2	Gas	4539	6232	3509	3859	3905	4123
6.3	Water Supply	5757	5302	4918	5059	5204	5353
7	Construction	206618	209245	208462	213757	216215	218615
	<b>Sub total : Secondary</b>	<b>547704</b>	<b>606900</b>	<b>653133</b>	<b>661807</b>	<b>700955</b>	<b>742441</b>
8	Transport, Storage & Communication	220497	247576	289744	324722	362198	406368
8.1	Railways	9746	10974	11753	12653	13028	13540
8.2	Transport by other means	170664	191683	220919	252399	286725	327440
8.3	Communication	39519	44331	56366	58958	61711	64611
8.4	Storage	568	588	706	712	732	777
9	Trade, Hotel & Restaurant	459231	494732	523803	538751	562025	581134
10	Banking and Insurance	114136	126422	145112	184382	208885	236644
11	Real estate & ownership, Business, legal	178090	184014	190439	197585	202999	208236
12	Public Administration	134567	127677	133848	137665	138450	141357
13	Other Services	200878	214809	219770	232204	241237	248657
	<b>Sub Total: Tertiary</b>	<b>1307399</b>	<b>1395230</b>	<b>1502716</b>	<b>1615309</b>	<b>1715792</b>	<b>1822396</b>
	<b>Gross State domestic Product</b>	<b>2860258</b>	<b>2884115</b>	<b>3030247</b>	<b>3172797</b>	<b>3325368</b>	<b>3509172</b>
	Population ('000)	30048	30424	30805	31186	31539	31856
	Per capita Income (Rs.)	8853	9480	9837	10174	10544	11016

\* - Subject to change as and when final results are available

@ - Provisional Estimate

@@ - Quick Estimate

Source : Department of Economics &amp; Statistics

**Appendix 2.8**  
**Net Domestic Product at Factor Cost by Industry of Origin**  
**(At Current Prices) For the Years From 1993-94 to 1998-99**  
*(Rs.in lakhs)*

Sl.No	Industry of Origin	93-94	94-95	95-96	96-97	97-98@	98-99@@
1	2	3	4	5	6	7	8
1	Agriculture	562207	706607	870793	974337	1128190	1307244
2	Forestry and Logging	74340	94561	95168	101481	108179	115319
3	Fishing	63849	66853	83515	102436	116777	133126
4	Mining and Quarrying	5010	5789	6371	6139	6588	6890
	<b>Sub Total: Primary</b>	<b>705406</b>	<b>873810</b>	<b>1055847</b>	<b>1184393</b>	<b>1359734</b>	<b>1562579</b>
5	Manufacturing	269832	357673	457837	496978	582116	680504
5.1	Registered	135764	173906	232912	244351*	269035	306216
5.2	Un-registered	134068	183767	224925	252627	313081	374288
6	Electricity, Gas & Watersupply						
		22286	27832	27567	39178	44971	51891
6.1	Electricity	13499	16246	18210	28219	32790	38102
6.2	Gas	4539	6918	4351	5210	5819	6733
6.3	Water Supply	4248	4668	5006	5749	6362	7056
7	Construction	197049	230912	284128	343518	413527	502187
	<b>Sub total : Secondary</b>	<b>489167</b>	<b>616417</b>	<b>769532</b>	<b>879674</b>	<b>1040614</b>	<b>1234582</b>
8	Transport, Storage & Communication						
		148064	191613	248522	320648	416546	544016
8.1	Railways	4474	4985	6090	7253	8412	9090
8.2	Transport by other means *	117533	154847	200972	271506	358388	473072
8.3	Communication	25536	31200	40689	41057	48792	60750
8.4	Storage	521	581	771	832	954	1104
9	Trade, Hotel & Restaurants	448431	566227	707354	824432	995502	1182457
10	Banking and Insurance	111005	135337	174179	233927	268046	339885
11	Real estate & ownership, Business, legal	131203	141543	161506	184811	202922	223823
12	Public Administration	116533	120368	140247	158079	172148	189914
13	Other Services	190274	224407	251463	295926	336912	379026
	<b>Sub Total: Tertiary</b>	<b>1145510</b>	<b>1379495</b>	<b>1683271</b>	<b>2017823</b>	<b>2392076</b>	<b>2859121</b>
	<b>Net State domestic Product</b>	<b>2340083</b>	<b>2869722</b>	<b>3508650</b>	<b>4081890</b>	<b>4792424</b>	<b>5656282</b>
	Population('000)	30048	30424	30805	31186	31539	31856
	Per capita income (Rs.)	7788	9432	11390	13089	15195	17756

\* - Subject to change as and when final results are available

@ - Provisional Estimate

@@ - Quick Estimate

Source : Department of Economics & Statistics

**Appendix 2.9**  
**Net Domestic Product at Factor Cost by Industry of Origin**  
**(At Constant Prices) For the Years From 1993-94 to 1998-99**

[Base year 1993-'94]

(Rs. in lakhs)

Sl.No	Industry of Origin	93-94	94-95	95-96	96-97	97-98@	98-99@@
1	2	3	4	5	6	7	8
1	Agriculture	562207	632364	639766	652572	657792	682933
2	Forestry and Logging	74340	81401	71661	74640	77626	80731
3	Fishing	63849	68241	59774	66012	69313	72778
4	Mining and Quarrying	5010	4064	5768	5048	5226	5341
	<b>Sub Total: Primary</b>	<b>705406</b>	<b>786070</b>	<b>776969</b>	<b>798272</b>	<b>809957</b>	<b>841783</b>
5	Manufacturing	269832	325889	366137	358241	386877	414668
5.1	Registered	135764	155733	187625	181579*	192178	210935
5.2	Un-registered	134068	170156	178512	176662	194699	203733
6	Electricity, Gas & Watersupply						
		22286	25074	22231	29020	32629	37008
6.1	Electricity	13499	14636	14685	20903	24440	28575
6.2	Gas	4539	6232	3509	3859	3905	4123
6.3	Water Supply	4248	4206	4037	4258	4284	4310
7	Construction	197049	199786	199276	204232	206744	209122
	<b>Sub total : Secondary</b>	<b>489167</b>	<b>550749</b>	<b>587644</b>	<b>591493</b>	<b>626250</b>	<b>660798</b>
8	Transport, Storage & Communication						
		148064	169698	205463	234153	267355	307041
8.1	Railways	4474	5403	6320	7402	7679	7981
8.2	Transport by other means *	117533	134739	159552	186302	217352	254737
8.3	Communication	25536	29016	38938	39790	41648	43605
8.4	Storage	521	540	653	659	676	718
9	Trade, Hotel & Restaurants	448431	483457	513594	528555	551389	570136
10	Banking and Insurance	111005	122968	141407	180090	204010	231121
11	Real estate & ownership, Business, legal	131203	135063	140048	147185	151218	155119
12	Public Administration	116533	109158	115657	119124	119803	122319
13	Other Services	190274	203638	207924	220075	228636	235655
	<b>Sub Total: Tertiary</b>	<b>1145510</b>	<b>1223982</b>	<b>1324093</b>	<b>1429182</b>	<b>1522411</b>	<b>1621391</b>
	<b>Net State domestic Product</b>	<b>2340083</b>	<b>2560801</b>	<b>2688706</b>	<b>2818947</b>	<b>2958618</b>	<b>3123972</b>
	Population ('000)	30048	30424	30805	31186	31539	31856
	<b>Per capita Income (Rs.)</b>	<b>7788</b>	<b>8417</b>	<b>8728</b>	<b>9039</b>	<b>9381</b>	<b>9807</b>

\* - Subject to change as and when final results are available

@ - Provisional Estimate

@@ - Quick Estimate

Source : Department of Economics &amp; Statistics

**Appendix- 2.10**  
**District wise Distribution of the Net State Domestic Product and Per Capita Income**  
**of Kerala at Factor Cost by Industry of Origin for the year 1996-97 (at current prices)**  
**(Rs. in Lakhs)**

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	76813	78492	52913	44761	90697	78064	86059	67850	76778	80738	72536	52838	72614	45584	974337
2	Forestry and Logging	4678	7641	14562	0	761	24477	761	9722	12787	9702	3887	7398	4577	528	101481
3	Fishing	4651	22044	123	9270	758	51	20077	6464	389	9424	20436	0	3975	4774	102436
4	Mining and Quarrying	330	306	131	205	221	73	622	446	354	674	1099	90	1201	387	6139
	<b>Sub Total: Primary</b>	<b>86472</b>	<b>108483</b>	<b>67729</b>	<b>54236</b>	<b>92437</b>	<b>100665</b>	<b>107519</b>	<b>64282</b>	<b>90308</b>	<b>100538</b>	<b>97958</b>	<b>60126</b>	<b>82367</b>	<b>51273</b>	<b>1164393</b>
5	Manufacturing	44927	53823	9542	57749	23805	6311	65502	65452	35832	24600	35981	2933	41398	29123	496978
5.1	Registered *	22089	26463	4692	28394	11704	3103	32206	32181	17618	12095	17691	1442	20354	14319	244351
5.2	Unregistered	22838	27360	4860	29355	12101	3208	33296	33271	18214	12505	18280	1491	21044	14804	252627
6	Electricity, Gas & Water supply	8975	3467	1815	3181	3329	2695	4637	3487	2428	1683	2966	334	1503	678	39178
6.1	Electricity	4388	2808	1417	2393	2590	2472	3299	2616	1882	943	1995	189	846	381	28219
6.2	Gas	531	449	227	382	347	198	519	499	418	492	460	114	395	179	5210
6.3	Water Supply	2056	210	171	406	392	25	819	372	128	248	511	31	262	118	5749
7	Construction	36859	21951	10477	20611	19546	6493	64616	36482	18962	28794	38131	3985	28340	10271	343518
	<b>Sub total : Secondary</b>	<b>88761</b>	<b>79241</b>	<b>21834</b>	<b>81541</b>	<b>46680</b>	<b>15499</b>	<b>134755</b>	<b>105421</b>	<b>57222</b>	<b>53077</b>	<b>77078</b>	<b>7252</b>	<b>71241</b>	<b>40072</b>	<b>879674</b>
8	Transport, Storage & Communication	41225	21467	14035	21192	24717	6971	46069	35954	19491	27461	27169	4526	21137	9234	320648
8.1	Railways	666	635	54	496	442	0	696	515	1084	744	648	0	630	643	7253
8.2	Transport by other means *	36247	18019	12770	18022	21674	6186	38561	30881	15043	23525	21594	4026	17419	7539	271506
8.3	Communication	4237	2730	1203	2582	2443	768	6696	4524	3297	3141	4919	468	3018	1031	41057
8.4	Storage	75	83	8	92	158	17	116	34	67	51	8	32	70	21	832
9	Trade, Hotel & Restaurants	77414	60431	24238	57958	55896	19374	104785	91677	63234	66284	88049	13028	72468	29598	824432
10	Banking and Insurance	24071	14597	13381	16211	18480	7790	33896	25054	18153	14503	18410	5193	15978	8210	233927
11	Real estate & ownership of Dwellings	20699	16411	8668	13584	12142	7818	18647	17502	14914	15986	15321	4528	12438	6153	184811
12	Public Administration	37560	13390	7003	10734	11650	2624	17057	12267	10417	8568	12425	1850	10227	2307	158079
13	Other Services	36309	21656	9705	23509	21509	7543	30089	29809	21909	28904	28066	5921	21592	9505	295926
	<b>Sub Total: Tertiary</b>	<b>237278</b>	<b>147952</b>	<b>77030</b>	<b>143188</b>	<b>144394</b>	<b>52120</b>	<b>250543</b>	<b>212263</b>	<b>148118</b>	<b>161606</b>	<b>189440</b>	<b>35044</b>	<b>153840</b>	<b>65007</b>	<b>2017823</b>
	<b>Net State domestic Product</b>	<b>412511</b>	<b>335676</b>	<b>166593</b>	<b>278965</b>	<b>283511</b>	<b>168284</b>	<b>492817</b>	<b>401966</b>	<b>295648</b>	<b>315221</b>	<b>364476</b>	<b>102422</b>	<b>307448</b>	<b>156352</b>	<b>4087890</b>
	Population('000)	3158	2580	1274	2145	1960	1156	3019	2934	2553	3318	2808	720	2413	1148	31186
	<b>Per capita Income (Rs.)</b>	<b>13062</b>	<b>13011</b>	<b>13076</b>	<b>13005</b>	<b>14465</b>	<b>14557</b>	<b>16324</b>	<b>13700</b>	<b>11580</b>	<b>9500</b>	<b>12980</b>	<b>14225</b>	<b>12741</b>	<b>13620</b>	<b>13089</b>

\* - Subject to change as and when final results are available  
 Source : Department of Economics & Statistics

**Appendix- 2.11**  
**District wise Distribution of the Net State Domestic Product and Per Capita Income**  
**of Kerala at Factor Cost by Industry of Origin for the year 1996-97 (at constant prices)**  
**(Rs. in Lakhs)**

S.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	51442	52597	35435	29953	60755	51031	57622	45289	51403	54098	48551	35239	48616	30540	652572
2	Forestry and Logging	3441	5620	10711	0	560	18003	560	7150	9405	7136	2859	5441	3366	388	74640
3	Fishing	2997	14206	79	5974	489	33	12938	4165	251	6073	13170	0	2561	3076	66012
4	Mining and Quarrying	272	252	108	169	181	60	511	367	291	554	904	74	987	318	5048
	<b>Sub Total: Primary</b>	<b>58152</b>	<b>72675</b>	<b>46333</b>	<b>36096</b>	<b>61985</b>	<b>69127</b>	<b>71631</b>	<b>58971</b>	<b>61350</b>	<b>67861</b>	<b>65484</b>	<b>40754</b>	<b>55530</b>	<b>34322</b>	<b>798272</b>
5	Manufacturing	32385	38798	6878	41627	17160	4550	47216	47180	25829	17733	25936	2113	29842	20994	358241
5.1	Registered *	16415	19665	3486	21099	8698	2306	23932	23914	13092	8988	13146	1071	15126	10641	181579
5.2	Unregistered	15970	19133	3392	20528	8462	2244	23284	23266	12737	8745	12790	1042	14716	10353	176662
6	Electricity, Gas & Water supply	5167	2568	1343	2357	2467	1997	3435	2584	1799	1245	2196	247	1114	501	29020
6.1	Electricity	3250	2080	1049	1773	1919	1831	2444	1938	1394	698	1478	140	627	282	20903
6.2	Gas	394	332	168	283	258	147	384	370	310	364	340	84	293	132	3859
6.3	Water Supply	1523	156	126	301	290	19	607	276	95	183	378	23	194	87	4258
7	Construction	21914	13050	8229	12254	11621	3860	38416	21689	11274	15930	22670	2369	16849	6107	204232
	<b>Sub total : Secondary</b>	<b>59466</b>	<b>54418</b>	<b>14450</b>	<b>56238</b>	<b>31248</b>	<b>10407</b>	<b>89067</b>	<b>71453</b>	<b>38902</b>	<b>34908</b>	<b>50802</b>	<b>4728</b>	<b>47805</b>	<b>27602</b>	<b>591493</b>
8	Transport, Storage & Communication	29888	15832	9843	15821	17799	4957	34091	25772	14498	19695	20355	3213	15513	6876	234153
8.1	Railways	679	848	56	508	451	0	711	526	1106	780	661	0	642	656	7402
8.2	Transport by other means *	25046	12473	8614	12740	14852	4200	26798	20834	10145	15851	14920	2734	11891	5204	186302
8.3	Communication	4104	2846	1166	2503	2368	744	6490	4385	3195	3044	4767	454	2925	999	39790
8.4	Storage	59	65	7	72	128	13	92	27	52	40	7	25	55	17	659
9	Trade, Hotel & Restaurants	49631	38743	15540	37157	35838	12421	67179	58775	40540	42496	58450	8351	46460	18976	528555
10	Banking and Insurance	18531	11238	10301	12480	14227	5997	26095	19288	13975	11166	14173	3998	12300	6321	180090
11	Real estate & ownership of Dwellings	18485	13070	6903	10818	9670	8226	14851	13938	11878	12732	12202	3606	9906	4900	147185
12	Public Administration	28304	10090	5277	8089	8779	1977	12853	9244	7850	6457	9383	1394	7707	1740	119124
13	Other Services	26986	16114	7238	17444	15969	5625	22330	22139	16313	21503	20886	4415	16089	7024	220075
	<b>Sub Total: Tertiary</b>	<b>189825</b>	<b>105087</b>	<b>55102</b>	<b>101809</b>	<b>102280</b>	<b>37203</b>	<b>177399</b>	<b>149156</b>	<b>105054</b>	<b>114048</b>	<b>133429</b>	<b>24977</b>	<b>107975</b>	<b>45837</b>	<b>1429182</b>
	<b>Net State domestic Product</b>	<b>287443</b>	<b>232178</b>	<b>115885</b>	<b>194143</b>	<b>195513</b>	<b>116737</b>	<b>338087</b>	<b>277580</b>	<b>205306</b>	<b>216818</b>	<b>248715</b>	<b>70460</b>	<b>211310</b>	<b>107761</b>	<b>2818947</b>
	<b>Population('000)</b>	<b>3158</b>	<b>2560</b>	<b>1274</b>	<b>2145</b>	<b>1960</b>	<b>1156</b>	<b>3019</b>	<b>2934</b>	<b>2553</b>	<b>3318</b>	<b>2808</b>	<b>720</b>	<b>2413</b>	<b>1148</b>	<b>31186</b>
	<b>Per capita Income (Rs.)</b>	<b>9102</b>	<b>8999</b>	<b>9096</b>	<b>8051</b>	<b>9975</b>	<b>10098</b>	<b>11199</b>	<b>9461</b>	<b>8042</b>	<b>6535</b>	<b>8693</b>	<b>8786</b>	<b>8757</b>	<b>8387</b>	<b>8039</b>

\* - Subject to change as and when final results are available  
 Source : Department of Economics & Statistics

**Appendix- 2.12**  
**District wise Distribution of the 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 Lakhs)**

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	88902	90932	61262	51784	105034	88224	99819	78298	88902	93527	83937	60922	84050	52799	1128190
	2 Forestry and Logging	4987	8146	15524	0	811	26093	811	10364	13631	10342	4143	7886	4879	562	108179
	3 Fishing	5302	25131	140	10568	864	58	22888	7369	444	10743	23297	0	4531	5442	116777
	4 Mining and Quarrying	354	329	141	220	237	78	667	479	379	723	1179	97	1289	416	8588
	<b>Sub Total: Primary</b>	<b>99545</b>	<b>124538</b>	<b>77067</b>	<b>62572</b>	<b>106946</b>	<b>114453</b>	<b>123985</b>	<b>96508</b>	<b>103356</b>	<b>115335</b>	<b>112558</b>	<b>68905</b>	<b>94749</b>	<b>59219</b>	<b>1359734</b>
	5 Manufacturing	52623	63043	11176	67642	27884	7393	76723	76665	41970	28814	42145	3434	48491	34113	582116
	5.1 Registered *	24321	29136	5165	31262	12887	3417	35459	35432	19397	13317	19478	1587	22411	15786	269035
	5.2 Unregistered	28302	33907	6011	36380	14997	3976	41264	41233	22573	15497	22667	1847	26080	18347	313081
	6 Electricity, Gas & Water supply	7969	3997	2088	3656	3831	3122	5320	4009	2796	1918	3396	381	1715	773	44971
	6.1 Electricity	5099	3263	1646	2781	3010	2872	3833	3040	2187	1095	2318	220	983	443	32790
	6.2 Gas	594	501	253	426	388	222	580	557	467	549	513	127	442	200	5819
	6.3 Water Supply	2276	233	189	449	433	28	907	412	142	274	565	34	290	130	6362
	7 Construction	44371	26424	12613	24812	23530	7816	77784	43917	22827	32255	45901	4797	34116	12364	413527
	<b>Sub total : Secondary</b>	<b>104963</b>	<b>93464</b>	<b>25877</b>	<b>96110</b>	<b>55245</b>	<b>18331</b>	<b>159827</b>	<b>124591</b>	<b>67593</b>	<b>62987</b>	<b>91442</b>	<b>8612</b>	<b>84322</b>	<b>47250</b>	<b>1040614</b>
	8 Transport, Storage & Communication	53739	27862	18359	27538	32205	9097	59800	46776	25108	35708	35111	5907	27389	11947	416546
	8.1 Railways	772	737	63	575	512	0	808	597	1257	864	752	0	730	745	8412
	8.2 Transport by other means *	47846	23785	16856	23789	28609	8166	50900	40763	19857	31053	28504	5314	22993	9953	358388
	8.3 Communication	5035	3245	1430	3069	2903	912	7958	5377	3918	3733	5845	556	3586	1225	48792
	8.4 Storage	86	95	10	105	181	19	134	39	76	58	10	37	80	24	954
	9 Trade, Hotel & Restaurants	93478	72970	29268	69984	67495	23394	126528	110700	76355	80038	106320	15729	87505	35738	995502
	10 Banking and Insurance	27582	16726	15332	18576	21176	8926	38840	28708	20800	16619	21095	5951	18308	9407	268046
	11 Real estate & ownership of Dwellings	22727	18019	9517	14915	13332	8584	20475	19217	16376	17553	16822	4972	13657	6756	202922
	12 Public Administration	40902	14581	7626	11689	12687	2858	18575	13359	11345	9330	13531	2014	11138	2513	172148
	13 Other Services	41406	24556	11060	26767	24500	8587	34256	33937	24944	32805	31952	6739	24583	10720	336912
	<b>Sub Total: Tertiary</b>	<b>279834</b>	<b>174814</b>	<b>91162</b>	<b>169469</b>	<b>171395</b>	<b>61446</b>	<b>298474</b>	<b>252697</b>	<b>174928</b>	<b>192053</b>	<b>224831</b>	<b>41312</b>	<b>182580</b>	<b>77081</b>	<b>2392076</b>
	<b>Net State domestic Product</b>	<b>484342</b>	<b>392816</b>	<b>194106</b>	<b>328151</b>	<b>333586</b>	<b>194230</b>	<b>582286</b>	<b>473796</b>	<b>345877</b>	<b>370375</b>	<b>428829</b>	<b>118829</b>	<b>361651</b>	<b>183550</b>	<b>4792424</b>
	Population('000)	3194	2609	1288	2169	1982	1168	3054	2967	2582	3356	2840	723	2441	1161	31539
	Per capita Income (Rs.)	15164	15056	15070	15129	16831	16629	19066	15969	13396	11036	15100	16323	14816	15810	15195

\* - Provisional Estimate  
Source : Department of Economics & Statistics

**Appendix- 2.13**  
**District wise Distribution of the 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)**  
**(Rs.in Lakhs)**

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	51834	53018	35718	30193	61240	51439	58083	45651	51834	54531	48940	35521	49005	30785	657792
2	Forestry and Logging	3579	5845	11139	0	582	18723	582	7437	9781	7421	2973	5659	3501	404	77626
3	Fishing	3147	14916	83	6273	513	35	13585	4374	263	6377	13828	0	2689	3230	69313
4	Mining and Quarrying	281	261	112	174	188	62	529	380	301	574	935	77	1022	330	5226
	<b>Sub Total: Primary</b>	<b>58841</b>	<b>74040</b>	<b>47052</b>	<b>36640</b>	<b>62523</b>	<b>70259</b>	<b>72779</b>	<b>57842</b>	<b>62179</b>	<b>68903</b>	<b>66676</b>	<b>41257</b>	<b>56217</b>	<b>34749</b>	<b>809957</b>
5	Manufacturing	34974	41899	7428	44955	18531	4913	50990	50952	27894	19151	28010	2283	32226	22671	386877
5.1	Registered *	17373	20813	3690	22331	9205	2440	25329	25310	13856	9513	13914	1134	16008	11262	192178
5.2	Unregistered	17601	21086	3738	22624	9326	2473	25661	25642	14038	9638	14096	1149	16218	11409	194699
6	Electricity, Gas & Water supply	5730	2925	1524	2661	2797	2309	3856	2918	2040	1370	2452	271	1224	552	32629
6.1	Electricity	3800	2432	1227	2073	2244	2141	2857	2266	1630	816	1728	163	733	330	24440
6.2	Gas	398	336	170	286	261	149	389	374	314	369	344	85	296	134	3905
6.3	Water Supply	1532	157	127	302	292	19	610	278	96	185	380	23	195	88	4284
7	Construction	22184	13211	6306	12405	11764	3907	38888	21956	11412	16126	22949	2398	17056	6182	206744
	<b>Sub total : Secondary</b>	<b>62888</b>	<b>58035</b>	<b>15258</b>	<b>60021</b>	<b>33092</b>	<b>11129</b>	<b>93734</b>	<b>75826</b>	<b>41346</b>	<b>36847</b>	<b>53411</b>	<b>4952</b>	<b>50506</b>	<b>29405</b>	<b>626250</b>
8	Transport, Storage & Communication	34284	18063	11335	18082	20401	5693	38889	29469	16381	22509	23089	3691	17657	7812	267355
8.1	Railways	705	673	58	525	468	0	737	545	1147	789	686	0	667	679	7679
8.2	Transport by other means	29220	14552	10050	14863	17327	4900	31264	24306	11836	18493	17407	3190	13873	6071	217352
8.3	Communication	4298	2770	1220	2620	2478	779	6793	4590	3344	3186	4989	475	3061	1045	41648
8.4	Storage	61	68	7	74	128	14	95	28	54	41	7	26	58	17	676
9	Trade, Hotel & Restaurants	51775	40417	16211	38763	37384	12958	70082	61314	42291	44332	58888	8712	48467	19795	551389
10	Banking and Insurance	20992	12730	11869	14138	16117	6794	29561	21849	15831	12649	16058	4529	13934	7161	204010
11	Real estate & ownership of Dwellings	16936	13428	7092	11115	9935	6397	15258	14320	12203	13080	12536	3705	10177	5036	151218
12	Public Administration	28465	10147	5307	8135	8629	1989	12927	9297	7895	6493	9417	1402	7751	1749	119803
13	Other Services	28036	16741	7520	18122	16590	5844	23198	23000	16948	22339	21698	4587	16715	7298	228636
	<b>Sub Total: Tertiary</b>	<b>180488</b>	<b>111528</b>	<b>59134</b>	<b>108355</b>	<b>109256</b>	<b>39875</b>	<b>189915</b>	<b>159249</b>	<b>111549</b>	<b>121402</b>	<b>141684</b>	<b>26626</b>	<b>114701</b>	<b>48851</b>	<b>1522411</b>
	<b>Net State domestic Product</b>	<b>302217</b>	<b>243601</b>	<b>121444</b>	<b>205016</b>	<b>204871</b>	<b>121063</b>	<b>356428</b>	<b>292917</b>	<b>215074</b>	<b>226952</b>	<b>261771</b>	<b>72835</b>	<b>221424</b>	<b>113005</b>	<b>2958618</b>
	<b>Population('000)</b>	<b>3194</b>	<b>2609</b>	<b>1288</b>	<b>2189</b>	<b>1962</b>	<b>1168</b>	<b>3054</b>	<b>2967</b>	<b>2582</b>	<b>3356</b>	<b>2840</b>	<b>728</b>	<b>2441</b>	<b>1161</b>	<b>31539</b>
	<b>Per capita Income (Rs.)</b>	<b>9462</b>	<b>9337</b>	<b>9429</b>	<b>9452</b>	<b>10337</b>	<b>10365</b>	<b>11871</b>	<b>9872</b>	<b>8330</b>	<b>6763</b>	<b>9217</b>	<b>10005</b>	<b>9071</b>	<b>9733</b>	<b>9381</b>

\* - Provisional Estimate  
Source : Department of Economics & Statistics

**Appendix- 2.14**  
**District wise Distribution of the 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)**  
**(Rs.in Lakhs)**

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	103011	105364	70983	60002	121704	102226	115430	90723	103011	108371	97259	70591	97390	61179	1307244
2	Forestry and Logging	5316	8684	16548	0	865	27815	865	11047	14530	11024	4417	8407	5201	600	115319
3	Fishing	8045	28649	160	12048	985	65	26093	8400	508	12248	26558	0	5165	6204	133126
4	Mining and Quarrying	371	344	147	230	247	81	698	501	397	757	1233	101	1348	435	8890
	<b>Sub Total: Primary</b>	<b>114743</b>	<b>143041</b>	<b>87838</b>	<b>72280</b>	<b>123801</b>	<b>130187</b>	<b>143086</b>	<b>110671</b>	<b>118444</b>	<b>132400</b>	<b>129467</b>	<b>79099</b>	<b>109104</b>	<b>88418</b>	<b>1562579</b>
5	Manufacturing	81518	73699	13085	79074	32596	8643	89690	89623	49064	33885	49269	4015	56686	39877	680504
5.1	Registered *	27682	33163	5879	35582	14668	3889	40359	40329	22078	15158	22170	1807	25508	17944	306216
5.2	Unregistered	33836	40536	7188	43492	17928	4754	49331	49294	28986	18527	27099	2208	31178	21933	374288
6	Electricity, Gas & Water supply	9138	4627	2416	4223	4428	3625	6130	4834	3239	2213	3915	440	1975	890	51891
6.1	Electricity	5925	3791	1913	3231	3498	3338	4454	3532	2541	1273	2694	255	1143	514	38102
6.2	Gas	687	578	293	494	449	258	671	645	541	636	594	147	511	231	6733
6.3	Water Supply	2524	258	210	498	481	31	1005	457	157	304	627	38	321	145	7056
7	Construction	53885	32090	15317	30131	28574	9491	94481	53332	27722	39171	55743	5825	41430	15015	502187
	<b>Sub total : Secondary</b>	<b>124539</b>	<b>110416</b>	<b>30798</b>	<b>113428</b>	<b>65598</b>	<b>21759</b>	<b>190281</b>	<b>147589</b>	<b>80025</b>	<b>75069</b>	<b>108927</b>	<b>10280</b>	<b>100091</b>	<b>55782</b>	<b>1234582</b>
8	Transport, Storage & Communication	70359	36342	24109	35985	42143	11937	78124	61192	32535	46638	45726	7750	35698	15498	544016
8.1	Railways	834	796	68	622	554	0	873	645	1358	934	812	0	789	805	9090
8.2	Transport by other means	63157	31396	22250	31401	37764	10779	67188	53807	26211	40990	37625	7014	30351	13139	473072
8.3	Communication	6269	4040	1780	3821	3615	1136	9908	6895	4878	4647	7278	693	4465	1525	60750
8.4	Storage	99	110	11	121	210	22	155	45	88	67	11	43	93	29	1104
9	Trade, Hotel & Restaurants	111032	86674	34764	83127	80171	27788	150290	131489	90694	95070	126286	18683	103938	42451	1182457
10	Banking and Insurance	34974	21209	19441	23554	26851	11318	49249	36402	26375	21073	26749	7545	23214	11931	339885
11	Real estate & ownership of Dwellings	25068	19875	10497	16451	14705	9468	22584	21196	18063	19361	18555	5484	15063	7453	223823
12	Public Administration	45124	18086	8413	12895	13997	3153	20492	14737	12515	10293	14927	2222	12287	2773	189914
13	Other Services	46592	27736	12444	30113	27562	9662	38538	38179	28062	36908	35946	7582	27655	12049	379026
	<b>Sub Total: Tertiary</b>	<b>333149</b>	<b>207922</b>	<b>109668</b>	<b>202105</b>	<b>205429</b>	<b>73326</b>	<b>359277</b>	<b>303195</b>	<b>208244</b>	<b>229341</b>	<b>268189</b>	<b>49266</b>	<b>217855</b>	<b>92155</b>	<b>2859121</b>
	<b>Net State domestic Product</b>	<b>572431</b>	<b>461379</b>	<b>228304</b>	<b>387813</b>	<b>394828</b>	<b>225272</b>	<b>692644</b>	<b>561455</b>	<b>406713</b>	<b>436810</b>	<b>506583</b>	<b>138645</b>	<b>427050</b>	<b>216355</b>	<b>5656282</b>
	Population('000)	3226	2636	1301	2191	2002	1180	3084	2997	2608	3389	2868	736	2465	1173	31856
	Per capita Income (Rs.)	17744	17503	17548	17700	19722	19091	22459	18734	15595	12889	17663	18838	17325	18445	17756

\* - Quick Estimate

Source : Department of Economics &amp; Statistics



**Appendix- 2.15**  
**District wise Distribution of the Net State Domestic Product and Per Capita Income**  
**of Kerala at Factor Cost by Industry for the year 1998-99\* (At Constant Prices)**  
**(Rs.in Lakhs)**

SI.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	53815	55044	37083	31347	63581	53405	60303	47396	53815	56615	50810	36879	50879	31961	682933
2	Forestry and Logging	3722	6079	11585	0	606	19472	605	7734	10172	7718	3092	5885	3641	420	80731
3	Fishing	3304	15662	87	6587	538	37	14264	4592	277	6696	14519	0	2824	3391	72778
4	Mining and Quarrying	287	267	114	178	192	63	541	388	308	586	956	79	1045	337	5341
	<b>Sub Total: Primary</b>	<b>61128</b>	<b>77052</b>	<b>48869</b>	<b>38112</b>	<b>64917</b>	<b>72977</b>	<b>75713</b>	<b>60110</b>	<b>64572</b>	<b>71615</b>	<b>69377</b>	<b>42843</b>	<b>58389</b>	<b>36109</b>	<b>841783</b>
5	Manufacturing	37486	44908	7962	48185	19863	5286	54653	54612	29897	20526	30022	2446	34542	24300	414668
5.1	Registered *	19069	22844	4050	24511	10104	2679	27801	27780	15208	10441	15272	1244	17571	12361	210935
5.2	Unregistered	18417	22064	3912	23674	9759	2587	26852	26832	14689	10085	14750	1202	16971	11939	203733
6	Electricity, Gas & Water supply	6406	3356	1742	3029	3192	2679	4366	3323	2333	1530	2767	304	1366	615	37008
6.1	Electricity	4443	2843	1435	2423	2623	2503	3341	2649	1906	955	2020	191	857	386	28575
6.2	Gas	421	355	179	302	275	157	411	395	331	389	364	90	313	141	4123
6.3	Water Supply	1542	158	128	304	294	19	614	279	96	186	383	23	196	88	4310
7	Construction	22439	13363	6378	12547	11899	3952	39336	22209	11543	16311	23213	2426	17253	6253	209122
	<b>Sub total : Secondary</b>	<b>66331</b>	<b>81627</b>	<b>16082</b>	<b>63761</b>	<b>34954</b>	<b>11897</b>	<b>98355</b>	<b>80144</b>	<b>43773</b>	<b>38367</b>	<b>56002</b>	<b>5176</b>	<b>53161</b>	<b>31168</b>	<b>660798</b>
8	Transport, Storage & Communication	39545	20726	13124	20788	23523	6572	44621	33888	18820	25873	26345	4264	20216	8936	307041
8.1	Railways	732	699	60	648	486	0	766	567	1192	820	713	0	693	707	7981
8.2	Transport by other means	34247	17055	11779	17420	20304	5743	36642	28487	13870	21673	20401	3739	16258	7116	254734
8.3	Communication	4501	2900	1278	2743	2594	815	7112	4805	3501	3338	5224	497	3205	1094	43805
8.4	Storage	65	72	7	79	136	14	101	29	57	44	7	28	60	19	718
9	Trade, Hotel & Restaurants	53536	41791	16762	40081	38655	13398	72464	63399	43729	45839	60891	9008	50115	20468	570136
10	Banking and Insurance	23782	14421	13220	16017	18259	7696	33489	24753	17935	14330	18189	5131	15786	8113	231121
11	Real estate & ownership of Dwellings	17373	13775	7275	11401	10191	6562	15652	14690	12518	13418	12859	3800	10440	5165	155119
12	Public Administration	29083	10360	5419	8305	9015	2030	13198	9492	8061	6630	9614	1431	7914	1787	122319
13	Other Services	28897	17255	7751	18678	17099	6023	23910	23706	17468	23025	22364	4728	17228	7523	235655
	<b>Sub Total: Tertiary</b>	<b>192186</b>	<b>118328</b>	<b>63551</b>	<b>115270</b>	<b>116742</b>	<b>42281</b>	<b>203334</b>	<b>189928</b>	<b>118331</b>	<b>129115</b>	<b>150262</b>	<b>28362</b>	<b>121699</b>	<b>51992</b>	<b>1621391</b>
	<b>Net State domestic Product</b>	<b>319655</b>	<b>257007</b>	<b>128502</b>	<b>217143</b>	<b>2166613</b>	<b>127155</b>	<b>377402</b>	<b>310182</b>	<b>226876</b>	<b>239097</b>	<b>275641</b>	<b>76381</b>	<b>233249</b>	<b>119269</b>	<b>3123972</b>
	<b>Population('000)</b>	<b>3226</b>	<b>2836</b>	<b>1301</b>	<b>2191</b>	<b>2002</b>	<b>1180</b>	<b>3084</b>	<b>2997</b>	<b>2608</b>	<b>3389</b>	<b>2868</b>	<b>736</b>	<b>2465</b>	<b>1173</b>	<b>31856</b>
	<b>Per capita Income (Rs.)</b>	<b>9909</b>	<b>9750</b>	<b>9877</b>	<b>8911</b>	<b>10820</b>	<b>10776</b>	<b>12237</b>	<b>10350</b>	<b>8682</b>	<b>7055</b>	<b>9611</b>	<b>10378</b>	<b>9462</b>	<b>10168</b>	<b>9807</b>

\* - Quick Estimate

Source : Department of Economics &amp; Statistics

**Appendix - 2.16**  
**Total Work Seekers in Kerala as on 31-03-99**

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	3635750	154813	3790563

As on 31-03-99

**Appendix - 2.17**  
**Distribution of work seekers in Kerala by Educational level**

Year at the end of December	Below SSLC	SSLC	PDC	Degree	P.G.	SSLC & above	% of 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	933107	2225324	375944	209960	46228	2857456	75	3790563

As on 31-03-99

Source : Directorate of Employment & Training

<b>Appendix - 2.18</b>							
<b>Number of Professional and Technical Work Seekers</b>							
Year at the end of December	Medical Graduate	Engineering Graduates	Diploma holders in Engineering	ITI Certificate holders	Agricultural Graduates	Vetinary 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	1983	7671	38552	105195	1289	123	154813

As on 31-03-1999

Source : Directorate of Employment &amp; Training

<b>Appendix - 2.19</b>					
<b>District-wise Distribution of Work Seekers as on 31-03-1999</b>					
District	General work seekers	Profossional/Technical work seekers	Total work seekers		
			Men	Women	Total
1	2	3	4	5	6
1. Thiruvananthapuram	632599	38030	286812	383817	670629
2. Kollam	428152	16043	198848	245347	444195
3. Alappuzha	318088	12577	141868	188797	330665
4. Pathanamthitta	132003	5995	58255	79743	137998
5. Kottayam	241818	10208	108982	143044	252026
6. Idukki	119029	3864	55663	67230	122893
7. Ernakulam	363450	28346	179131	212665	391796
8. Thrissur	277873	11619	114006	175486	289492
9. Palakkad	231243	6039	120607	116675	237282
10. Malappuram	204347	4952	104251	105048	209299
11. Kozhikode	319586	7030	163102	163514	326616
12. Wayanad	70206	1444	35457	36193	71650
13. Kannur	218119	7415	104804	120730	225534
14. Kasaragod	79237	1251	41720	38768	80488
<b>Total</b>	<b>3635750</b>	<b>154813</b>	<b>1713506</b>	<b>2077057</b>	<b>3790563</b>

Source : Directorate of Employment &amp; Training

**Appendix - 2.20**  
**Unemployment Assistance and Self Employment Scheme**

Year	Unemployment Assistance			Self Employment Scheme		
	Application received	No. of beneficiaries to whom UA paid	Amount disbursed (Crores)	Application received	No. of beneficiaries to whom UA paid	Amount disbursed (Crores)
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	3794	1518	9.11
1998-99	-	232264	14.49	3384	888	5.33
1999-2000	-	-	16.43	-	-	-

Source : Directorate of Employment & Training

**Appendix - 2.21**  
**Employment in the Public and Private Sector in Kerala**

Year at the end of December	Public Sector	Index	Private Sector	Index	Total	Index
1990-91	645856	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	-

Source : Directorate of Employment & Training

**Appendix - 2.22**

**Number of placements through Employment Exchanges and monthly average number of employers using Employment Exchange in Kerala**

Sl.No.	Year	No of placements	Monthly average no.of Employers using Employment Exchange
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	19601	447

Source : Directorate of Employment & Training

## Appendix-3.1

## Consumer Price Index (Cost of Living Index) Numbers for Agricultural and Industrial workers-Kerala : 1999

Sl. No.	Centre	1998												1999			Variation (Oct. 98 to Oct. 99)	
		Octo.	Nov.	Dec.	Jan.	Feb.	March	April	May	June	July	Augu.	Sept.	Octo.	Index	Percent		
		3	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
1	Thiruvananthapuram	1004	1009	1013	1017	1025	1029	1036	1040	1046	1051	1054	1054	1059	55	5.48		
2	Kollam	1006	1010	1013	1018	1022	1026	1034	1037	1041	1047	1051	1054	1059	53	5.27		
3	Punalur	950	957	961	965	970	975	983	987	992	998	1002	1006	1014	64	6.74		
4	Alappuzha	992	998	1002	1006	1015	1021	1031	1036	1043	1051	1053	1055	1060	68	6.85		
5	Kottayam	979	983	985	992	1001	1010	1021	1027	1035	1043	1045	1047	1055	76	7.76		
6	Mundakkayam	952	960	965	969	977	984	996	1001	1007	1013	1017	1019	1026	74	7.77		
7	Munnar	941	949	955	960	968	974	985	990	998	1006	1010	1013	1019	78	8.29		
8	Ernakulam	964	969	972	976	982	987	995	999	1002	1008	1012	1012	1018	54	5.60		
9	Chalakyady	1005	1013	1021	1028	1035	1041	1053	1058	1064	1070	1073	1076	1081	76	7.56		
10	Thrissur	976	982	987	992	1000	1005	1015	1020	1025	1030	1032	1034	1040	64	6.56		
11	Palakkad	987	995	999	1003	1010	1014	1022	1027	1034	1040	1043	1046	1051	64	6.48		
12	Malappuram	987	991	995	999	1006	1013	1023	1029	1031	1038	1040	1042	1046	59	5.98		
13	Kozhikode	974	979	982	986	992	997	1008	1013	1016	1024	1027	1029	1034	60	6.16		
14	Meppady	1022	1026	1031	1040	1048	1057	1067	1073	1079	1086	1091	1094	1100	78	7.63		
15	Kannur	986	990	992	995	1002	1006	1015	1020	1024	1028	1030	1032	1036	50	5.07		
	Average	982	987	992	996	1004	1009	1019	1024	1029	1036	1039	1041	1047	65	6.62		

Source : Department of Economics and Statistics

## Appendix - 3.2

## Month-end Average Retail Prices of Essential Commodities 1999

Sl.	Name of Commodity	Unit	1999											
			Janu.	Febru.	March	April	May	June	July	Aug.	Sept.	Octo.	Novem.	Decem.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
<b>A. Cereals</b>														
1	Rice Matta(OM)	Kg	12.43	13.4	13.42	13.29	13.13	13.43	13.59	13.64	13.51	13.64	13.37	13.6
2	Rice White(OM)	Kg	12.71	13.54	13.6	13.36	13.24	13.29	13.59	13.26	13.07	12.83	12.95	12.91
<b>B. Pulses</b>														
3	Greengram	Kg	26.83	26.41	26	26.27	26.71	26.36	26.29	24.79	25.07	26.04	26.11	26.7
4	Blackgram(without husk)	Kg	30.61	29.61	29	29.89	32.73	32.36	32.64	31.61	32.14	34.75	35.32	34.71
5	Redgram	Kg	20.92	20.49	20.13	20.59	20.39	20.5	20.39	20.11	19.75	21.93	23.31	24.15
6	Dhall (Tur)	Kg	36.17	33.23	31.17	32.1	34.85	34.62	34.85	34.8	35.85	37.23	36.35	33.63
<b>C. Other Food Items</b>														
7	Sugar(OM)	Kg	15.2	15.06	15.45	15.93	15.34	15.02	14.95	14.87	14.74	15.73	15.14	14.99
8	Milk (Cow's)	Ltr	12	12	12	12.96	12.96	12.96	12.96	13.11	13.11	13.18	13.18	13.04
9	Tea(Kannan Devan)	1/2 Kg	67.86	67.86	66.57	63.89	63.93	63.32	63.00	63.21	63.14	62.64	61.43	61.96
10	Coffee(Brook Bond Green Label)	1/2 Kg	69.61	69.89	71.75	72.32	71.32	72.5	73.77	73.77	73.46	72.37	71.31	71.27
11	Baby Food(Amul)	Kg	128	134	129.3	130.45	130.45	129.55	129.6	128.9	128.5	134.20	127.55	127.55
12	Egg(Hen's White Legon)	Dozen	15.59	14.39	14.78	14.96	16.87	17.16	16.93	15.72	16.57	17.47	17.71	18.13
13	Mutton(with bones)	Kg	102.14	102.14	102.1	102.14	102.86	102.86	102.9	102.9	102.9	103.6	104.29	105
<b>D. Oil and Oil Seeds</b>														
14	Coconut oil	Kg	54.18	57.5	59.3	61.41	57.76	59	59.51	64.14	62.68	64.91	64.79	61.13
15	Groundnut Oil	Kg	53.36	53.14	51.23	52.55	51.73	51.23	48.98	49.2	51.14	51.14	49.18	49.70
16	Refined oil (Postman)	Kg	73.63	76.3	73.69	72.83	69.13	69	68.75	64.75	64.29	64.45	64.81	64.34
17	Gingelly oil	Kg	63.29	63.14	64.75	64.46	63.34	60.46	56.07	54.41	53.91	56.88	57.7	57.73
18	Coconut (without Husk)	100Nos	539.64	558.93	563.93	586.43	577.14	577.86	581.79	614.6	616.1	640	646.43	616.79
<b>E. Spices and Condiments</b>														
19	Coriander	Kg	27.39	26.96	26.33	26.07	26.21	26.14	25.86	25.81	25.86	26.27	26.13	26.32
20	Chillies(dry)	Kg	65.29	57.07	46.05	43.98	43.41	47.36	49.5	49.64	49.79	53.29	52.64	50.29
21	Onion (small)	Kg	11.06	9.76	9.43	10.37	9.7	8.55	7.61	7.4	10.75	14.06	12.5	9.95
22	Tamarind(without seed)	Kg	27.07	27.21	28.29	29.57	31.5	35.43	36.93	36.07	37.36	38.36	38.21	37.50
<b>F. Tubers</b>														
23	Chenai (Elephant Foot)	Kg	7.5	7.57	7.93	9.5	9.21	8.89	8.50	7.79	7.29	7.71	7.29	7.14
24	Tapioca(Raw)	Kg	4.39	4.46	4.57	4.81	4.75	4.69	4.89	5.07	5.04	5.13	5.36	5.43
25	Potato	Kg	9.56	8.04	7.07	7.22	7.55	8.74	8.33	7.76	7.43	13.02	9.21	9.16
28	Colocassia	Kg	10.38	8.92	11	11.58	12.42	12.67	12.25	12.31	12.5	12.5	11.64	10.71

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
<b>G. Fruits and Vegetables</b>															
27	Onion(Big)		Kg	9.12	6.86	5.96	7.29	7.82	8.56	8.24	7.84	9.64	11.67	8.95	7.61
28	Brijal		Kg	8.86	8.57	9.64	9.79	10.14	9.43	9.93	10.86	9.43	12.36	10.36	10.64
29	Pumpkin		Kg	5.93	6.07	6.21	6.43	6.21	6	5.71	7.00	6.5	9.29	7.79	7
30	Cucumber		Kg	5.5	6.57	7.57	7.93	7.21	7.36	8	10.14	8.57	8.5	8.14	10.43
31	Lady's Finger		Kg	10.07	10.07	12.5	11.21	9.5	9.07	11.14	10.29	9.5	10.43	9.86	9.57
32	Cabbage		Kg	7.36	6.5	6.43	6.5	6.71	6.86	7.71	9.29	7.93	10.93	9.43	8.5
33	Bittergourd		Kg	11.43	9.71	10.36	12.43	15.57	15.43	16.79	13.36	13.71	18.71	14.00	12.21
34	Ash gourd		Kg	6.43	6.14	6.50	6.21	6.57	6.36	6.04	7.29	6.93	9.86	8	7.79
35	Snakegourd		Kg	8	7.57	8.21	9.27	9.64	10.00	10	9.86	8.71	11.79	9.93	10.29
36	Chillies (Green)		Kg	13.21	13.29	14.07	14.71	13.29	12.93	15.79	14.07	13.86	16.71	13.29	15.64
37	Banana(Green)		Kg	11.86	11	9.68	9.61	10.96	12.68	10.11	11.36	9.50	12.04	10.04	11.36
38	Plantain(Green)		Kg	7.39	7.46	7.29	7.36	7.36	7.35	6.86	7.19	6.92	8.15	7.42	7.89
<b>H. Miscellaneous Items</b>															
39	Tobacco		Kg	45.43	47.29	47.86	46.43	46.79	47.93	48.86	48.64	49	49.71	49.43	48.21
40	Mundu (Mull)		Each	51.91	51.91	51.91	51.91	52.06	51.71	52.58	52.85	52.58	52.85	52.85	52.78
41	Washing Soda		Kg	17.86	18.57	18.5	17.71	17.71	17.86	18.00	18.00	17.86	17.86	17.93	17.93
42	Washing Soap(501)		1/2 Bar	7.3	7.21	7.3	7.28	7.21	7.23	7.1	7.04	7.14	7.18	7.2	7.16
43	Toilet Soap (Lux)		Each(100 gm)	10.21	10.36	10.43	10.43	10.14	10.07	10.29	10.43	10.43	10.29	10.21	10.36
44	Tooth paste(Colgate)		100 gms	22.21	22.22	22.29	22.36	22.3	23	23.14	23.29	23.71	23.93	24.07	24.21
45	Razor Blade(Topaz)		5 Nos	5.5	5.39	5.32	5.39	5.46	5.32	5.45	5.14	5.21	5.39	5.46	5.43
46	Tablet (Crocin)		2 Tabs	1.32	1.32	1.32	1.32	1.25	1.27	1.27	1.27	1.27	1.27	1.27	1.26
47	Ele. Bulb(Philips)		Each(40 w)	10.78	10.7	10.82	10.82	10.78	10.82	10.81	10.81	10.81	10.81	10.81	10.85
48	Torch Battery(Evereaday950)		Each	7.59	7.68	7.82	7.8	7.77	7.82	7.8	7.88	7.93	7.96	7.93	7.93
49	Paper		24 Sheets	10	10	9.96	10	9.47	9.36	9.36	9.36	9.36	9.36	9.46	9.54
50	Fire Wood Split (Local)		Qtl	149	149	151	151	149.17	149.17	149.2	149.2	150.00	150.00	150.00	153.33
51	Cement(Sankar-Paper Bag)		Each	152.46	149.04	154.8	160.75	162.5	166.5	184.2	197.4	195.3	192	181.08	165.38

Source : Department of Economics and Statistics



Appendix - 3.3

Wholesale Price Index of Agricultural commodities - Kerala (1998 & 1999)

Crops	1998						1999									
	April	May	June	July	August	Sept.	October	Novem.	Dece.	January	February	March	April	May	June	Average*
1	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1 Rice	1161.9	1161.9	1161.9	1161.9	1161.9	1161.9	1161.9	1161.9	1161.9	1161.9	1953.5	1954	1953.5	1953.5	1954	1821.57
2 Molasses	2071	2066.6	2077.5	2067.2	2103.6	2092	1988.9	2250	2190	1879.7	1813.7	1656	1730.9	1772.4	1767	1769.98
3 Condiments & Spices	3027.8	3147.8	3315.6	3035.9	2853.4	2906.5	2921.3	3003.1	3169.8	3342.3	3465	4186	4912.3	5476.3	7448	4804.9
4 Fruits & Vegetables	3407.7	3370.9	3362.3	3374.6	3390.6	3429.6	3356.3	3357.7	3365.7	3403.5	3402.3	3410	3406.1	3558	3542	3453.55
5 Food Crops	1874.7	1887.9	1914.1	1870.3	1844.4	1859.3	1850.6	1868	1894.5	1919.1	2440.2	2554	2674.2	2793.1	3112	2582
6 Oil Seeds	2618.6	2517.1	2484.9	2538	2508.8	2558.8	2765.7	2870.5	2820.3	2973.8	3033	3163	3310.5	3189	3198	3144.52
7 Plantation Crops	1934	1777.6	1753.3	1905	1819.8	1787.2	1840.2	1831.5	1825	1825.5	1792.8	1763	1805.2	1800.5	1771	1793.07
8 Non-food Crops	2411.9	2293.8	2264	2346.8	2300.7	2323.7	2486.2	2556.7	2519.7	2627	2658.5	2741	2855.9	2769.7	2767	2736.38
9 All crops	2070.8	2036.1	2041.8	2044.2	2011	2028.8	2082.6	2121.2	2122.7	2177.5	2519.9	2622	2740.5	2784.6	2986	2638.35

Source : Department of Economics and Statistics  
\* Average from January to June 1999( 6 months)

**Appendix - 3.4**  
**Index Number of Wholesale Prices in India by Groups and Sub-Groups (Averages)**

(Base: 1981-82=100)

Sl. No	Item	1998												
		Weight	3	4	5	6	7	8	9	10	11	12	13	14
	<b>All commodities</b>	100	343.8	347.5	351.4	353.2	356	358.9	358.5	355.5	354.1	355.3	353.7	354.8
I	Primary Articles	32.295	363.3	369.6	378	379.8	388	393.4	395.1	385.6	381.2	382.4	376.3	380.4
1	Food Articles	17.386	421.9	429.7	440.3	441	456.9	468.1	467.1	446.6	437.8	439.6	433.5	443.4
I	Food Grains	7.917	360.9	366.1	378	384.2	389.8	396.5	409.9	409.6	412.2	425.5	420.1	415.9
a)	Cereals	6.824	350.2	355.9	365.9	371.8	377.9	380	391.2	391.4	397.1	414.8	414.3	408.3
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 & Vegetables	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	378.2	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
	Beverages, Tobacco & Tobacco													
2	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-metallic 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 Miscellaneous Manufacturing	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 - 3.5 Consumer Price Index Numbers for Industrial workers - All India and Selected Centres

(Base 1982=100)

	1998												1999				
	Septem	Octob	Nov	Dec.	Jan	Febr	March	April	May	June	July	August	13	12	11	10	9
	2	3	4	5	6	7	8	9	10	11	12	13	13	12	11	10	9
All India	420	433	438	429	420	415	414	415	419	420	424	426	426	424	420	419	415
Ahmedabad	410	419	433	435	414	410	405	406	416	420	425	428	428	425	420	416	406
Aluva	407	413	419	416	416	416	415	421	420	423	428	422	422	428	423	420	421
Bangalore	397	400	406	405	398	397	398	400	403	405	405	405	405	405	405	403	400
Mumbai	464	473	479	475	407	462	461	464	470	468	470	471	471	470	468	470	464
Culcutta	428	454	470	461	429	419	421	422	427	428	433	433	433	433	428	427	422
Coimbatore	386	394	403	403	385	390	388	386	350	395	394	397	397	394	395	350	386
Delhi	468	489	482	464	472	472	471	471	471	470	479	485	485	479	470	471	471
Hyderabad	393	397	359	399	390	388	386	391	396	394	394	395	395	394	394	396	391
Jamshedpur	397	410	424	414	399	393	387	385	385	383	390	390	390	390	383	385	385
Madras	437	440	451	449	443	438	438	440	445	447	445	446	446	445	447	445	440
Madhura	406	412	420	429	420	407	410	410	416	420	418	422	422	418	420	416	410
Mundakayam	418	424	432	427	427	438	433	433	437	443	452	447	447	452	443	437	433
Nagpur	445	451	454	446	439	438	431	432	432	435	440	445	445	440	435	432	431

Source: RBI Bulletin

**Appendix - 3.6**  
**Consumer Price Index Numbers for Agricultural Labourers - State-wise**

(Base July 1986 - June 1987 = 100)

1	1998												1999			
	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
All India	297	304	310	305	299	297	296	295	298	301	304	308				
Andra pradesh	312	317	322	320	308	304	299	299	305	310	311	313				
Assam	308	313	320	320	314	309	309	310	312	313	317	320				
Bihar	278	291	291	291	285	287	289	282	285	291	298	302				
Gujarat	302	310	302	302	295	291	289	291	292	295	299	303				
Jammu&Kashmir	299	307	306	306	303	305	303	310	309	302	317	322				
Karnataka	300	305	315	315	314	313	306	303	307	306	306	312				
Kerala	297	306	308	308	306	316	309	301	301	304	307	310				
Madhyapradesh	301	307	304	304	297	296	293	296	299	305	307	314				
Maharashtra	292	296	299	299	290	285	283	286	290	293	295	299				
Orissa	288	290	293	293	285	282	284	289	296	303	311	317				
Panjab	310	321	308	308	302	299	300	303	302	304	312	314				
Rajasthan	287	293	290	290	288	290	290	290	294	297	303	311				
Tamil Nadu	286	290	301	301	297	290	292	291	294	295	293	294				
Uttar Pradesh	297	308	298	298	294	294	296	294	294	303	307	313				
Bengal	307	316	319	319	312	307	306	309	312	307	309	308				

Source : RBI Bulletin

**Appendix - 3.7**  
**Consumer Price Index Numbers for Urban Non-Manual Employees- All India & Selected Centres**

(base : 1984-85=100)

	1998												1999												
	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June	July	
1	2	3	4	5	6	7	8	9	10	11	12	13	1	2	3	4	5	6	7	8	9	10	11	12	13
All India	337	340	347	350	345	342	340	340	341	344	346	350	337	340	347	350	345	342	340	340	340	341	344	346	350
Mumbai	337	340	346	349	346	341	341	341	346	349	350	350	337	340	346	349	346	341	341	341	343	346	349	350	350
Delhi	342	349	357	355	344	353	353	353	349	350	352	360	342	349	357	355	344	353	353	353	351	349	350	352	360
Calcutta	316	322	329	330	324	316	314	314	316	323	325	327	316	322	329	330	324	316	314	315	315	316	323	325	327
Chennai	365	369	372	376	375	377	378	378	378	380	379	381	365	369	372	376	375	377	378	377	377	378	380	379	381
Hydrabad	344	346	352	353	353	346	344	344	346	349	352	355	344	346	352	353	353	346	344	346	346	349	352	355	
Bangalore	349	352	354	359	360	357	359	359	356	359	361	361	349	352	354	359	360	357	359	356	356	359	361	361	
Lucknow	330	333	338	336	321	318	316	316	317	317	324	327	330	333	338	336	321	318	316	316	316	317	317	324	327
Ahemadabad	302	300	311	315	309	309	305	305	306	309	309	316	302	300	311	315	309	309	305	304	306	309	309	316	316
Jaipur	346	352	362	362	355	353	352	352	352	352	351	358	346	352	362	362	355	353	352	352	352	352	352	351	358
Patna	331	332	352	358	347	340	332	332	330	329	329	338	331	332	352	358	347	340	332	332	330	329	329	329	338
Srinagar	332	334	340	349	346	347	349	349	353	353	353	357	332	334	340	349	346	347	349	349	349	353	353	353	357
Thiruvananthapuram	318	320	325	329	328	327	329	329	330	329	331	335	318	320	325	329	328	327	329	329	330	329	329	331	335
Cuttak	325	335	345	356	348	344	342	342	346	347	348	351	325	335	345	356	348	344	342	342	346	347	347	348	351
Bhopal	344	344	352	356	352	344	339	339	335	336	342	341	344	344	352	356	352	344	339	335	335	336	342	341	
Chandigar	394	397	406	406	405	413	411	411	414	415	420	430	394	397	406	406	405	413	411	412	414	415	420	430	
Shillong	340	349	351	359	356	351	348	348	349	354	353	357	340	349	351	359	356	351	348	348	349	354	353	357	

Source : RBI Bulletin

**Appendix -3.8  
Wholesale Price Index of Agricultural Commodities 1985-99**

(Base: 1952-53=100)

Group	Weight	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998*	1998	1999*
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Food Crops	63.5	709	696	725	835	936	984	1310	1384	1609	1731	1815	1161.9	1161.9	1821.6
Rice	40.4	529	533	544	592	638	638	837	957	1162	1162	1162	2144.8	2130.0	1770
Condiments and Spices	10.4	1435	775	754	1098	1542	1688	1895	1779	1960	2315	2818	2763.1	2872.4	4804.9
Fruits & Vegetables	10.7	858	1199	1342	1450	1449	1571	2434	2534	2978	3235	3182	3293.6	3336.3	3453.6
Molasses	2.0	626	881	909	1082	1061	1161	1803	1781	1477	1627	2454	1814.6	1839.5	2582
Non-food Crops	36.5	1324	1428	1215	1365	1832	2062	1966	1679	1864	2155	2426	2749.4	2713.2	3144.5
Oil Seeds	25.5	1620	1795	1411	1562	2240	2543	2368	1915	2029	2395	3069.0	1867.9	1851.4	1793.1
Plantation crops	11.0	568	578	761	910	888	948	1038	1134	1485	1599	1631	2483.2	2452.8	2736.4
All Crops	100.0	983	963	904	1028	1263	1377	1550	1492	1702	1876	2114.0	2058.6	2063.5	2638.4

Source : Department of Economics and Statistics  
\* : up to the month of June only

### 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 No. of holdings	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	Agriculture 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 1999**

Sl.No	Districts	Actual 1999	Normal	Percentage Departure
1	2	3	4	5
1	Thiruvananthapuram	1925.3	2203.8	-13
2	Kollam	2885.1	2555.1	13
3	Alappuzha	3106.7	2965.4	5
4	Pathanamthitta	3379.9	3133.8	8
5	Kottayam	2957.1	3130.3	-6
6	Idukki	3832.5	3379.4	13
7	Ernakulam	3051.4	3274.3	-7
8	Thrissur	2764.9	3262.0	-15
9	Palakkad	2120.9	2389.8	-11
10	Kozhikode	2817.7	3667.9	-23
11	Malappuram	2851.3	2906.1	-2
12	Wayanad	2231.5	3590.8	-38
13	Kannur	3038.1	3465.0	-12
14	Kasargode	3233.6	3581.3	-10
<b>State average</b>		<b>2871.1</b>	<b>3107.5</b>	<b>-8</b>

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	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	Deviation from normal rainfall during 1999
		2	3	4	5	6	7	8	9	10	11	12	
January	14.6	6.0	15.0	14.0	3.4	0.0	32.5	11.0	12.6	2.1	8.7	2.0	-12.6
February	16.6	0.0	5.0	6.0	1.0	18.1	31.0	7.2	8.4	3.8	1.5	23.9	7.3
March	39.8	19.0	17.0	34.0	0.1	21.0	20.3	41.3	13.5	37.5	10.8	22.1	-17.7
April	113.4	107.0	42.0	98.0	44.8	70.6	145.7	173.6	134.4	62.9	64.9	124.2	10.8
May	262.9	153.0	489.0	119.0	226.1	169.5	151.9	348.5	71.0	134.0	170.6	471.0	208.1
June	697.1	725.0	603.0	1084.0	813.3	688.8	836.2	531.8	592.1	551.0	722.9	614.0	-83.1
July	764.9	577.0	652.0	837.0	802.3	804.6	941.0	719.7	680.0	941.9	600.1	656.9	-108.0
August	439.4	354.0	349.0	471.0	503.6	293.2	478.9	458.2	337.0	520.4	366.5	250.3	-189.1
September	252.1	294.0	106.0	50.0	296.5	91.7	205.8	293.3	329.4	291.0	516.4	85.4	-166.7
October	297	313.0	326.0	291.0	318.4	442.7	448.5	208.2	320.6	284.5	440.5	544.9	247.9
November	166.1	87.0	174.0	100.0	338.7	169.1	163.7	180.6	97.2	284.7	129.0	71.3	-94.8
December	43	7.0	2.0	3.0	4.8	49.3	42.5	0.1	88.4	92.7	87.6	5.0	-38.0
<b>TOTAL</b>	<b>3107</b>	<b>2642.0</b>	<b>2780.0</b>	<b>3106.0</b>	<b>3353.0</b>	<b>2818.6</b>	<b>3497.9</b>	<b>2973.5</b>	<b>2684.6</b>	<b>3206.5</b>	<b>3119.5</b>	<b>2871.0</b>	<b>-236.0</b>
<b>Monthly Average</b>	<b>258.9</b>	<b>220.0</b>	<b>232.0</b>	<b>259.0</b>	<b>279.4</b>	<b>234.9</b>	<b>291.5</b>	<b>247.8</b>	<b>223.7</b>	<b>267.2</b>	<b>260.0</b>	<b>239.25</b>	<b>-19.6</b>

Source: Meteorological Centre, Thiruvananthapuram

## Appendix - 4.5

## District-wise Monthly Rainfall in mm for 1999

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	12.9	65.5	16.4	148.7	376.0	410.9	166.0	91.6	36.8	485.5	99.8	15.2
2	Kollam	1.7	61.6	17.2	245.7	487.5	485.0	333.3	138.0	72.9	926.8	112.2	3.2
3	Alappuzha	4.8	13.3	62.4	261.5	533.1	673.4	432.8	228.3	117.4	651.8	117.6	10.3
4	Pathanamthitta	1.3	55.4	52.9	255.5	540.1	801.8	548.9	195.4	106.6	694.1	124.6	3.3
5	Kottayam	6.9	5.7	50.3	183.0	532.0	620.6	503.0	233.4	105.3	615.9	92.2	8.8
6	Idukki	0.0	49.1	23.5	160.4	602.4	590.1	927.7	361.1	195.3	818.7	100.7	3.5
7	Ernakulam	0.0	18.1	20.7	125.8	605.9	648.5	645.4	170.6	81.9	643.0	76.0	15.5
8	Thrissur	0.0	15.6	0.4	80.7	460.7	571.8	838.9	210.6	47.5	498.8	39.9	0.0
9	Palakkad	0.0	17.2	2.1	40.4	283.7	437.1	619.1	169.8	44.5	445.9	59.5	1.6
10	Kozhikode	0.0	1.0	18.3	68.0	540.6	735.5	738.5	321.4	48.5	318.1	23.0	4.8
11	Malappuram	0.0	22.4	30.8	97.0	451.0	694.0	735.6	251.1	54.0	465.7	47.2	2.5
12	Wayanad	0.0	10.0	14.3	53.0	263.6	336.1	757.7	302.0	64.3	392.3	38.0	0.2
13	Kannur	0.0	0.0	0.0	11.8	431.4	754.4	972.4	414.9	66.0	348.9	38.3	0.0
14	Kasarode	0.0	0.0	0.6	7.7	487.6	836.2	977.9	416.4	154.8	322.8	28.9	0.7
	<b>State Total</b>	<b>27.6</b>	<b>334.9</b>	<b>309.9</b>	<b>1739.2</b>	<b>6595.6</b>	<b>8595.4</b>	<b>9197.2</b>	<b>3504.6</b>	<b>1195.8</b>	<b>7628.3</b>	<b>997.9</b>	<b>69.6</b>

Source: Meteorological Centre, Thiruvananthapuram.

## Appendix - 4.6

**Index of Area, Production and Productivity of Crops in Kerala**  
**Base - Average of Triennium ending 1978-79**

Sl. No	Crops	Average of 3 Years 1976-77 to 1978-79	1996-97	1997-98	1998-99
1	2	3	4	5	6
<b>AREA</b>					
	All Crops	101.48	101.78	99.52	107.72
A	Food Grains (1+2)	102.55	53.66	48.11	44.27
	1 Cereals	102.59	53.76	48.37	44.22
	2 Pulses	101.53	51.22	42.20	45.51
B	Non-Food Grains (3to8)	101.00	123.91	123.17	136.91
	3 Oil Seeds	101.66	131.94	129.06	156.88
	4 Plantation Crops	95.04	182.86	185.94	188.28
	5 Condiments & spices	100.65	133.60	130.60	156.06
	6 Drugs & Narcotics	82.29	26.77	26.62	26.77
	7 Fruits & Vegetables	103.20	78.94	79.07	78.39
	8 Miscellaneous Crops	103.59	133.81	157.24	132.55
<b>PRODUCTION</b>					
	All Crops	100.17	147.21	146.28	163.89
A	Food Grains(1+2)	98.67	67.85	59.54	56.67
	1 Cereals	98.85	67.75	59.48	56.57
	2 Pulses	87.06	74.02	63.16	63.66
B	Non-Food Grains (3to8)	100.52	165.61	166.39	188.75
	3 Oil Seeds	103.48	168.83	166.51	213.17
	4 Plantation Crops	93.54	283.00	295.71	311.76
	5 Condiments & spices	89.40	165.74	159.21	183.50
	6 Drugs & Narcotics	89.54	40.25	37.89	40.22
	7 Fruits & Vegetables	105.94	91.41	91.66	86.78
	8 Miscellaneous Crops	98.02	122.08	136.41	128.08
<b>PRODUCTIVITY</b>					
	All Crops	98.71	124.95	125.17	128.50
A	Food Grains (1+2)	96.22	126.43	123.58	128.32
	1 Cereals	96.35	126.15	123.17	128.14
	2 Pulses	85.25	144.49	149.66	139.89
B	Non-Food Grains(3to8)	99.52	124.60	125.53	128.54
	3 Oil Seeds	101.79	126.10	126.94	133.62
	4 Plantation Crops	98.74	162.69	167.15	172.74
	5 Condiments & spices	88.82	123.98	118.90	115.54
	6 Drugs & Narcotics	108.85	210.17	194.00	210.58
	7 Fruits & Vegetables	102.65	99.76	101.67	100.75
	8 Miscellaneous Crops	94.62	86.05	80.73	91.25

Source Directorate of Economics and Statistics

**Appendix - 4.7**  
**Season-wise Area, Production and Productivity of Rice in Kerala**

Sl. No.	Season	Area (ha)										Production (t)										Productivity (kg/ha)																								
		1996-97	1997-98	1998-99	1996-97	1997-98	1998-99	1996-97	1997-98	1998-99	1996-97	1997-98	1998-99	1996-97	1997-98	1998-99	1996-97	1997-98	1998-99	1996-97	1997-98	1998-99	1996-97	1997-98	1998-99																					
1	1	2	3	4	5	6	7	8	9	10	163893	144743	120217	332643	285328	235849	2030	1971	1962	210309	180701	174714	414338	342353	346022	1970	1895	1981	56624	61678	57700	124380	136929	144872	2197	2220	2511	430826	387122	352631	871361	764610	726743	2023	1975	2061
4	All Seasons																																													

Source: Directorate of Economics and Statistics

**Appendix - 4.8**  
**District wise Area, Production and Productivity of Rice in Kerala**

Sl. No.	District	Area (ha)										Production (tonnes)										Productivity (kg/ha)																																																																																																																											
		1996-97	1997-98	1998-99	1996-97	1997-98	1998-99	1996-97	1997-98	1998-99	1996-97	1997-98	1998-99	1996-97	1997-98	1998-99	1996-97	1997-98	1998-99	1996-97	1997-98	1998-99	1996-97	1997-98	1998-99																																																																																																																								
1	2	3	4	5	6	7	8	9	10	11	13961	11368	9598	24877	19610	17689	1782	1725	1843	22223	20023	17571	42237	36051	33311	1901	1800	1896	10985	8267	7497	23690	18534	19467	2157	2242	2597	41447	43220	35125	85192	95128	91681	2055	2201	2610	20200	13754	14393	43728	29029	35658	2165	2111	2477	5099	4068	3846	10578	8468	8995	2075	2082	2339	53988	46152	49730	93382	74234	84529	1730	1608	1700	51544	40977	39215	104966	82991	74190	2036	2025	1892	128359	120809	107467	294065	262494	237788	2291	2173	2213	31098	28936	23818	53443	48317	42341	1719	1670	1778	8316	7988	6843	10429	9655	7834	1254	1209	1145	17078	17926	15642	37563	39733	34689	2199	2217	2218	15421	15648	13878	26599	25461	22540	1725	1627	1624	11107	7986	8008	20612	14905	16031	1856	1866	2002	430826	387122	352631	871361	764610	726743	2023	1975	2061
14	Kerala State																																																																																																																																																

Source: Directorate of Economics and Statistics

**Appendix - 4.9**  
**Season-wise Area, Production and Productivity of Rice in Districts (1998 -99 )**

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	4798	8892	1853	4784	8792	1838	16	5	313	9598	17689	1843
Kollam	7549	14574	1931	10022	18737	1870	-	-	-	17571	33311	1896
Pathanamthitta	1372	2499	1821	3165	6544	2068	2960	10424	3522	7497	19467	2597
Alappuzha	8719	17570	2015	7348	16098	2191	19058	58013	3044	35125	91681	2610
Kottayam	3277	6580	2008	7233	18048	2495	3883	11030	2841	14393	35658	2477
Idukki	1065	2314	2173	2452	5869	2394	329	812	2468	3846	8995	2339
Ernakulam	16822	28778	1711	20462	36613	1789	12446	19138	1538	49730	84529	1700
Thrissur	10019	17623	1759	23000	42334	1841	6196	14233	2297	39215	74190	1892
Palakkad	45915	98955	2155	55730	123214	2211	5822	15619	2683	107467	237788	2213
Malappuram	6289	13044	2074	15647	24600	1572	1882	4897	2496	23818	42341	1778
Kozhikode	921	850	923	4969	5819	1171	953	1165	1222	6843	7834	1145
Wayanad	-	-	-	12043	25666	2131	3599	9023	2507	15642	34689	2218
Kannur	8665	14122	1630	4918	8071	1641	295	347	1176	13878	22540	1624
Kasargode	4806	10048	2091	2941	5617	1910	261	366	1402	8008	16031	2002
<b>Kerala State</b>	<b>120217</b>	<b>235849</b>	<b>1962</b>	<b>174714</b>	<b>346022</b>	<b>1981</b>	<b>57700</b>	<b>144872</b>	<b>2511</b>	<b>352631</b>	<b>726743</b>	<b>2061</b>

A - Area(ha). P - Production (t). PY - Productivity (kg/ha)

Source: Directorate of Economics and Statistics

## Appendix - 4.10

### Coverage of High Yielding Varieties of Rice in Kerala, 1985-86 to 1998-99

Sl.No.	Year	Coverage of HYV (Ha)					% to total coverage of HYV					
		Virippu (Autumn)		Mundakan (winter)		Puncha (Summer)	Total	Virippu (Autumn)		Mundakan (winter)	Puncha (Summer)	Total
		3	4	5	6	7	8	9	10			
1	1985-86	83782	40650	38846	163278	51.31	24.90	23.79	100			
2	1986-87	80076	44604	41253	165933	48.26	26.88	24.86	100			
3	1987-88	54670	33763	31311	119744	45.66	28.20	26.14	100			
4	1988-89	62354	37971	36691	137016	45.51	27.71	26.78	100			
5	1989-90	78997	36910	39718	155625	50.76	23.72	25.52	100			
6	1990-91	80025	40005	42786	162816	49.15	24.57	26.28	100			
7	1991-92	73304	49745	43287	166336	44.07	29.91	26.02	100			
8	1992-93	78090	45417	51589	175096	44.60	25.94	29.46	100			
9	1993-94	73243	51192	47983	172418	42.48	29.69	27.83	100			
10	1994-95	74478	55576	44391	174445	42.69	31.86	25.45	100			
11	1995-96	71027	51602	41247	163876	43.34	31.49	25.17	100			
12	1996-97	61532	54725	37072	153329	40.13	35.69	24.18	100			
13	1997-98	69306	50693	48680	168679	41.09	30.05	28.86	100			
14	1998-99	62346	66338	48414	177098	35.20	37.46	27.34	100			

Source: Directorate of Economics and Statistics

## Appendix - 4.11

## Plantation Crops - Area, Production and Productivity

	1996-97		1997-98		1998-99 *	
	Kerala	India	Kerala	India	Kerala	India
1	2	3	4	5	6	7
<b>AREA (hectares)</b>						
Tea	34602	431245	34665	433759	36809	436057
Coffee	83014	303821	83014	305902	83683	329238
Rubber	455566	533246	465282	544534	469924	553041
Cardamom	41268	73593	40867	72444	41609	72444
<b>PRODUCTION (tonnes)</b>						
Tea	69319	776162	65225	838465	68373	845158
Coffee	47320	205000	50659	228300	61150	265000
Rubber	512756	549425	541935	583830	559099	605045
Cardamom	4550	6625	5290	7900	5295	NA
<b>PRODUCTIVITY (kg/ha)</b>						
Tea	2003	1800	1882	1933	1858	1938
Coffee	570	675	610	746	731	805
Rubber	1126	1030	1165	1072	1190	1094
Cardamom	110	90	129	109	127	NA

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

### 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

Source: Rubber Board, Kottayam.

### Appendix - 4.13

#### 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	27250	6170	571820	160915	70085
5	1998-99	78000	29000	6000	592000	156000	63000

Source: Rubber Board, Kottayam.

(NR- Natural Rubber, SR-Synthetic Rubber, RR- Reclaimed Rubber)

### Appendix - 4.14

#### Consumption of Fertilizers/ha of Gross Cropped Area in Kerala (kg)

Sl. No.	Year	N	P	K	Total		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	74.80
2	1996-97	28.33	13.59	19.60	61.52	76.69	85.30
3	1997-98	28.35	14.75	28.46	71.56	86.81	65.60
4	1998-99	28.05	13.87	17.25	59.17	89.90	90.00

Source: Directorate of Agriculture and CMIE.



## Appendix - 4.15

## Selected Indicators of Agricultural Development in Kerala

SI.No	Programme	Unit	1996 - 97	1997- 98	1998-99
1	2	3	4	5	6
<b>1 Fertilizer Consumption</b>					
	a)Nitrogen	t	86385	86960	86042
	b)Phosphorus	t	41438	45226	42528
	c)Potash	t	59750	87297	52917
	<b>Total</b>	<b>t</b>	<b>187573</b>	<b>219483</b>	<b>181487</b>
<b>2 Plant Protection Measures</b>					
	a) Fungicide (Liquid& Solid) in terms of technical grade	t	895.98	359.91	839.53
	b) Insecticides (Liquid& Solid) in terms of technical grade	t	218.41	192.16	232.51
	c) Weedicide (in terms of technical grade)	t	15.74	31.13	70.62
	d) Rodenticides(in terms of technical grade)	t	10.40	13.19	8.90
	e) Area under Plant Protection coverage	lakh ha.	12.05	13.96	10.02
	f) Rodent control operation	lakh ha.	0.93	1.07	0.98
	g) Biological control of <i>Nephantis serinopa</i> - Parasites liberated	lakh ha.	147.87	105.60	96.49
	h) Weed control	lakh ha.	1.25	1.32	2.85
	<b>3 High Yeilding Varieties of paddy seeds distributed</b>	<b>t</b>	<b>4298.00</b>	<b>4300.00</b>	<b>4301.00</b>
<b>4 Quality planting materials distributed</b>					
	a) Coconut seedings	lakh ha.	12.01	9.62	8.32
	b) Rooted pepper cuttings	lakh ha.	58.60	60.00	70.36
	c) Cashew grafts	lakh ha.	1.85	3.16	3.17
<b>5 Soil testing</b>					
	Soil samples analysed	No.	171013	170009	179296

Source: Directorate of Agriculture

**Appendix - 4.16**  
**Average Price of Agricultural Inputs (Rs.)**

SI.No	Item	1996-97	1997-98	1998-99
1	2	3	4	5
I	Fertilizer(Price/tonne)			
1	Urea	3660+ST	3660+ST	4000+ST
2	Ammonium sulphate	4050-4150+ST	4400+ST	5000+ST
3	Super Phosphate	2719-2828	2850	2850
4	Muriate of Potash	4094-4217	3700+ST	3700+ST
II	Paddy Seed			
1	Average NSC Price (per Qtl)	1300	1300	1400
2	State Seed Farm Price (per Qtl)	500	500	900
III	Green Manure Seed( per Kg.)			
1	Daincha	10	10	-
2	Sanhemp	13.50	13.50	-
IV	Coconut Seedlings			
a	West Cost Tall	15	15	20
b	Hybrides	18	18	23
V	Cashew Grafts(per Layer)	20	20	20
VI	Rooted Pepper cuttings(price per cutting)	1.50	1.50	1.50
VII	Pesticides			
1	Phosphamidon (per kg)	422	390	353
2	Quinal Phos (per kg)	344	297	307
3	Monocrotophos (per kg)	373	410	377
4	Copper Sulphate (per kg)	49	47	45.30

Source: Directorate of Agriculture

### Appendix 4.17

Number of Students Admitted for Various Courses in Kerala Agricultural University  
and the Number of Students Passed Out During the  
VIII<sup>th</sup> Plan, 1997-98 and 1998-99

Sl. no.	Courses	VIII PLAN (Total)		1997-98.		1998-99	
		No. Admitted	No. Passed out	No. Admitted	No. Passed out	No. Admitted	No. Passed out
1	2	3	4	5	6	7	8
1	B.Sc. (Ag)	848	592	188	128	185	115
2	B.V.Sc. & AH	521	446	120	076	112	092
3	B.F.Sc.	181	66	046	015	053	035
4	B.Sc. (C & B)	146	67	035	014	042	024
5	B.Sc.(Forestry)	71	49	013	007	017	010
6	B.Tech.(Ag.Engg)	114	106	024	019	025	029
7	B.S.c.(D.Sc. & Tech)	90		026	-	030	020
8	M.Sc.(Ag)	283	255	048	054	044	039
9	M.Sc.(Hort)	103	95	022	022	025	014
10	M.Sc. (Ag.Stat)	18	15	002	002	003	-
11	M.Sc. (Forestry)	36	35	004	004	008	001
12	M.Sc. (C& B)	9	8	003	002	004	002
13	M.Sc. (FS & N)	46	46	015	014	008	014
14	M.Tech.(Ag.Engg)	39	39	004	004	005	004
15	M.V.Sc.	159	142	033	033	043	032
16	M.F.Sc.	24	20	002	002	006	008
17	Ph.D (Agrl)	123	44	014	017	015	016
18	Ph.D.(Vety.)	26	20	001	-	003	004
19	Ph.D. (Home Sci.)	5	4	-	-	002	-
20	Ph.D. (C&B)	-	-	-	-	001	-
<b>TOTAL:</b>		<b>2842</b>	<b>2049</b>	<b>600</b>	<b>413</b>	<b>631</b>	<b>459</b>

Source: Kerala Agricultural University

### Appendix 4.18

#### Crop Varieties Released and Equipments & Tools Developed by Kerala Agricultural University during 1998-99

Sl.No.	Crop	Variety
<b>Vegetables</b>		
1	Greater yam	Indu
2	Bitter gourd	Priyanka, Kaomudi
3	Brinjal	Haritha, Neelima
4	Vegetable Cowpea	VS-13-2
5	Snake gourd	TA-17,TA-23
6	Coccinia	CC-29
7	Cowpea	CWP-11,CWP-16,VS-15-3-1,VS-96
<b>Equipments and Tools Developed</b>		
1	Tender coconut punch	
2	Tender coconut cutter	
3	Black pepper thresher	
4	'Jab' type paddy dibbler	
5	Fruit plucker	
6	Papaya plucker	
7	Foot operated coconut dehusker	

Source: Kerala Agricultural University

### Appendix - 4.19

#### Activities in the Animal Husbandry Sector during 1993-94 to 1998-99

Sl.No	Activities	'000	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99
1	2	3	4	5	6	7	8	9
1	Cases treated	Nos.	3330	3401	3441	3851	3725	3893
2	Operations Performed	Nos.	112	117	121	116	115	119
3	Castration done	Nos.	12	10	12	9	8	7
4	Vaccination done							
	1. Livestock	Nos.	2349	2424	2502	355	285	691
	2. Poultry	Nos.	4648	4755	4864	1828	1794	1235
5	Anti Rabic Vaccinations done in Dogs	Nos.	50	47	49	96	45	132
6	Artificial inseminations done	Nos.	1352	1465	1240	1151	1259	1251
7	Calvings recorded	Nos.	303	307	324	318	327	314
8	Chicks hatched out in Department Poultry Farms	Nos.	901	921	947	651	915	1057
9	Vaccines produced in Veterinary Biologicals							
	1. Poultry	Doses	9070	15392	5702	4543	787	2645
	2. Livestock	Doses	1489	1149	732	1026	254	303

Source: KLD Board

## Appendix - 4.20

## Production and Distribution of Frozen Semen in Kerala from 1993-94 to 1998-99

Year	Production of frozen semen (lakh doses)	Distribution in side the State (lakh doses)	Distribution out side 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	25.55	15.75	7.70	23.45

Source: KLD Board

## Appendix - 4.21

## Artificial Insemination Centres in the State from 1993 - 94 to 1998 - 99

Department/ Institutions		No. of A.I Centres
1	2	3
1	Department of Animal Husbandry (Both ICDP and Non-ICDP)	2408
2	Department of Dairy Development	50
3	Other Voluntary Organisations	38
4	APCOS	61
5	Tata Tea	27
<b>Total:</b>		<b>2784</b>

Source: Animal Husbandry Department.

## Appendix - 4.22

## Other Important Activities of KLD Board During 1999

Name of Programme		Achievement
1	2	3
1	Liquid Nitrogen (Lakh litres)	489
2	Quantity of basic fodder seeds produced (kg.)	978.5
3	Quantity of fodder seed multiplied (MT)	26.5
4	No. of kids produced	244
5	No. of kids distributed	206
6	No. of personnel trained	209
7	No. of embryos collected	44

Source: KLD Board.

**Appendix - 4.23**  
**Average Price of Livestock Products and Feeds in the State**  
**from 1993-94 to 1998-99**

Item	Unit	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	% increase over 1997-98
1	2	5	6	7	8	9	10	11
<b>Meat</b>								
Chicken	Kg.	37	43	50	55	62.57	57.89	(-) 7.80
Mutton	Kg.	59	69	83	92	99.12	106.20	7.14
Beef	Kg.	25.67	29	33	38	41.36	46.30	11.94
Pork	Kg.	34.8	40	43	47	50.53	56.33	11.48
<b>Egg</b>								
Fowl	100Nos.	104.53	115	130	130	155	135.00	(-) 12.90
Duck	100Nos.	159.05	180	200	209	217	228.00	5.07
<b>Milk</b>								
Cow	Litre	7.6	8.75	9.75	10.55	11.87	12.00	1.10
Buffalo	Litre	8.74	10	11	12	13.24	14.00	5.74
<b>Feeds (price)</b>								
Groundnut cake	Kg.	5.77	7.2	8.25	10.5	10.95	11.00	0.46
Coconut cake	Kg.	6.51	6.7	7.5	9.5	10.70	10.83	1.21
Gingely oil cake	Kg.		7.25	8.25	10	10.01	10.00	(-) 0.10
Straw	Kg.	1.4	1.9	2.6	3	3.44	4.04	17.44
Grass	Kg.	0.6	0.9	1.3	1.5	1.99	2.87	44.22

Source: Animal Husbandry Department.

## Appendix - 4.24

Record of Performance of Kerala Co-operative  
Milk Marketing Federation (1993 to 1999)

Sl. No	Particulars	1993	1994	1995	1996	1997	1998	1999*
1	2	3	4	5	6	7	8	9
1	No. of Apcos registered(Cum)	1595	1712	1823	1930	1983	2176	2206
2	No. of Apcos functional (Cum)	1523	1621	1722	1784	1826	1985	2047
3	No. of members in Apcos(Cum) (lakh Nos)	3.69	4.39	4.82	5.11	5.27	5.72	5.87
4	No. of Women in Apcos (lakh nos)	0.5	0.62	0.65	0.67	0.75	0.81	0.81
5	No. of SC/ST members in Apcos (lakh Nos)	0.25	0.26	0.27	0.28	0.31	0.34	0.35**
6	Average milk marketed/day by KCMMF (tonnes)	368	408	458	516	529	568	605
7	Average milk procured per day (tonnes) - Apcos	332	415	465	485	465	477	577
8	Direct employment generated (persons)	3368		3602	3816	5242	5565	5673**
10	No. of Veterinary routes.	19	17	15	16	25	51	33
11	No. of cases treated (lakh Nos)	2.08	2.11	1.98	1.61	0.71	0.09	0.03
12	No. of emergency veterinary routes	14	15	15	16	17	19	19
13	No. of cases treated yearly(lakh Nos)	0.35	0.34	0.33	0.39	0.36	0.20	0.18
14	Cattle feed sold (MT)	--	34213	35702	28367	38743	43480	60623
15	Quantity of ghee produced (tonnes)	588	535	1093	912	1213	1220	869
16	Quantity of ghee sold (tonnes)	932	1027	1075	1119	1055	1181	809

Source: KCMMF

\* As on August 1999 (Excl. item 5&amp;8)

\*\* As on 10/99



## Appendix - 4.25

### Record of Performance of the Dairies under Kerala Co-operative Milk Marketing Federation during 1997 to 1999

Sl. No.	Dairy	Capacity (Ltr. per day)	Procurement (litrs)			Sales (Litrs)		
			1997	1998	1999	1997	1998	1999
1	2	3	4	5	6	7	8	9
1	Thiruvananthapuram	100000	26525314	24620680	27836464	40795562	46926202	50890339
2	Kollam	60000	24766514	20944763	25112356	24978270	28184307	32238355
3	Alappuzha	60000	8433366	7856300	6233448	10031534	11792087	15150692
4	Kottayam	60000	4935939	5621312	7636690	11747248	16898945	12919219
5	Ernakulam	100000	31220250	32362173	35088256	32865225	27476980	32649012
6	Thrissur	60000	14978464	15885403	16528530	12682309	12178679	11738185
7	Palakkad	60000	29437580	28944309	29554870	13372127	13553493	24608489
8	Kannur	60000	19826833	23764997	27813222	23057812	24288132	25724496
9	Kozhikode	100000	9874603	14375472	19227334	23754309	25696644	25702020
<b>Total</b>		<b>660000</b>	<b>169998863</b>	<b>174375409</b>	<b>195031170</b>	<b>193284396</b>	<b>206995469</b>	<b>231620807</b>

Source : KCMMF

### Appendix - 4.26

Average Quantity of Milk Procured per day by APCOS (1993-94 to 1998-99)

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	476739	240
1999*	2047	576891	282

\* - As on 8/99

Source: KCMF

### Appendix - 4.27

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
04-01-84	30.00	21.00	2.67	4.00
10-01-85	31.00	24.00	2.97	4.50
08-11-87	34.00	27.50	3.38	5.00
07-21-89	35.00	31.10	3.69	5.50
02-15-91	39.00	34.90	4.14	6.00
11-21-91	42.80	42.80	4.92	7.00
11-01-92	49.25	49.25	5.66	8.00
02-01-94	55.50	55.50	6.38	9.00
01-21-95	62.50	62.50	7.19	10.00
01-31-96	69.90	89.90	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: KCMF

### Appendix - 4.28

Price Spread of Milk (average price per lit.in Rs.)  
(1997-98 to 1999-2000)

Year	Producer	Society	Consumer	Difference in price between producer & consumer
1	2	3	4	5
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

Source: KCMF

## Appendix - 4.29

## District-wise Distribution of Fishermen Population in Kerala (1998-99)

Sl. No	District	Marine				Inland				Manne & Inland Total
		Male	Female	Children	Total	Male	Female	Children	Total	
1	2	3	4	5	6	7	8	9	10	11
1	Thiruvananthapuram	50173	48577	68984	167734	436	459	455	1350	169084
2	Kollam	30356	27792	36253	94401	10975	10460	12888	34323	128724
3	Alappuzha	34887	33743	43413	112043	20578	19859	21951	62388	174431
4	Pathanamthitta					362	442	646	1450	1450
5	Kottayam					8241	8056	8688	24985	24985
6	Idukki					21	16	15	52	52
7	Ernakulam	23700	22944	26293	72937	21969	21366	21147	64482	137419
8	Thrissur	21604	21870	26705	70179	6571	6445	6931	19947	90126
9	Palakkad					289	326	426	1041	1041
10	Malappuram	23731	24277	32481	80489	1393	1385	1809	4387	84876
11	Wayanad					3836	3721	4567	12124	12124
12	Kozhikode	31206	30077	38049	99332	348	323	368	1039	100371
13	Kannur	17301	16430	22375	56108	528	515	505	1548	57654
14	Kasargode	14184	13664	16158	44006	322	308	323	953	44959
<b>State</b>		<b>247142</b>	<b>239374</b>	<b>310711</b>	<b>797227</b>	<b>75869</b>	<b>73681</b>	<b>80519</b>	<b>230069</b>	<b>1027296</b>

Source: Directorate of Fisheries

**Appendix - 4.30****Details of Crafts in Operation in the Marine Sector 1999**

Sl.No	District	Mechanised	Motorised	Non-mechanised	Total
1	2	3	4	5	6
1	Thiruvananthapuram	31	3730	2792	6553
2	Kollam	1127	3035	2608	6770
3	Alapuzha	248	6182	2274	8704
4	Ernakulam	1325	1061	2050	4436
5	Thrissur	131	2401	1352	3884
5	Malappuram		3955	3616	7571
7	Kozhikode	616	3811	5409	9836
8	Kannur	440	1781	1161	3382
9	Kasargode	122	1138	336	1596
<b>Total:</b>		<b>4040</b>	<b>27094</b>	<b>21598</b>	<b>52732</b>

Source : Directorate of Fisheries

## Appendix - 4.31

## Species wise Composition of Marine Fish Landings in Kerala

(Quantity in Tonnes)

Sl.No	Species	1992	1993	1994	1995	1996	1997	1998
1	2	3	4	5	6	7	8	9
1	Elasinobranches	3323	4432	5887	4109	4422	3915	4110
2	Cat Fish	1028	597	499	308	390	192	213
3	Chirocentrus	959	1707	1450	983	1379	1380	1340
4	a) Oil Sardine	16967	49875	1554	13328	30607	93636	77795
	b) Other Sardine	54118	22819	16482	46131	6737	15573	19889
5	Anchoviella	48217	49477	31710	36683	29744	26315	31629
6	Thrissocles & Other Clupeoids	33208	18190	20196	14509	26604	15430	19041
7	Ferches	50159	74813	60180	47620	71157	46763	42370
8	Redmulletts	7583	2489	382	174	33	111	358
9	Sciaenids	15603	14657	16734	9979	17720	9952	13431
10	Ribbon Fishes	6162	7290	15435	4641	21884	18976	16579
11	Carangids	12991	20725	15836	13075	15193	22401	16091
12	Leiognathids	4480	6548	4238	4005	4536	4732	5118
13	Lactaritus	675	907	1135	561	2208	1791	3016
14	Pomfrets	2601	2654	3391	1675	3644	2649	2858
15	Mackerel	37909	59172	111879	78515	128411	82429	61499
16	Seer Fish	8734	6447	5837	5910	4828	4216	5669
17	Tunnies	16619	13257	14395	10977	17923	16018	11561
18	Soles	28445	20618	20999	12385	15768	20375	16747
19	a) Prawn	51131	48119	71974	43406	46279	56562	58575
	b) Lobster & Crustaceans	17800	24797	25252	13700	12808	10703	16164
20	Cephalopods	31424	28905	38275	43942	34557	37058	33267
21	Miscellaneous	111005	96534	57093	125030	75173	83597	85376
<b>Total</b>		<b>560742</b>	<b>574739</b>	<b>568034</b>	<b>531646</b>	<b>572055</b>	<b>574774</b>	<b>542696</b>

Source : Directorate of Fisheries

### Appendix - 4.32

#### Species-wise Inland Fish Production in Kerala from 1994-95 to 1998-99 (Quantity in Tonnes)

Sl.No.	1994-95		1995-96		1996-97		1997-98		1998-99		Variation in 1998-99 over 1997-98		
	Species	Actual	%	Actual	%	Actual	%	Actual	%	Actual	%	Actual	%
1	2	5	6	7	8	9	10	11	12	13	14	15	16
1	Prawns	12265	25.45	11984	25.45	12531	24.05	13010	22.35	14346	21.8	1336	10.3
2	Etroplus	4468	9.27	4660	9.27	4883	9.37	4964	8.53	4756	7.2	-208	4.2
3	Murrels	4179	8.67	4386	8.67	4618	8.86	4568	7.85	4369	6.6	-199	4.4
4	Tilapia	6836	14.18	7347	14.18	7732	14.84	8532	14.65	7219	11.0	-1313	15.4
5	Catfish	4546	9.43	4882	9.43	4928	9.46	5239	9.00	4420	6.7	-819	15.6
6	Jew Fish	2566	5.32	2652	5.32	2791	5.36	3181	5.46	3012	4.6	-169	5.3
7	Others	13332	27.66	13695	27.66	14622	28.06	18721	32.16	27733	42.1	9012	48.1
	<b>Total</b>	<b>48192</b>	<b>100</b>	<b>49586</b>	<b>100</b>	<b>52105</b>	<b>100</b>	<b>58215</b>	<b>100</b>	<b>65855</b>	<b>100</b>	<b>7640</b>	<b>13.1</b>

Source : Directorate of Fisheries

**Appendix - 4.33**  
**Export of Marine Products from Kerala and India**

Year	Kerala		India	
	Quantity in tonnes	Value Rs.in lakhs	Quantity in tonnes	Value Rs.in lakhs
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

Source : Directorate of Fisheries

## Appendix - 4.34

**NCDC Assisted Integrated Fisheries Development Project (1998-99)**  
**Physical and Financial Achievements under Phase I, II & III**

Sl. NO.	Project Components	(Rs. In lakhs)													
		Phase - I			Phase - II			Phase - III			Total				
		3	4	5	6	7	8	9	10	Physical	Financial				
I	<b>Inputs</b>														
	1 Crafts	395	-	406	-	1962	-	2763							
	2 OBM Nos	819	378.19	816	803.68	3687	2836.68	5352	4018.55						
	3 Webbing(kg)	64790	-	148921	-	289610	-	503321							
	4 OBM service Centres one Regional workshop and one mobile service unit	2	12.38	-	-	-	-	-	12.38						
II	<b>Infrastrcture</b>														
	Transport and Insulated Vans(Nos)	6	8.46	-	51.65	-	-	-	60.11						
	Extension	-	78.15	-	17.29	-	94.26	-	207.57						
	Training	-	8.34	-	9.53	-	-	-	-						
	Non Formal Education	-	4	-	-	-	-	-	4						
	Working Capital	-	8.47	-	18.95	-	81.41	-	108.83						
	Pre-operative Expenses	-	30	-	10.35	-	36.42	-	76.77						
VIII	Physical & Price Contingencies	-	27.85	-	-	-	621.03	-	648.88						
IX	Project Management	-	-	-	122.83	-	115.50	-	238.33						
X	No. of beneficiaries	4577	-	7223	-	20795	-	-	-						
	<b>Total</b>		<b>555.84</b>		<b>1034.28</b>		<b>3785.3</b>		<b>5375.42</b>						

Source : Directorate of Fisheries



## Appendix - 4.35

### Details of Fisheries Works under Harbour Engineering Department

Sl. No.	Name of Project	Total estimate Cost		Year of starting	Year of Completion Targetted	Expenditure upto 3/99 (lakhs)	Remarks
		Original cost (Rs. In Lakhs)	Revised Cost (Rs. In Lakhs)				
1	2	3	4	5	6	7	8
1	VIZHINJAM	704.06	1585	1962 - I Stage 1987-II Stage	Mar-99	1211.98	Since the delay in getting land and due to the communal riots, the work could not be progressed as targetted
2	NEENDAKARA	621.7	-	3/95-III Stage 1982	Commissioned on 27.3.88	763.72	
3	THANGASSERY	1980.5	3998	Apr-89	October 1st 2000	2598.16	
4	KAYAMKULAM	624.6	1770	Jun-95		166.56	
5	MUNAMBAM	1167.2	1895	Mar-89	Sep-98	1571.31	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	1071.6	
7	CHOMBAL	556	975	May-92	Commissioned on 25.5.99	788.01	
8	MOPLA BAY	564	816 (sanctioned)	Nov-91	Commissioned on 25.5.99	817.37	
9	FOR TRADITIONAL FISHERMEN						
	1. KATOOR POLLATHAI	59		Dec-96	March 31 2000	41.21	
	2. PUNNAPRA	47.25				61.58	Works almost completed
	3. ETTIKKULAM	91.2					Land to be acquired
10	FISH LANDING CENTRE FOR MECHANISED BOATS PALACODE	15	32	Mar-93	Dec-95	20.2	Revised Administrative sanction required
11	DREDGING OF RIVER MOUTHS						

### Appendix - 4.36

Details of Welfare and Relief Schemes Implemented by the Kerala Fishermen's Welfare Fund Board 1998-99

Sl No	Details of scheme	Rate of Assistance (Rs.)	No. of Beneficiaries	Amount Spent (Rs.lakhs)
1	2	3	4	5
<b>1</b>	<b>Group Insurance Scheme</b>			
a	Accidental Death (Started on 10-9-1986)	50000	104	53.15
b	Permanent total Disability	50000		
c	Permanent -partial Disability	25000	2	0.37
	Total			
2	Death while fishing or immediately thereafter not due to accident(started on 10-9-86)	15000	60	8.85
3	Financial Assistance for the Marriage of Daughters of Fishermen(started on 1-1-87)	1500	2444	36.66
4	Financial Assistance for the Death of dependents of fishermen (started on 1-1-87)	300	668	3.09
5	Fishermen Pension (started on 01-02-1987)	100	26734	2286.76
6	Financial Assistance for Temporary Disability of Fishermen due to accident(Started on 4-4-87)	500	1367	4.72
7	Financial Assistance for the Expenses for death of fishermen(started on 4-4-87)	5000	462	22.94
8	a) Cash award to Fishermen students who secured highest mark in S.S.L C exam (started on 7-5-90)	I 3000 II 2000 III 1000 1000	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	Financial Assistance to one who go for sterilisation operation(started on 1-1-91)	500	1140	5.70
10	a) Financial Assistance for Fatal Diseases (started on 1-4-95)	40000	199	8.27
	b) Pension to irrecoverable patients	100	40	0.33
	<b>Special Schemes</b>			
11	Sanitation Scheme (Started on 20-5-96)	2500	607	14.79
12	Eye Camp (21-10-96)			3.73
13	Chairman's Relief Fund (Assistance to victims of natural calamity)	Rs. 100 to 2500/-	174	1.81
14	Special cases sanctioned by the Board		8	0.33
15	Maternity Benefit Schemes (1-8-97)	Rs. 500/-	560	2.8
16	Awareness Programme of Fishermen			2.17
17	Matsya Board Guidance Centre			0.12

Source : Kerala Fishermen Welfare Fund Board, Thrissur

**Appendix - 4.37****Division-wise Area of Forest in Kerala (as on 31-3-1999)**

Sl. No	Division	Area in Sq.kms			
		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	Senthuruni	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
<b>Total:</b>		<b>9156.9838</b>	<b>214.3117</b>	<b>1754.1818</b>	<b>11125.4773</b>

Source : Forest Department

## Appendix - 4.38

## Species-wise Area Under Forest Plantation - 1997-98

(area in ha)

Sl. No.	Name of Species	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	% to total
1	2	3	4	5	6	7	8	9	10	11
1	Teak	75355	74914	74947	75320	76288	76010	76116	75980	44.2
2	Eucalyptus	29923	29633	29066	28745	29818	29459	28450	25650	14.92
3	Softwood	919	895	787	781	758	3312	4412	7114	4.14
4	Mixed Plantation	32887	33999	34526	35156	35692	34296	33130	43441	25.27
5	Cashew	4558	4570	4525	4471	4470	4454	4538	6195	3.6
6	Bamboo	646	996	1036	1124	1212	2114	2227	2476	1.44
7	Wattle	3735	3890	3811	3811	3336	3316	3316	3316	1.93
8	Hardwood	849	859	847	863	863	817	770	777	0.45
9	Fuelwood	96	138	165	165	165	150	154	171	0.09
10	Pepper	408	459	439	439	454	270	305	325	0.2
11	Mahageny	169	169	169	169	153	143	119	81	0.05
12	Pine	452	452	452	452	897	965	54.9	549	0.32
13	Rosewood	155	155	164	263	267	290	327	415	0.24
14	Balsa	93	93	93	93	93	93	93	93	0.05
15	Cardamom	-	-	-	-	-	-	-	0	
16	Sandal wood	11	11	11	21	166	183	183	183	0.11
17	Kongu	-	-	-	-	-	-	-	-	
18	Lilyesiyam	-	-	-	-	-	-	-	-	
19	Others	3502	3855	4034	3877	4050	4164	4074	5132	2.99
<b>Total</b>		<b>153758</b>	<b>155088</b>	<b>155072</b>	<b>155750</b>	<b>158682</b>	<b>160036</b>	<b>158763</b>	<b>171898</b>	<b>100</b>

Source : Forest Department

### Appendix - 4.39

#### Production of Major Forest Produce

Sl. No.	Item	Unit	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 (Provisional)	Increase or Decrease over the previous year
			3	4	5	6	7	8	
1	Timber(round logs)	cum.	78691	123501	61430	51972	19246	33615	14369
2	Timber(round poles)	Nos.	725231	779507	361179	683391	287243	269354	-17889
3	Timber(Swan & Squard)	cum.	226	10	30	4	2	10	8
4	Fire wood	MT.	33409	82888	45336	29877	11291	17215	5924
5	Cardamom	Kg.	1459	4379	3155	1233	1717	2758	1041
6	Honey	Kg.	65655	37512	74787	72161	71214	21376	-49838
7	Reeds	Nos.	64763879	57647490	49615070	56840410	60515362	44086850	-19152418
8	Bamboo	Nos.	1810194	1596297	1339741	4829421	2313101	1940394	-398078
9	Jungle Wood Poles	Nos.	174	5282	64	289	7054	31751	24697
10	Sandal wood	Kg.	218424	112726	133847	103523	171252	171252	0

Source : Forest Department

Appendix - 4.40

Forest Revenue in Kerala

Sl. No.	Items	Sale Proceeds						1998-99 (Provisinal)	increase or decrease	Percentage change
		1993-94	1994-95	1995-96	1996-97	1997-98	1998-99			
1	2	3	4	5	6	6	7	8	9	
A	Revenue from Forests									
	1. Timber	9043.5	11847.95	13890.86	13598.36	12395.55	10183.28	-2212.27	-17.85	
	2. Firewood&Charcoal	100.89	107.38	261	151.74	227.72	163.45	-64.27	-28.22	
	3. Livestock	7.63	3.14	1.64	2.61	4.29	7.26	2.97	69.23	
	4. Others	683.74	1294.49	1327.07	1423.78	1361.06	1236.59	-124.47	-9.15	
	Sub total (A)	9835.76	13252.96	15480.07	15176.49	13988.62	11590.58	-2398.04	-17.14	
B	Other receipts	483.45	462.2	610.74	1085.34	531.51	627.23	95.72	18.01	
C	Total (A+B)	10319.21	13715.16	16091.31	16261.83	14520.13	12217.81	-2302.32	-15.86	
D	Refunds	23.37	26.66	14.77	61.56	28.69	114.77	86.08	300.03	
E	Net Revenue(C-D)	10295.84	13688.5	16076.54	16200.27	14491.44	12103.04	-2388.4	-16.48	

Source : Forest department

**Appendix - 4.41**  
**KERALA FORESTRY PROJECT (WORLD BANK ASSISTED)**  
**Year-wise Financial Target Envisaged in the Project**

Table No.	Items / Components of Project	1998-99	1999-2000	2000-01	2000-02	Total
1	2	3	4	5	6	7
1	Strengthen Institutional 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	191.80	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 Teak 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 Improved 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 Public 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	Strengthen 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
<b>Total:</b>		<b>3011.10</b>	<b>4263.10</b>	<b>5249.70</b>	<b>5715.90</b>	<b>18239.80</b>

Source : Kerala Forest Department

### Appendix 4.42

#### 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
<b>1</b>	<b>Treatment Areas</b>						
	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
<b>2</b>	<b>Civil Works</b>						
	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
<b>3</b>	<b>Consultant Studies</b>	No	48	13	7	2	70
<b>4</b>	<b>Training</b>						
	International	No	7	12			19
	National	No	65	77			142
	Sub Total		72	89	0	0	161
<b>5</b>	<b>Workshops</b>	No	88	82			170
<b>6</b>	<b>Studytour</b>						
	Inter National	No	4	6			10
	National	No	25	17			42
	Sub Total		29	23	0	0	52
<b>7</b>	<b>Equipments</b>						
	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 - 4.43****Operations of the Keraia State Co-operative Bank Limited**

		(Rs. Lakhs)				
Sl.No	Particulars	1991-92	1995-96	1996-97	1997-98	1998-99
1	2	3	4	5	6	7
1	Share Capital	1209.50	1801.46	1851.46	2073.53	2073.53
2	Reserves	1881.20	2500.00	2656.07	2846.91	3081.50
3	Deposits	27098.19	47461.64	57915.93	77522.27	123616.97
4	Borrowings	15203.45	19973.73	22960.66	19984.82	9351.17
5	Working Capital	44966.62	71249.39	84893.35	101957.59	137566.39
6	Loans & Advances	27970.68	53566.00	52219.64	51809.69	46811.19
7	Investments	7461.00	18832.96	19093.64	23549.84	41738.70
8	Net Profits	69.51	136.90	69.55	81.38	126.13

Source: Kerala State Co - operative Bank Ltd.

**Appendix - 4.44****Purpose - wise Disbursement of Loans by the Keraia State Co-operative Bank Limited**

		(Rs.in Crores)			
Sl.No.	Purpose	1995-96	1996-97	1997-98	1998-99
1	2	3	4	5	6
1	Agriculture (Production & Investment)	134.00	151.09	167.61	155.36
2	Procurements/Marketing Distribution	126.63	109.70	102.69	98.59
3	Cottage and Small Scale Industries	69.38	58.94	68.47	70.65
4	Other Industries	24.38	42.67	22.68	15.67
5	Consumer Activities	4.42	2.06	1.91	6.43
6	Consumption Purpose	40.23	77.01	59.21	29.69
7	Housing	44.69	43.59	50.04	55.83
8	Other Purpose	91.93	37.14	45.49	35.89
Total:		535.66	522.20	518.10	468.11

Source: Kerala State Co - operative Bank Ltd.

**Appendix - 4.45****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
<b>Total</b>	<b>180125</b>	<b>544392.88</b>	<b>302.23</b>

Source: Registrar of Co-operative Societies , Kerala

## Appendix - 4.46

Selected indicators of the Credit Operations of the  
Primary Agricultural Credit Societies

Sl. No.	Indicators	Unit	1994	1995	1996	1997	1998*	1999*
1	2	3	4	5	6	7	8	9
1	No. of Societies	Nos.	1583	1589	1591	1591	1591	1626
2	No. of Members	(Nos. Lakhs)	102.85	111.31	114.59	111.73	112.8	106.18
	(i) of which SC	(Nos. Lakhs)	10.24	10	11	11.0	11.5	11.6
	(ii) of which ST	(Nos. Lakhs)	0.77	0.8	0.9	0.9	0.95	0.98
3	Paid up share capital	(Rs. Lakhs)	13478	14496	14579	18716	19410	35359
4	Reserves	(Rs. Lakhs)	11193	9075	9076	17726	18640	23727
5	Deposits	(Rs. Lakhs)	189123	158288	168506	300395	301594	429828
6	Working Capital	(Rs. Lakhs)	324413	269760	354765	505906	532605	630460
7	Loans Issued	(Rs. Lakhs)	201096	146969	150382	319209	323930	368286
	(i) short-term	(Rs. Lakhs)	157337	111945	114709	239788	242716	247248
	(ii) Medium-term	(Rs. Lakhs)	37112	29936	30832	69324	70916	71576
	(iii) Long - term	(Rs. Lakhs)	6647	5068	4849	10090	10298	490462
8	Loan Outstanding	(Rs. Lakhs)	184049	160810	185505	273392	279106	363860
9	Loan Overdue	(Rs. Lakhs)	30515	32773	32877	45186	45895	84518
10	S.T Loan for agricultural purpose alone	(Rs. Lakhs)	53516	--	--	74819	76114	71216
11	S.T Loan for non-agricultural purpose	(Rs. Lakhs)	103821	--	--	164969	166602	176032
12	M.T loan for Agricultural purpose	(Rs. Lakhs)	12448	146949	150382	20998	21486	21930
13	M.T loan for non-Agricultural purpose	(Rs. Lakhs)	24664	53472	57393	48326	49460	49846
14	L.T. Loan for Agricultural purpose	(Rs. Lakhs)	5841	93477	98989	4064	4398	4110
15	L.T. Loan for non-agricultural purpose	(Rs. Lakhs)	806	--	--	6026	6202	45352
16	Value of Fertilizers Sold	(Rs. Lakhs)	8173	10016	12118	88441	89126	89215
17	Value of Agricultural Produce Marketed	(Rs. Lakhs)	9351	10432	11009	16308	16699	4081
18	Dormant Societies	Nos.	17	30	52	44	45	20
19	Societies on Profit	Nos.	764	690	703	590	586	671
20	Profit Amount	(Rs. Lakhs)	2590	--	--	4924	4764	4824
21	Societies on loss	Nos.	784	854	844	955	957	885
22	Societies without profit or loss	Nos.	35	45	44	2	3	15
23	Societies having paid Secretaries	Nos.	1553	1556	1562	1559	1559	1559
24	Societies having own Godowns	Nos.	1432	1453	1457	1457	1457	1457
25	Societies having Hired Godowns	Nos.	474	481	491	493	493	493
26	Viable Societies	Nos.	1487	1487	1502	1430	1431	1439

\* Tentative Figures except Sl.No. 1 to 6, 8 to 9 &amp; 18 to 24

Note: Position as on 30th June is shown corresponding to each year

Source: Registrar of Co-operative Societies, Kerala.

### Appendix - 4.47

#### Selected Indicators of the Credit Operations of the Primary Agricultural Credit Societies

Sl.No.	Indicators	Unit	1994	1995	1996	1997	1998*	1999*
			7	8	9	10	11	4
1	Average membership per society	No.	6560	7005	7202	7023	7091	6510
2	Average Share Capital per Society	Rs.lakhs	8.51	9.12	9.16	11.38	12.00	22.00
3	Average deposit per society	Rs.lakhs	119.47	99.61	168.76	188.00	189.00	264.00
4	Average deposit per member	Rs	1821.00	1422.00	2343.00	0.0278	0.0267	4087
5	Average working capital per society	Rs.lakhs	205.00	169.76	222.98	318	336	380
6	Average loan per member	Rs	1936.00	1320.00	1312.00	2857	2871	3502
7	Percentage of borrowing members to total		43.00	27.00	27.00	47.00	46.00	48%
8	Average loan advanced per advancing society	Rs.lakhs	128.00	92.00	95.00	201	204	204
9	Average loan advanced per borrowing members	Rs	4552.00	4890.00	4860.00	6234	6116	6120
10	Percentage of overdue to demand		17.00	20.00	18.00	17.00	16.00	11%
11	Percentage of overdue to outstanding		15.00	22.00	22.00	11.00	10.00	18%

Source: Registrar of Co-operative Societies, Kerala.

\* Provisional

## Appendix - 4.48

Purpose-wise Classification of Long Term Loans Issued by  
Primary Co-operative Agricultural & Rural Development Banks

Sl.No	PURPOSE	(Rs Lakhs)								
		1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99		
1	2	3	4	5	6	7	8	9		
<b>Ordinary Loan</b>										
1	Construction of Wells/Tanks	19.71	3.47	11.33	0.21	8.68	4.27	11.41		
2	Renovation of Wells/Tanks	1.39	2.71	2.42	1.61	0.17	—	0.4		
3	Pumpsets	5.42	3.17	1.83	0.37	2.84	2.86	2.44		
4	Plantation & Horticulture	107.21	86.73	55.71	55.96	45.37	130.19	93.49		
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		
7	Land Development	418.41	526.84	415.64	420.61	628.13	386.62	133.05		
8	Construction of Godowns/Cattle	307.74	266.05	243.12	260.09	475.13	132.98	42.81		
9	Barbed wire or stonefencing	205.95	177.21	219.16	231.74	355.34	75.32	12.95		
10	Construction of drainage channels	0.84	—	—	0.43	2.47	3.96	1.5		
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		
<b>Total</b>		<b>1253.23</b>	<b>1187.42</b>	<b>1038.36</b>	<b>1066.87</b>	<b>1781.76</b>	<b>1093.21</b>	<b>470.13</b>		
<b>SCHEME LOANS</b>										
1	Minor Irrigation	517.66	630.70	883.83	1304.09	1224.94	1178.6	1496.15		
2	Plantation & Horticulture	1092.17	1803.19	2237.07	2502.58	3294.19	3861.87	3613.84		
3	Agricultural Mechinary	215.78	362.98	484.04	831.73	875.39	582.01	676.34		
4	Dairy	147.71	121.94	264.02	714.38	109.58	12.46	24.65		
5	Land Development	239.7	38.80	327.12	786.04	1291.96	1047.87	1688.53		
6	Poultry	57.24	142.94	270.22	399.80	992.78	991.58	1477.73		
7	Fisheries	32.67	58.32	85.56	80.06	162.84	97.32	202.82		
8	Others	467.41	5.26	18.71	224.89	149.16	158.35	342.43		
<b>Total</b>		<b>2770.34</b>	<b>3164.13</b>	<b>4551.47</b>	<b>6861.57</b>	<b>8100.84</b>	<b>7930.06</b>	<b>9522.49</b>		

Source: Kerala State Co-operative Agricultural &amp; Rural Development Bank Ltd.

## Appendix - 4.49

### Loan Advanced and Debentures Floated by Kerala State Co-operative Agricultural Rural Development Bank Ltd.

(Rs. in Crores)

Sl. No.	Year	Loan advanced				Debenture Floated				Total	
		Ordinary	Scheme	NFS	Rural Housing	Total	Ordinary	Scheme	NFS		Rural Housing
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	177.6
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	86.69	231.93	4.10	80.28	37.22	69.07	190.67

NFS - Non Farm Sector

Source: Kerala State Co-operative Agricultural and Rural Development Bank Ltd.

## Appendix - 4.50

### Agency-wise Disbursement of Refinance Assistance by NABARD in Kerala

Sl. No.	District	1993-94		1994-95		1995-96		1996-97		1997-98		1998-99	
		Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
1	2	3	4	5	6	7	8	9	10	11	12	13	14
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
2	Commercial Banks	40.05	32.0	43.48	34.48	23.62	18.6	9.26	5.0	8.26	4.0	21.55	13.6
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	0.9
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
<b>Total:</b>		<b>125.34</b>	<b>100</b>	<b>126.15</b>	<b>100</b>	<b>127.02</b>	<b>100</b>	<b>184.06</b>	<b>100</b>	<b>204.39</b>	<b>100</b>	<b>158.78</b>	<b>100</b>

Source: NABARD

## Appendix - 4.51

### Purpose-wise Refinance by NABARD

Sl. No.	District	1993-94		1994-95		1995-96		1996-97		1997-98		1998-99	
		Refinance	%	Refinance	%	Refinance	%	Refinance	%	Refinance	%	Refinance	%
1	2	3	4	5	6	7	8	9	10	11	12	13	14
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
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
3	Farm Mechanisation	4.29	3.4	5.09	4.0	3.78	3.0	3.79	2.1	7.41	3.6	2.11	1.3
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
5	Dairy Development	3.82	3.0	5.14	4.1	6.74	5.3	10.42	5.7	12.73	6.3	12.45	7.8
6	Fisheries	2.05	1.6	1.52	1.2	2.09	1.8	2.22	1.2	2.10	1.1	2.56	1.6
7	Poultry	2.09	1.7	2.41	1.9	3.81	3.0	8.42	4.6	7.33	3.6	4.94	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
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
10	Non Farm Sector	50.33	40.2	50.50	40.0	51.87	40.8	72.33	39.3	78.84	38.6	58.05	36.6
11	Agro Processing	5.08	4.1	5.04	4.0	0.84	0.7	0.46	0.2	0.53	0.3	1.09	0.7
12	Others	0.22	0.2	0.02	0.02	0.11	0.1	0.15	0.1	0.15	0.1	4.52	2.8
<b>Total</b>		<b>125.34</b>	<b>100.0</b>	<b>126.15</b>	<b>100.0</b>	<b>127.02</b>	<b>100.0</b>	<b>184.06</b>	<b>100.0</b>	<b>204.39</b>	<b>100.0</b>	<b>158.77</b>	<b>100</b>

Source: NABARD

**Appendix 4.52**  
**Progress Under Rural Infrastructure Development Fund**  
**Projects in Kerala 1998-99**

(Rs. Crore)

Particulars	No of Schemes	Sanction	Disbursement during the Qtr.	Cumulative Disbursement
<b>RIDF - I</b>				
Minor Irrigation	92	14.43	0.795	8.1
Medium Irrigation	4	80.28	6.287	68.16
Watersheds	40	5.01	--	4.05
<b>Total</b>	<b>--</b>	<b>99.72</b>	<b>7.082</b>	<b>80.31</b>
<b>RIDF - II</b>				
Minor Irrigation	129	9.36	0.956	4.68
Medium Irrigation	2	32.87	2.728	14.27
Watersheds	32	11.63	1.846	5.71
Bridges	21	35.57	2.671	23.52
<b>Total</b>		<b>89.43</b>	<b>8.201</b>	<b>48.18</b>
<b>RIDF - III</b>				
Minor Irrigation	101	10.53		0.42
Rural Bridges	33	34.20	5.773	11.96
Rural Roads	138	34.19		--
Watershed Projects	40	13.87		--
<b>Total</b>		<b>92.79</b>	<b>5.723</b>	<b>12.38</b>
<b>RIDF - IV</b>				
Minor Irrigation	86	13.24	Nil	Nil
Rural Bridges	39	42.79	Nil	Nil
Rural Roads	37	8.53	Nil	Nil
<b>Total</b>	<b>162</b>	<b>64.56</b>	<b>--</b>	<b>--</b>
<b>Grand Total</b>	<b>794</b>	<b>346.50</b>	<b>--</b>	<b>140.87</b>

Source NABARD



**Appendix - 4.53**  
**Physical Achievement under Ground Water Development Schemes**  
**During 95-96, 96-97, 97-98 & 98-99**

Sl.No	Items	Unit	1995-96	1996-97	1997-98	1998-99
1	2	3	4	5	6	7
1	Detailed hydrological survey	Km2	75	166	162	617
2	Siting and providing technical assistance for open wells	No.	2635	249	227	317
3	Siting and construction of different types of drilled wells	No.	647	409	473	623
4	Creation of additional irrigation facilities	ha.	2348	1161	1036	2377
5	Janakeeya Jala Sechana Padhathy	No.	38 irrigation units	17 irrigation units	--	--
6	Failed well compensation	(persons)	14	3	15	12
7	Utilising ground water for Drinking purpose	No.	470 Borewells & 4 Micro water Schemes	73 wells	--	--
8	Special component plan	No.	56 wells	98 wells	--	--
9	Tribal sub plan	No.	20 wells	19 wells	--	--

Source: Gorund Water Department

**Appendix - 4.54**  
**Details of Externally Aided Projects Implemented During 1998-99**

(Rs crores)

Sl. No.	Name of Project	Project		Date of Commencement	Date of Completion	Project Cost	Share of		Beneficiary contribution upto 98-99	Exp. incurred	Physical Achievement
		Period	External Agency				GOK				
1	2	3	4	5	6	7	8	9	10	11	
1	National Hydrology Project (World Bank assistance)	6 years	95-96	2000-2001	35.93	32.19	3.74	--	4.099		Under surface water, completed A. Civil Works i) River Gauge Sites - 12 ii) Meteorological stations - 3 iii) Site Equipment Store - 1 iv) Level 1 lab - 1 v) Buildings for new sites - 1 B. Details for Equipments Procured i) AWLR - 15 ii) Current meter - 30 iii) Bridge Outfits - 1 iv) SRG - 30 v) Vehicles - 11 vi) Computer - 9 C. Details of Equipment procured under Ground Water i) Portable Compressor - 15 ii) Field monitoring kit - 30 iii) Computers - 17
2	EEC Assisted Kerala Minor Irrigation Programme	5 years	1993-94	2000 Dec.	52.04	41.3	10.74	--	11.08		Irrigation Potential created 4130 ha
3	Dutch assisted Community Irrigation Project	5 years	1993-94	2000 June	a) Original 21.7 b) Revised 15.446	13.23	2.00	0.22	4.91		131 Borewells drilled

**Appendix - 4.55**  
**Physical Achievement Under Command Area Development Programme**

No.	Item	Unit	Achievement During									
			1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99			
1	2	3	4	5	6	7	8	9	10			
1	Construction of field channels	ha.	9252	25562	16907	17422	14402	7897	14482			
2	Construction of field drain	ha.	1633	-	-	-	4210	16374	11305			
3	Warabandi works	ha.	8140	13453	11117	3983	3721	9113	759			
4	Training programme for farmers	No.	-	303	291	309	384	390	204			
5	Adaptive trails	ha.	6788	1911	2049	1814	Nil	405	139			
6	Large scale demonstration	ha.	7689	7738	7620	8709	8795	16393	9390			
7	Subsidy to small & marginal farmers	No.	-	724	452	313	159	361	-			
8	Beneficiary farmers associations organised and registered	No.	259	479	299	145	106	87	-			
9	Detailed soil survey conducted	ha.	1700	1700	700	-	-	-	-			
10	Land levelling & shapping	ha.	-	193	308	279	285	230	321			
11	Bench mark and evaluation survey conducted	ha.	-	2010	2641	2447	1557	2199	1761			

Source : CADA

**Appendix - 4.55**  
**Physical Achievement Under Command Area Development Programme**

No.	Item	Unit	Achievement During									
			1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99			
1	2	3	4	5	6	7	8	9	10			
1	Construction of field channels	ha.	9252	25562	16907	17422	14402	7897	14482			
2	Construction of field drain	ha.	1633	-	-	-	4210	16374	11305			
3	Warabandi works	ha.	8140	13453	11117	3983	3721	9113	759			
4	Training programme for farmers	No.	-	303	291	309	384	390	204			
5	Adaptive trails	ha.	6788	1911	2049	1814	Nil	405	139			
6	Large scale demonstration	ha.	7689	7738	7620	8709	8795	16393	9390			
7	Subsidy to small & marginal farmers	No.	-	724	452	313	159	361	-			
8	Beneficiary farmers associations organised and registered	No.	259	479	299	145	106	87	-			
9	Detailed soil survey conducted	ha.	1700	1700	700	-	-	-	-			
10	Land levelling & shapping	ha.	-	193	308	279	285	230	321			
11	Bench mark and evaluation survey conducted	ha.	-	2010	2641	2447	1557	2199	1761			

Source : CADA

**Appendix - 4.56**  
**Commodities Handled by MARKETFED**  
*(Rs. in Lakhs)*

Sl. No.	Particulars	Sales			
		1995 - 96	1996 - 97	1997 - 98	1998-99
1	2	3	4	5	6
1	Spices	335	1263	2341	1077
2	Copra & Coconut Oil	1419	950	1119	806
3	Fertilizers	1777	1540	1470	1055
4	Pesticides	1235	31	264	21
5	Areca nut	295	346	439	462
6	Raw Cashewnut	15	26	21	--
7	Rubber	70	185	267	98
8	Others	18	13	--	--
<b>Total:</b>		<b>5164</b>	<b>4354</b>	<b>5922</b>	<b>3519</b>

Source: MARKETFED

**Appendix - 4.57**  
**Operation of CAMPCO during 1996-97, 1997-98 & 1998-99**  
 (Quantity in tonnes) (Value in lakhs of Rs.)

Sl. No.	Commodity	1996-97		1997-98		1998-99	
		Qty	Value	Qty	Value	Qty	Value
1	2	3	4	5	6	7	8
1	Areca nut						
	a) Procurement	27923	23003	27172	22142	28693	28246
	b) Sales	26055	22328	26990	23217	31323	31614
2	Cocoa Procurement						
	a) Cocoa Pods	17	1	17	1	14	18
	b) Wet Beans	4908	956	6339	1255	4851	960
	c) Dry Beans	3	2	18	13	17	12
3	Copper Sulphate Sales	250	138	289	155	253	124

Source : CAMPCO

**Appendix - 4.58**  
**Production and Sales of Chocolate by CAMPCO**

Sl. No.	Item	Production Qty (MT)	Sales	
			Qty (MT)	Value (Rs. in lakhs)
1	2	3	4	5
<b>1995-96</b>				
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
<b>1996-97</b>				
1	Chocolate	517.3	509	517
2	Semi finished	642	969.3	696.15
3	Internal Sales for Nestle	2433.2	349.4	467
<b>1997 - 98</b>				
1	Chocolate	1665	7177	2387
2	Internal Sales for Nestle	1823	1823	1473.65
<b>1998-99</b>				
1	Chocolate	1436	1378	1703
2	Internal Sales for Nestle	2479	379	598

Source : CAMPCO

### Appendix - 4.59

#### Performance details of KERAFED for the year 1995-96, 1996-97, 1997-98 & 1998-99

(All Quantities in MT and Values in Rs.Lakhs)

Activity	1995 - 96	1996 - 97	1997 - 98	1998-99
1	2	3	4	5
<b>Copra procured</b>				
Quantity	4069	8379	5240	7122
<b>Copra crushed</b>				
Quantity	10460	8161	6203	7420
<b>Sales</b>				
a) Copra				
Quantity	3798	941		22
Value	952	246		44
b) Coconut Oil				
Quantity	7673	4905	4308	5003
Value	2614	2478	2402	2685
c) Coconut Oil Cake				
Quantity	375	2721	2348	2193
Value	29	260	220	181

Source: KERAFED

**Appendix - 4.60**  
**National Co-operative Development Corporation**  
**Release of Fund for Kerala from '1994-95' to '1998-99' (Amount in lakhs)**

Sl.No.	Name of Schemes	1994-95	1995-96	1996-97	1997-98	1998-99
1	2	3	4	5	6	7
1	Marketing Co-operatives					
	(a) Margin Money to Federation	218.000	197.000	157.000	--	167.000
	(b) Share Capital to PAMS	39.500	26.500	34.500	55.750	11.000
	(c) Agro Custom Hiring-cum-service Centre of RAIDCO (Margin Money)	--	6.800	2.000	-	-
2	Processing Unit					120.000
	(a) Rubber	50.090	50.870	40.250	119.190	62.075
	(b) Spices Powdering Unit	10.800	67.219	8.990	4.990	37.764
3	Storage	10.802	67.219	45.410	98.005	29.200
4	Fisheries (a) Marine	837.082	697.712	508.190	695.438	653.881
	(b) Inland	-	-	-	116.441	239.363
5	Coir Co-operatives	547.692	542.558	426.250	608.434	371.847
6	Handloom Co-operatives	5.934	115.887	707.390	181.934	141.849
	(a) Spinning Mills	--	--	86.500		220.810
	(b) Powerloom	--	--	262.610	538.675	117.790
7	SC/ST Co-operatives	10.930	25.750	--	24.320	23.840
8	Sugar Factory	26.000	78.000	--	-	24.000
9	Computerisation	6.000	6.698	--	-	-
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
13	INTE-Co-operative Development Project (I.C.D.P)	336.523	564.416	694.590	455.456	1228.010
14	Consumer Schemes	--	46.000	48.100	114.080	826.900
15	Student Stores	5.850	0.150	0.400	1.358	2.120
16	Animal Husbandry Department Poultry Co-operatives	--	--	--	--	9.800
<b>Total:</b>		<b>3809.636</b>	<b>2433.116</b>	<b>3022.530</b>	<b>3237.430</b>	<b>4726.849</b>

Source: NCDC

## Appendix - 4.61

NCDC- Activity-wise Cumulative Sanction/Release of Funds to Kerala  
As on 31-3-1999

(Rs. In Crores)

Sl. No.	Scheme	Total Sanction from 1962-63 to 1998-99	% to total Sanction	Total Releases From 1962-63 to 1998-99	% to total release
1	2	3	4	5	6
1	Mktg. & Input Distribution	31.297	6.988	29.050	9.148
2	Agro- Processing				
	a) Sugar	1.560	0.348	1.560	0.491
	b) Spinning Mills	10.047	2.243	7.467	2.351
	c) Oil Processing	97.333	21.734	73.051	23.004
	d) Powerlooms	24.418	5.452	9.191	2.894
	e) Rubber/others	14.094	3.147	10.358	3.262
3	Storage	14.247	3.181	12.388	3.901
4	Rural consumer / Student stores	16.193	3.616	14.110	4.443
5	ICDP	84.829	18.942	49.000	15.430
6	Weaker Section				
	a) Fisheries	97.461	21.762	64.005	20.155
	b) Handloom	13.789	3.079	12.338	3.885
	c) Coir	36.809	8.219	30.431	9.583
	d) SC-ST Co-ops.	1.923	0.429	2.250	0.708
	e) Poultry	0.124	0.028	0.124	0.039
7	Promotional/Development Projects	3.719	0.830	2.238	0.705
<b>Total:</b>		<b>447.843</b>	<b>100.000</b>	<b>317.561</b>	<b>100.000</b>

Source: NCDC



**Appendix - 5.1**  
**Growth of Kerala Power System at a Glance - 1992, 1998 and 1999**

Sl. No.	Particulars	Position as on		
		31.3.1992	31.3.98	31.3.1999
1	2	3	4	5
1	Installed Capacity -MW	1477.00	1775.780	2043.10
2	Maximum Demand _MW			
	a) System	1264.60	1785.80	2040.00
	b) Internal	1308.80	1337.00	1896.20
3	Generation Per Annum-M.U	5326.00	5188.710	7601.55
4	Import Per Annum -M.U	1855.82	4236.190	3595.58
5	Export Per Annum - M.U	2.17	0.000	-
6	Energy Sales Per Annum-M.U	5596.00	7715.490	8959.61
7	Energy losses of percentage of energy available for sales	21.17	17.870	17.75
8	Per capita Consumption- Kwh	192.00	242.960	278.245
9	220 K.V Lines- CT Km	1064.22	1742.000	1897.47
10	110 K.V Lines- CT Km	2329.00	2658.952	2809.656
11	66K.V Lines- CT Km	2531.00	2694.459	2673.916
12	11 K.V Lines- CT Km	21551.00	27026.700	28090.616
13	L.T. Lines- CT Km	108420.00	138412.820	144689.672
14	Step up Transformer Capacity -MVA	1276.00	1999.470	2590.37
15	No. of EHT Sub Stations	143.00	167.000	177.00
16	Step down Transformer Capacity -MVA	4994.20	8154.400	8773.40
17	Distribution Transformer			
	a) Numbers	18843	26793.000	28058.00
	b) Capacity - MVA	2293.52	3277.870	3644.122
18	No. of Villages Electrified	1384.00	1384.000	1384.00
19	No. of consumers(in lakhs)	36.98	52.106	56.39
20	Connected Load -M.W	5526.00	6460.680	2775.00
21	No.of Street lights	544744.00	629410.000	658643.00
22	No. of Irrigation Pumps	238206.00	333573.000	354722.00
23	Total Revenue per Annum(Rs. Lakhs)	34326.99	130352.160	114630.00

(Provisional)

### Appendix - 5.2 Profile of on-going Hydro-electric Projects in the State

Name of Schemes	District	Energy Potential (MU)	Project Sanctioned on	Major works commenced/on	Original Estimated cost (Rs. In lakhs)	Originally scheduled year of completion	Latest Estimated cost (Rs. In lakhs)	Expenditure upto 3/ '99 (Rs. In lakhs)	Outlay for 1999-2000	% increase of revised estimate over the Original estimate	Expected Year of commissioning
Azhuitha Diversion	IDK	57	Jun-85	Apr-87	290	91-92	1461.00	1308.65	50.00	403.79	Paritally Commissioned on 6/98
Kakkad	PTA	262	Sep-76	Apr-78	1860	91-92	15275.00	14607.29	110.00	721.24	Commissioned on 14/10/99
Lower Periyar	IDK	493	Feb-83	Apr-83	8843	91-92	35768.00	34322.83	500.00	304.48	Commissioned on 10/97
Malampuzha	PGT	5.6	Dec-85	Apr-87	295	90-91	677.00	653.47	15.00	129.49	1999-2000 Commissioned on
Madupetty	IDK	6.4	Dec-85	Nov-86	292	90-91	478.00	477.73	-	63.70	16.1.98
Malankara	IDK	65	Aug-86	Jan-87	780	91-92	4113.00	134.37	700.00	527.31	2001-2002
Peppara	TVM	11.5	Aug-86	Jan-87	392	91-92	671.00	563.44	50.00	171.17	Commissioned on 6/96
Peringalkuthu L.B Ext	TCR	74	May-89	Sep-89	902	93-94	4318.00	4061.6	200.00	378.71	20.3.1999
Kuttiady Tailrace	KKD	15	May-89	Sep-89	397	93-94	1123.00	1169.12	600.00	182.87	2000-2001 Commissioning date not fixed
Vazhikkadavu Diversi	IDK	24	May-89	Sep-89	186	91-92	1564.00	871.46	500.00	740.86	fixed
Kuttiar Diversion	IDK	37	Oct-89	May-91	214	90-91	949.00	428.28	500.00	343.46	1999-2000 Commissioning date not fixed
Vadakkepuzha Divers	IDK	12	Oct-89	May-91	131	90-91	705.00	148.83	210.00	438.17	fixed
Kuttiady Extension	KKD	75	Jan-92	Feb-94	3073	95-98	19112.00	16271.13	3575.00	521.93	2000-2001 8 years of commencement
Pooyankutty	EKM	645	Aug-86		25000		82000.00	1199.02	2062.00	228.00	
Diesel Plants											
Brahmapuram DGPP	EKM	553	Feb-93	Oct-93		95-96	40097.00	68033.19	8000.00	-	All units commissioned Nov-99
Kozhikode and others	KKD	674	1996	1996		96-97	35500.00				

Source: K S E B

**Appendix - 5.3**  
**Power Projects and Power Generation as on 31-3-1999**

Sl. No.	Name of Projects and Districts	Installed Capacity (MW)	Firm Power (MW)	Units generated during 1998-99 (M.U) Gross Energy
1	2	3	4	5
1	Pallivasal - Idukki	37.50	32.50	172.85
2	Sengulam- Idukki	48.00	20.80	123.45
3	Neriamangalam- Idukki	45.00	27.00	301.26
4	Panniyar -Idukki	30.00	18.00	187.70
5	Peringalkuthu - Thrissur	32.00	19.60	180.49
6	Sabarigiri- Pathanamthitta	300.00	153.00	1758.14
7	Sholayar- Thrissur	54.00	20.60	282.58
8	Kuttiady -Wayanad	75.00	30.60	304.89
9	Idukki - Idukki	780.00	280.20	2821.81
10	Idamalayar-Ernakulam	75.00	43.30	423.60
11	Kallada- Mini-Kollam	15.00	6.05	68.16
12	Kanjikode Wind Farm - Palakkad	2.00	0.40	1.59
13	Peppara- TVPM	3.00	1.30	9.09
14	Lower Periyar- Idukki	180.00	56.30	666.49
15	Brahmapuram- Ernakulam	106.60	61.40	251.28
16	Madupetty - Thrissur	2.00	0.70	4.07
17	P.L.B. Extension	16.00	-	-
18	Kayamkulam (NTPC)	230.00	-	241.95
	<b>Sub- total:</b>	<b>2031.10</b>	<b>771.75</b>	<b>7799.40</b>
19	Maniyar (Private)	12.00	3.70	43.88
	<b>Grand Total:</b>	<b>2043.10</b>	<b>775.45</b>	<b>7843.28</b>

Source: KSEB

**Appendix - 5.4**  
**Pattern of Power Consumption and Revenue Collected During 1998-99**

Sl. No.	Category	No. of consumers as on 31-3-99	Connected Load (M.W) as on 31-3-99	Energy Sold (M.U)	Consumption as % to total	Revenue Collected (Rs. Lakhs)	Revenue As Percentage to Total
1	2	3	4	5	6	7	8
1	Domestic Lights, heat and small power	4289749.00	3872.00	4040.00	45.09	32660.83	27.10
2	Commercial lights, fans, heat and power	899028.00	943.00	766.00	8.55	23398.88	19.42
3	Industrial (Low and Medium Voltage)	98468.00	863.00	565.00	6.30	10041.71	8.33
4	Industrial (High and Extra High Voltage)	1581.00	787.00	2728.00	30.44	45637.83	37.87
5	Irrigation	347208.00	649.00	345.00	3.85	2138.84	1.77
6	Public lighting	1398.00	40.00	136.00	1.52	1649.55	1.37
7	Water Works and Sewerage	1693.00	84.00	203.00	2.27	2987.45	2.48
8	Bulk Supply to licencee	7.00	25.00	166.00	1.85	1843.64	1.53
9	Miscellaneous	0.00	0.00	0.00	0.00	51.39	0.04
10	Railway Traction	2.00	13.00	11.00	0.13	117.84	0.09
	<b>Total:</b>	<b>5639134.00</b>	<b>7276.00</b>	<b>8960.00</b>	<b>100.00</b>	<b>120527.96</b>	<b>100.00</b>

Source: KSEB

**Appendix - 5.5**  
**Average Realisation from Sale of Power**

Sl. No.	Consumer Category	Average Realisation (in paise per unit) (including Electricity duty)	
		1997-98	1998-99
1	2	3	4
1	Domestic	77.99	77.99
2	Commercial	279.88	298.07
3	Public Lighting	117.84	117.84
4	Irrigation and Dewatering	54.63	60.42
5	Public works	137.65	143.63
6	Industrial		
	a) LT	156.86	173.43
	b) HT and EHT	164.83	167.29
7	Bulk Supply	108.96	111.06
8	Outside Supplies	-	-
9	Railway Traction	102.00	107.13

Source : KSEB

**Appendix - 5.6**  
**Average Tariff Rate**

(Ps per Unit)

Sl. No.	Category of Consumer	Average Tariff	
		1997-98	1998-99
1	2	3	4
1	Domestic	82.00	104.00
2	Commercial	360.00	470.00
3	Industrial(low and medium voltage)	155.00	255.00
4	Industrial		
	a)HT	162.00	295.00
	b) EHT		250.00
5	Irrigation	50.00	55.00
6	Public Lighting	20.00	50.00
7	Water Works and Sewerage	155.00	255.00
8	Bulk Supply to Licencees	103.00	175.00
9	Miscellaneous	0	0
10	Railway Traction	80	151.00

Source: KSEB

**Appendix - 5.7****Outlay and Expenditure during the various Plan Periods on energy Development***(Rs. Lakhs)*

Plan Period	Outlay	% to total	Expenditure	Expenditure as percentage Outlay
1	2	3	4	5
I Plan 1951-56	1185	39.5	1060	89.5
II Plan 1956-61	2345	26.9	2192	93.5
III Plan 1961-66	4356	25.6	6084	139.7
Annual Plans 1966-67 to 1968-69	4691	32.9	4195	89.4
IV Plan 1969-74	7625	10.5	10740	140.9
V Plan 1974-75 to 1977-78	12990	22.8	11057	85.1
Annual Plans 1978-80	8378	21.3	7060	84.3
VI Plan 1980-85	28007	18.8	32180	114.9
VII Plan 1985-90	44131	19.9	41912	95
Annual Plan 1990-91	13542	21.3	12493	92.3
Annual Plan 1991-92	15620	19.4	14642	93.7
VIII Plan 1992-97	130000	23.8	179643	138.19
IX Plan 1997-2002	267100	26.5	—	—

Source: State Planning Board

## Appendix - 5.8

## Sources of Funding the Power Programmes of K.S.E.B.

		(Rs. Lakhs)
No.	Particulars	1998-99
1	2	3
1	a) Loan from State Government under Section 64 of Electricity Supply Act 1948	12465
	b) Loan from Rural Electrification Corporation Ltd.	9074.15
2	Borrowings under Section 65	2500
	a) Loan from LIC of India	10793.09
	b) Assistance from IDBI	2478.27
	c) Loan from PFC	938.32
	d) Loans from Banks through REC	644.23
	e) Loan from SIDBI	11030.47
	f) Foreign Currency Loan	438.68
	g) OECF	70140
3	Non-SLR Bonds	10055.32
4	Receipts under OYEC Scheme/Service Connection Charges/Contribution from Panchayats	9578.73
5	Borrowings and Reserves	11509.96
	a) Pension Fund/Provident Fund	3550.54
	b) Deposits and other Debt Heads	5558.06
6	Other Internal Resources	-
7	Loan from Kerala PFC	1850
<b>Total</b>		<b>162604.82</b>

**Appendix - 6.1**  
**Index of Industrial Production 1997-98 : Base (1980-81=100)**

Sl. No.	Code No.	Item	Weight	Index for 1997-98
1		2	3	4
		<b>General Index</b>	<b>100.00</b>	<b>284.00</b>
1	20-21	Manufacture of Food Products	8.82	129.86
2	22	Manufacture of beverages, tobacco and related products	1.46	172.31
3	23	Manufacture of Cotton Textiles	8.02	170.53
4	24	Manufacture of wool, silk and man made fibre textiles	1.26	101.97
5	26	Manufacture of Textile products	3.26	14.47
6	27	Manufacture of wood and wood products	1.35	65.75
7	28	Manufacture of Paper and Paper products	3.16	837.07
8	30	Manufacture of basic chemicals and chemical products (Except Petroleum and Coal)	19.78	243.61
9	31	Manufacture of rubber, plastic, petroleum and coal products and processing of nuclear fuels.	10.06	213.19
10	32	Manufacture of non-metallic mineral products	3.42	127.49
11	33	Basic Metals and Alloys Industries	3.43	82.17
12	34	Manufacture of metal products and parts except machinery and equipment	0.50	883.58
13	35-36	Manufacture of Machinery and equipments other than transport equipment	9.46	1196.2
14	37	Manufacture of Transport equipment and parts	2.67	7.91
15	38	Other Manufacturing Industries	1.42	264.97
16	40	Electricity generation, transmission and distribution	21.93	114.79

Source: Directorate of Economics and Statistics, Thiruvananthapuram



### Appendix . 6.2

#### Growth Of Working Factories And Average daily Employment In Kerala - 1990-98

Year	No Of Factories			No Of Employment		
	Private	Public	Total	Private	Public	Total
1	2	3	4	5	6	7
1990	12035	413	12448	239562	115988	355550
1991	12800	455	13255	243211	125527	368738
1992	14113	495	14608	248198	127538	375736
1993	14646	486	15132	277266	111492	388758
1994	14824	481	15305	281669	108591	390260
1995	14840	491	15331	263878	111270	375148
1996	15906	528	16434	293923	111144	405067
1997	16803	533	17336	317592	111248	428840
1998(P)	17179	540	17719	324703	111672	436375

Source : Directorate of Economics and Statistics , Trivandrum

**Appendix 6.3**  
**District Wise Distribution of Registered Working Factories in Kerala from 1990 to 1998**

No	Districts	1990	1991	1992	1993	1994	1995	1996	1997	1998(P)
1	Thiruvananthapuram	655	606	712	864	855	809	850	868	892
2	Kollam	1179	1188	1415	1440	1425	1498	1654	1735	1787
3	Pathanamthitta	292	586	329	366	442	363	382	430	470
4	Alappuzha	750	802	901	921	1098	1024	1059	1111	1140
5	Kottayam	963	799	1098	1127	1126	1180	1247	1283	1293
6	Idukki	278	289	292	302	251	290	303	305	303
7	Emakulam	1931	1933	2274	2299	2294	2364	2543	2686	2700
8	Thrissur	1692	1591	1939	1986	1987	1944	2084	2188	2364
9	Palakkad	1220	1330	1574	1638	1692	1620	1774	1972	1966
10	Malappuram	672	650	816	856	857	815	894	912	924
11	Wayanad	122	125	129	126	128	128	151	180	176
12	Kozhikode	1386	1981	1565	1635	1703	1582	1656	1778	1777
13	Kannur	1137	1182	1359	1369	1296	1473	1579	1614	1636
14	Kasargode	171	193	205	203	151	241	288	274	291
	<b>Total</b>	<b>12448</b>	<b>13255</b>	<b>14608</b>	<b>15132</b>	<b>15305</b>	<b>15331</b>	<b>16434</b>	<b>17336</b>	<b>17719</b>

Source: Directorate of Economics & Statistics, Trivandrum

### Appendix - 6.4

**District wise No. of Registered Working Factories and Employment  
in Kerala As on 31st December 1998**

Sl.No.	District	No. of Factories		No. of Employment	
		1997	1998(p)	1997	1998(p)
1	Thiruvananthapuram	868	892	28300	28671
2	Kollam	1735	1787	139283	141510
3	Pathanamthitta	430	470	9863	10350
4	Alappuzha	1111	1140	24058	24839
5	Kottayam	1283	1293	17692	17889
6	Idukki	305	303	7958	7887
7	Ernakulam	2686	2700	70340	70748
8	Thrissur	2188	2364	38261	39930
9	Palakkad	1972	1966	24329	24442
10	Malappuram	912	924	9954	10344
11	Kozhikode	1778	1777	28978	29371
12	Wayanad	180	176	2387	2600
13	Kannur	1614	1636	23278	23420
14	Kasargode	274	291	4159	4374
<b>TOTAL:</b>		<b>17336</b>	<b>17719</b>	<b>428840</b>	<b>436375</b>

Source:- Directorate of Economics and Statistics, Thiruvananthapuram

## Appendix 6.5

## Industrial Disputes Arose, Handled, Settled etc. in Kerala (1995-96 to 1998-99)

Sl.No.	Particulars	1995-96	1996-97	1997-98	1998-99
1	2	3	4	5	6
1	No. of disputes pending at the beginning of the year	4861	3303	2811	3844
2	No. of disputes that arose during the year	5874	5274	5455	5272
3	No. of disputes handled during the year(1+ 2)	10740	8577	8266	9116
4	No. of disputes settled during the year				
	a.By voluntary negotiation between parties	2381	1340	1183	1228
	b. By conciliation	2017	1829	1621	1520
	c. By withdrawal	2538	2150	1303	2575
	d.Referred for Arbitration	0	6	0	
	e. Referred for Adjudication	501	447	315	506
	f.Total number of disputes settled ( a to e)	7437	5766	4422	5829
5	Number of disputes pending at the year (3 - 4)	3303	2811	3844	3287
6	Number of disputes led to				
	a. Strike (including pending previously)	23	26	31	16
	b. Lockout including pending previously	36	27	19	23
	c. Total ( a + b )	59	53	50	39
7	No. of workers affected due to				
	a. Strike	21224	20063	69898	4754
	b. Lockout	14861	14313	5285	7316
	c. Total ( a + b )	36085	34376	75183	12070
8	Mandays lost				
	a. Strike	561283	185822	497078	369234
	b.Lockout	1807195	1247530	214043	719419
	c. Total ( a + b )	2368478	1433352	711121	1088653

Source: Office of the Labour Commissioner - Thiruvananthapuram

**Appendix - 6.6**  
**Central Sector Investment In Kerala**

(Rs crores)

Years as on 31st March	Investment Gross Block		% of column(3) to column(2)
	All India	Kerala	
1	2	3	4
1970	3795	116	3.06
1975	6242	202	3.24
1980	18161	423	2.33
1985	47323	831	1.76
1990	113430	1701	1.5
1995	227349	2906	1.28
1996	256200	3390	1.32
1997	284330	3992	1.40
1998	314635	4716	1.50

Source: Reports of the Public Enterprises Survey, Government Of India

**Appendix 6.7**

**Capital Investment and Employment in respect of Government of India**  
**Companies functioning in Kerala**

(Rs. In lakhs)

Sl.No	Name of Company	Investment in capital as on		Employment as on	
		31-3-98	31-3-99	31-3-98	31-3-99
1	Hindustan Organic Chemicals Ltd.	12918	3342	..	513
2	Hindustan Newsprint Ltd.	8595.21	8582.91	1555*	1533
3	Modern Food Industries(India) Ltd.	NA	NA	224	226
4	Cochin Refineries Ltd.	34172	50285	1656	1785
5	Hindustan Latex Ltd.	2264.86	2023.99	..	2122
6	Vijayamohini Mills	1042.17	1278.06	459	444
7	Cochin Shipyard Ltd.	36750.42	37383.42	..	2435
8	Indian Telephone Industries Ltd.	..	..	813	815
9	Hindustan Machine Tools Ltd.	1620.02*	1611.71	1377	1769
10	Fertilizers and Chemicals Travancore Ltd.	79918.12*	78584.74	7884	7696
11	Alagappa Textiles(Cochin) Mills	1395.83	1684.11	930	908
12	Hindustan Insecticides Ltd.	6596.27	7058.89	..	717
13	Instrumentation Ltd.	2364.28	2979.29	524	497
14	Cannanore Spinning & Weaving Mills	680.36	681.80	..	266

Source : Reports of Companies Concerned

\* Revised

**Appendix 6.8**  
**Performance of Government of India Companies in Kerala in terms of Value of Production and Sales Turnover**

(Rs. Lakhs)

Sl.No.	Name of Company	Value of Production		Total Sales Turnover	
		1997-98	1998-99	1997-98	1998-99
1	2	3	4	5	6
1	Hindustan Organic Chemicals Ltd.	23404	20641	20297	17783
2	Hindustan Newsprint Ltd.	17642	23886	18972	22109
3	Modern Food Industries	1248	1235	2091.1	2076.44
4	Cochin Refineries Ltd.	436625	426429	437415	417091
5	Hindustan Latex Ltd.	6879.70	8183.40	6606.43	8179.09
6	Vijayamohini Mills	1319.13	1086.35	1264.93	990.79
7	Cochin Shipyard	2355	2563	12473.97	11794.83
8	Indian Telephone Industries Ltd.	26975.45	34899.43	26790.31	33787.66
9	Hindustan Machine Tools	4862*	4415	4867*	4505
10	Fertilisers and Chemicals Travancore Ltd.	Not Available		108875.86	113658.56
11	Algappa Textiles (Cochin) Mills Ltd.	2274*	1915	2039	1746
12	Hindustan Insecticides Ltd.	6229.03	6271.82	2674.08	5177.91
13	Instrumentation Ltd.	4105.04	4377.62	3980.50*	4120.85
14	Cannanore Spinning and Weaving Mills	1295.27	1168.24	1388.42	1214.30

\* Revised

Source:- Reports from companies concerned

**Appendix - 6.10**  
**District wise break up of medium and large scale industries**  
**in Kerala as on 31-03-1999**

Sl.No.	Districts	Central sector	State sector	Co operative sector	Joint sector	Private sector	Total
	1	2	3	4	5	6	7
1	Trivandrum	2	13	2	4	29	50
2	Kollam	2	6	2	..	16	26
3	Alappuzha	1	7	..	3	21	32
4	Kottayam	1	2	2	..	17	22
5	Pathanamthitta	..	2	1	1	5	9
6	Idukki	..	..	1	1	9	11
7	Eranakulam	8	8	1	4	142	163
8	Thrissur	2	7	1	7	32	49
9	Palakkad	2	2	2	6	58	70
10	Malappuram	..	5	1	2	16	24
11	Kozhikode	..	3	1	1	23	28
12	Wayanad	..	..	..	..	5	5
13	Kannur	1	6	2	..	11	20
14	Kasargod	..	1	..	..	1	2
<b>TOTAL:</b>		<b>19</b>	<b>62</b>	<b>16</b>	<b>29</b>	<b>385</b>	<b>511</b>

Source: Kerala State Industrial Developmet Corporation (KSIDC),  
Thiruvananthapuram

## Appendix - 6.11

## Units assisted by K.S.I.D.C AS ON 31-3-1999

Sl.No.	Districts	No. of Units		Project Cost(Rs. Lakhs)	
		Public Sector	Private Sector	Public Sector	Private Sector
1	2	3	4	5	6
1	Thiruvananthapuram	9	31	12111	11315
2	Kollam	4	9	2680	2103
3	Alappuzha	3	25	2015	22216
4	Pathanamthitta	0	6	0	945
5	Idukki	0	9	0	2830
6	Kottayam	1	13	230	14973
7	Ernakulam	4	116	18781	151892
8	Thrissur	4	31	1150	8645
9	Palakkad	1	60	1320	54903
10	Malappuram	0	18	0	3478
11	Kozhikode	2	17	888	5575
12	Wayanad	0	6	0	1020
13	Kannur	1	7	215	3179
14	Kasargode	1	1	87	178
<b>TOTAL:</b>		<b>30</b>	<b>349</b>	<b>39477</b>	<b>283252</b>

Source : KSIDC, Thiruvananthapuram



**Appendix - 6.12**  
**Capital Invested and Employment in respect of Govt. owned Companies in Kerala**

Sl.No.	Name of Company	Capital Invested (Rs. in lakhs)		Employment (Nos.)	
		3	4	5	6
1	Kerala Electrical and Allied Engineering Co. Ltd, Kochi	7676.1	6548.13	1499	1456
2	Kerala State Electronics Development Corporation Ltd, Thiruvananthapuram	20005.99*	20939.67	2346	2304
3	Malabar Cements Ltd, Palakkad	3596.33	3326.7	1034	1022
4	Kerala Clays & Ceramics Products Ltd, Kannur	158.57	145.63	404	423
5	Sitaram Textiles Ltd, Thrissur	2029.28*	2133.53	622	446
6	Kerala Hitech Industries Ltd, Thiruvananthapuram (KELTEC)	6198.40*	7368.38	285	273
7	Trivandrum Spinning Mills Ltd, Thiruvananthapuram	933.17	965.75	351	325
8	Autokast Ltd, Alappuzha	5633.01	5894.91	517	502
9	Kerala Automobiles Ltd, Thiruvananthapuram	2290.79*	2300.38	399	388
10	Steel Industries Kerala Ltd, Thrissur	6286.59	6877.59	416	380
11	Kerala State Textile Corporation Ltd, Thiruvananthapuram	2725.92	2892.57	1441	1406
12	Kerala Minerals and Metals Ltd, Kollam	4664.21*	3193.27	1091	1084
13	Steel and Industrial Forgings Ltd, Thrissur	1451	1451	267	262
14	The Kerala Ceramics Ltd, Kundara	1718.57	1727.75	422	434
15	Scooters Kerala Ltd, Alappuzha	472	472	77	71
16	Foam Mattings India Ltd, Alappuzha	373.73	423.73	217	147

\* Revised

Source:- Reports of Companies Concerned

**Appendix 6.13**  
**Performance of Govt.owned Companies in Kerala in terms of value of Production and Sales Turnover**  
*(Rs. In lakhs)*

Sl.No	Name of Company	Value of Production			Sales Turnover		
		1997-1998	1998-1999	1997-1998	1998-1999	1997-1998	1998-1999
1	2	3	4	5	6	7	8
1	Kerala Electrical and Allied Engineering Company Ltd, Kochi	5517.34*	4776.43	6441.92	5748.36		
2	Kerala State Electronics Development Corporation Ltd, Thiruvananthapuram	3022.88	3421.90	6637.21*	5969.90		
3	Malabar Cements Ltd, Palakkad	11020.95	10510.22	11467.9	10317.82		
4	Kerala Clays & Ceramics Products Ltd, Kannur	212.47	280.74	245.14	247.47		
5	Sitaram Textiles Ltd, Thrissur	1096	900.62	1211.98	1001.73		
6	Kerala Hitech Industries Ltd, Thiruvananthapuram	649.06*	543.9	543.90*	649.06		
7	Trivandrum Spinning Mills Ltd, Thiruvananthapuram	449.21	94.48	439.04	132.46		
8	Autokast Ltd, Alappuzha	902.11	587.97	838.73	726.99		
9	Kerala Automobiles Ltd, Thiruvananthapuram	3402.66*	4337	3393.93*	4388.85		
10	Steel Industries Kerala Ltd, Thrissur	NA	NA	2137.61	2267.75		
11	Kerala State Textile Corporation Ltd, Thiruvananthapuram	4305.37*	4125.19	4131.44*	3922.27		
12	The Kerala Minerals and Metals Ltd, Kollam	11459.13*	20250.09	11687.39	21832.34		
13	Steel and Industrial Forgings Ltd, Thrissur	1388.00	1596.00	1476.00	1525.00		
14	The Kerala Ceramics Ltd, Kundara	556.58	664.63	558.85	569.15		
15	Scooters Kerala Ltd, Alappuzha	320.21	138.57	278.02	135.05		
16	Foam Matings IndiaLtd, Alappuzha	601.71	490.94	886.01*	839.93		

Source: Reports of the Companies Concerned

\*Revised

**Appendix 6.13**  
**Performance of Govt.owned Companies in Kerala in terms of value of Production and Sales Turnover**  
(Rs. In lakhs)

Sl.No	Name of Company	Value of Production			Sales Turnover		
		1997-1998	1998-1999	1997-1998	1998-1999	1997-1998	1998-1999
1	2	3	4	5	6	6	
1	Kerala Electrical and Allied Engineering Company Ltd, Kochi	5517.34*	4776.43	6441.92	5748.36		
2	Kerala State Electronics Development Corporation Ltd, Thiruvananthapuram	3022.88	3421.90	6637.21*	5969.90		
3	Malabar Cements Ltd, Palakkad	11020.95	10510.22	11467.9	10317.82		
4	Kerala Clays & Ceramics Products Ltd, Kannur	212.47	280.74	245.14	247.47		
5	Sitaram Textiles Ltd, Thrissur	1096	900.62	1211.98	1001.73		
6	Kerala Hitech Industries Ltd, Thiruvananthapuram	649.06*	543.9	543.90*	649.06		
7	Trivandrum Spinning Mills Ltd, Thiruvananthapuram	449.21	94.48	439.04	132.46		
8	Autokast Ltd, Alappuzha	902.11	587.97	838.73	726.99		
9	Kerala Automobiles Ltd, Thiruvananthapuram	3402.66*	4337	3393.93*	4388.85		
10	Steel Industries Kerala Ltd, Thrissur	NA	NA	2137.61	2267.75		
11	Kerala State Textile Corporation Ltd, Thiruvananthapuram	4305.37*	4125.19	4131.44*	3922.27		
12	The Kerala Minerals and Metals Ltd, Kollam	11459.13*	20250.09	11687.39	21832.34		
13	Steel and Industrial Forgings Ltd, Thrissur	1388.00	1596.00	1476.00	1525.00		
14	The Kerala Ceramics Ltd, Kundara	556.58	664.63	558.85	569.15		
15	Scooters Kerala Ltd, Alappuzha	320.21	138.57	278.02	135.05		
16	Foam Matting India Ltd, Alappuzha	601.71	490.94	886.01*	839.93		

Source: Reports of the Companies Concerned

\*Revised

**Appendix - 6.14**

**Production and Capacity Utilization of Government Owned Companies in Kerala during 1997 -1998 and 1998 -1999**

Sl. No.	Name of Company	Name of products	Unit	Installed Capacity as on			Production During			Capacity Utilization %	
				31-3-98	31-3-99	31-3-99	1997-98	1998-99	1997-98	1998-99	
1	2	3	4	5	6	7	8	9	10	10	
1	Kerala Electrical and Allied Engineering Co. Ltd, Kochi	Distribution of Transformers Steel Structures HRC Fuses Cast Iron Specials Alternators (TL) Electrical & Wiring Accessories Alternators(G.P) & D.G Sets	KVA TON Nos TON Nos Nos Nos	120000 1200 120000 1500 1500 133000 3000	120000 1200 120000 1500 1500 133000 3000	465637 557.68 17695 404.97 1815 150032 1104	264638 792 15312 633 1836 230440 1141	388 46.47 14.75 26.99 121 112.81 36.8	220.53 66 12.76 42.2 122 173.26 38.03		
2	Kerala State Electronics Development Corporation Ltd, Thiruvananthapuram	Various Electronic Products		Production is reported in terms of value and not in terms of quantity:							
3	Malabar Cements Ltd, Palakkad	Portland Cement	M.T	420000	420000	381167	359960	90.75	85.7	98	
4	Kerala Clays and Ceramic Products Ltd, Kannur	ChinaClay Bricks Laterite	M.T.S Nos M.T.S	N.A N.A N.A	N.A N.A N.A	9103 74787 9703	7665 84209 21131	0 0 0	0 0 0		
5	Sitaram Textiles Ltd, Thrissur	Low grade Bauxite Cotton Yarn	Kg	16304 (spindles)	12064 (spindles)	7.09	6.84	-	-		
6	Kerala Hitech Industries Ltd, Thiruvananthapuram (KELTEC)	Cotton Fabrics Rocket Motorcases Titanium Alloy Liquid Engine Control System Components Aerospace Turbojet Aircraft Engine	mts/day Nos Nos Nos Sets Lot Nos	40000 12 60 3 2 Rs. 1 crore 3	40000 12 60 3 2 Rs. 1 crore 3	27.57 0 0 0 0 0 0	15.05 0 0 0 0 0 0	0 0 0 0 0 0 0	0 0 0 0 0 0 0		
7	Trivandrum Spinning Mills Ltd,	Cotton Yarn of different Counts	Spindles	25200	25200	4.42(lakh kg.)	1.00(lakh kg.)	0	0		
8	Autokast Ltd, Alappuzha	GI Castings SGI Castings Steel Castings	MT MT MT	23000 23000 23000	23000 23000 23000	2722 49 nil	2065 155 6	0 0.21 0	0 0.67 0		

1	2	3	4	5	6	7	8	9	10
9	Kerala Automobiles Ltd, Thiruvananthapuram	Authorickshaw	Nos	10000*	10000	5775	7147	57.75	71.47
10	Steel Industrials Kerala Ltd, Thrissur	Structural Steel Fabrication Generation of ferrous scrap by breaking ships	MT MT	3000 10000	NA NA	684 157	511 1190	22.8 1.57	0 0
11	Kerala Textile Corporation Ltd, Thiruvananthapuram	Cast Iron Cotton/Blended Yarn	MT Spindles	1200 86236	NA 86236	410 28.79(lakh kgs.)	426 29.26(lakh kgs.)	34.16 0	0 0
12	Kerala Minerals & Metals Ltd, Kollam	Titanium Dioxide Ilmenite Rutile Zircon Leucosene Monozite	T MT MT MT MT MT MT	22000 25000 2400 1500 300 240 7500	22000 25000 2400 1500 300 240 7500	14486.55 12298 566.05 179.8 0 0 1947	19317 12991 596.05 362.15 0 0 2185	65.85 49.19 23.59 11.99 0 0 25.96	87.8 51.96 24.84 24.14 0 0 29.13
13	Steel and Industrial Forgings Ltd, Thrissur	Steel Forgings	MT	7500	7500	1947	2185	25.96	29.13
14	The Kerala Ceramics Ltd, Kundara	Porcelain Kaolin Sanitary ware	MT MT MT	595 18000 1200	595 18000 1200	360.5 8430.15 0	570.5 8622.11 0	60.59 46.83 0	95.88 47.9 0
15	Scooters Karala Ltd, Alappuzha	Iron & Steel Products					production details not reported		
16	Foam Mattings (India) Ltd, Alappuzha	1. Mattings 2. Latex Backing	Matting Backing plant	475000m2 1200000m2	475000m2 1200000m2	279267m2 1318565m2		58.79 109.88	

Source: Reports of the Companies Concerned  
\*Revised

**Appendix - 6.15**  
**Capital Invested and Employment in respect of Govt. Majority Companies in Kerala**

Sl. No.	Name of Company	Capital Invested (Rs. In lakhs)			Employment (Nos.)	
		3	4	5	6	
1	2	as on 31-3-1998	as on 31-3-1999	as on 31-3-1998	as on 31-3-1999	
1	Traco Cable Company Ltd, Kochi	6094.46*	6227.12	755	744	
2	Travancore Titanium Products Ltd, Thiruvananthapuram	176.75	176.75	1486	1498	
3	The Travancore Cochin Chemicals Ltd, Kochi	7801.09*	8195.82	1182	1128	
4	Keltron Electroceramics Ltd, Malappuram	512.3	532.74	104	99	
5	The Travancore Cements Ltd, Kottayam	50	50	584	571	
6	Keltron Rectifiers Ltd, Thrissur	1649.71*	1733.32	114	112	
7	Keltron Counters Ltd, Thiruvananthapuram	1121.88*	1189.31	294	291	
8	The Metal Industries Ltd, Shoranur	141.35*	214.66	115	111	
9	Sidkel Television Ltd, Calicut			Closed State		
10	United Electrical Industries Ltd, Kollam	399.06	399.06	439	425	
11	The Metropolitan Engineering Company Ltd, Thiruvananthapuram	501.55*	642.56	122	141	
12	The Travancore Sugars and Chemicals Ltd.	545.74	251.66	..	164	
13	Forest Industries (Travancore) Ltd, Aluva	171.02	193.96	154	143	
14	Keltron Magnetics Ltd, Kannur	188.73	212.87	32	32	
15	Kerala Construction Components Ltd, Alappuzha	163.53	176.37	134	132	
16	Transformers and Electricals Kerala Ltd.	3776.40*	3714.13	1614	1582	

Source: Reports of the Companies Concerned

\* Revised

**Appendix 6.16**  
**Performance of Government Majority Companies in Kerala in terms of value of  
production and Sales Turn over**

(Rs.Lakhs)

Sl. No.	Name of Company	Value of Production		Sales Turnover	
		1997-98	1998-99	1997-98	1998-99
1	2	3	4	5	6
1	Traco Cable Company Ltd, Kochi	5163.51	6397.87	5052.37	6567.56
2	Travancore Titanium Products Ltd, Thiruvananthapuram	6593.29	8568.39	6499.58	8903.77
3	The Travancore Cochin Chemicals Ltd, Kochi	5292*	6884	6044.98*	8209.08
4	Keltron Electroceramics Ltd, Malappuram	525.00*	481.33	657.34	610
5	The Travancore Cements Ltd, Kottayam	3111	3278	3018	3347
6	Keltron Rectifiers Ltd, Thrissur	184.39	141.22	200.42	160.28
7	Keltron Counters Ltd, Thiruvananthapuram	719.55*	854.1	810.41	942.51
8	The Metal Industries Ltd, Shoranur	187	177.01	188	177
9	Sidkel Television Ltd, Calicut	Closed stage			
10	United Electrical Industries Ltd, Kollam	1148.68	1175.55	1184.55	1306.37
11	The Metropolitan Engineering Company Ltd, Thiruvananthapuram	272.5	451.15	276.81	400.52
12	The Travancore Sugars and Chemicals Ltd.	149.46	233.13	179.93	231.41
13	Forest Industries (Travancore) Ltd, Aluva	386.5	378.63	422.56	411.02
14	Keltron Magnetics Ltd, Kannur	..	113.14	84.26	126.35
15	Kerala Construction Components Ltd, Alappuzha	102.63	101.11	65.89	150.16
16	Transformers and Electricals Kerala Ltd.	8555.87*	6278.6	8966.26*	5452.43

\* Revised

Source: Reports of companies concerned

**Appendix 6.17**  
**Production and Capacity Utilization of Government Majority Companies in Kerala during 1997-98 and 1998-99**

Sl. No.	Name of Company	Name of Products	Unit	Installed Capacity as on			Quantity of Production during			Capacity Utilization %	
				31-3-98	31-3-99	31-3-99	1997-98	1998-99	1997-98	1998-99	
1	2	3	4	5	6	7	8	9	10	10	
1	Forest Industries (Travancore) Ltd, Aluva	Wooden Furniture and Joineries	m <sup>3</sup>	1500	1500	807.658	769.463	53.84	51.30		
2	The Travancore Cements Ltd	1.White Cement 2.Cement	M.T M.T	30000 1050	30000 1050	27478 2227	29943 2035	91.59 212.09	99.81 193.81		
3	Keltron Counters Ltd, Thiruvananthapuram	1.Counting Devices 2.Defence Products 3.Electronic Energy Meters	Nos. Nos. Nos.	@ 8 Crores * 8 crores		232524	208092	0	0		
4	Keltron Magnetics Ltd, Kannur	1.Servo Controlled Voltage Stabilizer 2.Uninterrupted Power Supply Systems	Nos. Nos.	500 100*	500 100	115	101	23	20		
5	Travancore Titanium Products Ltd, Thiruvananthapuram	3.MPPCAPS Titanium Dioxide	No M.T	250000 15000	250000 15000	17708259 11678	41394416 14256	70.83 77.85	.. 95.04		
6	Travancore sugars and Chemicals Ltd.	Spirit I.M.F.L.	P.L. K.B.L.	4553000 1600	4553000 1600	188.398 461.7	575691 516.37	.. 28.86	12.64 32.27		
7	The Metropolitan Engineering Company Ltd, Thiruvananthapuram	Switches, Fuses 11 Kvto 220 KV Transformer	10000 Nos. Nos.	10000 .. ..	10000 .. ..	N.A .. ..	4232 .. ..	N.A .. ..	42.42 .. ..		
8	Traco Cable Company Ltd, Kochi	AAC / ACSR PVC Covered Conductors JFTC JFTC	IBM IBM IBM TVLA	1500MT 32.92 MCM 205LCKM 15LCKM	1500MT 32.92 MCM 2.5LCKM 15LCKM	1249.44 4.701 MCM 0.11LCKM NA	818MT 0.65 MCM 0.23LCKM 8.79LCKM	83.30 14.28 0.05 0	54.53 1.97 9.2 58.6		



1	2	3	4	5	6	7	8	9	10
9	Kerala Construction Components Ltd, Alappuzha	Sand Lime Bricks/ Fly Ash Bricks	nos.	120 lakhs	120 lakhs	50.61(lakhs)	50.49(Lakhs)	42.18	42.08
10	Sidkel Television Ltd, Calicut								
11	The Metal Industries Ltd, Shoranur	1.Mammatties 2.All Axes 3.Pick Axes 4.Crow Bar 5.Sledge Hammer 6.Others	MT MT MT MT MT MT	218 MT (Single Shift)	272 MT (Single Shift)	133.80 8.40 50.78 11.77 151.88 24.37	94.63 13.35 56.53 10.82 113.95 35.72	- - - - - -	- - - - - -
12	Keltron Rectifiers Ltd, Thnissur	Below 30 A Above 30 A Equipment Others	K K Nos K	300 20 - -	300 20 - -	478.63 23.66 6.00 38.69	241.85 30.13 - 22.81	- - - -	- - - -
13	United Electrical Industries Ltd, Kollam	KWH Meters Motor Control gears and Other Products	Nos Nos	300000 4500	300000 4500	300531 1108	328020 1303	100 24.62	109.34 28.96
14	The Travancore Cochin Chemicals Ltd, Kochi	Caustic Soda Lye Chlorine Products	MT MT	85800* 76019*	66000 58476	39315* 34833*	55312 49006	45.82 45.82	83.81 83.81
15	Transformers and Electricals Kerala Ltd, Emakulam	1.Power Transformer 2.Current and Potential Transformers 3.Gas Circuit Breakers	MVA No No No	4500 1000 - -	4500 1000 - -	3130.6* 471*	1991.5 392	69.57 47	44.26 39
16	Keltron Electroceramics Ltd, Malappuram	1.Ceramic Disc Capacitors 2. N.T.C.Thermistors 3.Buzzers/Ringers 4.Metaloxide varistors	Nos Nos Nos Nos	110M* 5M* 5M* 2M*	110M 5M 0.5M 2M	98.92* 0.21* 1.01* 0.06*	90.1 0.3 0.5 0.15	.. .. .. ..	.. .. .. ..

Source: Reports of the companies concerned

\* Revised @ Quantity can not be accurately estimated . Installed capacity fixed at Rs.8 crores.

**Appendix 6.18**  
**Sectorwise summary of Performance of Public Sector Enterprises in Kerala 1998-99**

(Rs.in lakhs)

Sl.No.	Sector	No. of Units	Total Emplt.	Paid up capital	Capital invested	Units on profit			Units on loss			Net profit/loss(-)	No. of dividend declared enterprises	Contribution to exchequer	
						Amount			Amount					Central	State
						No. of Units	7	8	9	10	11				
1	2	3	4	5	6	7	8	9	10	11	12	13	14		
1	Development & Infrastructural	16	5971	56072.5	213879.64	12	3343.97	1	110.99	3232.98	3	12.02	170.46		
2	Ceramics & Refractories	8	986	2144.36	3265.12	1	61.25	2	110.47	(-49.22)	1	45.32	23.61		
3	Chemical Industries	11	7432	10245.70	26953.53	5	10728.4	4	2129.96	8598.48	3	10549.40	2006.35		
4	Electrical Equipment	5	4353	6713.26	18354.32	1	132.12	4	2152.94	(-2020.82)	..	2847.67	575.41		
5	Electronics	10	3334	12409.76	28233.95	3	88.48	6	3954.03	(-3865.55)	..	1178.42	91.11		
8	Engineering	11	3384	9144.11	30742.66	4	1299.25	7	3100.24	(-1800.99)	1	1490.67	179.93		
7	Plantation & Agro Based Units	14	11799	9000.97	13423.07	6	1403.42	7	1196.01	207.41	2	123.68	341.60		
8	Textiles	4	2438	2794.97	6077.96	..	0	4	861.72	(-861.72)	..	338.55	67.59		
9	Wood Based Industries	3	634	306.96	2383.42	1	3.30	2	215.75	(-212.45)	..	50.75	53.38		
10	Traditional Industries	7	23018	14854.89	26800.63	3	241.39	3	294.09	(-52.7)	..	29.38	62.9		
11	Trading Units	3	3158	992.9	23710.75	2	587.22	1	910.68	(-323.46)	2	410.32	70981.48		
12	Welfare Agencies	8	423	5452.88	10463.59	2	15.07	2	35.94	(-20.87)	..	0	0		
13	Public Utilities	6	59021	292071.95	801246.82	3	5229.87	3	15751.55	(-10521.68)	..	0	3.42		
14	Others*	7	62	61.79	70.03	1	3.08	..	0	3.08	..	0	0		
<b>Total</b>		111	126013	422267	1205385.49	44	23136.86	46	30824.37	(-7687.51)	12	17076.18	74558.24		
<b>Less: Statutory Bodies</b>		9	60139	304120	884318.70	4	6367.7	2	15623.13	(-9255.43)	1	..	3.58		
<b>Companies</b>		102	65874	118147	321066.79	40	16769.16	44	15201.24	1567.92	11	17076.18	74554.66		

Source: Centre for Management Development, Trivandrum

**Appendix - 6.19**  
**Details of Joint Stock Companies working in Kerala**

Sl.No	Particulars	Private Limited		Public Limited	Total
		3	4		
1	2				
1	Number of Joint Stock Companies in Kerala as on 31.3.98	8893	1287		10180
2	Number of Companies newly registered during 1998-99	54	695		749
3	Number of Companies transferred from other States during 1998-99	1	1		2
4	Number of Companies dissolved / struck off/amalgamated during 1998-99	10	62		72
5	Number of Companies transferred to other States during 1998-99	3	nil		3
6	Net addition to the total No.of Joint Stock Companies in Kerala during '98-99 (Item (2+3)- (4+5))	42	634		676
7	Total No.of Joint Stock Companies in Kerala as on 31.3.'99 (Item 1+6)	8935	1921		10856
8	Total No.of Government Companies registered in Kerala during 1998-99	73	32		105
9	Total No.of Government Companies registered in Kerala during 1998-99	Nil	Nil		Nil
10	No.of government Companies wound up during 1998-99	Nil	Nil		Nil
11	Net addition to the total No.of Government Companies in Kerala during '98-99 (Item 9-10)	Nil	Nil		Nil
12	Total No.of Government Companies in Kerala as on 31.3.99 (Item 8+11)	73	32		105
13	Name of Government Companies, newly registered in Kerala during 1998-99	N.A	N.A		N.A

Source: Registrar of Joint Stock Companies, Kochi.

**Appendix 6.20**  
**District-wise details of Small Scale Industrial Units Registered in Kerala during the year 1998-99**

District	Number of SSI Units promoted by						Investment (Rs. lakhs)			Value of goods and services produced (Rs. lakhs)			Employment Provided (Number)			Total number of Units commenced commercial operations.								
	SC		ST		Others		Total			8			9											
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15									
Thiruvananthapuram	66	11	560	1351	1988	3073.25	7709.66	7000	1988	1888	1842	1213	1845	2014	462	2253	2021	1705	1005	1510	354	978	546	
Kollam	89	1	520	12132	1842	2257.52	12919.73	6899	1842	1842	1213	1845	2014	462	2253	2021	1705	1005	1510	354	978	546	546	
Pathanamthitta	7	0	33	1173	1213	2077.30	2890.17	2961	1213	1213	1845	2014	462	2253	2021	1705	1005	1510	354	978	546	546	546	
Alappuzha	87	7	596	1155	1845	2579.27	4119.80	6422	1845	1845	2014	462	2253	2021	1705	1005	1510	354	978	546	546	546	546	
Kottayam	40	9	280	1685	2014	1048.00	2686.00	2426	2014	2014	462	2253	2021	1705	1005	1510	354	978	546	546	546	546	546	
Idukki	15	15	165	267	462	688.04	2196.00	1893	462	462	1893	1893	1893	1893	1893	1893	1893	1893	1893	1893	1893	1893	1893	1893
Ernakulam	4	0	538	1711	2253	5683.59	36903.34	13672	2253	2253	13672	13672	13672	13672	13672	13672	13672	13672	13672	13672	13672	13672	13672	13672
Thrissur	40	0	425	1556	2021	4219.39	17879.84	7758	2021	2021	7758	7758	7758	7758	7758	7758	7758	7758	7758	7758	7758	7758	7758	7758
Palakkad	27	0	458	1222	1705	2360.70	3541.05	8334	1705	1705	8334	8334	8334	8334	8334	8334	8334	8334	8334	8334	8334	8334	8334	8334
Malappuram	36	6	252	711	1005	1522.87	8502.68	3888	1005	1005	3888	3888	3888	3888	3888	3888	3888	3888	3888	3888	3888	3888	3888	3888
Kozhikode	6	0	213	1291	1510	1699.05	9566.11	3389	1510	1510	3389	3389	3389	3389	3389	3389	3389	3389	3389	3389	3389	3389	3389	3389
Wayanad	12	24	135	183	354	499.16	665.26	1419	354	354	1419	1419	1419	1419	1419	1419	1419	1419	1419	1419	1419	1419	1419	1419
Kannur	58	0	123	797	978	1845.63	3006.00	3547	978	978	3547	3547	3547	3547	3547	3547	3547	3547	3547	3547	3547	3547	3547	3547
Kasaragod	5	0	163	378	546	656.19	3016.66	2024	546	546	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024
<b>Total</b>	<b>492</b>	<b>73</b>	<b>4459</b>	<b>14712</b>	<b>19736</b>	<b>30209.96</b>	<b>115602.30</b>	<b>71632</b>	<b>19736</b>	<b>19736</b>	<b>71632</b>	<b>71632</b>	<b>71632</b>	<b>71632</b>	<b>71632</b>	<b>71632</b>	<b>71632</b>	<b>71632</b>	<b>71632</b>	<b>71632</b>	<b>71632</b>	<b>71632</b>	<b>71632</b>	<b>71632</b>

Source: Directorate of Industries & Commerce, Thiruvananthapuram

**Appendix - 6.21**  
**District-wise details of Small Scale Industrial Units Registered in Kerala**  
**as on 31st March 1999.**

District	Number of SSI Units promoted by				Total Investment (Rs. In lakhs)	Value of goods and Services (Rs. In lakhs)	Employment provided (Number)
	SC/ST	Women	Others	Total			
1	2	3	4	5	6	7	8
Thiruvananthapuram	1166	4006	16349	21521	22241.39	80045.74	86233
Kollam	1640	4188	12686	18514	25639.46	65524.52	147554
Pathanamthitta	588	2019	6434	9041	8129.34	16317.68	32351
Alappuzha	580	3352	14444	18376	20018.69	67517.54	93642
Kottayam	472	3478	16548	20498	20041.54	52655.64	69297
Idukki	390	1753	3404	5547	5454.37	13882.90	19601
Ernakulam	852	3829	22019	26700	52810.84	238854.66	135535
Trissur	1145	2714	17076	20935	38458.40	99198.27	88406
Palakkad	688	2535	12423	15646	22227.17	44368.67	79066
Malappuram	779	1374	7286	9439	14267.46	38919.15	37752
Kozhikode	340	1982	12600	14922	15430.33	55211.43	68590
Wayanad	281	1215	1972	3468	3294.31	10050.15	12003
Kannur	331	1156	8804	10291	12113.83	65138.78	80554
Kasaragod	159	834	3936	4929	5216.49	12757.63	30907
<b>Total</b>	<b>9411</b>	<b>34435</b>	<b>155981</b>	<b>199827</b>	<b>265343.62</b>	<b>860442.76</b>	<b>981491</b>

Source: Directorate of Industries & Commerce, Trivandrum

**Appendix 6.22****Working Status of Small Scale Units as on 31st March 1999**

District	Total No. of Units	Number of Units identified as			Units revived by DIC during 1998-99
		Sick	Registered	Revived	
1	2	3	4	5	6
Thiruvananthapuram	21521	262	225	78	2
Kollam	18514	384	230	92	1
Pathanamthitta	9041	186	54	47	1
Alappuzha	18376	394	187	176	Nil
Kottayam	20498	311	239	91	Nil
Idukki	5547	80	43	23	Nil
Ernakulam	26700	1205	213	207	3
Thrissur	20935	222	116	52	4
Palakkad	15646	128	89	26	Nil
Malappuram	9439	139	54	34	Nil
Kozhikode	14922	290	213	92	10
Wayanad	3468	57	47	15	1
Kannur	10291	117	89	34	Nil
Kasargode	4929	41	27	7	1
Total	199827	3816	1826	974	23

Source: Directorate of Industries and Commerce, Trivandrum.

**Appendix 6.23****Details of Entrepreneurship Development Programme conducted during 1998-1999**

Name of District	Number of entrepreneurs Trained during 1998-1999				No. of Trained Entrepreneurs who have started SSI Units	No. of Entrepreneurs trained under PMRY
	SC	ST	Others	Total		
1	2	3	4	5	6	7
Thiruvananthapuram	Nil	Nil	193	193	Nil	1283
Kollam	94	Nil	218	312	26	1068
Pathanamthitta	38	Nil	12	50	Nil	514
Alappuzha	77	Nil	242	319	Nil	787
Kottayam	68	Nil	261	329	Nil	973
Idukki	41	28	304	373	Nil	284
Ernakulam	165	35	64	264	Nil	1516
Thrissur	12	Nil	95	107	17	1050
Palakkad	35	Nil	243	278	Nil	1251
Malappuram	38	Nil	124	162	Nil	660
Kozhikode	Nil	Nil	116	116	Nil	546
Wayanad	16	26	303	345	Nil	232
Kannur	Nil	Nil	18	18	Nil	573
Kasargode	Nil	Nil	30	30	Nil	304
CFSC Changanasser	11	6	121	138	26	
Sub Total	595	95	2344	3034	69	11041

Source: Directorate of Industries and Commerce, Trivandrum

**Appendix- 6.24**  
**Achievement under Self Employment Programme during 1998-99**

District	Applications sanctioned and amount disbursed during 1998-99			
	No.	Sanctioned amount (Rs.in lakhs)	No	Disbursement amount (Rs.in lakhs)
1	2	3	4	5
Thiruvananthapuram	2209	1126.89	1360	737.97
Kollam	1591	815.63	1039	536.37
Pathanamthitta	802	468.50	586	343.07
Alappuzha	1311	647.57	925	460.51
Kottayam	1608	754.91	972	470.00
Idukki	522	256.67	270	139.63
Ernakulam	2007	1165.81	842	503.57
Trissur	1903	968.30	861	487.74
Palakkad	1579	912.16	295	150.65
Malappuram	908	513.02	510	293.28
Kozhikode	1053	607.02	502	305.90
Wayanad	386	170.00	270	127.00
Kannur	864	537.09	371	223.03
Kasaragod	399	249.39	162	108.87
<b>Total</b>	<b>17142</b>	<b>9192.96</b>	<b>8965</b>	<b>4887.59</b>

Source: Directorate of Industries and Commerce, Trivandrum

**Appendix- 6.25**  
**Industrial Co-operative Societies in Kerala as on 30/6/1999**

District	Industrial co-operative Societies registered during 1998-99 (7/98-6/99)	Total Number of Industrial Cooperative Societies as on 30/6/1998			Total No. of Societies as on 30-6-99
		SC	ST	Women	
1	2	3	4	5	6
Thiruvananthapuram	20	41	8	87	310
Kollam	16	44	2	76	262
Pathanamthitta	1	32	nil	64	109
Alappuzha	13	73	3	63	273
Kottayam	8	18	4	65	159
Idukki	7	30	15	20	94
Ernakulam	30	13	1	175	223
Trissur	1	22	nil	54	216
Palakkad	9	49	7	65	134
Malappuram	12	40	2	36	132
Kozhikode	1	24	2	21	125
Wayanad	5	3	37	17	71
Kannur	1	3	nil	65	201
Kasaragod	1	9	2	17	75
<b>Total</b>	<b>125</b>	<b>401</b>	<b>83</b>	<b>825</b>	<b>2384</b>

Source: Directorate of Industries and Commerce, Trivandrum

## Appendix - 6.26

## District-wise Number of Handloom Cooperative Societies in the State

Sl.No	District	No.of Societies		
		1996-97	1997-98	1998-99
1	Thiruvananthapuram	359	360	360
2	Kollam	80	80	79
3	Pathanamthitta	8	10	9
4	Alappuzha	26	26	26
5	Kottayam	16	16	16
6	Idukki	12	12	12
7	Ernakulam	32	32	32
8	Trissur	30	30	31
9	Palakkad	46	47	46
10	Malappuram	13	13	13
11	Kozhikode	43	43	43
12	Wayanad	4	4	4
13	Kannur	73	73	73
14	Kasaragod	11	11	11
<b>Total</b>		<b>753</b>	<b>757</b>	<b>755</b>

Source: Directorate of Handlooms and Textiles  
Trivandrum



## Appendix - 6.27

## Production and Productivity under Handloom Industry in Kerala

Sl No.	Item	1996-97	1997-98	1998-99
1	2	3	4	5
<b>1</b>	<b>Co-operative Sector</b>			
	i Number of looms	47265.00	47318	48462
	ii Production of handloom cloth(M.M)	70.35	70.84	71.87
	iii Value of Production (Rs.crores)	301.69	310.27	321.69
	iv Productivity( M/L/A)	1488.00	1497	1483.00
	v No.of weavers in the co-operative sector	104570.00	104620	104620.00
	vi Employment generated during the period(mandays in Lakhs)]	574.00	574.80	NA
<b>2</b>	<b>Corporate Sector/Unorganised/ Private Sector</b>			
	i Number of looms	14324.00	14410	NA
	ii Production of handloom cloth(M.M)	4.01	4.15	4.25
	iii Value of Production (Rs.crores)	58.66	60.39	80.76
	iv Productivity( M/L/A)	1658.00	1718	NA
	v No.of weavers	8205.00	8220	9337
	vi Employment generated during the year (mandays in Lakhs)	36.00	30	NA
<b>3</b>	<b>Total: Co-operative, corporate and unorganised Sector</b>			
	i Number of looms'	61589.00	61728	48462*
	ii Production of handloom cloth(M.M)	74.36	74.99	76.12
	iii Value of Production (Rs.crores)	360.35	370.66	382.45
	iv Productivity( M/L/A)	1503.26	1212	1503
	v Number of weavers	112775.00	112840	113957
	vi Employment generated (mandays in Lakhs)	610.00	610.6	NA
<b>4</b>	<b>Assistance Extended by way of loan and grant for the development of Handloom Industry (Rs.lakhs)</b>			
	a) Loan:			
	i State Government	318.52	276	251.74
	ii Central Government	198.38	200	352.72
	iii N.C.D.C, NABARD,HUDCO	489.31	1495.85	1336.5
	<b>Total(a)</b>	<b>1006.21</b>	<b>1971.85</b>	<b>1940.96</b>

\* Co-operative Sector only

1	2	3	4	5
b)	Grant:			
i	State Government	1922.17	842.41	767.85
ii	Central Government	828.03	629.89	133.29
iii	N.C.D.C, NABARD, HUDCO	..	..	5.00
	<b>Total(b)</b>	<b>2750.20</b>	<b>1472.30</b>	<b>906.14</b>
c)	Amount Spent as rebate on the sale of Handloom cloth:			
	State Government	1169.92	750.00	1241.80
	Central Government(MDA) 50% CSS	169.85	600.00	588.40
	<b>Total( c)</b>	<b>1339.77</b>	<b>1350.00</b>	<b>1830.20</b>
	<b>5 Value of unsold stock (Rs.crores)</b>			
a)	In the Co-operative Sector	32.56	28.00	26.87
b)	In the Corporate Sector	3.83	3.70	0.61
c)	Unorganised/ Private Sector	1.76	1.70	4.36
	<b>6 Number of Co-operative Societies</b>			
(a)	Factory type:-			
	1 Working	111	111	113
	2 Dormant	17	17	33
	3 Under liquidation	2	2	4
	4 Not started working	5	5	12
	<b>Total(a)</b>	<b>135</b>	<b>135</b>	<b>162</b>
(b)	Cottage Type:-			
	1 Working	466	466	459
	2 Dormant	60	60	60
	3 Under liquidation	77	77	45
	4 Societies yet to start functioning	15	17	29
	<b>Total(b)</b>	<b>618</b>	<b>620</b>	<b>593</b>
	<b>Total - 6 - (a+b)</b>	<b>753</b>	<b>757</b>	<b>755</b>

Source: Directorate of Handlooms & Textiles, Trivandrum

**Appendix - 6.28**  
**Working Results of Handloom Apex Society(Hantex)**

Sl.No.	Particulars	1997-98	1998-99(P)
1	2	3	4
1	Sales turnover(Rs. Crores)	14.99	20.62
2	Value of cloth produced(Rs. Crores)	58.16	57.31
3	Value of Yarn Purchased(Rs. Crores)	14.67	3.69
4	Value of Yarn distributed(Rs. Crores)	3.15	3.94
5	a) Production( lakh meters)	8.00	NA
	b) Value (Rs. lakhs)	0.58	NA
6	No.of Exhibitions conducted	43	75
7	No.of primary societies registered as members(cumulative)	430	430
8	Paid up share capital(Rs. Lakhs)	0.00	NA

P: Provisional

Source: Directorate of Handlooms and Textiles, Trivandrum

**Appendix - 6.29**  
**Working Results of Kerala State Handloom Development Corporation Ltd.(Hanveev)**

Sl.No	Particulars	1997-98	1998-99 (P)
1	2	3	4
1	Paid up Capital( as at the end of the year)	737.2	737.2
2	Total Borrowing (as at the end of the year)	1147.87	1218.43
3	Gross Block(as at the end of the year)	2210.07*	2355.63
4	Value of Production through clusters and sponsored societies (as at the end of the year)	701.48	888.42
5	Income through the sales of products(as at the end of the year)	1329	1947.96
6	Other Income:-		
	a) Export on Handloom cloth through KSHDC	0	6.04
	b) grants, MDA, Interest, Processing charges etc.	146.47	198.47
7	Expenditure on Raw materials		
	a) Yarn	329.70	435.90
	b) Dyes and Chemicals	22.10	20.10
	c) Fabrics	106.52	193.58
8	Expenditure on personal payments	204.51	238.44
9	Provision for Depreciation	10	16.6
10	Expenditure towards interest and Bank Charges	112.5	178.9
11	Other Expenses:-		
	a) Trading Expenses	82.45*	133.8
	b) Administration and Selling Expenses	162.1	182.63
12	Stock differential	173.85	207.3
13	Net Profit(+), Net loss(-)	(-)82.04	(-)28.60
14	Accumulated loss at the end of the year	706.69*	735.29

\* Revised ; P . Provisional

Source: Directorate of Handlooms & Textiles, Trivandrum

S 114  
Appendix - 6.30

**Production and Productivity under Powerloom Industry**

Sl.No.	Items	1997-98	1998-99
1	2	3	4
1	Total number of powerlooms in the state	2500	2500
2	Number of looms in the co-operative sector	1000	1055
3	Percentage of 2 to 1	40	41
4	Number of powerloom co-operative societies in the state	38	38
5	Number of Members in the co-operative sector	1227	1790
6	Number of women employed in the powerloom sector	318	677
7	Co-operative Sector:-		
	a) Production of cloth(lakh metres)	130	44.48
	b) Value of Production(Rs.lakhs)	3000	963.43
	c) Productivity(Metre/ loom)	13000	243.56
8	Unorganised/ Private sector	0	0
9	Total (co-operative and unorganised/ private sectors)		
	a) Production of cloth(lakh metres)	130	44.48
	b) Value of Production(Rs.lakhs)	3000	963.34
	c) Productivity(Metre/ loom)	13000	243.56

Source: Directorate of Handlooms and Textiles, Trivandrum

**Appendix - 6.31**  
**Coir Co-operative Societies in Kerala**

Sl.No	Type of Society as on 31.3.97	No. of Societies as on 31-3-1998	No. of Societies as on 31-3-1999
1	2	3	4
1	Primary Coir Co-operative Societies		
	a) Working (Started production)	449	434
	b) New Societies which have not started working	31	16
	c) Dormat societies	65	75
	Total	545	525
2	Manufacturing Societies		
	a) Working (Started production)	22	28
	b) New Societies which have not started working	4	2
	c) Dormat societies	26	26
	Total	52	56
3	Small Scale Producers Co-operative Societies		
	a) Working (Started production)	9	10
	b) New Societies which have not started working	0	1
	c) Dormat societies	0	0
	Total	9	11
4	Husk Procurement and Distribution Societies		
	a) Working	2	0
	b) New Societies which have not started working	0	0
	c) Dormat societies	2	2
	Total	4	2
5	Fibre Societies (Defibering Mill Societies)		
	a) Working (Started production)	8	9
	b) New Societies which have not started working	65	64
	c) Dormat societies	0	0
	Total	73	73
6	Co-operative Coir Marketing Federation - 1	1	1
7	Total number of coir Co-operative societies'		
	a) Working	476	481
	b) New Societies which have not started production	74	83
	c) Dormat societies	132	103
	d) Societies under liquidation	188	161
	<b>Grand total</b>	<b>871</b>	<b>829</b>

Source: Directorate of Coir Development, Thiruvananthapuram

**Appendix - 6.32**  
**Activities of Coir Co-operative Societies**

<b>a. Primary Coir Co-operative Societies</b>												
Year	No. of Working Societies	No. of members (1000)	Husk purchased Number (in lakhs)	Value (Rs. in lakhs)	Qty (Tonnes)	Fibre purchased Value (Rs. in lakhs)	Qty (Tonnes)	Yarn produced Qty (Tonnes)	Value (Rs. in lakhs)	Fibre Produced Value (Rs. Lakhs)	No. of workers (1000)	Wages paid (Rs. lakhs)
1	2	3	4	5	6	7	8	9	10	11	12	13
1996-97	412	228	785	392.50	1962	157.30	11203	2016	..	..	72	1044.00
1997-98	440	247	586	240.25	2206	198.00	12000	2400	..	..	73	1204.50
1998-99	424	281	688	333.95	4635.7	590.1	9361.7	1978.36	441.8	38.08	46.54	967.04
<b>b. Manufacturing Societies</b>												
Year	No. of working Societies	No. of members (1000)	Value of production (Rs. in lakhs)	No. of workers (1000)	Wages paid (Rs. Lakhs)							
1996-97	29	5.23	1662.00	3.71	193.00							
1997-98	31	5.45	1675.00	3.72	285.00							
1998-99	34	7.07	2388.83	4.90	275.00							

Source: Directorate of Coir Development - Thiruvananthapuram

### Appendix 6.33

#### District-wise details of Coir Co-op. Societies (Position as on 31-3-1999)

Sl. No	District	Project Offices	No. of Coir Societies		
			Working & New	Dormant	Total
1	2	3	4	5	6
1	Thiruvananthapuram	Chirayinkil	55	11	66
2	Kollam	Kollam	98	29	127
3	Alappuzha	Alappuzha	103	13	116
		Kayamkulam	72	10	82
4	Kottayam	} Vaikom	27	3	30
5	Idukki		1	0	1
6	Emakulam	North Paravoor	23	9	32
7	Thrissur	Thrissur	27	4	31
8	Malappuram	} Ponnani	19	2	21
9	Palaikkad		8	0	8
10	Kozhikode	Kozhikode	75	12	87
11	Kannur	} Kannur	38	6	44
12	Kasargode		19	4	23
<b>Total</b>			<b>565</b>	<b>103</b>	<b>668</b>

Source: Directorate of Coir Development - Thiruvananthapuram

### Appendix - 6.34

#### Export of Coir and Coir Products from India during 1997-98 and 1998-99

Sl.No.	Item	1997-98		1998-99	
		Qty	Value(Rs. Lakhs)	Qty	Value(Rs. Lakhs)
1	2	3	4	5	6
1	Coir Fibre	243	27.93	646	91.46
2	Coir Yarn	15889	4123.65	16539	4827.41
3	Coir Mats	21039	12467.03	21943	14878.52
4	Coir Mattings	7107	4650.02	6571	4729.86
5	Coir rugs&Carpets	1957	1441.55	2934	2300.56
6	Coir rope	92	24.51	212	59.25
7	Coir( other sorts)	1099	442.69	2204	1030.26
8	Rubberised Coir	288	234.12	573	427.01
9	Curled Coir	642	80.33	445	76.38
10	Coir Geo-textiles	739	313.31	1208	546.91
11	Coir pith	755	87.76	2215	251.26
<b>Total</b>		<b>49850</b>	<b>23892.90</b>	<b>55490</b>	<b>29218.88</b>

Source: Coir Board, Ernakulam

**Appendix - 6.35****Foreign exchange earnings of India from Cashew Industry**

Year	Export Value		Total	Import Value of Cashewnuts (Rs.Crores)	Net Foreign Exchange earned
	Cashew kernels	Cashewnut shell liquid			
	1	2			
1991-92	669.10	4.00	673.10	266.70	406.40
1992-93	745.50	3.80	749.30	376.33	372.97
1993-94	1046.00	2.90	1048.90	482.70	566.20
1994-95	1246.30	2.44	1248.74	890.94	557.80
1995-96	1240.50	1.45	1241.95	760.08	481.87
1996-97	1285.50	2.77	1288.27	687.60	600.67
1997-98	1396.10	7.17	1403.27	769.80	833.67
1998-99	1609.9	3.26	1613.18	693.17	919.99

Source: Cashew Export Promotion Council, Kochi

**Appendix 6.36****Import of Raw Cashewnuts into India**

Year	Quantity (M.T)	Index 1991-92=100	Value Rs.Crores	Index 1991-92=100
1	2	3	4	5
1991-92	106080	100	266.68	100.00
1992-93	134985	127	376.33	141.12
1993-94	191322	180	482.70	181.00
1994-95	228109	215	690.94	259.09
1995-96	222819	210	760.08	285.02
1996-97	212866	201	687.60	257.84
1997-98	247181	233	769.60	288.59
1998-99	180686	170	693.17	259.93

Source: Cashew Export Promotion Council, Kochi

**Appendix - 6.37**  
**Khadi & Village Industries: Production, Sales, Employment and Wages paid during 1997-98 & 1998-99**  
*(Amount in Rs. Lakhs)*

Sl.No.	Schemes	Value of Production					Value of Sales					Employment					Wages Paid								
		1997-98	1998-99	1997-98	1998-99	1997-98	1998-99	1997-98	1998-99	1997-98	1998-99	1997-98	1998-99	1997-98	1998-99	1997-98	1998-99								
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
I	Khadi	479.01	436.16	958.15	799.91	7702	7191	353.09	374.84																
II	Village Industries																								
1	Cottage Match	1083.09	1111.47	1286.13	1338.84	8134	8481	258.9	268.05																
2	Agarbathi	223.85	227.93	233.93	238.42	1384	1434	42.51	43.85																
3	Village Leather	1549.44	1136.1	1662.76	1177.02	3880	1520	217.89	138.08																
4	Fibre and Screwpine	720.36	760.76	785.45	830.76	57650	59696	557.9	572.77																
5	Rubber based Industry	1304.78	1122.19	1337.39	1157.98	1813	1712	52.64	65.95																
6	Hand Made paper	178.51	298.3	195.84	325.55	1358	1424	52.3	70.91																
7	Village Pottery	1276.75	1437.96	1330.52	1499.22	23728	24496	448.21	456.89																
8	Gurkhandasari	247.3	150.25	270.98	270.05	1495	1485	58.04	72.25																
9	Service Industry			158.29	185.42	604	643	84.46	94.35																
10	Non-Edible oil & soap	549.71	604.06	806.2	668.25	1118	1338	32.8	49.71																
11	Village Oil	1091.48	1311.43	1194.13	1337.64	1233	1352	96.39	122.63																
12	Textile	908.3	958.56	916.32	982.44	5410	5469	215.83	211.9																
13	Palmgur	214.52	239.38	211.07	242.00	13586	13583	33.99	51.4																
14	Bee-keeping	123.5	134.35	176.83	193.56	17809	18019	55.3	64.85																
15	Processing of Cereals and Pulses	667.39	787.09	755.18	906.31	14120	14394	255.8	126.85																
16	Ayurvedic Medicines	66.69	118.32	78.42	180.31	752	939	17.31	15.08																
17	Fruits and Vegetable Preservation	459.88	566.05	502.27	616.8	7274	3005	115.8	175.99																
18	Lime'	1363.23	1553.09	1585.54	1782.79	8714	9027	478.33	570.13																
19	Cane & Bamboo	336.64	421	353.94	448.7	5193	5262	143.17	191.65																
20	Carpentry & Blacksmithy	1295.96	1672.55	1572.09	1877.19	8930	9732	405.92	568.89																
21	Aluminium Industry	443.1	452.67	462	467.4	1069	1110	115.47	120.1																
22	Metal Industry	4.04	4.04	4.69	4.69	10	10	0.34	0.34																
23	Electronics	200.55	252.18	201.14	237.54	665	852	9.65	12.84																
24	Polyvastra	64.17	69.34	60.63	99.24	966	660	45.19	28.72																
25	P.V.C	28	96.6	33	110.25	75	164	1.24	15.81																
	Sub Total	14401.24	15485.67	15954.74	17178.47	183970	185807	3791.38	4109.99																
	Grand Total	14880.25	15921.83	16912.89	17978.38	191672	192998	4144.47	4484.83																

Source: Khadi & Village Industries Board, Thiruvananthapuram



**Appendix 6.38**  
**District wise Number of Sales outlets and Sales under Khadi & Village Industries - 1998-99**

Sl. No	District	No. of Khadi	
		Bhavans	Sales (Rs. Lakhs)
1	2	3	4
1	Thiruvananthapuram	6	88.68
2	Kollam	8	40.04
3	Alappuzha	11	34.63
4	Pathanamthitta	6	14.12
5	Kottayam	14	24.86
6	Idukki	1	4.76
7	Ernakulam	7	27.78
8	Thrissur	15	32.02
9	Palakkad	18	45.64
10	Malappuram	12	16.41
11	Kozhikode	29	80.77
12	Wayanad	3	0.53
13	Kannur	1	21.85
14	Payyannur & Kasargode	41	283.98
Total		172	716.07

Source: Khadi & Village Industries Board, Thiruvananthapuram

**Appendix - 6.39**  
**Physical Achievement under Sericulture for the year 1998 - 99**

No	District	Mulberry Cultivation (ac.)	No. of Farmers	DfIs supplied (Nos.)	Cocoon Production (in Kg.)	Silk Production (in Kg.)
1	Thiruvananthapuram	186.10	297	3837	1242.40	
2	Kollam	131.60	182	2065	755.19	
3	Pathanamthitta	95.50	165	3305	1119.70	
4	Alappuzha	247.32	458	5656	1936.70	509.39
5	Kottayam	120.35	189	2271	681.69	
6	Ernakulam	190.05	283	4709	1494.50	
7	Idukki	229.00	208	31225	11298.00	
8	Thrissur	149.50	197	3497	1128.10	
9	Palakkad	218.35	268	23746	8144.40	426.47
10	Malappuram	198.70	248	4010	1208.40	
11	Kozhikode	137.30	271	1454	406.45	
12	Kannur	246.45	385	4217	1546.20	
13	Wayanad	181.15	305	2863	903.55	
14	Kasaragod	161.10	189	4105	1284.80	589.94
Total		2492.47	3645	96960	33150.08	1525.80

Source: SERIFED, Thiruvananthapuram

**Appendix - 6.40**  
**Progress of Sericulture Development Programme in the State**

Sl.No	Item	1998-99	1999-2000 (Provisional)	Remarks
1	2	3	4	5
1	Mulberry Cultivation (in Acres) (Additional area)	2492.47	845.87	
2	Number of Farmers (Additional Nos.)	3645	1145	
3	Number of rearing units	1100	1227	
4	Production of cocoon (MT)	33.149	17.66	
5	Silk Worm seed production centres (Nos)			
	a. State Sector	..	..	
	b. Co-operative Sector	0	0	
	c. Private Sector	..	..	
	d. Central Sector	1	1	
	Total (5)	1	1	
6	Cocoon purchase centres			All district offices are functioning as cocoon purchase centres
	a. State Sector	14	14	
	b. Co-operative Sector	-	-	
	c. Private Sector	-	-	
	Total (6)	14	14	
7	Silk Reeling Units			
	a. State Sector	..	..	
	b. Co-operative Sector	2	2	
	c. Private Sector	1	1	
	Total (7)	3	3	
8	Demonstration cum training Centre			
	a. State Sector	..	1	
	b. Central Sector	1	1	
	Total (8)	1	2	
9	Production of Raw Silk Yam (MT)	1.6	0.753	
10	Sericulture Co-operative Societies newly organised (Nos)	23	..	

Source : SERIFED, Thiruvananthapuram

**Appendix - 6.41**  
**Kerala State Industrial Development Corporation - Physical and Financial Performance -**  
**1995-96 to 1998-99**

Sl.No.	Particulars	1995-96	1996-97	1997-98	1998-99
1	Projects Completed				
	a. Number of Projects	33	49	33	52
	b. Aggregate Cost (Rs. In crores)	115.66	184.34	137.54	848.52
2	Projects taken up for implementation.				
	a. Number of Projects	112	112	108	106
	b. Aggregate Cost (Rs. In crores)	707	940	1328	1478
	c. Employment Potential (Nos.)	7730	8003	8100	10751
3	Projects cleared by KSIDC				
	a. Number of Projects	68	55	41	52
	b. Aggregate Cost (Rs. In crores)	427.51	586.08	244.36	1048
	c. Employment Potential (Nos.)	5586	4381	3100	8088
4	Memoranda of understanding signed with private parties				
	a. Number of Projects	71	54	33	73
	b. Estimated Aggregate Cost (Rs. In crores)	2007	5437	514	348.36
5	Financial Assistance sanctioned and disbursed				
	a. Gross Sanction (Rs. In crores)	77.65	94.7	64.7	111.79
	b. Disbursement (Rs. In crores)	43.38	63.82	36.94	65.71
6	Net Profit (Rs. In crores)	6.31	9.23	5.84	5.34

Source: Kerala State Industrial Development Corporation Ltd., Thiruvananthapuram.

**Appendix - 6.42**  
**Kerala Financial Corporation: Loan Operations as on 31.3.1999 (Rs. in Lakhs)**

Sl.No	Particulars	During the year 1998-99						Since Inception upto 31.3.1999					
		S.S.I			Others			S.S.I			Others		
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	Application pending as on 1.4.98	87	1463.15	80	564.71	187	2027.88	0	0	0	0	0	0
2	Application Received during 98-99	990	12290.05	1129	15079.41	2119	27389.48	25258	129945.76	14178	89641.89	39432	219587.65
3	Total application for consideration	1077	13753.20	1209	15644.12	2286	29397.32	25850	134392.39	14430	91621.44	40080	228013.83
4	Application withdrawn/ rejected or otherwise disposed off	86	1427.35	73	1638.48	159	3085.83	4009	17070.13	1207	9895.99	5216	28988.12
5	Application Sanctioned (gross)	967	8862.32	1078	12087.04	2043	20969.36	20571	95814.49	13416	80761.83	33987	178376.32
6	A. Application cancelled/reduced out of current year sanction	34	391.55	48	546.92	82	938.47	0	0.00	0	0	0	0.00
	B. Application cancelled/reduced out of previous year sanction	31	374.98	35	224.53	86	599.51	0	0.00	0	0	0	0.00
	C. Total cancellation/ reduction (6A+6B)	65	766.53	83	771.45	148	1537.98	2938	12830.24	1217	5227.25	4153	18057.49
7	Application sanctioned effectively (5-6A)	933	8490.77	1028	11540.12	1961	20030.89	0	0.00	0	0	0	0.00
8	Net Sanctioned (5-6C)	902	8116.79	993	11315.59	1895	19431.38	17835	82784.25	12199	75534.58	29834	158318.83
9	Amount disbursed along with number of newly assisted units	923	9138.81	991	9974.40	1914	19113.21	17568	72337.16	11355	59326.1	28923	131663.26
10	Application pending sanction as at the end of the period	55	1093.73	29	466.79	84	1560.52	0	0.00	0	0	0	0.00

Source: Kerala Financial Corporation - Thiruvananthapuram

**Appendix 6.43**  
**District wise Details of Disbursement of Loan by KFC 1998-1999**

Particulars	(Rs. In lakhs)			
	Effective No:	Sanction Amount	Disbursement No.	Disbursement Amount
<b>Backward Districts</b>				
<b>Category - A</b>				
Kattappana Idukki	125	1110.88	90	905.27
Thodupuzha				
Wayanad	68	372.64	69	339.39
<b>Category - B</b>				
Alappuzha	170	1273.87	167	1117.52
Malappuram	66	719.85	67	793.63
Kannur	96	767.92	104	656.76
Kasargode	52	647.59	88	735.59
<b>Category - C</b>				
Thiruvananthapuram	254	2046.59	247	1738.83
Thrissur	138	1571.89	137	1539.06
<b>Total</b>	<b>969</b>	<b>8511.23</b>	<b>969</b>	<b>7826.05</b>
<b>Non Backward Disrticts</b>				
Pathanamthitta	136	1775.46	118	1314.75
Kollam	230	1931.72	221	1868.12
Kottayam	98	1307.58	102	1016.53
Ernakulam	209	3853.04	200	3924.36
Palakkad	84	1141.85	82	1734.79
Kozhikode	235	1510.01	222	1428.61
<b>Total</b>	<b>992</b>	<b>11519.66</b>	<b>945</b>	<b>11287.16</b>
<b>Grand Total</b>	<b>1961</b>	<b>20030.89</b>	<b>1914</b>	<b>19113.21</b>

Source: Kerala Financial Corporation, Thiruvananthapuram

**Appendix 6.44**  
**Industry-wise Classification of Loan sanctioned and Disbursed by the Kerala**  
**Financial Corporation as on 31-3-1999 (Rs. Lakhs)**

Sl.No	Type of Industry	Amount Sanctioned	% of total loans sanctioned	Amount disbursed	% of total loan Disbursed
1	Mining	4441.92	2.67	2928.82	2.22
2	Crude Petroleum	251.19	0.15	107.73	0.08
3	Petroleum Refining	13.37	0.01	11.31	0.01
4	Other Food Products	12694.55	7.64	10382.21	7.89
5	Textiles	4263.68	2.57	3122.10	2.37
6	Paper & Paper Products	3114.79	1.87	2742.07	2.08
7	Leather & Leather Products	344.99	0.21	290.13	0.22
8	Rubber Products	12865.97	7.74	10696.61	8.12
9	Chemical & Chemical Products	4530.18	2.73	3533.88	2.68
10	Cement	110.20	0.07	84.07	0.06
11	Basic Metals				
	a). Iron & Steel	1852.95	1.11	1467.01	1.12
	b). Non Ferrous	773.11	0.46	603.59	0.46
12	Metal Products	5514.49	3.32	3187.37	2.42
13	Capital Goods				
	a).Non-Electrical Machinery	987.80	0.59	763.53	0.59
	b). Electrical Machinery	1826.41	1.10	1543.06	1.17
	c). Transport Equipment	979.28	0.59	805.37	0.61
14	Electricity Generation	40.79	0.03	33.24	0.03
15	Services				
	a). Hotels & Shopping Complex	25174.84	15.14	18866.44	14.33
	b.) Hospitals	3775.66	2.27	3013.82	2.29
	c).Others	31893.66	19.18	28660.89	21.77
16	Others	50793.57	30.55	38820.02	29.48
	<b>Total</b>	<b>166242.90</b>	<b>100</b>	<b>131663.26</b>	<b>100</b>

Source: Kerala Financial Corporation, Thiruvananthapuram.

**Appendix - 6.45**  
**Progress of the Working of Kerala Financial Corporation at a glance**

(Rs. In lakhs)

Year	Loans sanctioned cumulative	Loans disbursed cumulative	Loans - outstanding	Profit before taxation	Profit after taxation
1	2	3	4	5	6
1993-94	67001	52231	31147	141.56	4.79
1994-95	77935	59770	33328	188.29	62.70
1995-96	101385	73745	38161	978.51	250.24
1996-97	121221	92606	47690	1453.30	335.75
1997-98	146212	112550	58813	1148.21	224.67
1998-99	166243	131663	66853	1148.49	242.72

Source: Kerala Financial Corporation, Thiruvananthapuram

**Appendix - 6.46**  
**SIDCO - PRODUCTION UNITS - PERFORMANCE DURING 1998-99**

(Rs. In lakhs)

No	Name of Unit	No. of Labourers	Production	Sales & Other	Profit/Loss
1	2	3	4	5	6
1	SIDCO Tiles, Amaravila	26	17.58	13.40	(-)15.89
2	Wood Workshop, Pappanamcode	20	70.26	67.44	8.56
3	Govt. Instrument Workshop, Pappanamcode	21	45.62	35.89	-4.75
4	Pressure Die Casting Unit, Pappanamcode.	20	26.71	28.57	-3.01
5	SIDCO Equipment Complex, Manvila	25	17.58	15.02	-13.19
6	SIDCO Tools, Umayanalloor	17	19.39	18.95	-7.57
7	Wood Workshop, Kollakadavu	37	69.49	89.18	4.19
8	Straw Board Factory, Parumala	10	32.91	31.06	4.88
9	SIDCO Auto Engineering Unit, Pachelam	15	74.73	60.51	5.98
10	Service Workshop, Ollur	15	34.93	36.35	-1.95
11	Wood Workshop, Calicut	45	142.67	131.23	29.34
	Workers on other duty	14	..	..	..
	<b>Total</b>	<b>269</b>	<b>552.17</b>	<b>527.6</b>	<b>6.59</b>

Source: Kerala Small Industries Development Corporation

**Appendix - 6.47**  
**Small Industries Service Institute (SISI) -**  
**Achievement during 1998-99**

Sl.No	Nature of Activity	Unit	Achievement
1	2	3	4
1	Units visited for providing technical assistance	(No.)	427
2	Visitors rendered assistance at SISI permises	..	
	a. Assistance to Propsective entrepreneurs	'	3414
	b. Assistance to existing entrepreneurs	..	424
	c. Management and Marketing Related Assistance	..	58
3	Preparation of State Profile	..	1 (State Profile of Kerala revised)
4	Preparation of Industrial Potential survey report	No.of Districts	3(Tvpm, Mipm & Kannur)
5	Project Profiles	No	40
6	Ancillary Development Programmes	..	233
7	Motivation campaings	..	3
8	EDPs - 4/6 weeks duration		
	I. Courses undertaken	..	35
	ii. Persosns trained	'	1121
9	Management Development Programmes		
	I. Courses undertaken	No.	13
	ii. Persosns trained	No.	276
10	Common Facility Workshop/Lab performance		
	I. Training (including skill dev elopement programme)	No.	27
	ii. Persosns trained	..	290
	lii. Jobs undertaken	..	409
	iv. Units benefited	..	138
	v. Revenue (from common facility workshops, course fee and sale proceeds)	Rs.lakhs	7.58
11	Export Promotion(Export Assistance/Training)	No.	101
12	Packing (Persons trained)	..	39

Source:- SISI, Thrissur.



**Appendix - 6.48**

Small Industries Development Bank of India's Assistance to Small Scale Industries

(Rs. Crores)

Year	Sanction and Disbursement				Performance - Kerala as	
	All India		Kerala		%age of all India	
	Sanction	Disbursement	Sanction	Disbursement	Sanction	Disbursement
1	2	3	4	5	6	7
1990-91	2410	1839	110	91	4.56	4.95
1991-92	2847	2028	124	109	4.36	5.37
1992-93	2909	2146	136	119	4.68	5.55
1993-94	3356	2673	117	100	3.49	3.74
1994-95	4706	3390	164	129	3.48	3.81
1995-96	6066	4801	231	186	3.81	3.87
1996-97	6485	4585	323	258	4.98	5.63
1997-98	7484	5241	390	290	5.21	5.53
1998-99	8880	6285	497	353	5.6	5.62
<b>Total</b>	<b>45143</b>	<b>32988</b>	<b>2092</b>	<b>1635</b>	<b>4.63</b>	<b>4.96</b>

Source: Small Industries Development Bank of India, Ernakulam

**Appendix 6.49****Production and Sales of Major Minerals (Other than Mineral Sand)**

(Qty. in M.T &amp; Value in Rs.)

Name of Miner	1998-1999					
	Production		Sales		Consumption	Value/ Tonne
	Raw	Processed	Raw	Processed		
1	2	3	4	5	6	7
China Clay	230210	147048	84296	85846	60256	450
Limestone	350000	0	0	0	350000	350
Silica sand	174365	0	0	0	132652	225
Limeshell	106878	0	68200	0	38678	800
Quartz	800	0	800	0	0	450
Bauxite	27479	0	27479	0	0	250

Source: Directorate of Mining &amp; Geology, Thiruvananthapuram

**Appendix 6.50****Production and Sale of Mineral Sand in Kerala****during 1998-99 (Qty. in M.T. Value in Rs.)**

Name of Mineral	Production (Tonnes)	Sales		Consumption	Value Per Tonne
		3	4		
1	2	3	4	5	6
Ilmenite	125751	69146.00	..	..	2563
Rutile	8443	..	..	9130	31059
Zircon	16027	5389.00	..	7788	16000
Sillimanite	7227	5.00	..	..	4000
Leucosene	470	..	..	..	15000

Source: Directorate of Mining and Geology

**Appendix 7.1**  
**Growth of Transport & Communications in Kerala since 1975.**

Sl. No.	Item	Unit	1975	1980	1985	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	Road Length (PWD)	Kms.	14870	17408	19107	19838	20283	20414	20663	21651	22114	22883	22273	22258	21938
2	Road Length (PWD) per sq.km.	"	0.38	0.45	0.49	0.51	0.52	0.53	0.53	0.58	0.57	0.57	0.59	0.57	0.56
3	Road Length (Panchayats)	"	54812	66158	81515	96951	99022	101067	103888	106277	106920	106920	109058	83422*	77356*
4	Motor Vehicles	Nos.	119720	174704	319259	581054	647742	708172	781398	887872	1005922	1170241	1334374	1508038	1708938
5	Motor Vehicles per 100 sq.km.	"	308	450	821	1485	1887	1822	2011	2276	2588	3011	3433	3880	4397
6	Buses & Stage Carriages	"	7828	8705	12910	20280	21454	22833	25345	30370	34862	381197	39466	55482	48884
7	Good Vehicles	"	15875	21121	40879	61106	66190	71089	77336	88455	100252	111762	128495	139146	151082
8	Bus owned by KSRTC	"	2212	2935	3239	3313	3413	3534	3456	3511	3005	3505	3750	3783	3928
9	Railways Route length	Kms.	896	916	914	998	998	1055	1198	1198	1198	1198	1198	1198	1198
10	Post Offices	Nos.	4024	4512	4751	4861	4911	4978	5009	5040	5040	5041	5046	5052	5065
11	Telephone Exchanges	"	286	441	561	636	649	675	688	715	727	765	793	818	850
12	Total Equipped Capacity	"	70410	104595	144462	246190	281807	344536	428212	524008	645283	812371	1062198	1305098	1704395
13	Public Call Offices	"	2352	2292	2766	3794	4958	6246	8229	10603	11824	14721	17852	21052	23485

\* Revised

**Appendix 7.2**  
**District-wise and Category-wise Length of Roads Maintained by PWD (R&B) as on 1-4-1999**  
(In Km)

Sl.No	Name of District	State Highways	Major District Roads	Other District Roads	Village Roads	Total
1	2	3	4	5	6	7
1	Thiruvananthapuram	147.160	700.323	899.937	94.312	1841.732
2	Kollam	131.876	1199.367	195.534	38.037	1564.614
3	Alapuzha	136.421	822.881	79.991	80.614	1119.907
4	Pathanamthitta	217.766	578.695	534.870	106.464	1437.795
5	Kottayam	409.702	1512.755	152.600	34.660	2109.717
6	Idukki	898.541	194.143	267.563	342.223	1702.470
7	Ernakulam	300.643	912.082	871.990	93.985	2178.700
8	Thrissur	322.391	1066.400	157.000	39.000	1584.791
9	Palakkad	431.039	793.226	436.910	42.390	1703.565
10	Malappuram	273.867	1209.630	198.143	268.998	1950.638
11	Kozhikode	219.819	348.057	606.088	227.828	1401.592
12	Wayanad	157.765	314.945	65.935	36.782	575.427
13	Kannur	249.649	1010.176	279.792	339.885	1879.502
14	Kasaragode	227.485	273.857	134.130	251.843	887.315
	<b>Total</b>	<b>4123.724</b>	<b>10936.537</b>	<b>4880.463</b>	<b>1997.021</b>	<b>21937.765</b>

Source : P.W.D. (R & B)

**Appendix 7.3**  
**District-wise, Surface-wise & Category-wise length of roads maintained by Kerala PWD as on 01-04-1999**  
(In Kms)

Sl. No.	District	State Highways			Major District Roads					Other District Roads					Village Roads			Total Roads
		CC	BT	WBM	CC	BT	WBM	Others	CC	BT	WBM	Others	CC	BT	WBM	Others		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	17	18	19	
1	Thiruvananthapuram	--	147.160	--	--	--	700.323	--	--	--	896.757	0.600	2.580	--	28.420	15.360	1841.732	
2	Kollam	--	131.676	--	--	--	1186.317	--	13.050	--	186.804	7.530	1.200	--	35.675	2.362	1564.614	
3	Alapuzha	--	138.421	--	--	--	723.371	3.847	95.663	--	68.321	0.270	11.400	--	30.072	14.353	1119.907	
4	Pathanamthila	--	217.766	--	--	--	578.695	--	--	--	528.275	--	6.595	--	67.377	--	1437.795	
5	Kottayam	--	391.332	18.370	--	--	1499.495	8.000	5.260	--	49.268	25.615	77.717	--	27.374	7.286	2109.717	
6	Idukki	--	716.751	7.490	174.300	--	193.120	1.023	--	--	122.994	6.446	138.123	--	99.225	14.879	1702.470	
7	Emakulam	--	300.643	--	--	0.322	911.760	--	--	--	807.914	21.198	42.878	--	78.335	--	2178.700	
8	Thirssur	3.391	319.000	--	--	--	1060.000	2.000	4.400	--	157.000	--	--	--	39.000	--	1584.791	
9	Palakkad	--	357.029	18.010	56.000	--	793.226	--	--	--	419.610	17.300	--	--	33.590	6.000	1703.565	
10	Malappuram	--	266.257	--	7.610	--	1209.630	--	--	--	198.143	--	--	--	19.355	54.595	1950.638	
11	Kozhikkode	--	219.619	--	--	--	326.587	--	21.470	--	606.088	--	--	1.183	81.275	31.035	1401.592	
12	Wayanad	--	157.765	--	--	--	314.945	--	--	--	47.885	18.050	--	--	31.530	2.052	575.427	
13	Kannur	4.112	245.537	--	--	--	1010.176	--	--	--	279.792	--	--	--	--	--	1879.502	
14	Kasaragode	--	198.820	--	28.665	--	273.857	--	--	--	134.130	--	--	--	160.655	--	887.315	
Total		7.503	3805.776	43.870	266.575	0.322	10781.502	14.870	139.843	0.000	4502.981	97.009	280.493	1.183	731.883	147.922	21937.765	

Source : PWD

## Appendix 7.4

Surface-wise and Category-wise Length of P.W.D. Roads added during 1998-99  
(in Kms.)

Item	State Highways	Major District Roads	Other District Roads	Village Roads	Total
1	2	3	4	5	6
<b>Cement Concrete</b>					
Length as on 1.4.1998	8.112	0.522	-	1.183	9.817
Length added in 98-99	-0.609	-0.200	-	-	-0.809
Length as on 1.4.1999	7.503	0.322	-	1.183	9.008
<b>Black topped</b>					
Length as on 1.4.1998	3900.741	6754.226	8325.978	979.064	19960.009
Length added in 98-99	-94.965	4027.276	-3822.997	-247.181	-137.867
Length as on 1.4.1999	3805.776	10781.502	4502.981	731.883	19822.142
<b>Water Bound Macadam</b>					
Length as on 1.4.1998	40.120	24.037	89.261	161.645	315.063
Length added in 98-99	3.750	-9.167	7.748	-13.723	-11.392
Length as on 1.4.1999	43.870	14.870	97.009	147.922	303.871
<b>Others</b>					
Length as on 1.4.1998	219.91	108.223	292.292	1352.623	1973.048
Length added in 98-99	(+) 46.665	(+) 31.620	(-) 11.799	(-) 236.590	(-) 170.104
Length as on 1.4.1999	266.575	139.843	280.493	1116.033	1802.944
<b>Total</b>					
Length as on 1.4.1998	4168.883	6887.008	8707.531	2494.515	22257.937
Length added in 98-99	-45.159	(+)4049.529	(-)3827.048	-497.494	-320.172
Length as on 1.4.1999	4123.724	10936.537	4880.483	1997.021	21937.765

Source : PWD (R&B)

**Appendix 7.5****District-wise and Surface-wise Length of Roads Maintained by P.W.D. as on 1.4.1999***(in Kms.)*

Sl.No	Name of District	Cement Concrete	Black Topped	Water Bound Macadam	Others	Total
1	2	3	4	5	6	7
1	Thiruvananthapuram	-	1772.660	15.960	53.112	1841.732
2	Kollam	-	1540.472	9.892	14.250	1564.614
3	Alapuzha	-	958.185	18.470	143.252	1119.907
4	Pathanamthitta	-	1392.113	-	45.682	1437.795
5	Kottayam	-	1967.469	59.271	82.977	2109.717
6	Idukki	-	1132.090	29.838	540.542	1702.470
7	Ernakulam	0.322	2098.652	21.198	58.528	2178.700
8	Thrissur	3.391	1575.000	2.000	4.400	1584.791
9	Palakkad	-	1603.455	41.310	58.800	1703.565
10	Malappuram	-	1693.385	54.595	202.658	1950.638
11	Kozhikode	1.183	1233.569	31.035	135.805	1401.592
12	Wayanad	-	552.125	20.102	3.200	575.427
13	Kannur	4.112	1535.505	-	339.885	1879.502
14	Kasaragode	-	767.462	-	119.853	887.315
<b>Total</b>		<b>9.008</b>	<b>19822.142</b>	<b>303.671</b>	<b>1802.944</b>	<b>21937.765</b>

Source : P.W.D. (R &amp;B)

**Appendix 7.6****No.of Bridges and Culverts in P.W.D. Roads as on 1.4.1999**

Sl. No.	Item	SH	MDR	ODR	VR	Total
1	2	3	4	5	6	7
1	Total Number of bridges	468	937	472	58	1935
2	Number of unsafe bridges	11	25	2	-	38
3	Total Number of culverts	8346	22592	14728	2759	48425
4	Number of unsafe culverts	389	608	330	107	1434

Source : P.W.D. (R &amp; B)

**Appendix - 7.7**  
**Category-wise Growth of Motor Vehicles in Kerala since 1980**

Sl. No	Type of Vehicles	1980	1985	1990	1995	1996	1997	1998	1999
1	2	3	4	5	6	7	8	9	10
<b>I GOODS VEHICLES</b>									
1	Four Wheelers and above	20128	36699	51530	88180	97714	110015	117621	126908
2	Three Wheelers including Tempos	993	4170	9576	12072	14048	18480	21524	24174
<b>II BUSES</b>									
1	Stage Carriages	8705	12910	15056	19988	21514	20805	21572	22809
2	Contract Carriages/ Omni buses	842	2324	5234	14874	17683	18661	33910	26075
<b>III CARS AND STATION WAGONS</b>									
1	Cars	54381	75731	116676	155150	171801	191587	212670	228824
2	Station Wagons	196	507	849	-	-	-	-	-
3	Taxi Cars	17780	28189	37638	54681	59865	49177	50604	59724
4	Jeeps	7023	12972	24351	37774	42256	65615	67329	82416
<b>IV THREE WHEELERS</b>									
1	Authorickshaws	7397	24383	58165	103465	127893	148801	164834	197595
2	Motorised Cycle rickshaws	38	34	62	77	62	-	1	64
<b>V TWO WHEELERS</b>									
1	Motorised Cycle	58	73	70	63	565	597	1160	1159
2	Scooter/ Motor Cycles	50493	11629	248374	496873	592123	693208	798982	904961
VI	Tractor Trailer, Articulated	1864	2104	2661	3388	3903	4097	4494	4890
VII	Tractors	1892	3089	4115	5045	5296	5778	5567	5801
VIII	Tillers	469	1118	1927	4826	5140	4523	4794	5098
IX	Trailers	260	416	580	763	760	669	563	728
X	Others	1735	2891	4190	8903	9613	2361	2413	17712
<b>Total</b>		<b>174254</b>	<b>318259</b>	<b>581054</b>	<b>1005922</b>	<b>1170241</b>	<b>1334374</b>	<b>1508038</b>	<b>1708938</b>
year		13.01	15.26	11.03	13.3	16.34	14.03	13.01	13.32

\* Include Tractors, Tillers and Trailers

Source : Motor Vehicles Department.

**Appendix - 7.8**  
**District-wise details of vehicles newly registered in the State during the year 1998-99**

Sl.No	District	Goods Vehicles			Buses		Cars and Station Wagons			Three wheelers			Two Wheelers			Tractors			Total
		Four wheelers & above	Three wheelers including Tempos	Stage carriages	Contract Carriages/ Omni Buses	Cars	Station wagons	Taxis	Jeeps	Auto rickshaws	Motorised Cycle rickshaws	Motorised cycles	Motor cycles	Scooter/ Motor cycles	Tractor s, Trailor Articula ted	Tractors	Trailers	Others	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	Thiruvananthapuram	426	341	441	757	3354	-	580	510	2770	2	-	18179	37	10	11	-	191	27609
2	Kollam	737	46	18	411	1146	-	178	166	1681	-	-	6366	9	19	10	4	50	10841
3	Pathanamthitta	169	67	13	139	566	-	226	132	984	-	-	3811	4	1	11	-	23	6146
4	Alappuzha	604	440	13	225	1255	-	114	94	1569	2	-	7253	4	24	40	5	79	11721
5	Kottayam	643	155	54	316	2001	-	195	1071	2075	-	-	6699	3	6	5	5	46	13274
6	Idukki	143	1	10	68	294	-	52	-	224	-	-	1192	13	9	16	2	10	2034
7	Ernakulam	932	69	54	274	3187	-	230	265	2114	-	-	17948	3	26	97	1	121	25321
8	Thrissur	539	279	56	768	2016	-	332	301	1160	-	-	15544	36	35	59	12	172	21309
9	Palakkad	572	204	62	240	1016	-	45	211	1442	-	-	6571	20	346	84	-	85	10898
10	Malappuram	755	540	116	273	636	-	125	684	1946	-	-	5848	68	43	26	-	166	11206
11	Kozhikode	430	147	61	90	1008	-	7	308	1573	-	-	7771	14	4	3	10	26	11452
12	Wayanad	81	17	2	38	118	-	4	154	743	-	-	1462	76	5	30	-	8	2738
13	Kannur	806	121	9	88	521	-	185	726	289	-	-	6826	109	35	140	6	407	10268
14	Kasarode	95	19	2	22	192	-	42	44	849	-	-	1343	-	5	27	-	34	2674
	<b>Total</b>	<b>6932</b>	<b>2446</b>	<b>911</b>	<b>3709</b>	<b>17310</b>	<b>0</b>	<b>2315</b>	<b>4646</b>	<b>19419</b>	<b>4</b>	<b>0</b>	<b>106813</b>	<b>396</b>	<b>568</b>	<b>559</b>	<b>45</b>	<b>1418</b>	<b>167491</b>

Source : Motor Vehicles Department



Appendix - 7.9

Number of Motor Vehicles Having Valid Registration as on 31.3.1999

Sl.No.	District	Goods Vehicles											Tractors					Total			
		Buses			Four Wheelers			Three Wheelers			Two Wheelers		Tractors								
		Four wheelers and above	Three wheelers including Tempos	Stage Carriages / Omnibus	Contract Carriages	Cars	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
1	Thiruvananthapuram	10764	4023	5210	4849	31378	-	6610	6750	21447	3	148725	274	177	43	95	1586	241932			
2	Kollam	8803	1052	599	2084	25788	-	3474	3340	18057	13	1110	60699	206	164	261	148	813	124611		
3	Pathanamthitta	7853	647	812	733	11934	-	6272	3321	8683	-	-	37899	51	75	133	20	429	78662		
4	Alapuzha	5187	1900	667	1626	14645	-	5408	818	3387	2	3	60785	27	306	482	71	480	95794		
5	Kottayam	10273	1972	1457	3709	28779	-	4887	10308	22035	37	76388	152	382	78	18	2121	159596			
6	Idukki	2221	101	461	274	4144	-	789	5891	3247	-	4	10387	202	149	109	9	902	28690		
7	Ernakulam	26561	3761	2641	1189	37968	-	8743	4488	23471	7	183666	462	537	1170	89	4728	297682			
8	Thrissur	14507	2789	3131	2982	19381	-	11881	4069	24064	-	33	97282	541	495	1107	133	1556	183941		
9	Palakkad	8780	1183	1248	1758	9563	-	2189	5521	10562	-	5	54259	945	3234	842	52	478	100587		
10	Malappuram	10630	4183	2061	3833	8834	-	6053	12179	23910	-	-	38007	687	25	38	11	785	111216		
11	Kozhikode	9882	1297	2003	1198	24828	-	1445	10822	14113	1	1	68133	177	143	116	66	1200	135523		
12	Wayanad	1837	226	208	272	1630	-	391	4162	4031	-	-	8424	856	50	198	4	154	22243		
13	Kannur	7532	635	1973	1367	7296	-	2729	7613	14120	1	44133	287	45	192	12	2209	90344			
14	Kasaragod	2276	245	540	203	5658	-	853	3246	8408	-	-	16974	23	19	329	271	38107			
	<b>Total</b>	<b>126908</b>	<b>24174</b>	<b>22808</b>	<b>26078</b>	<b>228824</b>	<b>0</b>	<b>69724</b>	<b>82416</b>	<b>197895</b>	<b>64</b>	<b>1169</b>	<b>904961</b>	<b>4890</b>	<b>5801</b>	<b>6088</b>	<b>728</b>	<b>17712</b>	<b>1708938</b>		

Source : Motor Vehicles Department

## Appendix - 7.10

## District-wise Growth of Motor Vehicles in Kerala and Their Index (Base 1980-81 = 100)

Sl.No	District	1980-81		1990-91		1995-96		1996-97		1997-98		1998-99	
		Motor Vehicles (Nos)	Index	Motor Vehicles (Nos)	Index	Motor Vehicles (Nos)	Index	Motor Vehicles (Nos)	Index	Motor Vehicles (Nos)	Index	Motor Vehicles (Nos)	Index
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	Thiruvananthapuram	38676	100	101980	263.70	166111	429.49	173164	447.73	210067	543.15	241932	626
2	Kollam	18853	100	57694	306.02	88484	469.34	103402	548.46	111363	590.69	124611	661
3	Pathanamthitta	-	-	35555	1599.42	55797	419.02	61099	458.84	67127	504.12	78662	591
4	Alappuzha	15549	100	39545	254.33	68294	439.22	76593	492.59	92861	597.22	95794	616
5	Kottayam	12647	100	39758	314.37	100059	791.17	118165	934.33	138280	1093.38	159596	1262
6	Idukki	4656	100	12812	275.17	20856	447.94	24094	517.48	26214	563.02	28690	616
7	Ernakulam	34128	100	105622	309.49	196565	576.07	230444	675.35	261375	766.00	297682	872
8	Thrissur	19083	100	70831	371.17	135134	708.14	157293	824.26	177265	928.92	183941	964
9	Palakkad	11656	100	37623	322.78	70853	607.87	79224	679.68	89103	764.44	100597	863
10	Malappuram	7926	100	30671	386.97	69450	876.23	81584	1029.32	100286	1265.28	111216	1403
11	Kozhikode	17330	100	55939	322.79	102526	590.05	115604	667.07	115671	667.46	135523	782
12	Wayanad	-	-	8379	360.08	13888	295.30	16246	345.44	18706	397.75	22243	473
13	Kannur	14096	100	36540	259.22	55824	397.72	62198	443.13	65050	463.45	90344	641
14	Kasaragode	-	-	14793	268.28	26400	384.67	29509	429.97	34660	505.03	38107	555
	<b>Total</b>	<b>194597</b>	<b>100</b>	<b>647742</b>	<b>332.86</b>	<b>1170241</b>	<b>601.37</b>	<b>1328619</b>	<b>682.75</b>	<b>1508038</b>	<b>774.95</b>	<b>1708938</b>	<b>878</b>

Note: For Pathanamthitta, Wayanad and Kasaragode the years 1982-83, 1981-82 and 1984-85 are taken as base respectively  
Source : Motor Vehicles Department.

## Appendix : 7.11

District-wise Road Accidents in Kerala in which number of persons held during 1997-98 &amp; 1998-99

Sl.No	Name of District	No. of Accidents		Increases / Decreases %		No. of Persons injured		Increases / Decreases %		No. of persons Killed		Increases / Decrease %	
		1997-98	1998-99	1997-98	1998-99	1997-98	1998-99	1997-98	1998-99	1997-98	1998-99	1997-98	1998-99
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	Thiruvananthapuram	3586	3622	1.0	4200	4383	4.4	257	257	-5.4	257	257	-5.4
2	Kollam	2903	2775	-4.4	4147	3801	-8.3	254	254	-22.4	254	254	-22.4
3	Pathanamthitta	1353	1364	0.8	1542	1505	2.4	117	117	-13.7	117	117	-13.7
4	Alappuzha	2877	2929	3.6	3745	3811	1.8	199	199	-3.5	199	199	-3.5
5	Kottayam	2578	2611	1.3	3714	3772	1.6	174	174	20.7	174	174	20.7
6	Idukki	878	923	5.1	1478	1607	8.7	58	58	-15.5	58	58	-15.5
7	Ernakulam	5678	5776	1.7	6747	6851	1.5	347	347	1.4	347	347	1.4
8	Trissur	3113	3158	1.4	4281	4327	1.1	285	285	-5.6	285	285	-5.6
9	Palakkad	2172	2092	3.7	3471	3380	-2.9	248	248	1.2	248	248	1.2
10	Malappuram	2340	1985	-15.2	4067	3462	-14.9	244	244	-14.8	244	244	-14.8
11	Kozhikode	3139	2938	-6.4	4634	3693	-20.3	216	216	-10.2	216	216	-10.2
12	Wayanad	578	620	7.3	858	1128	31.5	43	43	2.3	43	43	2.3
13	Kannur	1787	1694	-5.2	3363	3210	-4.5	148	148	-16.2	148	148	-16.2
14	Kasaragode	838	809	-3.5	1421	1467	3.2	78	78	-7.7	78	78	-7.7
	<b>Total</b>	<b>33820</b>	<b>33296</b>	<b>-1.5</b>	<b>47668</b>	<b>46397</b>	<b>-2.7</b>	<b>2668</b>	<b>2668</b>	<b>-6.1</b>	<b>2668</b>	<b>2668</b>	<b>-6.1</b>

Source : Director General of Police

**Appendix - 7.12**  
**Motor Vehicle Accidents in Kerala by Primary Causes of Accidents during 1998-99**

1	2	3	4	5	6	7	8	9	10	11	12	13
SI.No	Name of District	Fault of Driver of motor vehicles	Fault of driver other than motor vehicles	Fault of Cyclist	Fault of Pedestrian	Fault of passengers	Defect of Motor vehicles	Defect of road surface	Bad weather condition	Other causes	Causes not known	Total
1	Thiruvananthapuram	3233	83	51	66	82	13	6	-	85	3	3622
2	Kollam	2769	-	-	-	-	2	2	1	1	-	2775
3	Pathanamthitta	1293	5	1	8	7	29	1	-	20	-	1364
4	Alappuzha	2923	1	0	-	4	1	-	1	-	4	2934
5	Kottayam	2564	12	1	-	12	3	5	2	9	4	2612
6	Idukki	890	2	-	-	1	20	3	-	-	5	921
7	Ernakulam	5705	12	8	3	3	4	7	-	4	17	5763
8	Trissur	3157	-	-	-	-	-	1	-	9	-	3167
9	Palakkad	2080	2	5	1	1	1	1	-	-	1	2092
10	Malappuram	1980	2	-	-	-	1	1	-	1	-	1985
11	Kozhikode	2907	2	-	5	21	1	1	-	1	-	2938
12	Wayanad	618	1	-	-	-	1	-	-	-	-	620
13	Kannur	1690	0	-	-	1	2	-	-	1	-	1694
14	Kasaragode	806	2	-	1	-	-	-	-	-	-	809
	<b>Total</b>	<b>32615</b>	<b>124</b>	<b>66</b>	<b>84</b>	<b>132</b>	<b>78</b>	<b>28</b>	<b>4</b>	<b>131</b>	<b>34</b>	<b>33296</b>
		(97.96)	(0.37)	(0.20)	(0.25)	(0.40)	(0.23)	(0.08)	(0.01)	(0.40)	(0.10)	(100)

Note : Figures in brackets denote percentage to total  
Source : Director General of Police

## Appendix - 7.13

Type-wise details of Motor Vehicles Involved in Road Accidents in Kerala during 1998-99

Sl.No	District	KSRTC		Other Buses	Goods Vehicles	Motor Cars	Jeeps	Autorick shaws	Two wheelers		Miscellaneous vehicles		Class not known	Total
		3	4						5	6	7	8		
1	Thiruvananthapuram	464	300	259	644	168	678	1150	373	71	4107			
2	Kollam	195	345	376	413	191	551	722	126	77	2996			
3	Pathanamthitta	55	160	142	188	168	317	341	115	35	1521			
4	Alappuzha	160	272	351	427	89	530	853	225	128	3035			
5	Kottayam	56	242	467	355	231	684	631	80	43	2789			
6	Idukki	15	155	108	59	257	205	197	25	9	1030			
7	Emakulam	148	959	640	846	244	884	2022	528	261	6532			
8	Trissur	86	598	336	356	161	696	992	283	29	3537			
9	Palakkad	36	430	267	234	246	398	517	197	50	2375			
10	Malappuram	24	387	199	111	420	565	301	132	23	2162			
11	Kozhikode	49	756	353	232	449	839	656	141	35	3510			
12	Wayanad	30	70	50	17	183	165	110	37	12	674			
13	Kannur	32	429	201	132	284	33	271	117	20	1519			
14	Kasaragode	38	153	141	62	118	201	138	43	8	902			
Total		1388	5256	3890	4076	3209	6746	8901	2422	801	36689			
		(3.78)	(14.33)	(10.60)	(11.11)	(8.75)	(18.39)	(24.26)	(6.60)	(2.18)	(100)			

Note: Figures in Brackets denote percentage to total  
Source: Director General of Police

## Appendix - 7.14

## Motor Vehicle Accidents by time of day during 1998-99

Sl.No	District	Day light	Darkness	Time not known	Total
1	2	3	4	5	6
1	Thiruvananthapuram	2725	754	143	3622
2	Kollam	1803	795	177	2775
3	Pathanamthitta	1047	273	44	1364
4	Alappuzha	1822	892	215	2929
5	Kottayam	1864	648	99	2611
6	Idukki	670	221	32	923
7	Ernakulam	4023	1699	54	5776
8	Thrissur	2227	913	18	3158
9	Palakkad	1588	492	12	2092
10	Malappuram	1618	359	8	1985
11	Kozhikode	2131	753	54	2938
12	Wayanad	452	164	4	620
13	Kannur	1293	372	29	1694
14	Kasaragode	627	174	8	809
<b>Total</b>		<b>23890</b>	<b>8509</b>	<b>897</b>	<b>33296</b>
		<b>(71.75)</b>	<b>(25.56)</b>	<b>(2.69)</b>	<b>(100)</b>

Note: Figures in brackets denote percentage to total  
Source: Director General of Police

## Appendix 7.15

## Major indicators showing operational efficiency of KSRTC

Sl. No.	Items	Year		Increase / Decrease
		1997-98	1998-99	
1	2	3	4	5
1	Fleet strength (Nos)	3783	3928	(+) 145
2	Gross revenue earnings (Rs. in crores)	393.11	} Under Finalisatin	
3	Gross revenue expenditure (Rs. in crores)	444.11		
4	Gross operating loss (Rs. in Crores)	51		
5	No. of schedules operated as on 31st March (Nos.)	3596	3772	(+)176
6	Average earnings per vehicle on road per day (Rs.)	3524	3636	(+) 112
7	Average earnings per Km. of bus operated (Paise)	1087	1097	(+) 33
8	Average earnings per passanger (Paise)	384	401	(+) 17
9	Average route length (Kms.)	52.40	53.20	(+) 0.8
10	Average Kms. run per bus per day	331	331.60	(+) 0.4
11	Average number of buses held daily (Nos.)	3708	3860	(+) 152
12	Passangers carried (Lekhs)	10032.71	10140.44	(+) 107.73

Source : KSRTC

**Appendix 7.16**  
**K.S.R.T.C. Operational Statistics during 1998-99**

Sl.No	Name of Transport Unit	No. of buses held as on					Route Distance (kms)	Gross Kms. Operated	Effective Kms. Operated	Passengers carried	Average carrying capacity per bus
		31.3.99	4	5	6	7					
1	2	3	4	5	6	7	8	9	10		
1	Parassala	61	69	110	5046	5585189	5579034	18636618	63		
2	Neyyattinkara	123	117	208	7916	10823572	10821830	26720152	61		
3	Poovar	67	61	65	2348	5732962	5732184	18234254	63		
4	Vizhinjam	68	56	35	1500	4723467	4722249	16939150	63		
5	Kattakada	83	81	70	2084	7086760	7086760	29581955	64		
6	Thriuvananthapuram City	113	90	45	8855	18294508	18294508	24710532	61		
7	Pappanamcode	141	132	140	2427	8861948	8861948	42242002	57		
8	Thiruvananthapuram Central	166	164	103	1526	10413658	10401646	46828650	52		
9	Vikas Bhavan	83	79	79	1598	5545675	5545675	22421057	52		
10	Peroorkada	94	98	169	2715	5983214	5979774	31972886	54		
11	Nedumangade & Palode	124	130	190	13487	10790195	10768836	34080096	62		
12	Kilimanoor	73	78	263	7807	6557457	6551457	23620328	125		
13	Attingal	150	139	58	1940	11313346	11313346	29652210	63		
14	Kollam	120	119	112	5762	11939684	11938798	33638814	63		
15	Kottarakkara	105	116	120	7685	11318119	11318119	35201355	62		
16	Punalur	71	75	239	7219	6717544	6717544	21718894	62		
17	Pathanamthitta	52	46	75	4785	5456304	5456304	17589088	64		
18	Adoor+ Pandalam	50	54	99	4877	4901337	4901337	13088722	125		
19	Karunagappally	62	58	140	4618	5598374	5596501	22183260	62		
20	Kayamkulam	69	67	95	4026	6681893	6681893	23282560	62		
21	Harippad	35	30	61	2745	3414788	3414788	10878896	63		
22	Mavelikkara	39	37	26	1645	3544448	3539226	9186240	63		
23	Alappuzha	102	99	58	3117	9365977	9362570	28818309	62		
24	Cherthala	71	69	80	3502	6421622	6417634	24296016	61		
25	Chengannur	47	50	91	3881	4627453	4627453	15329744	64		
26	Thiruvalla	50	52	125	4410	4572320	4569526	16027578	64		



1	2	3	4	5	6	7	8	9	10
27	Changanasserry	45	45	76	3385	4478912	4477412	15607626	64
28	Kottayam	115	105	100	6422	12686511	12623485	21459912	62
29	Ponkummam	21	23	23	2400	2406023	2406023	5128443	64
30	Pala	55	55	41	3699	6048293	6046074	14953548	62
31	Erattupetta	49	44	29	1619	4732107	4732058	13904096	63
32	Vaikom	36	32	27	1836	3675494	3675494	7449236	62
33	Muvattupuzha	47	51	18	1486	4938481	4937793	15831088	963
34	Thodupuzha & MLMT	54	47	56	5215	4947001	4947001	7990824	12
35	Kothamangalam +MNR	34	30	34	3516	3686834	3685209	7040302	125
36	Ernakulam	75	62	60	5174	7644961	7644961	10321548	62
37	Aluva	64	59	44	1923	5192670	5192670	18338125	62
38	Ankamaly	36	33	18	1168	3061960	3061960	10096296	62
39	North Paravoor	40	40	46	1876	3742287	3740113	12528384	64
40	Perumbavoor	44	42	13	824	3881995	3881169	14717010	63
41	Chalakkudy + IJKD	50	45	61	3098	4749604	4748434	12588548	65
42	Mala+ KDLR	38	35	73	4259	4158270	4158270	9487694	61
43	Thrissur + ABLR	93	90	67	3417	11567962	11567473	20393782	83
44	Puthukkadu	11	11	22	763	1176771	1176771	4065650	65
45	Guruvayoor	34	30	25	6266	4580901	4580901	3762304	64
46	Ponnani	22	16	14	1832	2263807	2263512	3086239	62
47	Perinthalmanna	18	16	14	2175	1742262	1741112	3657924	62
48	Palakkad+CTR+VDCY	122	115	120	10290	15471079	15464446	21803045	188
49	Malappuram	42	35	35	6198	3874252	3873415	8364220	61
50	Kozhikode	99	91	45	3826	10694026	10694026	14868080	63
51	Thamarasserry	34	40	54	3208	3054321	3054321	10018410	63
52	Kannur	115	110	60	7456	12698075	12696906	22743280	61
53	Payyannur	72	63	37	2484	6246150	6246150	16630295	63
54	Sulthan Batherly	72	68	39	3286	6432724	6429101	15922917	63
55	Kasaragode	78	81	35	2018	6495612	6495612	1576640	63
56	Mananthavady	45	43	31	2390	4036278	4036278	9828448	64
57	Kalpetta	32	34	46	2318	2786068	2786068	8810958	62
58	Vadakara	17	15	40	1638	1108299	1108299	-	61
	Total	3931	3778	4264	224990	370531811	370373265	999854247	62

Source : KSRTC

## Appendix - 7.17

## Fare structure of KSRTC during 1999

Sl.No	Type of service	Basic fare per KM (paise)	Minimum fare (paise)
1	2	3	4
1	City	28	175
2	Ordinary	28	175
	City Fast Passenger	34.50	175
3	Fast Passenger	34.50	250
4	Super Fast	37	400
	Express	-	-
5	Super Express	43.50	700
6	Super Deluxe Service	50	1300
	Other if any (Specify)	Nil	Nil

Source : K.S.R.T.C.

**Appendix - 7.18**  
**K.S.R.T.C Operational Ratios during 1998-99**

Sl.No	Name of Transport Unit	Average No. of buses held daily	Average Kms. run per day	Percentage vehicular utilisation	Average route length (Kms.)	Average earning per passengers (in Ps.)	Average distance travelled by a passenger (Kms.)	Earning per Km. of buses operated	Earning per vehicles on road per day
1	2	3	4	5	6	7	8	9	10
1	Parassala	64	299.7	79.7	45.9	315	15.0	1052	3152
2	Neyyattinkara	114	312.1	83.3	38.1	396	19.8	977	3049
3	Poovar	67	307.9	76.1	36.1	302	16.0	960	2955
4	Vizhinjam	59	287.5	76.3	42.9	299	14.2	1072	3082
5	Kattakada	79	294.2	83.5	29.8	269	12.2	1123	3305
6	Thiruvananthapuram City	130	486.6	79.2	119.8	984	37.0	1329	6468
7	Pappanamcode	137	216.8	81.8	17.3	206	9.4	980	2125
8	Thiruvananthapuram Central	154	247.8	74.7	14.8	226	9.3	1018	2522
9	Vikas Bhavan	84	253.2	71.4	20.2	243	10.4	984	2492
10	Peroorkada	94	218.4	79.8	16.1	192	8.0	1025	2240
11	Nedumangad	121	307.3	79.3	70.8	329	15.8	1040	3195
12	Kilimanoor	69	315.2	82.6	33.1	299	14.2	1076	3392
13	Attingal	123	316.3	79.7	33.4	427	19.1	1120	3542
14	Kollam	121	337.2	80.2	51.4	361	18.1	1018	3431
15	Kottarakkara	113	329.9	83.0	64.0	360	16.1	1120	3695
16	Punaloor	74	301.7	82.4	30.2	348	15.2	1126	3396
17	Pathanamthitta	53	364.6	77.4	63.8	338	15.8	1089	3971
18	Adoor+PDLM	52	327.5	78.8	49.3	398	18.7	1064	3485
19	Karumagapally	64	306.7	78.1	32.1	294	12.6	1165	3572
20	Kayamkulam	68	321.2	83.8	42.4	330	14.3	1150	3693
21	Harippad	34	348.5	79.4	45.0	372	15.7	1184	4102
22	Mavelikkara	40	323.2	75.0	63.3	428	19.6	1111	3592
23	Alappuzha	101	316.7	80.2	53.7	386	16.2	1189	3766
24	Cherthala	72	303.1	80.6	43.8	299	12.9	1131	3428
25	Chengannur	48	316.9	83.3	42.6	354	15.7	1173	3718
26	Thiruvalla	48	321.0	81.3	35.3	319	14.5	1119	3592

1	2	3	4	5	6	7	8	9	10
27	Changanassery	45	314.5	86.7	44.5	327	14.6	1139	3582
28	Kottayam	119	375.9	77.3	64.2	693	29.4	1178	4427
29	Ponkunnam	23	329.6	87.0	104.3	544	23.9	1160	3824
30	Pala	54	352.4	87.0	90.2	433	20.2	1072	3778
31	Erattupetta	47	332.4	83.0	55.8	382	17.4	1121	3727
32	Vaikom	37	359.6	75.7	68.0	376	24.7	1022	3676
33	Muvattupuzha	47	338.2	85.1	82.6	504	15.6	1205	4076
34	TDPA+ MLMT	49	366.3	75.5	93.1	701	31.6	1132	4146
35	KGLM + MNR	33	388.3	78.8	103.4	607	26.2	1161	3507
36	Ernakulam	73	380.8	75.3	86.2	894	37.0	1206	4594
37	Aluva	62	263.5	87.0	49.8	271	14.2	957	2520
38	Ankamaly	34	322.7	76.5		304	12.5	1101	3553
39	North Paravoor	41	310.5	80.5	40.8	313	15.2	1048	3253
40	Perumbavoor	46	303.8	76.1	63.4	283	13.4	1074	3264
41	CHLDY + IJKD	48	342.4	79.2	50.8	446	19.6	1182	4047
42	Mala + KDR	39	367.5	79.5	58.3	505	21.5	1153	4238
43	TCR + ABLR	92	392.0	77.2	51.0	571	28.4	1208	5394
44	Puthukkad	12	322.4	83.3	34.7		15.3	1208	
45	Guruvayoor	34	502.0	73.5	250.6	1376	63.3	1130	5673
46	Ponnani	20	413.4	75.0	130.9	815	36.7	1111	4595
47	Perinthalmanna	17	366.9	76.5	155.4	554	23.8	1165	4273
48	PLKD + CTR + VDCY	117	428.0	84.6	85.8	800	35.5	1129	4830
49	Malappuaram	36	408.2	72.2	177.1	519	23.2	1120	4571
50	Kozhikkode	94	385.7	82.0	85.0	870	36.7	1209	4661
51	Thamarassery	35	321.8	74.3	59.4	300	15.2	982	3162
52	Sulthan Bathery	114	378.1	80.7	124.3	537	28.0	963	3640
53	Kannur	70	342.3	71.4	67.1	353	18.8	939	3213
54	Payyannur	74	326.2	73.0	84.3	424	20.2	1049	3423
55	Kasaragode	66	330.0	81.8	57.7	395	21.0	958	3159
56	Mananthavady	50	336.0	66.0	77.1	477	21.4	1163	3896
57	Kalpetta	32	305.3	78.1	50.4	348	15.8	1099	3357
58	Vadakara	17	276.0	64.7	41.0			1209	4661.0
	<b>Total</b>	<b>3863</b>	<b>331.6</b>	<b>79.3</b>	<b>53.2</b>	<b>401</b>	<b>17.9</b>	<b>1097</b>	<b>3636</b>

Source: KSRTC

**Appendix 7.19****Age-Wise Details of Vehicles Owned by KSRTC as on 30-11-1999**

Sl. No.	Age-Wise Classification	Numbers
1	2	3
1	10 Years and above	387
2	Above 7 Years and below 10 Years	896
3	Above 5 Years and below 10 Years	740
4	Below 5 Years	2018
	<b>Total</b>	<b>4041</b>

Source : KSRTC

**Appendix 7.20****Category-wise Staff Position of K S R T C**

Sl.No	Category	As on 1.4.1998	As on 1.4.1999	As on 31.10.1999
1	2	3	4	5
1	Administrative Staff (including watch and ward)	3805	3626	3456
2	Traffic personnel	16107	15107	14465
3	Maintenance personnel	6471	6289	6058
	<b>Total</b>	<b>26383</b>	<b>25022</b>	<b>23979</b>

Source : K S R T C

**Appendix - 7.21**  
**No. of ships called at Cochin Port during 1997-98 and 1998-99**  
**and their net registered tonnage (NRT)**

Sl. No.	Types of Vessel	No. of ships		% Variation		Net Registered Tonnage		% Variation Increase (+) Decrease (-)
		1997-98	1998-99	Increase (+) Decrease (-)		1997-98	1998-99	
1	2	3	4	5	6	7	8	
1	Container	314	377	(+)20.06	1185666	1427046	(+)20.36	
2	Break Bulk	120	141	(+)17.5	465299	427198	(-)8.19	
3	Dry Bulk							
	a) Conventional	38	34	(-)10.52	496413	323459	(-)34.84	
	b) Mechanical	17	19	(+)11.76	207519	259268	(+)24.94	
4	Liquid Bulk							
	a) Crude	180	201	(+)11.6	3691541	4159704	(+)12.68	
	b) Product	146	148	(+)1.37	1611368	1582959	(-)1.76	
	c) Others	57	49	(-)14.03	365510	249533	(-)31.73	
5	Passenger Carriers	21	21	0.0	152671	118957	(-)22.08	
6	Others	113	123	(+)8.85	186260	214362	(+)15.09	
	<b>Total</b>	<b>1006</b>	<b>1113</b>	<b>(+)10.64</b>	<b>8362247</b>	<b>8762486</b>	<b>(+)4.79</b>	

Source : Planning & Research Division, Cochin Port Trust.

## Appendix 7.22

Commodity - wise cargo handled at the Intermediate and Minor ports of Kerala during 1998-99.

(in tonnes)

Name of Port	Commodity	Imports			Exports			Grand Total
		Coastal	Foreign	Total	Coastal	Foreign	Total	
1	2	3	4	5	6	7	8	9
<b>Kozhikode /</b>								
<b>Beypore</b>	Copra	72	..	72	..	..	..	72
	Empty barrel	988	..	988	..	..	..	988
	Soda Ash	6388	..	6388	..	..	..	6388
	Wheat and wheat products	6167	..	8167	..	..	..	8167
	Ground nut extra	1255	..	1255	..	..	..	1255
	Coir and fiber	63	..	83	..	..	..	83
	Chalk powder	1055	..	1055	..	..	..	1055
	Fish	88	..	88	..	..	..	88
	Miscellaneous	239	..	239	552	45	597	836
	Timber	3	..	3	147	..	147	150
	Machinery	2238	..	2238	88	2	90	2328
	Bauxite	1027	..	1027	..	..	..	1027
	Cement	..	..	..	8885	..	6685	6685
	Iron & Steel	..	..	..	417	1	418	418
	Vegetable and fruits	..	..	..	154	..	154	154
	provision and Stationery	..	..	..	886	..	886	886
	Granite Metal & Jelly	..	..	..	7102	..	7102	7102
	Pol. Products	..	..	..	7883	..	7883	7883
	Sand	..	..	..	963	..	963	963
	Food and foodgrains	..	..	..	1254	..	1254	1254
	Furniture and house hold articles	..	..	..	268	..	268	268
	Salt	..	..	..	150	..	150	150
	Edible oil	..	..	..	279	..	279	279
	Tiles & Bricks	..	..	..	1735	..	1735	1735
	Coir & coir items	..	..	..	..	7	7	7
	Wooden	..	..	..	..	981	981	981
	Sub Total	19583	..	19583	28563	1036	29599	49182
<b>Kasaragod</b>	..	..	..	..	..	..	..	..
<b>Azhikkal</b>	Black stone (baller)	..	..	..	170	..	170	170
	Copra	12	..	12	..	..	..	12
	Cement black	..	..	..	10	..	10	10
	Granite Jelly	..	..	..	30	..	30	30
	Sub Total	12	..	12	210	..	210	222
<b>Kannur</b>	Kannur	..	..	..	..	..	..	..
	Thalssery	..	..	..	..	..	..	..
	Vadakara	..	..	..	..	..	..	..
	Ponnani	..	..	..	..	..	..	..
	Munambam	..	..	..	..	..	..	..
	Alappuzha	..	..	..	..	..	..	..
<b>Neendakara</b>	Ilminite	..	..	..	..	81805	81805	81805
<b>Vallyathura /</b>								
<b>Trivandrum</b>	Ordinary cargo (Vegetables building materials, medicine, food item etc.)	..	..	..	..	1601	1601	1601
<b>Kovalam</b>								
<b>Vizhinjam</b>								
<b>Total</b>		<b>19595</b>	<b>..</b>	<b>19595</b>	<b>28773</b>	<b>84442</b>	<b>113215</b>	<b>132810</b>

Source : Directorate of Ports

### Appendix 7.23

Number and Tonnage of steamers and sailing Vessels which called at the Intermediate and Minor Ports of Kerala during 1998 - 1999.

Name of Port	Coastal / Foreign	Steamers		Sailing Vessels		Total No. of Vessels	Total Tonnage
		No.	Tonnage	No.	Tonnage		
1	2	3	4	5	6	7	8
Kasaragod	..	..	..	..	..	..	..
Azhikkal	Coastal	..	..	22	1940.210 MT	22	1940.21MT
Kannur	..	..	..	..	..	..	..
Thalassery	..	..	..	..	..	..	..
Vadakara	..	..	..	..	..	..	..
Kozhikode / Beypore	..	50	30580	240	40799	290	71379
Ponnani	..	..	..	..	..	..	..
Munambam	..	..	..	..	..	..	..
Alappuzha	..	..	..	..	..	..	..
Neendakara	Foreign	2	36001	..	..	2	36001
Valiyathura	..	..	..	..	..	..	..
Kovalam / Vizhinjam	Foreign	1	1278	18	1757.926	19	3035.926
Total C		50	30580	262	42739.21	312	73319.21
F		3	37279	18	1757.926	21	39036.926
<b>Grand Total</b>		<b>53</b>	<b>67859</b>	<b>280</b>	<b>44497.136</b>	<b>333</b>	<b>112356.136</b>

source: Directorate of Ports.

### Appendix 7.24

Number of Harbour Crafts registered at the Intermediate and Minor Ports of Kerala during 1998-99

Name of Port	Cargo boats including Barges	Canoes including boats	Mechanised fishing vessels	Others	Total
1	2	3	4	5	6
Kasaragod	..	95	..	..	95
Azhikkal	..	..	..	..	..
Kannur	..	..	..	..	..
Thalassery	..	..	..	..	..
Vadakara	..	..	..	..	..
Kozhikode / Beypore	..	..	70	..	70
Ponnani	..	..	..	..	..
Munambam	..	..	289	..	289
Alappuzha	..	..	619	..	619
Neendakara	..	..	410	..	410
Valiyathura	..	..	..	..	..
Kovalam / Vizhinjam	..	..	..	..	..
<b>Total</b>	..	<b>95</b>	<b>1388</b>	..	<b>1483</b>

Source: Directorate of Ports.



**Appendix 7.25**  
**Category - wise break up of Revenue Collected at the Intermediate and**  
**Minor Ports of Kerala during 1998-99**

(in Rupees)

Name of Port	Port dues	Export / Import dues	Tughire charges	Pilotage fees	Registratio n and other fees	Miscellaneous		Total
						Ground rent, shed rent etc.	Private dredging charges	
1	2	3	4	5	6	7	8	9
Kasaragod	..	..	..	..	5840	314986	Nil	320826
Azhikkal	2317	11335	..	..	418	23483	"	37553
Kannur	..	..	..	..	..	17375	"	17375
Thalassery	..	..	..	..	..	148091	"	148091
Vadakara	..	..	..	..	..	22928	"	22928
Kozhikode / Beypore	55453	559189	266959	25276	43009	1570560	"	2520446
Ponnani	..	..	..	..	418	9083	"	9501
Munambam	..	..	..	..	142819	15	"	142834
Alappuzha	..	..	..	..	201022	71120	"	272142
Neendakara	113507	316700	2938570	..	202970	1252805	"	4824552
Valiyathura	..	..	..	..	..	69832	"	69832
Kovalam / Vizhinjam	16388	16015	..	..	..	86231	"	118634
<b>Total</b>	<b>187665</b>	<b>903239</b>	<b>3205529</b>	<b>25276</b>	<b>596496</b>	<b>3586509</b>	<b>..</b>	<b>8504714</b>

Source: Directorate of Ports.

**Appendix 7.26**  
**Operational Statistics of Inland Water Transport Agencies in Kerala**

Particulars	State Water Transport Department		Kerala Shipping and Inland Navigation Corporation	
	1997-98	1998-99	1997-98	1998-99
1	2	3	4	5
No. of boats /Jhankars	78	81	12+2	12+2
Boat in operation Jhankars	55	59	9+1	9+2
No. of trips on Schedule	401	399.00	34967	43617
No. of passengers carried ( in lakhs)	220.95	240.79	99.85	55.78
Gross Route Distance (in Kms)	1475.60	1549.86	525717	479800
Volume of Cargo Carried (000 tonnes)	..	..	493	601.4
Total Revenue Receipts ( in lakhs)	339.68	408.80	451.64	656.62
Total Revenue Expenditure (Rs. lakhs)	864.3	927.10	441.28	589.23
No. of Employees (Total)	1272	1285.00	314	317
Profit / Loss (in lakhs)	(-)524.62	(-)518.30	(+)10.36	(+)67.39

source: KSINC &amp; SWTD

### Appendix 7.27(A)

#### Details of flights operated by various agencies from Thiruvananthapuram International Airport

Sl.No.	Airlines	1997-98				1998-99			
		No. of Flights		Passengers (in Nos)		No. of Flights		Passengers (in Nos)	
		DOM	INT	DOM	INT	DOM	INT	DOM	INT
1	2	3	4	5	6	7	8	9	10
1	Air India	148	2478	96821	260702	188	2110	105301	245225
2	Indian airlines	1926	828	160353	82421	1612	676	144697	67571
3	Gulf Air	..	746	..	153680	..	732	..	152362
4	Oman Air	..	522	..	63916	..	522	..	66384
5	Air Maldives	..	570	..	96478	..	652	..	101019
6	Kuwait Airways	..	422	..	62186	..	418	..	65987
7	Air Lanka	..	630	..	78721	..	628	..	80125
8	Qatar Airways	..	266	..	25611	..	356	..	36680
9	Jet Airways	702	..	45762	..	730	..	60008	..
10	Chartered Flt.	..	72	..	18503	..	56	..	12826
11	Cargo Frieghters	..	233	..	..	..	280	..	..
12	Others	61	6	..	..	98	8	..	..
<b>Total</b>		<b>2837</b>	<b>6773</b>	<b>302936</b>	<b>842218</b>	<b>2628</b>	<b>6438</b>	<b>310006</b>	<b>828179</b>

Source: Airport Authority of India

### Appendix 7.27 (B)

#### Details of flights operated by various agencies from Kozhikode Airport

Sl.No.	Name of Operator	1997-98				1998-99			
		No. of Flights		Passengers		No. of Flights		Passengers	
		DOM	INT	DOM	INT	DOM	INT	DOM	INT
1	2	3	4	5	6	7	8	9	10
1	Indian Airlines	2489	2533	113265	282609	2062	2912	108273	300286
2	Air India	..	..	..	..	107	73	15337	8329
3	Jet Airways	1038	..	99879	..	1230	..	100786	..
4	Skycabs (p) MD (Cargo)	..	8	..	..	..	86	..	..
5	Usbekistan Airways	..	..	..	..	..	10	..	..
6	Others	198	..	..	..	206	..	..	..
<b>Total</b>		<b>3725</b>	<b>2541</b>	<b>213144</b>	<b>282609</b>	<b>3605</b>	<b>3081</b>	<b>224396</b>	<b>308615</b>

Source: Airport Authority of India, Kozhikode.

**Appendix 7.28**  
**Number of Passports issued from the Passport Offices in Kerala from 1988-89 to 1998-99**

Year	No. of Application Received			No. of Passports issued			Total	
	Thiruvananthapuram	Kochi	Kozhikode	Total	Thiruvananthapuram	Kochi		Kozhikode
1	2	3	4	5	6	7	8	9
1988-89	..	145361	115062	260423	..	122943	84738	207681
1989-90	..	153387	132818	286205	..	162949	15449	317398
1990-91	..	125264	100249	225513	..	128834	110028	238862
1991-92	34319	304523	228965	567807	3200	153134	119427	275761
1992-93	156653	N.A.	206917	..	116737	N.A.	341000	..
1993-94	117630	122473	201146	441249	174493	136832	286744	598069
1994-95	92014	90341	N.A.	..	89319	93296	N.A.	..
1995-96	85854	78416	134943	299213	81158	77088	130976	289222
1996-97	79908	90593	142243	312744	75421	88395	134262	298078
1997-98	93062	107201	149017	349280	90296	105975	144134	340405
1998-99	88046	115289	145665	349000	82970	114557	135331	332858

**Note:** Thiruvananthapuram Passport Office was upgraded as a full fledged office on 10-1-1992  
**Source:** Passport Offices Thiruvananthapuram Kochi and Kozhikode

**Appendix 7.29**  
**Growth of Postal offices in Kerala during the last ten years**

Category	As on 1st April										
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	
1	2	3	4	5	6	7	8	9	10	11	
<b>Postal Services</b>											
Head Post Offices	50	50	51	51	51	51	51	51	51	51	51
Sub Offices (Departmental and Extra departmental)	1959	1959	1956	1956	1958	1957	1968	1970	1974	1977	1977
Branch Offices together with speed post Centres	2838	2881	2957	2988	3017	3018	3008	3011	3013	3023	3023
<b>Total</b>	<b>4847</b>	<b>4890</b>	<b>4964</b>	<b>4995</b>	<b>5026</b>	<b>5026</b>	<b>5027</b>	<b>5032</b>	<b>5038</b>	<b>5051</b>	<b>5051</b>

Source: CPMG, Kerala Circle, Thiruvananthapuram.

## Appendix 7.30

## Category - wise Offices in Postal and other Postal Services in Kerala.

Category of Office	As on 1st April	
	1998	1999
1	2	3
<b>(a) Postal Services</b>		
1. Head Post Offices	51	51
2. Sub Post Offices		
i) Departmental	1450	1453
ii) Extra Departmental	524	524
3. Branch Offices	3013	3023
<b>Total (a)</b>	<b>5038</b>	<b>5051</b>
<b>(b) Speed Post Centres National</b>		
	7	7
Speed post centres State	22	22
<b>(c) Other Postal Services</b>		
1. Head Record Office	3	3
ii) Sorting Mail Offices	28	28
iii) Sub Record Office	23	23
iv) Transit Mail Offices	9	9
v) R.M.S. Sections	18	18
vi) Press Sorting Office	2	2
vii) Parcel Sorting Office	3	3
<b>Total (1)</b>	<b>86</b>	<b>86</b>
2. Mail Motor Service Division unit	1	1
Mail Motor Service Division unit	4	4
3. Central Stamp Depot	1	1
<b>Total (C)</b>	<b>92</b>	<b>92</b>

Source : CPMG, Kerala Circle, Thiruvananthapuram.

## Appendix 7.31

Division-wise and Category-wise Post Offices under Kerala Circle as 1.4.1999.

Sl.No.	Name of Division	Head Offices	Departmental	Sub Offices			Total
				Extra Departmental	Branch Offices	Mobile Post Offices	
1	2	3	4	5	6	7	8
1	Trivandrum (S)	2	70	15	134	..	221
2	Trivandrum (N)	2	77	8	112	..	199
3	Quilon	3	92	28	122	..	245
4	Pathanamthitta	3	77	48	182	..	310
5	Thiruvalla	2	63	30	62	..	157
6	Mavelikkara	2	51	23	48	..	124
7	alleppey	2	48	30	44	..	124
8	Kottayam	3	78	42	129	..	252
9	changanacherry	2	47	12	106	...	167
10	Idukki	2	52	13	223	..	290
11	Emakulam	2	72	5	59	...	138
12	Alwaye	3	71	33	146	..	253
13	Irinjalakuda	2	62	22	107	..	193
14	Tritur	3	106	32	156	..	297
15	Ottapalam	1	55	20	142	..	218
16	palakkad	3	85	21	125	..	234
17	Tirur	2	53	21	96	..	172
18	Manjeri	2	46	21	190	..	259
19	Calicut	3	73	14	217	..	307
20	Badagara	2	41	37	146	..	226
21	Thellicherry	1	43	8	156	..	208
22	Kannur	2	61	25	139	..	227
23	Kasaragod	2	30	16	182	..	230
	Kerala	51	1453	524	3023	..	5051
24	Lakshadweep	..	6	3	1	..	10
	Mahe of Pondicherry	..	1	2	1	..	4
<b>Total - (Kerala Circle)</b>		<b>51</b>	<b>1460</b>	<b>529</b>	<b>3025</b>	<b>..</b>	<b>5065</b>

Source : C.P.M.G. Kerala Circle, Thiruvananthapuram

**Appendix 7.32****District - wise details of area and population served by one post office during 1998-99**

Sl.No.	Name of district	Post Office (Nos.)	Area (Sq.Km.)	Area served by One post office (Sq.Kms)	Population*	Population served by one post office
1	2	3	4	5	6	7
1	Thiruvananthapuram	420	2192	5.21	3280337	7810
2	Kollam	365	2491	6.82	2620059	7178
3	pathanamthitta	325	2642	8.13	1304895	4015
4	Alappuzha	291	1414	4.86	2120780	7288
5	Kottayam	410	2203	5.37	1944110	4741
6	Idukki	290	5019	17.31	1179746	4068
7	Ernakulam	383	2407	6.28	3077832	8036
8	Thirussur	490	3032	6.19	3016163	6155
9	Palakkad	452	4480	9.91	2715889	6008
10	Malappuram	431	3550	8.24	3888046	9020
11	Kozhikode	419	2344	5.59	2990887	7138
12	Wayanad	162	2131	13.15	795694	4911
13	Kannur	383	2966	7.74	2569324	6708
14	Kasaragod	230	1992	8.66	1283078	5578
	Kerala	5051	38863	7.695	32786840	6491

Source: CPMG Kerala Circle, Thiruvananthapuram

\* projected population as on 1.3.1999

## Appendix 7.33

## District - wise details of Telephone net work during 1998-99.

Sl.No.	Name of District	No. of Exchanges	Equipped Capacity	Working connections	Waiting list			Area (sq.Kms.)	No. of Telephone (sq.Kms.)	No. of Telephone per 1000 Population.
					OYT	N-OYT	Total			
1	2	3	4	5	6	7	8	9	10	11
1	Alleppey	40	97816	85753	77	35064	35141	1414	61	43
2	Calicut	65	134220	104638	1926	53969	55895	2344	45	40
3	Cannanore	72	124216	88178	1488	57514	59002	2966	30	39
4	Ernakulam	86	259504	226602	167	50247	50414	2407	94	81
5	Idukki	69	47372	32898	198	25088	25286	5019	7	30
6	Kasaragod	49	51652	41850	1204	29386	30590	1992	21	39
7	Kottayam	67	146229	115183	429	32700	33129	2203	52	63
8	Lakshadweep	10	8144	7214	0	0	0	32	225	144
9	Malappuram	58	131028	67887	4341	64043	68384	3550	19	22
10	Palakkad	80	83596	69101	751	36972	37723	4480	15	29
11	Pathanamthitta	46	92300	76857	32	19135	19167	2642	29	64
12	Pondicherry (Mahe)	1	6000	4652	150	1925	2075	10	465	155
13	Quilon	63	122326	97647	465	46474	46939	2491	39	41
14	Trichur	64	174824	152654	305	58657	58962	3032	50	56
15	Trivandrum	58	203032	167013	194	41114	41308	2192	76	57
16	Wayanad	22	22136	16957	326	13602	13928	2131	8	25
<b>Total</b>		<b>850</b>	<b>1704395</b>	<b>1355084</b>	<b>12053</b>	<b>565890</b>	<b>577943</b>	<b>38905</b>	<b>35</b>	<b>47</b>



**Appendix 7.34****Foreign Tourist arrivals to the State 1990 to 1998**

Year	No. of Foreign Tourists arrived in Kerala	Percentage variation over the previous year
<b>1</b>	<b>2</b>	<b>3</b>
1990	66139	5.06%
1991	69309	4.79%
1992	90635	30.77%
1993	95209	5.05%
1994	104568	9.83%
1995	142972	36.73%
1996	176855	23.70%
1997	182427	3.15%
1998	189941	4.12%

**Appendix 7.35****Domestic Tourist arrivals to the Kerala (1990 - 1998)**

Year	No. of Domestic Tourists arrived in Kerala	Percentage variation over the previous year
<b>1</b>	<b>2</b>	<b>3</b>
1990	866525	36.62%
1991	948991	9.52%
1992	994140	4.76%
1993	1027236	3.33%
1994	1284375	25.03%
1995	3915656	204.87%
1996	4403002	12.45%
1997	4953401	12.50%
1998	4481714	-9.52%

**Appendix 7.36****Foreign Tourist Arrivals to India and Kerala from 1990 onwards**

Sl.No.	Year	No. of Foreign Tourists		Percentage of over the previous year		Share of Kerala in Indian tourist market.
		India	Kerala	India	Kerala	
1	2	3	4	5	6	7
1	1990	1329950	66139	-0.54	5.06	4.97
2	1991	1236120	69309	-7.06	4.79	5.61
3	1992	1434737	90635	16.07	30.77	6.32
4	1993	1442643	95209	0.55	5.05	6.6
5	1994	1886433	104568	30.76	9.83	5.54
6	1995	2123683	142972	12.58	36.73	6.73
7	1996	2287860	176855	7.73	23.70	7.73
8	1997	2374094	182427	3.77	3.15	7.68
9	1998	2358629	189941	-0.65	4.12	8.05

**Appendix 7.37****Earnings from Toursim (1990 to 1998)**

Year	Total (Rs. in crores)
1	2
1990	26.99
1991	28.28
1992	59.75
1993	105.72
1994	116.11
1995	158.76
1996	196.38
1997	227.33
1998	302.08
1999	500

**Appendix 7.38**  
**Kerala Tourism Development Corporation Ltd. - Performance for the year 1998-99**

Sl.N o.	Name of Units	Bed Available	Domestic Tourists	Foreign Tourists	Occupan cy%	Total Income Rs.	Operational Expenditure Rs	Administrative Expenditure Rs	Total Expenditure Rs	Profit & Loss + Rs
1	2	3	4	5	6	7	8	9	10	11
1	Mascot Hotel	25550	4205	2052	49.20	259.31	159.12	79.56	238.68	(+) 20.63
2	Hotel Chaitram	64240	32541	2449	73.74	267.72	213.55	71.18	284.73	-17.01
3	Hotel Samudra	46720	1972	3437	36.49	253.12	190.79	47.70	238.49	(+) 14.63
4	Aranya Nivas & Lake Palace	26280	4483	5747	40.76	232.72	94.67	63.11	157.78	(+) 74.94
5	Periyar House	32120	14150	5021	54.57	97.01	47.06	31.38	78.44	(+) 18.57
6	Bolgatty Palace Hotel	4380	282	1052	59.47	49.21	42.51	14.18	56.69	-7.48
7	Garden House	12410	6198	69	49.90	71.75	45.26	15.15	60.41	(-) 11.34
8	Hotel Nandavam	32850	11840	68	38.49	35.34	28.08	7.02	35.10	(+) .24
9	Mangalya Guruvayur	13140	5892	--	44.80	62.66	52.63	13.16	65.79	-3.13
10	Hotel Aiswarya	21900	4569	414	41.63	55.35	41.34	20.67	62.01	-6.66
11	Malabar Mansion	19592	3437	198	48.50	97.98	58.77	29.38	88.15	(+) 9.83
12	Agasthya House	2920	447	123	15.00	20.16	13.50	6.75	20.25	-0.09
13	Anjanam Cottage	10220	5523	5	49.88	34.04	18.08	9.04	27.12	(+) 6.92
14	Yatri Nivases	53290	--	--	47.83	151.14	110.64	36.87	147.51	(+) 3.63
15	Hotels	17520	--	--	36.25	309.02	213.45	71.14	284.59	(+) 24.43
16	Sabala Restaurants & Beer Parlours	--	--	--	--	1594.4	1142.58	380.86	1523.44	(+) 70.91
17	Travel & Tours Division	--	--	--	--	107.27	101.43	20.28	121.71	-14.44
<b>Total</b>		<b>383132</b>	<b>95539</b>	<b>20635</b>		<b>3698.2</b>	<b>2573.46</b>	<b>917.43</b>	<b>3490.89</b>	<b>207.26</b>

(Rs. in lakhs)

## Appendix - 8.1

## Commodity-wise Exports Through Kochi Port

Commodity	1996-97			1997-1998			1998-99		
	Quantity	% of Total	Growth rate %	Quantity	% of Total	Growth rate %	Quantity	% of Total	Growth rate %
1	2	3	4	5	6	7	8	9	10
Tea	75666	3.3	5.6	79829	3.2	5.5	101466	4.2	27.1
Casashew Kernels	45783	2.0	22.4	48390	1.9	5.7	49467	2.0	2.2
Sea foods	100678	4.5	20.2	91959	3.6	-8.7	74076	3.0	-19.4
Coir Products	44512	2.0	-1.6	47249	1.9	6.1	52637	2.2	11.4
Spices	54364	2.4	73.7	48956	1.9	-10.0	44752	1.8	-8.6
Coffee	122455	5.4	7.3	104854	4.1	-14.4	127467	5.2	21.6
Miscellaneous	1811306	80.4	-9.2	2121265	83.4	17.1	1980510	81.5	-6.6
<b>Total</b>	<b>2254764</b>	<b>100.0</b>	<b>-5.2</b>	<b>2542502</b>	<b>100.0</b>	<b>12.7</b>	<b>2430375</b>	<b>100.00</b>	<b>-4.4</b>

(Qty in M.Tones)

Source : Kochi Port Trust

## Appendix - 8.2

## Commodity-wise Imports Through Kochi Port

Commodity	1996-97			1997-1998			1998-99		
	Quantity	% of Total	Growth rate %	Quantity	% of Total	Growth rate %	Quantity	% of Total	Growth rate %
1	2	3	4	5	6	7	8	9	10
Fertilizers & Raw materials	978749	10.32	-1.73	847193	8.66	-13.44	755789	7.37	-10.79
Food Grains	27300	0.29	-38.57	165693	1.69	506.93	288861	2.82	74.37
Iron, Steel & Machinery	60433	0.64	153.38	45369	0.46	-24.92	93630	0.91	106.37
Newsprint	53606	0.56	22.01	43679	0.44	-18.51	22951	0.22	-47.45
Cashew nuts	58055	0.61	477.09	91374	0.93	57.39	100989	0.99	10.52
Miscellaneous *	8309293	87.58	3.78	8588421	87.82	3.35	8988290	87.69	4.66
<b>Total</b>	<b>9487436</b>	<b>100.00</b>	<b>3.97</b>	<b>9781729</b>	<b>100.00</b>	<b>3.1</b>	<b>10250510</b>	<b>100.00</b>	<b>4.79</b>

(Qty in M.Tones)

\* - Includes P.O.L.

Source : Kochi Port Trust

### Appendix - 8.3

#### Market-wise Export of Marine Products from India

Sl.No.	Market	1997-98			1998-99				
		Qty.	%	Value	Qty.	%	Value		
1	2	3	4	5	6	7	8	9	10
1	Japan	70955	18.39	2326.09	51.72	67277	22.20	2295.48	49.60
2	USA	32914	8.53	583.75	8.53	34472	11.40	617.32	13.30
3	West Europe	34875	9.04	412.53	9.17	54261	17.90	684.62	14.80
4	Middle East	17618	4.57	144.66	3.22	17274	5.70	147.97	3.20
5	S.E. Asia	218263	56.57	1139.09	25.33	116610	38.50	766.06	16.60
6	Others	11193	2.90	91.36	2.03	13040	4.30	115.42	2.50
	TOTAL	385818	100.00	4697.48	100.00	302934	100.00	4626.87	100.00

(Qty. in Tonnes & Value in Rs. Crores)

Source : Marine Products Export Development Authority

### Appendix - 8.4

#### Export of Marine Products from India and Kerala

Year	India			Kerala			Kerala's Share(%)		
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	
1990-91	139419	893.37	50997	313.49	36.58	35.09			
1991-92	171820	1375.89	58743	444.47	34.19	32.03			
1992-93	209025	1788.56	49094	414.25	23.49	23.42			
1993-94	243960	2503.62	63848	622.12	26.17	24.85			
1994-95	307337	3573.27	74653	817.09	24.29	22.85			
1995-96	296277	3501.11	78895	856.90	26.63	24.48			
1996-97	378199	4121.36	92288	936.22	24.40	22.72			
1997-98	385818	4697.48	89366	948.02	23.16	20.18			
1998-99	302934	4626.87	70641	816.55	23.32	17.65			

(Qty. in Tonnes & Value in Rs. Crore)

Source : Marine Products Export Development Authority

**Appendix - 8.5**  
**Item-wise Export of Marine Products from Kerala**

Sl. No.	Item	1996-97						1997-98						1998-99					
		Quantity	%	Value	%	Quantity	%	Value	%	Quantity	%	Value	%	Quantity	%	Value	%		
1	2	3	4	5	6	7	8	9	10	11	12	13	14						
1	Forzen Shrimp	34800	37.8	569.31	60.5	29781	33.33	529.46	55.85	25549	36.17	480.66	58.87						
2	Forzen Fish	20982	22.8	70.68	7.5	21596	24.2	65.67	6.93	12182	17.24	53.18	6.51						
3	Forzen Squid	15803	17.1	119.21	12.7	15933	17.8	126.26	13.32	11462	16.23	97.96	12.00						
4	Forzen Cuttile fish	15098	16.4	144.47	15.4	15869	17.8	149.08	15.73	17195	24.34	150.64	18.45						
5	Live Items	118	0.1	2.8	0.3	117	0.13	3.67	0.39	121	0.17	3.13	0.38						
6	Dried Items	632	0.7	5.87	0.6	38	0.04	0.83	0.08	89	0.13	0.84	0.10						
7	Others	4750	5.1	28.1	3	6032	6.7	73.05	7.7	4043	5.72	30.14	3.69						
	TOTAL	92183	100	940.44	100	89366	100.0	948.02	100.0	70641	100	816.55	100						

Source : Marine Products Export Development Authority

**Appendix - 8.6****State-wise Production of Raw Cashewnuts from 1992-93 to 1998-99 (MT)**

State	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99
Kerala	151600	140200	119200	140000	134000	100000	100000
Karnataka	31260	31540	26400	37600	52000	35000	30000
Andhra Pradesh	44880	46570	58700	71700	60000	50000	60000
Tamil Nadu	19190	19200	22000	30930	30000	30000	25000
Goa	15450	16210	16960	17800	20000	25000	15000
Maharashtra	43750	46860	37600	69000	80000	60000	65000
Orissa	39060	43420	37200	43000	40000	45000	40000
West Bengal	3660	3990	3280	6960	6000	6000	5000
Other States	340	360	300	840	8000	9000	10000
<b>TOTAL</b>	<b>349190</b>	<b>348350</b>	<b>321640</b>	<b>417830</b>	<b>430000</b>	<b>360000</b>	<b>350000</b>

Source : The Cashew Export Promotion Council of India

**Appendix - 8.7****Export of Cashew Kernels : Kerala and India (1990-91 to 1998-99)**

(Quantity in MT - Value in Rs. Crores)

Year	Kerala		India		Share of Kerala (%)	
	Quantity	Value	Quantity	Value	Quantity	Value
1	2	3	4	5	6	7
1990-91	44060	39067	49874	442.20	88	88.3
1991-92	31630	432.46	47738	669.10	66	64.6
1992-93	26981	385.49	53436	745.50	51	51.7
1993-94	30684	454.66	69884	1046.00	44	43.5
1994-95	34379	538.11	77000	1246.30	45	43.2
1995-96	33275	606.55	70334	1240.50	47	48.9
1996-97	38546	731.79	68663	1285.50	56	56.9
1997-98	41171	757.73	76593	1396.10	54	54.3
1998-99(P)	42323	938.69	75026	1609.90	56	58.3

Source : The Cashew Export Promotion Council of India

(P) : Provisional \* - Export through Kochi Port

**Appendix - 8.8**  
**Export of Cashew nut shell Liquid : Kerala and India**  
**(1990-91 to 1998-99)**

(Quantity in MT and Value in Rs.Crores)

Year	Kerala *		India	
	Quantity	Value	Quantity	Value
1	2	3	4	5
1990-91	2490	1.65	5658	5.56
1991-92	2755	2.16	4542	4.02
1992-93	2628	2.20	4258	3.81
1993-94	2432	1.77	3625	2.89
1994-95	1990	1.21	3807	2.44
1995-96	80	0.15	760	1.45
1996-97	814	0.78	1735	2.77
1997-98	3021	3.69	4446	7.17
1998-99(P)	1085	1070.00	1572	3.26

Source : The Cashew Export Promotion Council of India

(P) : Provisional      \* - Export through Kochi Port

**Appendix - 8.9**  
**Import of Raw cashew nut : Kerala and India**  
**(1990-91 to 1998-99(P))**

(Quantity in MT and Value in Rs. Crores)

Year	Kerala		India	
	Quantity	Value	Quantity	Value
1	2	3	4	5
1990-91	4898	7.71	82639	134.00
1991-92	1774	4.21	106080	266.68
1992-93	11051	39.05	134985	376.33
1993-94	20821	52.56	191322	482.70
1994-95	5576	15.34	228109	690.94
1995-96	6292	19.13	222819	760.08
1996-97	49169	159.76	212866	687.60
1997-98	78625	261.07	247181	769.60
1998-99(P)	48425	184.29	180686	693.17

(P) : Provisional

Source : The Cashew Export Promotion Council of India



### Appendix - 8.10

#### Import of Raw Cashewnuts into India during 1996-97 to 1998-99

Countries	1996-97			1997-98			1998-99(P)		
	QTY.MT	% of Total Value (Rs. Crs.)	Value	QTY.MT	% of Total Value (Rs. Crs.)	Value	QTY.MT	% of Total Value (Rs. Crs.)	Value
Tanzania	64355	212.10	30.90	61311	24.90	27.40	78943	43.70	313.36
Guinea Bissau	15455	53.20	7.80	50522	20.50	20.80	18573	10.30	78.04
Ivory Coast	18096	52.00	7.60	32229	13.00	10.80	21237	11.80	73.67
Mozambique	28101	87.30	12.70	16895	6.80	6.40	19124	10.60	73.15
Indonesia	6862	22.80	3.30	32628	13.20	14.20	14218	7.90	58.44
Benin	10213	32.30	4.70	16140	6.50	6.50	9844	5.40	33.56
Nigeria	14507	37.00	5.40	13220	5.40	4.50	5757	3.20	16.87
Senegal	1679	6.00	0.90	1818	0.70	0.80	2772	1.50	11.11
Ghana	632	2.00	0.30	3725	1.50	1.50	1467	0.80	5.03
Philippines	302	1.00	0.10	103	0.00	0.00	949	0.50	3.99
Malagasy Rep.	2661	7.80	1.10	0	0.00	0.00	606	0.30	1.74
Togo	463	1.40	0.20	265	0.10	0.10	201	0.10	0.77
Singapore	44758	157.70	23.90	7608	3.10	3.00	153	0.10	0.7
Kenya	1004	2.80	0.40	79	0.00	0.00	286	0.20	0.68
Vietnam	0	0.00	0.00	4529	1.80	1.80	0	0.00	0
South Africa	920	3.00	0.40	2022	0.80	0.80	0	0.00	0
Cameroon	0	0.00	0.00	1521	0.60	0.60	0	0.00	0
Australia	0	0.00	0.00	369	0.10	0.30	0	0.00	0
Others	2858	9.20	1.30	1538	0.70	0.50	6556	3.60	22.07
<b>Total</b>	<b>212866</b>	<b>100.00</b>	<b>100.00</b>	<b>247182</b>	<b>100.00</b>	<b>100.00</b>	<b>180686</b>	<b>100.00</b>	<b>693.18</b>

Source : The Cashew Export Promotion Council of India

**Appendix - 8.11**  
**Export of Coir and Coir Products from India 1993-94 to 1998-99**

Product Name	1993-94		1994-95		1995-96		1996-97		1997-98		1998-99	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
COIR FIBER	9	1.89	779	76.89	303	27.09	337	49.59	243	27.93	646	91.46
COIR YARN	13648	2637.19	16810	3487.82	14839	3434.48	13645	3263.18	15889	4123.65	16539	4827.41
COIR MATS	15945	6891.96	18049	8048.38	20339	10131.77	21091	11396.88	21039	12467.03	21943	14878.52
COIR MATTINGS	5263	2318.05	6939	3588.49	7591	4621.28	6578	4126.05	7107	4650.02	6572	4729.86
COIR RUG & CARPET	1636	839.26	2429	1419.96	2818	1867.91	2306	1705.15	1957	1441.55	2934	2300.56
COIR ROPE	351	63.12	77	16.58	121	26.27	78	21.68	92	24.51	211	59.25
RUBBERISED COIR	156	98.99	155	110.93	174	113.40	212	152.32	288	234.12	573	427.01
CURLED COIR	600	49.33	2007	186.05	1156	112.89	715	85.94	642	80.33	445	76.38
COIR GEO TEXTILES	--	--	442	151.35	474	167.80	361	149.46	739	313.31	1208	546.91
COIR OTHER SORTS	97	34.60	196	71.22	353	176.36	578	256.52	1099	442.69	2204	1030.26
COIR PITH	246	2.36	203	6.35	109	5.39	468	51.69	755	87.76	2215	251.26
<b>TOTAL</b>	<b>37951</b>	<b>12936.75</b>	<b>48086</b>	<b>17164.02</b>	<b>48277</b>	<b>20684.64</b>	<b>46369</b>	<b>21258.26</b>	<b>49850</b>	<b>23892.90</b>	<b>55490</b>	<b>29218.88</b>

Source : Coir Board

**Appendix - 8.12**  
**Leading Export Market for Coir Products during 1998-99**  
*(Quantity in tonnes, value in Rs.lakhs)*

Sl.No.	Countries	Quantity	Value	Quantity %	Value %
1	U.S.A.	10667.97	6429.29	19.23	22.00
2	United Kingdom	5142.18	3375.68	9.27	11.55
3	Netherlands	6422.46	3029.44	11.57	10.37
4	Italy	6089.24	2403.37	10.97	8.23
5	Germany	4420.77	2381.62	7.97	8.15
6	France	4712.38	1922.07	8.49	6.58
7	Belgium	3259.29	1903.07	5.87	6.51
8	Australia	2384.88	1523.06	4.30	5.21
9	Spain	1291.34	742.05	2.33	2.54
10	Sweden	1195.91	609.85	2.16	2.09
11	Portugal	1608.18	603.08	2.90	2.06

Source : Coir Board

**Appendix 8.13**  
**ITEM-WISE EXPORT OF SPICES FROM INDIA (QTY IN M.T.: VALUE IN Rs. LAKHS)**

Item	1994-95			1995-96			1996-97			1997-98			1998-99(P)		
	QTY	Value	QTY	Value	QTY	Value	QTY	Value	QTY	Value	QTY	Value	QTY	Value	
Pepper	37264	23664.19	26244	19629.84	47893	41231.84	35907	49635.70	34864	63811.28					
Cardamom (small)	257	762.61	527	1296.97	226	869.67		1266.78	475	2521.21					
Cardamom (large)	1293	812.74	1677	1224.06	1628	1209.53		1264.46	1424	1190.88					
Chilli	20096	5711.63	56165	19546.17	50051	20145.15		15890.02	61253	21661.11					
Ginger	12022	1673.03	18483	3892.13	29737	5924.41		7262.73	8778	4064.79					
Turmeric	28286	4517.96	27050	4620.33	23019	5844.61		8306.50	36522	12454.98					
Coriander	10702	1793.84	11541	2243.34	12574	3136.58		6434.69	20685	4588.99					
Cumin	5618	2449.65	3871	1739.32	6375	3437.80		8135.53	10723	6010.92					
Celery	2601	777.28	2678	625.12	3780	801.76		799.20	3991	969.08					
Fennel	2029	581.56	2594	751.73	4850	1788.60		3581.83	5279	1538.11					
Fenugreek	7956	1224.97	15138	1867.20	8891	1204.57		987.14	10082	1914.91					
Other Seeds (1)	2338	486.86	2493	518.52	3059	842.60		934.50	2001	749.11					
Garli	633	122.87	3935	491.26	4889	797.74		797.56	4068	741.02					
Other Spices (2)	16523	2954.61	23492	3989.63	18955	4429.68		5566.01	19077	7659.48					
Curry Powder	4135	1443.27	4246	1755.50	4639	2056.52		2972.91	5210	3596.78					
Mint Oil	1583	4356.78	1352	4750.12	2371	13449.50		9693.12	4207	12252.18					
Spice Oils and Oleoresins	1672	8676.68	1912	11501.77	2358	15901.21		23152.92	2750	30077.37					
<b>Total</b>	<b>155008</b>	<b>62010.53</b>	<b>203398</b>	<b>80443.01</b>	<b>225295</b>	<b>123071.77</b>	<b>242071</b>	<b>146681.6</b>	<b>231389</b>	<b>175802.20</b>					
<b>Value in Milln. US\$</b>		<b>197.86</b>		<b>241.43</b>		<b>346.97</b>		<b>394.45</b>		<b>419.68</b>					

(P) Provisional

(1) Include Bishops Weed (Ajwanseed), Dill Seed, Poppy Seed, Aniseed etc

(2) Include Tamarind, Asafoetida, Cinnamon, Cassia, Tejpat, Kokam, Saffron etc.

Source:- DGC I &amp; S, Calcutta / Shipping Bills / Exporters' Returns

**Appendix - 9.1**  
**District-wise Population Profile - 1991**

Sl. No.	District	Area K.M2	Population	Sex ratio	Growth rate	Density	Effective Literacy rate		
					1981-91	per K.M2	Total	Male	Female
1	2	3	4	5	6	7	8	9	10
1	Kasargode	1992	1071508	1026	22.78	538	82.51	88.97	76.29
2	Kannur	2966	2251727	1049	16.63	759	91.48	95.54	87.65
3	Wayanad	2131	672128	966	21.32	315	82.73	87.59	77.69
4	Kozhikode	2344	2619941	1027	16.69	1118	91.1	95.58	86.79
5	Malappuram	3550	3096330	1053	28.87	872	87.94	92.08	84.09
6	Palakkad	4480	2382235	1061	16.52	532	81.27	87.24	75.72
7	Thrissur	3032	2737311	1085	12.2	903	90.13	93.77	86.94
8	Ernakulam	2407	2817236	1000	11.12	1170	92.35	95.46	89.27
9	Idukki	5019	1078066	975	11.22	215	86.94	90.82	82.96
10	Kottayam	2203	1828271	1003	7.71	830	95.72	97.46	94
11	Alappuzha	1414	2001217	1051	7.28	1415	93.87	96.79	91.12
12	Pathanamthitta	2642	1188332	1062	5.6	450	94.88	96.55	93.29
13	Kollam	2491	2407566	1035	10.68	967	90.47	94.09	87
14	Thiruvananthapuram	2192	2946650	1036	13.5	1344	89.22	92.84	85.76
<b>KERALA</b>		<b>38863</b>	<b>29098518</b>	<b>1036</b>	<b>14.32</b>	<b>749</b>	<b>89.81</b>	<b>93.62</b>	<b>86.17</b>

Source: Census of India 1991- Kerala - Final Population Totals

**Appendix - 9.2**  
**Trend in Literacy - India and Kerala**

Year	India			Kerala		
	Rate of Literacy			Rate of Literacy		
	Total	Male	Female	Total	Male	Female
1	2	3	4	5	6	7
1901	5.35	9.83	0.6	11.14	19.15	3.15
1911	5.92	10.56	1.05	13.31	22.25	4.43
1921	7.16	12.21	1.81	19.2	27.88	10.26
1931	9.5	15.59	2.93	21.34	30.89	11
1941	16.1	24.9	7.3			
1951	16.67	24.95	7.93	40.47	49.79	31.41
1961	24.02	34.44	12.95	58.85	54.97	38.9
1971	29.45	39.45	18.68	60.42	66.52	54.31
1981	36.03	46.62	24.73	70.42	87.74	75.65
1991	52.21	64.13	39.29	89.81	93.62	86.17

Source: Census of India and Kerala Various Decadal Volumes

**Appendix - 9.3**  
**State-wise Literacy Rates - 1991**

Sl. No.	State/Union Territory	General			Scheduled Castes			Scheduled Tribes		
		Person	Male	Female	Person	Male	Female	Person	Male	Female
1	2	3	4	5	6	7	8	9	10	11
1	Andhra Pradesh	44.09	55.13	32.72	31.59	41.88	20.92	17.16	25.25	8.68
2	Arunchal Pradesh	41.59	51.45	29.69	57.27	66.25	41.42	34.45	44.00	24.94
3	Assam	52.89	61.87	43.03	53.94	63.88	42.99	49.16	58.93	38.98
4	Bihar	38.48	52.49	22.89	19.49	30.64	7.070	26.78	38.40	14.75
5	Goa	75.51	83.64	67.09	58.73	69.55	47.51	42.91	54.43	29.01
6	Gujarat	61.29	73.13	48.64	61.07	75.47	45.54	36.45	48.25	24.20
7	Haryana	55.85	69.10	40.47	39.22	52.06	24.15	-	-	-
8	Himachal Pradesh	63.86	75.36	52.17	53.20	64.98	41.02	47.09	62.74	31.18
9	Jammu & Kashmir	-	-	-	-	-	-	-	-	-
10	Karnataka	56.04	87.26	44.34	38.06	49.69	25.95	36.01	47.95	23.57
11	Kerala	89.81	93.62	86.17	79.66	85.22	74.31	57.22	63.68	51.07
12	Madhya Pradesh	44.20	58.42	28.85	35.08	50.51	18.11	21.54	32.16	10.73
13	Maharashtra	64.87	78.58	52.32	58.48	70.45	41.59	36.79	49.09	24.03
14	Manipur	59.89	71.63	47.60	56.44	65.28	47.41	53.63	62.39	44.48
15	Maghalaya	49.10	53.12	44.85	44.27	54.56	31.19	46.71	49.78	43.63
16	Mizoram	82.27	85.61	78.60	77.92	77.54	81.25	82.71	86.66	78.70
17	Nagaland	61.65	67.62	54.75	-	-	-	60.59	66.27	54.51
18	Orissa	49.09	63.09	34.68	36.78	52.42	20.74	22.31	34.44	10.21
19	Panjab	58.51	85.66	50.41	41.09	49.82	31.03	-	-	-
20	Rajasthan	38.55	54.99	20.44	26.29	42.38	8.310	19.44	33.29	4.42
21	Sikkim	56.94	65.74	46.69	51.03	58.69	42.77	59.01	66.8	50.37
22	Tamil Nadu	62.68	73.75	51.33	46.74	58.36	34.89	27.89	35.25	20.23
23	Tripura	80.44	70.58	49.65	58.66	67.25	45.45	40.37	52.88	27.34
24	Uttar Pradesh	41.60	55.73	25.31	26.85	40.80	10.69	35.70	49.95	19.86
25	West Bengal	57.70	67.81	46.56	42.21	54.55	28.87	27.78	40.07	14.98
28	A & N Island	73.02	78.99	65.46	-	-	-	56.62	64.16	48.74
27	Chandigerh	77.81	82.04	72.34	55.44	64.74	43.54	-	-	-
28	D&N Haveli	40.71	53.56	26.98	77.64	88.03	66.61	28.21	40.75	15.94
29	Daman & Diu	71.20	82.66	59.4	79.18	91.85	67.62	52.91	63.58	41.49
30	Delhi	75.29	82.01	66.99	57.60	68.77	43.82	-	-	-
31	Lakshadweep	81.78	90.18	72.89	-	-	-	80.58	89.50	71.72
32	Pondicherry	74.74	83.68	65.63	56.26	66.10	46.28	-	-	-
	<b>INDIA</b>	<b>52.21</b>	<b>64.13</b>	<b>39.29</b>	<b>37.41</b>	<b>49.91</b>	<b>23.76</b>	<b>29.6</b>	<b>40.65</b>	<b>18.19</b>

Source: Census of India - Final Population Total (Paper 2 of 1992) Census was not held in J & K

**Appendix - 9.4**  
**Major State-wise literacy Rates (1951-91)**

Sl. No.	Major States	Persons										Male					Female				
		1951	1961	1971	1981	1991	1951	1961	1971	1981	1991	1951	1961	1971	1981	1991					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17					
1	Kerala	11	55	50	82	90	50	65	67	88	94	32	46	54	76	86					
2	Tamil Nadu	21	36	39	54	64	32	52	52	68	75	10	21	27	40	52					
3	Maharashtra	21	35	39	56	63	31	49	51	70	75	10	20	26	41	51					
4	Gujarat	23	36	36	52	61	32	49	46	65	73	13	23	25	38	49					
5	West Bengal	24	35	33	49	58	34	47	43	60	67	12	20	22	36	47					
6	Panjab	15	32	34	48	57	21	41	40	56	64	9	21	26	40	50					
7	Karnataka	19	30	32	46	56	29	42	42	59	67	9	17	21	33	44					
8	Haryana	-	24	27	44	55	-	35	37	58	68	-	11	15	27	41					
9	Assam	18	33	29	-	53	27	44	37	-	62	8	20	19	-	44					
10	Orissa	16	25	26	41	49	27	40	38	56	62	5	10	14	25	34					
11	Andhra Pradesh	13	25	25	36	45	20	35	33	47	56	7	14	16	24	34					
12	Madhya Pradesh	11	21	22	33	42	17	32	32	47	55	4	8	11	17	26					
13	Uttar Pradesh	11	21	22	33	42	17	32	32	47	55	4	8	11	17	26					
14	Rajasthan	9	18	19	30	39	14	28	29	45	55	3	7	8	14	25					
15	Bihar	12	22	20	32	39	21	35	31	47	53	4	8	9	17	23					
	<b>All India</b>	<b>17</b>	<b>28</b>	<b>29</b>	<b>44</b>	<b>52</b>	<b>25</b>	<b>40</b>	<b>39</b>	<b>56</b>	<b>64</b>	<b>8</b>	<b>15</b>	<b>19</b>	<b>30</b>	<b>39</b>					

Note:- For 1981 and 1991 data related to population aged seven years and above, for 1961 population aged 5 years and above and for 1951 and 1971 it related to literate as percent of total population.

**Appendix -9.5**  
**District-wise Literacy Rates of Scheduled Castes and Scheduled Tribes - 1991**

Sl. No.	District	General			Scheduled Castes			Scheduled Tribes		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
1	2	3	4	5	6	7	8	9	10	11
1	Thiruvananthapuram	92.84	85.76	89.22	74.97	68.02	71.41	70.57	57.98	64.1
2	Kollam	94.09	87	90.47	74.3	65.24	69.71	58.62	47.6	53.11
3	Pathanamthitta	96.55	93.29	94.86	79.09	73.58	76.29	70.5	61.33	65.94
4	Alapuzha	96.79	91.12	93.87	83.02	75.89	79.42	65.97	61.1	63.53
5	Kottayam	97.46	94	95.72	83.08	77	80.03	79.88	78.05	78.96
6	Idukki	90.82	82.96	86.94	69.56	55.16	62.37	57.89	49.07	53.54
7	Ernakulam	95.46	89.27	92.35	77.43	69.45	73.42	70.75	62.42	66.72
8	Thrissur	93.77	86.94	90.13	73.77	65.54	69.55	46.53	40.7	43.57
9	Palakkad	87.24	75.72	81.27	63.32	51.07	57.05	34.31	25.1	29.75
10	Malappuram	92.08	84.09	87.94	70.72	62.37	66.49	40.8	31.49	36.09
11	Kozhikode	95.58	86.79	91.1	80.15	71.62	75.85	48.42	40.46	44.37
12	Wayanad	87.59	77.69	82.73	70.13	58.9	64.62	48.29	36.54	42.41
13	Kannur	95.54	87.65	91.48	78.64	70.51	74.56	55.15	44.1	49.65
14	Kasargode	88.97	76.29	82.51	59.05	47.8	53.45	63.55	49.75	56.74
<b>TOTAL:</b>		<b>93.52</b>	<b>86.17</b>	<b>89.81</b>	<b>73.86</b>	<b>65.03</b>	<b>69.38</b>	<b>53.68</b>	<b>43.53</b>	<b>48.62</b>

Source: Census of India - Kerala - 1991



**Appendix - 9.6**  
**Number of Schools in Kerala - Government Schools**

Year	L.P. Sector			U.P. Sector		
	L.P. Schools	L.P. Sections in U.P. Schools	L.P. Sections in High Schools	U.P. Schools	U.P. Sections in High Schools	High Schools
1	2	3	4	5	6	7
1991-92	2565	898	425	960	826	963
1992-93	2565	898	425	960	828	963
1993-94	2520	898	424	959	828	967
1994-95	2520	901	386	958	837	975
1995-96	2521	902	406	960	838	976
1996-97	2521	895	415	961	667	975
1997-98	2516	893	432	962	834	976
1998-99	2555	901	434	962	835	976

Note: Besides there are seven schools for the Handicapped and 38 T.T.Is in the State

Source: Directorate of Public Instruction, Thiruvananthapuram

**Appendix - 9.7**  
**Number of Schools in Kerala- Private Aided Schools**

Year	L.P. Sector			U.P. Sector		
	L.P. Schools	L.P. Sections in U.P. Schools	L.P. Sections in High Schools	U.P. Schools	U.P. Sections in High Schools	High Schools
1	2	3	4	5	6	7
1991-92	4067	1293	173	1883	1034	1380
1992-93	4067	1293	173	1883	1034	1380
1993-94	4045	1293	169	1880	1032	1379
1994-95	4041	1288	168	1876	1034	1380
1995-96	4040	1287	170	1875	1038	1394
1996-97	4039	1280	184	1873	985	1395
1997-98	4041	1285	159	1870	1028	1399
1998-99	4039	1279	191	1871	1040	1394

Note: Besides there are 5 Anglo Indian High Schools, 23 schools for the Handicapped, 63 T.T.Is and one Anglo-Indian T.T.I in the State

Source: Directorate of Public Instruction, Thiruvananthapuram

**Appendix - 9.8**  
**Number of Schools in Kerala- Unaided Schools**

Year	L.P. Sector			U.P. Sector		
	L.P. Schools	L.P. Sections in U.P. Schools	L.P. Sections in High Schools	U.P. Schools	U.P. Sections in High Schools	High Schools
1	2	3	4	5	6	7
1991-92	151	46	63	92	109	129
1992-93	147	45	63	88	109	129
1993-94	137	44	63	80	111	129
1994-95	133	45	59	78	110	131
1995-96	167	43	85	129	66	203
1996-97	166	53	90	134	113	210
1997-98	160	44	97	132	160	217
1998-99	161	61	105	133	171	215

Note: Besides there are 3 Anglo- Indian H.S. and 3 schools for the Handicapped in the State

Source: Directorate of Public Instruction, Thiruvananthapuram

## Appendix - 9.9

## Number of schools in Different Panchayats, Municipalities and Corporations (1996-97)

Sl. No.	Districts	HS						UPS						LPS						Total																																													
		G		PA		PUA		G		PA		PUA		G		PA		PUA		G		PA		PUA		Total																																							
		3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30																																				
1	Thiruvananthapuram	25	15	9	49	21	7	2	30	27	9	5	41	73	31	16	120	12	3	5	20	4	2	6	19	6	1	26	35	11	6	52	82	76	11	169	74	93	15	182	257	166	10	433	413	335	36	784	119	94	25	238	99	102	17	218	303	181	16	500	521	377	58	956	
2	Ernakulam	16	29	5	50	6	16	6	28	12	47	3	62	34	92	14	140	18	19	13	50	9	6	4	19	31	27	5	63	58	52	22	132	53	124	15	192	73	78	7	158	143	202	14	359	269	404	36	709	87	172	33	292	88	100	17	205	186	276	22	484	361	548	72	981
3	Kozhikode	18	12	7	37	16	20	2	38	26	29	3	58	60	61	12	133	7	3	1	11	1	16	1	18	10	25	35	18	44	2	64	42	81	9	132	59	205	7	271	149	479	3	631	250	765	19	1034	67	96	17	180	76	241	40	327	185	533	6	724	328	870	33	1231	
4	Kollam	6	13	3	22	5	8	13	14	15	18	2	34	25	39	5	69	70	112	7	189	57	133	7	197	261	172	15	448	388	417	29	834	76	125	10	211	62	141	7	210	225	190	17	482	413	456	34	903																
5	Pathanamthitta	6	16	2	24	4	5	5	14	15	21	5	41	25	42	12	79	41	97	5	143	39	78	10	127	150	222	8	380	230	397	23	650	47	113	7	167	43	83	15	141	165	243	13	421	255	439	35	729																
6	Alappuzha	13	24	2	39	9	7	16	25	32	4	61	47	63	6	116	45	101	5	151	58	71	3	132	169	166	9	344	272	338	17	627	58	125	7	190	67	78	3	148	194	198	13	405	319	401	23	743																	
7	Kottayam	8	19	4	31	7	6	1	14	10	21	8	39	25	46	13	84	51	147	12	210	61	122	7	190	159	254	14	427	271	523	33	827	59	166	16	241	68	128	8	204	169	275	22	466	296	569	46	911																

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
8 Iddukki																		
Municipality	2	3	2	7	1	1	1	1	2	2	2	3	4	9	5	7	6	18
Panchayath	52	68	7	127	45	62	62	62	4	111	71	137	2	210	168	267	13	448
<b>Sub Total</b>	<b>54</b>	<b>71</b>	<b>9</b>	<b>134</b>	<b>46</b>	<b>63</b>	<b>63</b>	<b>63</b>	<b>4</b>	<b>113</b>	<b>73</b>	<b>140</b>	<b>6</b>	<b>219</b>	<b>173</b>	<b>274</b>	<b>19</b>	<b>466</b>
9 Thrissur																		
Municipality	15	25	4	44	4	10	4	10	1	15	14	39	1	54	33	74	6	113
Panchayath	63	123	15	201	50	155	50	155	6	211	107	351	10	468	220	629	31	880
<b>Sub Total</b>	<b>78</b>	<b>148</b>	<b>19</b>	<b>245</b>	<b>54</b>	<b>165</b>	<b>54</b>	<b>165</b>	<b>7</b>	<b>226</b>	<b>121</b>	<b>390</b>	<b>11</b>	<b>522</b>	<b>253</b>	<b>703</b>	<b>37</b>	<b>993</b>
10 Palakkad																		
Municipality	9	10	4	23	9	18	9	18	3	30	14	26	2	42	32	54	9	95
Panchayath	49	67	11	127	55	141	55	141	10	206	172	324	7	503	276	532	28	836
<b>Sub Total</b>	<b>58</b>	<b>77</b>	<b>15</b>	<b>150</b>	<b>64</b>	<b>159</b>	<b>64</b>	<b>159</b>	<b>13</b>	<b>236</b>	<b>186</b>	<b>350</b>	<b>9</b>	<b>545</b>	<b>308</b>	<b>586</b>	<b>37</b>	<b>931</b>
11 Malappuram																		
Municipality	10	6	7	23	6	19	6	19	1	26	32	34	1	67	48	59	9	116
Panchayath	72	70	23	165	104	206	104	206	13	323	316	446	7	769	492	722	43	1257
<b>Sub Total</b>	<b>82</b>	<b>76</b>	<b>30</b>	<b>188</b>	<b>110</b>	<b>225</b>	<b>110</b>	<b>225</b>	<b>14</b>	<b>349</b>	<b>348</b>	<b>480</b>	<b>8</b>	<b>836</b>	<b>540</b>	<b>781</b>	<b>52</b>	<b>1373</b>
12 Wayanad																		
Municipality	1	1	1	3	1	2	1	2	1	4	1	2	2	3	3	5	2	10
Panchayath	34	21	3	58	34	37	34	37	2	73	67	51	6	124	135	109	11	255
<b>Sub Total</b>	<b>35</b>	<b>22</b>	<b>4</b>	<b>61</b>	<b>35</b>	<b>39</b>	<b>35</b>	<b>39</b>	<b>3</b>	<b>77</b>	<b>68</b>	<b>53</b>	<b>6</b>	<b>127</b>	<b>138</b>	<b>114</b>	<b>43</b>	<b>265</b>
13 Kannur																		
Municipality	15	15	4	34	16	52	16	52	1	59	18	78	2	98	49	135	7	191
Panchayath	66	62	6	134	61	235	61	235	11	307	96	537	7	640	223	834	24	1081
<b>Sub Total</b>	<b>81</b>	<b>77</b>	<b>10</b>	<b>168</b>	<b>77</b>	<b>277</b>	<b>77</b>	<b>277</b>	<b>12</b>	<b>366</b>	<b>114</b>	<b>615</b>	<b>9</b>	<b>738</b>	<b>272</b>	<b>969</b>	<b>31</b>	<b>1272</b>
14 Kasaragod																		
Municipality	7	2	2	11	9	6	9	6	6	15	11	7	2	20	27	15	4	46
Panchayath	67	31	6	104	63	66	63	66	4	133	123	108	6	237	253	205	16	474
<b>Sub Total</b>	<b>74</b>	<b>33</b>	<b>8</b>	<b>115</b>	<b>72</b>	<b>72</b>	<b>72</b>	<b>72</b>	<b>4</b>	<b>148</b>	<b>134</b>	<b>115</b>	<b>8</b>	<b>257</b>	<b>280</b>	<b>220</b>	<b>20</b>	<b>520</b>
15 KERALA																		
Corporation	59	56	21	136	43	43	43	43	10	96	65	85	11	161	167	184	42	393
Municipality	129	159	54	342	85	148	85	148	18	251	216	339	37	592	430	646	109	1185
Panchayath	787	1180	135	2102	833	1682	833	1682	106	2621	2240	3615	118	5973	3860	6477	359	10696
<b>TOTAL:</b>	<b>975</b>	<b>1395</b>	<b>210</b>	<b>2580</b>	<b>961</b>	<b>1873</b>	<b>961</b>	<b>1873</b>	<b>134</b>	<b>2968</b>	<b>2521</b>	<b>4039</b>	<b>166</b>	<b>6726</b>	<b>4457</b>	<b>7307</b>	<b>510</b>	<b>12274</b>

Source: Directorate of Public Instruction, Thiruvananthapuram

**Appendix - 9.10  
District-wise/ Management-wise number of Schools in Kerala -1999**

Sl. No.	District	High Schools									U.P.Schools									L.P.Schools									Total								
		G			PA			PUA			G			PA			PUA			G			PA			PUA			G			PA			PUA		
		3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35			
1	Thiruvananthapuram	119	94	27	240	99	102	15	218	303	181	18	18	500	396	989	58	956	1	Thiruvananthapuram	119	94	27	240	99	102	15	218	303	181	18	18	500	396	989	58	956
2	Kollam	76	125	10	211	62	139	7	208	270	190	17	17	477	185	220	34	896	2	Kollam	76	125	10	211	62	139	7	208	270	190	17	17	477	185	220	34	896
3	Pathanamthitta	47	113	7	167	43	84	14	141	169	243	13	13	425	369	7304	34	733	3	Pathanamthitta	47	113	7	167	43	84	14	141	169	243	13	13	425	369	7304	34	733
4	Alapuzha	58	125	7	190	87	78	3	148	194	198	13	13	405	521	701	23	743	4	Alapuzha	58	125	7	190	87	78	3	148	194	198	13	13	405	521	701	23	743
5	Kottayam	59	166	16	241	68	129	8	205	189	275	22	22	466	408	377	48	912	5	Kottayam	59	166	16	241	68	129	8	205	189	275	22	22	466	408	377	48	912
6	Idukki	52	72	10	134	42	60	3	105	71	138	6	6	215	259	454	19	454	6	Idukki	52	72	10	134	42	60	3	105	71	138	6	6	215	259	454	19	454
7	Ernakulam	89	172	33	294	92	102	17	211	188	278	22	22	488	319	440	72	993	7	Ernakulam	89	172	33	294	92	102	17	211	188	278	22	22	488	319	440	72	993
8	Thrissur	79	147	20	246	54	164	8	226	120	390	10	10	520	253	401	38	992	8	Thrissur	79	147	20	246	54	164	8	226	120	390	10	10	520	253	401	38	992
9	Palakkad	58	77	18	151	84	159	14	237	186	350	10	10	546	308	570	40	934	9	Palakkad	58	77	18	151	84	159	14	237	186	350	10	10	546	308	570	40	934
10	Malappuram	82	76	30	188	111	225	14	350	352	480	8	8	840	545	270	52	1378	10	Malappuram	82	76	30	188	111	225	14	350	352	480	8	8	840	545	270	52	1378
11	Kozhikode	67	95	17	179	76	241	11	328	185	533	6	6	724	328	552	34	1231	11	Kozhikode	67	95	17	179	76	241	11	328	185	533	6	6	724	328	552	34	1231
12	Wayanad	35	22	4	61	35	39	3	77	93	53	6	6	152	163	586	13	290	12	Wayanad	35	22	4	61	35	39	3	77	93	53	6	6	152	163	586	13	290
13	Kannur	81	77	10	168	77	277	12	366	114	615	5	5	734	272	781	27	1268	13	Kannur	81	77	10	168	77	277	12	366	114	615	5	5	734	272	781	27	1268
14	Kasarode	74	33	8	115	72	72	4	148	141	115	7	7	263	287	869	19	526	14	Kasarode	74	33	8	115	72	72	4	148	141	115	7	7	263	287	869	19	526
<b>TOTAL:</b>		<b>976</b>	<b>1394</b>	<b>215</b>	<b>2585</b>	<b>962</b>	<b>1871</b>	<b>133</b>	<b>2966</b>	<b>2555</b>	<b>4039</b>	<b>161</b>	<b>6755</b>	<b>4493</b>	<b>114</b>	<b>509</b>	<b>12306</b>																				

Category	G	PA	PUA	Total
H.S	976	1394	215	2585
U.P.S	962	1871	133	2966
L.P.S	2555	4039	161	6755
Ango-India H.S.	-	5	3	8
Handicapped School	7	23	3	33
<b>TOTAL:</b>	<b>4500</b>	<b>7332</b>	<b>515</b>	<b>12347</b>

Note: G: Government, P.A. Privated Aided, P.U.A.: Private Unaided, T: Total

Besides there are 38 Govt. T.T.'s and 64 Private Aided T.T.'s (including Anglo Indian T.T.)

**Source:** Directorate of Public Instruction, Thiruvananthapuram

## Appendix - 9.11

## Progress of Educational Institutions from 1961-62 to 1998-99

Year	High Schools	U.P. Schools	L.P. Schools	Total
1	2	3	4	5
1961-62	629	1985	6745	9359
1962-63	1015	2285	6904	10204
1963-64	1020	2285	6914	10219
1964-65	1146	2428	6930	10504
1965-66	1151	2447	6954	10552
1966-67	1278	2475	6933	10684
1967-68	1292	2479	6940	10711
1968-69	1381	2535	6917	10833
1969-70	1382	2532	6928	10842
1970-71	1384	2543	6895	10822
1971-72	1393	2551	6895	10839
1972-73	1399	2550	6887	10786
1973-74	1404	2548	6904	10856
1974-75	1488	2588	6975	11051
1975-76	1521	2606	6975	11102
1976-77	1666	2718	6995	11379
1977-78	1675	2718	6969	11362
1978-79	1680	2739	6970	11389
1979-80	1680	2739	6970	11389
1980-81	1976	2753	6861	11590
1981-82	2075	2779	5811	11665
1982-83	2154	2763	6817	11734
1983-84	—	—	6819	—
1984-85	2397	2856	6848	12101
1985-86	2122	2852	6396	11670
1986-87	2430	2884	6828	12142
1987-88	2431	2885	6819	12135
1988-89	—	—	6819	—
1989-90	2430	2892	6813	12135
1990-91	2452	2915	6767	12134
1991-92	2472	2935	6783	12190
1992-93	2472	2931	6779	12182
1993-94	2475	2920	6702	12097
1994-95	2486	2912	6694	12092
1995-96	2573	2964	6728	12265
1996-97	2580	2968	6726	12274
1997-98	2592	2964	6717	12273
1998-99	2585	2966	6755	12306

Source: DPI, Thiruvananthapuram

**Appendix - 9.12****District - wise Details of Govt.Schools having Building Facilities - Kerala (1999)**

Sl.No.	District	No.of Schools having Pucca Building				No.of Schools having Thatched Sheds			
		L.P	U.P	H.S	Total	L.P	U.P	H.S	Total
1	2	3	4	5	6	7	8	9	10
1	Thiruvananthapuram	188	64	62	314	115	35	57	207
2	Kollam	224	50	72	346	46	12	4	62
3	Pathanamthitta	163	41	47	251	5	2	-	8
4	Alappuzha	177	55	36	268	17	12	22	51
5	Kottayam	156	65	55	276	13	3	4	20
6	Idukki	63	31	41	135	6	11	11	28
7	Ernakulam	187	91	88	366	1	1	1	3
8	Thrissur	107	50	76	233	13	4	3	20
9	Palakkad	173	57	47	277	13	7	11	31
10	Malappuram	314	82	60	456	33	29	22	84
11	Kozhikode	158	54	48	260	27	22	19	68
12	Wayanad	54	17	27	98	14	18	8	40
13	Kannur	100	67	53	220	14	10	28	52
14	Kasargode	126	60	23	209	8	12	51	71
<b>Total:</b>		<b>2190</b>	<b>784</b>	<b>735</b>	<b>3709</b>	<b>326</b>	<b>178</b>	<b>241</b>	<b>745</b>

Source: Directorate of Public Instruction, Thiruvananthapuram

**Appendix - 9.13****District - wise Details of Govt. Schools having Drinking water/Latrines/Urinal Facilities in Kerala (1999)**

Sl.No.	District	No.of Schools having Drinking Water				No.of Schools having Urinals / Latrines			
		L.P	U.P	H.S	Total	L.P	U.P	H.S	Total
1	2	3	4	5	6	7	8	9	10
1	Thiruvananthapuram	240	86	115	441	288	93	119	500
2	Kollam	204	60	76	340	231	51	76	358
3	Pathanamthitta	144	35	47	226	127	43	47	217
4	Alappuzha	179	64	54	297	182	67	58	307
5	Kottayam	129	60	59	248	131	60	59	250
6	Idukki	58	34	47	139	57	22	42	121
7	Ernakulam	181	90	89	360	188	90	89	367
8	Thrissur	97	46	79	222	98	49	79	226
9	Palakkad	120	49	56	225	112	46	55	213
10	Malappuram	249	96	59	404	245	90	70	405
11	Kozhikode	163	67	65	295	157	64	67	288
12	Wayanad	81	31	31	143	46	32	33	111
13	Kannur	94	70	76	240	91	74	64	229
14	Kasargode	111	67	52	230	82	58	55	195
<b>TOTAL:</b>		<b>2050</b>	<b>855</b>	<b>905</b>	<b>3810</b>	<b>2035</b>	<b>839</b>	<b>913</b>	<b>3787</b>

Source: Directorate of Public Instruction, Thiruvananthapuram

**Appendix - 9.14**  
**Enrolment of Students in Schools- District-wise and Stage-wise 1999**

Districts	L.P.S			U.P.S			HIGH SCHOOLS						TOTAL		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
1	2	3	4	5	6	7	8	9	10	11	12	13			
Thiruvananthapuram	92652	92538	185190	80799	78151	158950	71783	74252	146035	245234	244941	490175			
Kollam	70022	68176	138198	66742	63110	129852	62583	62095	124678	199347	193381	392728			
Pathanamthitta	33455	32464	65919	30601	28857	59458	30606	29711	60317	94662	91032	185694			
Alappuzha	54827	53237	108064	50561	47028	97589	51005	49805	100810	156393	150070	306463			
Kottayam	55093	52447	107540	47149	44345	91494	43938	45663	89601	146180	142455	288635			
Idukki	30673	29036	59709	28386	25169	53555	23766	23705	47471	82825	77910	160735			
Emakulam	77870	76104	153774	71131	67359	138490	67432	69655	137087	216223	213118	429341			
Thrissur	96687	92061	188748	81435	76659	158094	70035	73226	143261	248157	241946	490103			
Palakkad	92326	89330	181658	78573	74147	152720	67634	70793	138427	238533	234270	472803			
Malappuram	164363	155261	319624	136435	126824	263259	109809	112139	221948	410607	394224	804831			
Kozhikode	99333	93494	192827	85776	79832	165608	78638	79602	158240	263747	252928	316675			
Wayanad	26763	25274	52037	20985	19399	40384	18234	19245	37479	65982	63918	129900			
Kannur	84568	80546	165114	74654	68420	143074	65997	66472	132469	225219	215438	440657			
Kasarode	47145	44719	91864	38317	35010	73327	31802	29958	61760	117264	109687	226851			
<b>TOTAL:</b>	<b>1025577</b>	<b>984687</b>	<b>2010264</b>	<b>891544</b>	<b>834310</b>	<b>1725854</b>	<b>793262</b>	<b>806321</b>	<b>1599583</b>	<b>2710383</b>	<b>2625318</b>	<b>5335701</b>			

Source: Directorate of Public Instruction, Thiruvananthapuram

**Appendix - 9.15**  
**Standard-wise/Management-wise Enrolment of Students in Schools- Kerala - 1999**

STANDARDS													
Management	I	II	III	IV	TOTAL	V	VI	VII	TOTAL	VIII	IX	X	TOTAL
1	2	3	4	5	6	7	8	9	10	11	12	13	14
<b>Government</b>													
Boys	86345	93669	100161	102986	383161	96121	96836	102947	295904	116669	105634	80248	302551
Girls	83771	88393	93854	97532	363550	88726	90119	95987	274832	109640	106994	88736	305370
<b>TOTAL:Govt.</b>	<b>170116</b>	<b>182062</b>	<b>194015</b>	<b>200518</b>	<b>746711</b>	<b>184847</b>	<b>186955</b>	<b>198934</b>	<b>570736</b>	<b>226309</b>	<b>212628</b>	<b>168984</b>	<b>607921</b>
<b>Private Aided</b>													
Boys	135111	146412	153275	155836	590634	178154	181524	197249	556927	177380	162118	120971	460469
Girls	133594	141197	146746	148727	570264	168295	171140	185565	525000	169915	165254	136742	471911
<b>TOTAL:Aided</b>	<b>268705</b>	<b>287609</b>	<b>300021</b>	<b>304563</b>	<b>1160898</b>	<b>346449</b>	<b>352664</b>	<b>382814</b>	<b>1081927</b>	<b>347295</b>	<b>327372</b>	<b>257713</b>	<b>932380</b>
<b>Private Unaided</b>													
Boys	13110	12946	12882	12844	51782	13695	12861	12157	38713	11624	10275	8343	30242
Girls	12994	12606	12606	12667	50873	12206	11492	10780	34478	10813	9850	8377	29040
<b>TOTAL:Unaided</b>	<b>26104</b>	<b>25552</b>	<b>25488</b>	<b>25511</b>	<b>102655</b>	<b>25901</b>	<b>24353</b>	<b>22937</b>	<b>73191</b>	<b>22437</b>	<b>20125</b>	<b>16720</b>	<b>59282</b>

Source: Directorate of Public Instruction, Thiruvananthapuram



**Appendix - 9.16**  
**Standardwise Enrolment of Students in Government - Aided and Unaided Schools in Kerala from 1971 to 1999**

Year Management	STANDARDS												TOTAL
	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	
1971 Government	350656	319732	300003	283427	189792	142418	112391	108308	88796	54125	1948648		
Aided	446259	392704	366132	337902	320439	270533	224440	198761	168323	100732	2826225		
Unaided	3555	2985	2796	2394	2332	2037	1881	2628	2351	1690	24649		
<b>Total</b>	<b>800470</b>	<b>715421</b>	<b>668931</b>	<b>623723</b>	<b>512563</b>	<b>414988</b>	<b>338712</b>	<b>308697</b>	<b>259470</b>	<b>156547</b>	<b>4799522</b>		
1972 Government													
Aided													
Unaided													
<b>Total</b>													
1973 Government	294181	393735	309121	281742	194980	151913	121478	118403	91075	53107	2909738		
Aided	380014	501878	380459	349412	340198	291609	242621	210896	173175	101486	2971746		
Unaided	5121	4971	4305	3641	4258	3383	2899	4090	3432	2360	38460		
<b>Total</b>	<b>679316</b>	<b>900584</b>	<b>693888</b>	<b>634795</b>	<b>539438</b>	<b>446905</b>	<b>386998</b>	<b>333389</b>	<b>267680</b>	<b>156953</b>	<b>5019944</b>		
1974 Government	280199	320560	369587	296884	198665	164473	137558	99291	116674	72497	2056388		
Aided	362107	399190	434481	363539	347153	312832	276683	177109	213210	142183	3028487		
Unaided	5343	5304	4705	3806	4233	3796	3552	3608	3998	2674	41019		
<b>Total</b>	<b>647649</b>	<b>725054</b>	<b>808773</b>	<b>864229</b>	<b>550051</b>	<b>481101</b>	<b>417793</b>	<b>280008</b>	<b>333882</b>	<b>217354</b>	<b>5125894</b>		
1975 Government	278206	290242	302238	359184	218442	171575	153144	137531	85238	107032	2094832		
Aided	357211	365395	376190	424529	369541	321921	299643	226480	150443	198858	3090211		
Unaided	5055	5187	4751	4163	4079	3855	3305	3394	2801	3472	40662		
<b>Total</b>	<b>640472</b>	<b>660824</b>	<b>683179</b>	<b>779876</b>	<b>592062</b>	<b>497351</b>	<b>456092</b>	<b>368005</b>	<b>238482</b>	<b>309362</b>	<b>5225705</b>		
1976 Government	275456	268750	281166	294070	235596	199773	159447	146252	125600	81038	2067148		
Aided	353059	347692	339515	360324	405908	346722	305536	361541	201312	125796	3047405		
Unaided	5036	4704	4664	4310	3971	3708	3313	3626	3891	3264	40487		
<b>Total</b>	<b>633551</b>	<b>621146</b>	<b>625345</b>	<b>658704</b>	<b>645475</b>	<b>550203</b>	<b>468298</b>	<b>411419</b>	<b>330803</b>	<b>210098</b>	<b>5155040</b>		
1977 Government	280102	271629	263655	282888	247596	215654	172418	140554	126222	90794	2091512		
Aided	370420	347366	340151	326280	345689	362179	313829	274896	230301	149867	3060978		
Unaided	6981	4819	4543	4412	3764	3743	3661	3063	3316	2787	41089		
<b>Total</b>	<b>657503</b>	<b>623814</b>	<b>608349</b>	<b>613580</b>	<b>597049</b>	<b>581576</b>	<b>489908</b>	<b>498513</b>	<b>359839</b>	<b>243448</b>	<b>5193578</b>		

Separate figures are not available

1	2	3	4	5	6	7	8	9	10	11	12	13
1978	Government	280815	285219	270656	269266	213260	193372	97863	160224	132779	104898	2108352
	Aided	379204	383170	355284	346414	369955	365541	368223	270751	232256	170118	3240916
	Unaided	..	..	..	..	..	..	..	..	..	..	..
	<b>Total</b>	<b>660019</b>	<b>668389</b>	<b>625940</b>	<b>615680</b>	<b>583215</b>	<b>558913</b>	<b>566086</b>	<b>430975</b>	<b>365035</b>	<b>275016</b>	<b>5349268</b>
1979	Government	267680	296339	284646	207929	270918	190471	182237	190009	149279	106443	2145951
	Aided	364847	379916	365316	346552	359091	393620	361684	299098	257047	183009	3220180
	Unaided	..	..	..	..	..	..	..	..	..	..	..
	<b>Total</b>	<b>632527</b>	<b>676255</b>	<b>649962</b>	<b>817470</b>	<b>567020</b>	<b>494091</b>	<b>543921</b>	<b>489107</b>	<b>406326</b>	<b>289452</b>	<b>5366131</b>
1980	Government	268363	287362	290362	276219	207490	188314	182062	191932	170554	113153	2175811
	Aided	367314	373726	369644	357809	370342	350932	352128	308561	280053	191022	3321531
	Unaided	..	..	..	..	..	..	..	..	..	..	..
	<b>Total</b>	<b>635677</b>	<b>661088</b>	<b>660006</b>	<b>634028</b>	<b>577832</b>	<b>539246</b>	<b>534190</b>	<b>500493</b>	<b>450607</b>	<b>304175</b>	<b>5497342</b>
1981	Government	267342	281494	280991	286762	216579	189751	182642	188333	176151	133381	2203426
	Aided	356921	373231	358311	362375	380489	358067	350970	300989	286931	211905	3339098
	Unaided	7216	7314	6652	6194	6061	5755	6072	6507	5379	4279	60429
	<b>Total</b>	<b>631479</b>	<b>662039</b>	<b>645954</b>	<b>655331</b>	<b>603129</b>	<b>553573</b>	<b>538684</b>	<b>495738</b>	<b>468461</b>	<b>349565</b>	<b>5602953</b>
1982	Government	274709	278413	274879	249415	228882	201694	186318	197745	177583	137596	2237234
	Aided	363546	366416	362272	356940	385305	366797	359803	288729	275002	224660	3349470
	Unaided	7624	7727	7319	6828	6638	6217	5560	6343	5560	4278	6494
	<b>Total</b>	<b>645879</b>	<b>652556</b>	<b>644470</b>	<b>643183</b>	<b>620825</b>	<b>564708</b>	<b>551681</b>	<b>492817</b>	<b>458145</b>	<b>366534</b>	<b>5650798</b>
1983	Government	264896	282509	269704	271893	227894	216240	198260	202333	181661	138477	2253867
	Aided	354307	366733	353149	356352	378351	372875	367907	290503	268241	216786	3325204
	Unaided	7093	7505	7477	7122	7345	7064	6261	6646	6008	4681	67202
	<b>Total</b>	<b>626296</b>	<b>656747</b>	<b>630330</b>	<b>635367</b>	<b>613590</b>	<b>596179</b>	<b>572428</b>	<b>499482</b>	<b>455910</b>	<b>359944</b>	<b>5646273</b>
1984	Government	250000	272253	273054	266139	226323	216348	211979	208592	182345	141978	2249071
	Aided	344529	360620	355226	349050	378851	371628	376520	306831	272184	209230	3324719
	Unaided	8211	7340	7351	7239	8414	7887	7422	7662	6636	6503	74665
	<b>Total</b>	<b>602800</b>	<b>640213</b>	<b>635213</b>	<b>635631</b>	<b>622428</b>	<b>613588</b>	<b>595863</b>	<b>595921</b>	<b>523135</b>	<b>461165</b>	<b>357711</b>
1985	Government	255053	267837	267568	270398	224721	213938	204772	214294	184478	130659	2233718
	Aided	351110	368858	355844	352108	380198	371933	366477	324198	285221	206646	3362593
	Unaided	11518	10114	8987	8914	9095	8758	8101	7712	6490	5076	84765
	<b>Total</b>	<b>617681</b>	<b>646809</b>	<b>632399</b>	<b>631420</b>	<b>614014</b>	<b>594629</b>	<b>579350</b>	<b>546204</b>	<b>476189</b>	<b>342391</b>	<b>5681076</b>

	1	2	3	4	5	6	7	8	9	10	11	12	13
1986 Government	260874	277696	267529	268638	227210	211684	201889	210541	190390	27223	2243674		
Aided	355364	390806	367503	358385	582874	368146	355034	313502	289219	190636	5371469		
Unaided	14401	13168	11089	9943	10600	10410	9229	8614	7905	5649	101008		
<b>Total</b>	<b>630639</b>	<b>681670</b>	<b>646121</b>	<b>636966</b>	<b>620684</b>	<b>590240</b>	<b>566152</b>	<b>532657</b>	<b>487514</b>	<b>323508</b>	<b>5716151</b>		
1987 Government	253615	279531	269632	260523	231295	215875	200885	211021	189074	125241	2236692		
Aided	344902	390154	374816	355817	381593	371992	355191	309967	290934	188314	3363680		
Unaided	16119	15846	14011	11965	11038	11225	10805	9912	8828	7536	117085		
<b>Total</b>	<b>614636</b>	<b>685531</b>	<b>658459</b>	<b>628305</b>	<b>623926</b>	<b>599092</b>	<b>566681</b>	<b>530900</b>	<b>488836</b>	<b>321091</b>	<b>5717457</b>		
1988 Government	266257	281147	276461	269535	232015	220328	202742	209844	192088	126073	2276479		
Aided	345994	389748	378230	364997	383771	375130	356100	312284	289819	187286	3383359		
Unaided	17802	16486	16084	14353	12152	11892	11465	10776	9852	7956	128818		
<b>Total</b>	<b>630053</b>	<b>687381</b>	<b>670775</b>	<b>648885</b>	<b>627938</b>	<b>607350</b>	<b>570307</b>	<b>532904</b>	<b>491748</b>	<b>321315</b>	<b>5788656</b>		
1989 Government	248146	275421	275343	272741	230716	219276	216799	212025	191153	149357	2290977		
Aided	342720	363075	380044	372222	388627	387188	379599	308417	290105	226524	3427521		
Unaided	17776	16290	15986	15624	12847	12083	11708	10955	10660	8894	133453		
<b>Total</b>	<b>608642</b>	<b>655416</b>	<b>671373</b>	<b>660587</b>	<b>632190</b>	<b>607547</b>	<b>607106</b>	<b>531397</b>	<b>491918</b>	<b>384775</b>	<b>5851951</b>		
1990 Government	240043	256847	269077	270354	237588	219844	228077	118077	302530	152629	2295066		
Aided	335528	354848	356173	373983	402910	385228	385255	329762	290683	230390	3444760		
Unaided	18977	17980	17178	16080	14474	13776	12446	11279	11070	8630	142890		
<b>Total</b>	<b>594548</b>	<b>649675</b>	<b>622428</b>	<b>660417</b>	<b>654972</b>	<b>618848</b>	<b>625778</b>	<b>459118</b>	<b>604283</b>	<b>392649</b>	<b>5882716</b>		
1991 Government	241675	248853	253511	265248	237583	228333	222592	233577	208871	156329	2296572		
Aided	339294	348035	348021	355424	407512	396755	393812	333643	305326	228992	3456814		
Unaided	20061	18493	17770	16018	14967	14941	13311	11670	10957	9527	147715		
<b>Total</b>	<b>601030</b>	<b>615381</b>	<b>619302</b>	<b>636690</b>	<b>660062</b>	<b>640029</b>	<b>629715</b>	<b>578890</b>	<b>525154</b>	<b>394848</b>	<b>5901101</b>		
1992 Government	227117	251242	245374	251588	231029	227675	228315	240337	214871	165671	2283219		
Aided	327846	353177	341720	346930	393267	400750	406977	343222	312984	241521	3468394		
Unaided	20946	20071	18218	17169	15809	16000	14258	12545	11588	9788	155392		
<b>Total</b>	<b>575909</b>	<b>624490</b>	<b>605312</b>	<b>615687</b>	<b>640105</b>	<b>643425</b>	<b>649550</b>	<b>596104</b>	<b>539443</b>	<b>416980</b>	<b>5907005</b>		
1993 Government	222718	236927	244013	242837	221542	223856	229486	243953	216751	178828	2260894		
Aided	321984	341651	343554	338976	383753	390933	411690	351028	317629	244923	3446121		
Unaided	21724	20772	19315	17614	16676	15470	14135	13388	12367	10260	161721		
<b>Total</b>	<b>566426</b>	<b>599350</b>	<b>606882</b>	<b>599427</b>	<b>621971</b>	<b>630259</b>	<b>655294</b>	<b>608369</b>	<b>546747</b>	<b>434011</b>	<b>5868736</b>		

1	2	3	4	5	6	7	8	9	10	11	12	13
1994	Government	208257	231249	233723	243253	211505	213979	226289	248288	222805	172656	2212004
	Aided	309142	335008	336352	342378	374651	380460	409815	358045	322834	252485	3421170
	Unaided	23194	22381	20819	19298	18048	16770	15320	14276	13070	11757	174933
	<b>Total</b>	<b>540593</b>	<b>588638</b>	<b>590894</b>	<b>604929</b>	<b>604204</b>	<b>611209</b>	<b>651424</b>	<b>620609</b>	<b>558709</b>	<b>436898</b>	<b>5808107</b>
1995	Government	202902	217162	227080	231957	212225	206606	217255	245121	225677	173590	2159575
	Aided	302742	322265	328188	332579	377674	373748	399187	357347	329809	253974	3377513
	Unaided	23140	22382	21533	20052	18692	17460	16338	14956	13651	12053	180257
	<b>Total</b>	<b>528784</b>	<b>561809</b>	<b>576801</b>	<b>584588</b>	<b>608591</b>	<b>597814</b>	<b>632780</b>	<b>617424</b>	<b>569137</b>	<b>439617</b>	<b>5717345</b>
1996	Government	195579	210624	214658	225254	203728	206195	209774	237579	222783	175908	2102082
	Aided	299153	316278	316893	326388	369445	375531	392063	349019	330417	258274	3333461
	Unaided	24316	24155	22971	21815	19849	18764	17426	15867	14763	12284	191310
	<b>Total</b>	<b>519048</b>	<b>551057</b>	<b>554522</b>	<b>573457</b>	<b>593022</b>	<b>600490</b>	<b>619263</b>	<b>602465</b>	<b>567963</b>	<b>446466</b>	<b>5627753</b>
1997	Government	188152	201935	206067	213064	195972	198197	208523	230178	217827	174835	2034750
	Aided	293700	313426	311711	315498	363039	368666	393972	345607	326047	261119	3292785
	Unaided	25220	25496	23727	22514	22314	20774	18433	18456	16298	13427	206689
	<b>Total</b>	<b>507072</b>	<b>540857</b>	<b>541505</b>	<b>551076</b>	<b>581325</b>	<b>587637</b>	<b>620928</b>	<b>594271</b>	<b>560172</b>	<b>449381</b>	<b>5534224</b>
1998	Government	173878	195517	201055	206031	190070	192322	203602	228148	212077	171182	1973882
	Aided	275607	306956	307976	310115	353883	363862	389086	349763	323318	259796	3240362
	Unaided	25816	25526	25656	24074	24451	22923	20846	20207	18044	15304	222847
	<b>Total</b>	<b>475301</b>	<b>527999</b>	<b>534687</b>	<b>540220</b>	<b>568404</b>	<b>579107</b>	<b>613534</b>	<b>598118</b>	<b>553439</b>	<b>446282</b>	<b>5437091</b>
1999	Government	170116	182062	194015	200518	184847	186955	198934	226309	212628	168984	1925368
	Aided	268705	287609	300021	304563	346449	352664	382814	347295	327372	257713	3175205
	Unaided	26104	25552	25488	25511	25901	24353	22937	22437	20125	16720	235128
	<b>Total</b>	<b>464925</b>	<b>495223</b>	<b>519524</b>	<b>530592</b>	<b>557197</b>	<b>563972</b>	<b>604685</b>	<b>596041</b>	<b>560125</b>	<b>443417</b>	<b>5335701</b>

Source: Directorate of Public Instruction, Thiruvananthapuram

**Appendix - 9.17**  
**Enrolment of Students in Schools, Kerala - Stage-wise (1973-1999)**

Year	L.P.S				U.P.S				H.S				TOTAL
	Govt.	Aided	Unaided	Total	Govt.	Aided	Unaided	Total	Govt.	Aided	Unaided	Total	
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1973	1278782	1611763	18038	2908583	468371	874428	10540	1353339	262585	485555	9882	758022	5019944
1974	1267230	1559317	19158	2845705	500696	936668	11581	1448945	288462	532502	10280	831244	5125894
1975	1221870	1523325	19156	2764351	543161	991105	11239	1545505	329801	575781	10267	915849	5225705
1976	1119442	1400590	18714	2538746	594816	1958166	10992	1663974	352890	588649	10781	952320	5155040
1977	1098274	1384217	20755	2503246	635668	1021697	11168	1668533	357570	655064	9166	1021800	5193579
1978	1105956	1464072	..	2570028	601495	1103719*	..	1708214	397901	673125*	..	1071026	5349268
1979	1119583	1456631	..	2576214	580637	1024395	..	1605032	445731	739154	..	1184885	5366131
1980	1122306	1468493	..	2590799	577866	1073402	..	1651268	475639	779636	..	1255275	5497342
1981	1116589	1450838	27376	2594803	588972	1088526	16888	1694386	497865	799734	16165	1313764	5602953
1982	1107416	1446174	29498	2586088*	616894	1111905	18415	1747214	512924	788391	16181	1371496	5650798
1983	1089002	1430541	29197	2548740	642394	1119133	20670	1782197	522471	775530	17335	1315336	5646273
1984	1061506	1409425	30141	2501072	654650	1126999	23723	1805372	532915	788295	20801	1342011	5648455
1985	1060856	1427920	39533	2528309	634431	1118608	25954	1787993	529431	816065	19278	1364774	5681076
1986	1074737	1472058	48601	2595396	640783	1106054	30239	1777076	528154	793357	22168	1343679	5716151
1987	1063301	1465689	57941	2586931	648055	1108776	32868	1789699	525336	789215	26276	1340827	5717457
1988	1093400	1478969	64725	2637094	655085	1115001	35509	1805595	527994	789389	28584	1345967	5788656
1989	1071651	1458061	66306	2596018	666791	1144414	36638	1847843	552535	825046	30509	1408090	5851951
1990	1035321	1420532	70215	2527068	685509	1173393	40696	1899598	573236	850835	31979	1456050	5882716
1991	1009287	1390774	72342	2472403	688508	1198079	43219	1929806	598777	867961	32154	1498892	5901101
1992	975321	1369673	76404	2421398	687019	1200994	45067	1933080	620879	897727	33921	1552527	5907005
1993	946495	1346165	79425	2372085	674867	1186376	46281	1907524	639532	913580	36015	1589127	5868736
1994	916482	1322880	85692	2325054	651773	1164926	50138	1866837	643749	933364	39103	1616216	5808107
1995	879101	1285774	87107	2251982	638086	1150609	52490	1839185	644388	941130	40660	1626178	5717345
1996	846115	1258712	93257	2198084	619697	1137039	56039	1812775	636270	937710	42914	1616894	5627753
1997	809218	1234335	96957	2140510	602692	1125677	61521	1789890	622840	932773	48211	1603824	5534224
1998	776481	1200654	101072	2078207	585954	1106831	68220	1761045	611407	932877	53555	1597839	5437091
1999	746711	1160898	102655	2010264	570736	1081927	73191	1725854	607921	932380	59282	1599583	5335701

Source: Directorate of Public Instruction, Thiruvananthapuram

**Appendix - 9.18**  
**Strength of Pupils studying other than State Syllabus (1997-98)**

Std.	C B S E			I C S E			Kendriya Vidyalaya			Navodaya Vidyalaya		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
	3	4	5	6	7	8	9	10	11	12	13	14
I	7074	5350	12424	2178	1620	3798	916	758	1674	..	..	..
II	7233	5323	12556	2367	1669	4036	985	782	1767	..	..	..
III	7726	5451	13177	2638	1842	4480	4040	798	1838	..	..	..
IV	7586	5326	12912	2419	1620	4039	981	882	1863	..	..	..
V	7137	5084	12221	2621	1590	4211	1089	840	1929	..	..	..
VI	6577	4334	10911	2396	1526	3922	1252	948	2200	419	267	686
VII	5903	3942	9845	2068	1318	3386	1138	817	1955	510	308	818
VIII	4688	3405	8093	1639	1102	2741	1047	752	1799	466	345	811
IX	3902	2816	6718	1361	883	2244	1136	706	1842	446	306	752
X	2998	2236	5234	1138	741	1879	865	643	1508	463	262	725
<b>TOTAL:</b>	<b>60824</b>	<b>43267</b>	<b>104091</b>	<b>20825</b>	<b>13911</b>	<b>34736</b>	<b>10449</b>	<b>7926</b>	<b>18375</b>	<b>2304</b>	<b>1488</b>	<b>3792</b>

Source: Directorate of Public Instruction, Thiruvananthapuram

**Appendix - 9.19****Standard-wise Enrolment in 1999 and Age Group Children Projected for 2001 AD**

Category	Present Enrolment (1999)	Age Group Population (2001*)	Actual Decline	Percentage Decline
1	2	3	4	5
I	464925	527587	-62662	-13.48
II	495223	528589	-33366	-6.74
III	519524	530531	-11007	-2.12
IV	530592	531194	602	0.11
<b>Sub.Total: L.P.Level</b>	<b>2010264</b>	<b>2117901</b>	<b>-107637</b>	<b>-5.35</b>
V	557197	532056	25141	4.51
VI	563972	534988	28984	5.14
VII	604685	531653	73032	12.08
<b>Sub.Total: U.P.Level</b>	<b>1725854</b>	<b>1598697</b>	<b>127157</b>	<b>7.37</b>
VIII	596041	526072	69969	11.74
IX	560125	525340	34785	6.21
X	443417	524060	-80643	-18.19
<b>Sub.Total: H.S Level</b>	<b>1599583</b>	<b>1575472</b>	<b>24111</b>	<b>1.51</b>
<b>TOTAL:</b>	<b>5335701</b>	<b>5292070</b>	<b>43631</b>	<b>0.82</b>

Source: \* Report of the Expert Committee on School Age Group Population in 2001 A.D and Its Implications on Educational Policy and Planning - 1994

**Appendix - 9.20****Enrolment of SC/ST Students at School Level 1999**

Section	General	Scheduled Castes	Percentage to Total	Scheduled Tribes	Percentage to Total
1	2	3	4	5	6
Lower Primary	2010264	216792	10.78	28845	1.43
Upper Primary	1725854	185781	10.76	17703	1.03
Secondary	1599583	168270	10.52	13589	0.85
<b>TOTAL:</b>	<b>5335701</b>	<b>570843</b>	<b>10.70</b>	<b>60137</b>	<b>1.13</b>

Source: Directorate of Public Instruction, Thiruvananthapuram

**Appendix - 9.21**  
**Standard -wise Strength of SC/ST Students - 1999**

Standard	Government Schools			Private Aided Schools			Private Unaided Schools		
	Total	SC	ST	Total	SC	ST	Total	SC	ST
1	2	3	4	5	6	7	8	9	10
I	170118	21681	3636	268705	25635	2983	26104	889	55
II	182062	23502	4143	287609	27904	3546	25552	826	54
III	194015	26431	4102	300021	30340	3552	25488	790	44
IV	200518	27040	3641	304563	30951	3032	25511	803	57
V	184847	23673	3284	346449	35428	2812	25901	359	73
VI	186955	23248	2839	352664	36449	2647	24323	630	70
VII	198934	24565	3094	382814	40563	2797	22937	566	87
VIII	226309	27874	3094	347295	36169	2375	22437	650	71
IX	212628	25623	2605	327372	33572	2010	20125	517	65
X	166984	19031	1888	257713	24579	1440	16720	455	41
<b>TOTAL:</b>	<b>1925368</b>	<b>242468</b>	<b>32326</b>	<b>3176205</b>	<b>321560</b>	<b>27194</b>	<b>236128</b>	<b>6815</b>	<b>617</b>

Source: Directorate of Public Instruction, Thiruvananthapuram

**Appendix - 9.22**  
**Number of School Teachers as on 31-3-1999**

Category	Teachers			Of which SC/ST					
				SC			ST		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
1	2	3	4	5	6	7	8	9	10
L.P. Teachers	17984	48486	64470	730	1619	2349	60	165	225
U.P. Teachers	19807	38752	58559	789	1074	1843	61	83	144
H S. Teachers	22524	38907	61431	679	1182	1861	6	20	26
TTI. Teachers	181	238	419	4	1	5	..	..	..
<b>TOTAL:</b>	<b>60496</b>	<b>124383</b>	<b>184779</b>	<b>2182</b>	<b>3876</b>	<b>6058</b>	<b>127</b>	<b>268</b>	<b>395</b>

Source: Directorate of Public Instruction, Thiruvananthapuram

**Appendix 9. 23**  
**Stage-wise and Management-wise number of Teachers in Schools in Kerala - 1999**

Stage	Government			Aided			Unaided			Total Teachers		
	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
1	2	3	4	5	6	7	8	9	10	11	12	13
Lower Primary School Teachers	5109	10365	15474	7938	19298	27234	127	911	1038	13172	30574	43746
Upper Primary School Teachers	5415	9032	14447	10636	22467	33103	212	744	956	16263	32243	48506
High School Teachers	13445	21647	35092	16010	34759	50769	1294	4517	5811	30749	60923	91672
	208	245	453	104	398	502	..	..	..	312	643	955
<b>Total</b>	<b>24177</b>	<b>41289</b>	<b>85468</b>	<b>34688</b>	<b>76922</b>	<b>111608</b>	<b>1833</b>	<b>6172</b>	<b>7805</b>	<b>60496</b>	<b>124383</b>	<b>184879</b>

Source: Directorate of Public Instructions, Thiruvananthapuram



1	2	3	4	5	6
9	Palakkad				
	Government	22	32	20	13
	Aided	10	21	8	5
	Unaided	..	..	..	..
	<b>Total</b>	<b>32</b>	<b>53</b>	<b>28</b>	<b>18</b>
10	Malappuram				
	Government	19	23	20	10
	Aided	19	41	15	15
	Unaided	6	6	..	..
	<b>Total</b>	<b>44</b>	<b>70</b>	<b>35</b>	<b>25</b>
11	Kozhikode				
	Government	24	34	17	15
	Aided	15	33	12	10
	Unaided	..	..	..	..
	<b>Total</b>	<b>39</b>	<b>67</b>	<b>29</b>	<b>25</b>
12	Wayanad				
	Government	8	8	10	5
	Aided	5	10	4	1
	Unaided	..	..	..	..
	<b>Total</b>	<b>13</b>	<b>18</b>	<b>14</b>	<b>6</b>
13	Kannur				
	Government	28	43	21	16
	Aided	12	23	6	8
	Unaided	..	..	..	..
	<b>Total</b>	<b>40</b>	<b>66</b>	<b>27</b>	<b>24</b>
14	Kasargode				
	Government	11	11	13	6
	Aided	7	16	3	3
	Unaided	..	..	..	..
	<b>Total</b>	<b>18</b>	<b>27</b>	<b>16</b>	<b>9</b>
14	KERALA				
	Government	256	353	220	159
	Aided	260	581	175	181
	Unaided	12	8	1	2
	<b>Total</b>	<b>528</b>	<b>942</b>	<b>396</b>	<b>342</b>

Source: Directorate of HSE, Thiruvananthapuram

**Intake of Students under Higher Secondary (plus Two) Courses - XI and XII Standard**

Year	No. of Students			No. of Students		
	First Year			Second Year		
	Boys	Girls	Total	Boys	Girls	Total
1	2	3	4	5	6	7
1995-96	4987	6579	11566	..	..	..
1996-97	5247	7009	12256	..	..	..
1997-98	8719	11373	20092	2351	3690	6041
1998-99	28184	34644	62828	8719	11373	20092
1999-2000	29772	40799	70571	28184	34644	62828

Source: Directorate of Higher Secondary Education, Thiruvananthapuram

Note: 1995-96 & 1996-97 include XI and XII Std students

**Appendix 9.27**

**Subject-wise Annual Intake of Students in Higher Secondary Schools - 1999.**

Sl.No	Subject	Boys	Girls	Total
1	2	3	4	5
1	Science	15604	23709	39313
2	Humanities	6841	9562	16403
3	Commerce	7313	7507	14820
4	Others	14	21	35
<b>Total</b>		<b>29772</b>	<b>40799</b>	<b>70571</b>

Source: Directorate of HSE, Thiruvananthapuram.

**Appendix - 9.28**

**District-wise Number of Vocational Higher Secondary Schools in Kerala - 1999**

Sl.No.	District	No. of Schools		
		Government	Aided	Total
1	2	3	4	5
1	Thiruvananthapuram	26	8	34
2	Kollam	17	26	43
3	Pathanamthitta	8	10	18
4	Alappuzha	12	5	17
5	Kottayam	19	5	24
6	Idukki	11	2	13
7	Ernakulam	21	9	30
8	Thrissur	24	7	31
9	Palakkad	17	5	22
10	Malappuram	22	2	24
11	Kozhikode	20	7	27
12	Wayanad	5	1	6
13	Kannur	15	1	16
14	Kasargode	14	3	17
<b>TOTAL:</b>		<b>231</b>	<b>91</b>	<b>322</b>

Source: Directorate of VHSE, Thiruvananthapuram

## Appendix - 9.29

## Vocational Higher Secondary Courses Offered - 1999

Sl.No.	Name of Courses	No. of Sections
<i>(Group - A)</i>		
I	Engineering Technology	
	1 Civil construction	26
	2 Maintenance and Repairs of Two Wheelers & Three Wheelers	12
	3 Maintenance and Repairs of Automobiles	9
	4 Maintenance and Repairs of Radio and Television	72
	5 Maintenance and Repairs of Domestic Appliances	53
	6 Mechanical Servicing (Agromachinery)	3
	7 Refrigeration and Air-conditioning	16
	8 Electroplating	1
	9 Printing Technology (Pre-Press Operation)	11
	10 Printing Technology (Press Work and Finishing)	10
	11 Rubber Technology	3
	12 Textile Dyeing and Printing	1
	13 Textile Weaving	1
	14 Data Processing and console Operation	36
	15 Horology	1
	16 Plastic Materials & Products	1
<i>(Group - B)</i>		
II	Agriculture	
	17 Agriculture (Plant Protection)	47
	18 Agriculture (Fruits & Vegetables)	22
	19 Agriculture (Nursery Management & Ornamental Gardening)	50
	20 Agriculture (Sericulture)	3
III	Animal Husbandry	
	21 Livestock Management (Dairying)	16
	22 Livestock Management (Poultry Husbandry)	10
	23 Dairying (Milk Products)	5
IV	Fisheries	
	24 Fisheries (Acquaculture)	9
	25 Fisheries (Fishing Craft and Gear Technology)	4
	26 Fisheries (Maintenance & Repairs of Marine Engines)	6
	27 Fisheries (Fish Processing Technology)	12
V	Paramedical	
	28 Medical Laboratory technician	101
	29 Maintenance and Operation of Bio-Medical Equipments	27
	30 ECG Audiometric Technician	7
	31 Domestic Nursing	12
	32 Dental Technonogy	2
	33 Physiotherapy	1
VI	Physical Education	
	34 Physical Education	4
VII	Home Science	
	35 Clothing & Embroidery	17
	36 Closmetology end Beauty Parlour Management	4
	37 Creche end Pre-School Management	3
<i>(Group - C)</i>		
VIII	Business & Commerce	
	38 Travel and Tourism	15
<i>(Group - D)</i>		
	39 Office Secretaryship	58
	40 Accountancy and Auditing	70
	41 General Insurance	14
	42 Marketing and Salesmanship	23
	43 Reception, Book-keeping and Communication	5
	44 Catering and Restaurant Management	3
	45 Banking Assistance	8
	<b>TOTAL:</b>	<b>814</b>

Source: Directorate of VHSC, Thiruvananthapuram

**Appendix - 9.30**

Intake of Students under Vocational Higher Secondary Education  
from 1992-93 to 1998-99

year	No. of Students enrolled					
	Class XI			Class XII		
	Boys	Girls	Total	Boys	Girls	Total
1	2	3	4	5	6	7
1992-93	7900	4270	12170	7440	4560	12000
1993-94	8690	4720	13410	7870	4260	12130
1994-95	8993	5282	14275	8159	5216	13375
1995-96	10553	6747	17300	8422	5853	14275
1996-97	9209	8166	17375	9405	7695	17100
1997-98	9435	10508	19943	7289	9112	16401
1998-99	9327	10348	19675	9428	10491	19919

Source: Directorate of VHSE, Thiruvananthapuram

**Appendix - 9.31**

University - wise Number of Arts & Science Colleges in Kerala (1999)

Name of University	No. of Colleges		
	Government	Private Aided	Total
1	2	3	4
Kerala	9	37	46
Mahatma Gandhi	7	55	62
Calicut	16	44	60
Kannur	6	12	18
<b>Total:</b>	<b>38</b>	<b>148</b>	<b>186</b>

Source: Directorate of Collegiate Education, Thiruvananthapuram

**Appendix - 9.32**

District-wise Number of Arts & Science Colleges in Kerala (1999)

Sl.No.	District	Government	Private aided	Total
1	2	3	4	5
1	Thiruvananthapuram	8	12	20
2	Kollam	1	12	13
3	Pathanamthitta	—	9	9
4	Alappuzha	—	12	12
5	Ernakulam	4	21	25
6	Kottayam	1	20	21
7	Idukki	2	6	8
8	Thrissur	3	17	20
9	Malappuram	3	9	12
10	Palakkad	3	7	10
11	Kozhikode	6	8	14
12	Wayanad	2	4	6
13	Kannur	2	9	11
14	Kasargode	3	2	5
	<b>TOTAL:</b>	<b>38</b>	<b>148</b>	<b>186</b>

Source: Directorate of Collegiate Education, Thiruvananthapuram

## Appendix - 9 .33

## Enrolment in Arts &amp; Science Colleges in Kerala - University-wise &amp; Stage-wise- 1999

Name of University	Pre-Degree				Degree				Post Graduate				Total			
	Boys	Girls	SC	ST	Boys	Girls	SC	ST	Boys	Girls	SC	ST	Boys	Girls	SC	ST
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Kerala University	17378	26746	8036	179	15313	30450	4047	82	1201	3476	422	9	33892	60672	12505	270
Calicut University	20177	23422	7775	184	15375	22893	3984	209	1073	1951	377	23	36625	63244	10348	1060
M.G.University	26700	38103	6969	506	13702	22468	3104	190	1112	2673	275	64	41514	48266	12136	416
Kannur University	6094	6688	1595	385	4456	7291	825	179	228	392	88	17	10778	14371	2488	581
<b>TOTAL:</b>	<b>70349</b>	<b>94959</b>	<b>24375</b>	<b>1254</b>	<b>48846</b>	<b>83102</b>	<b>11960</b>	<b>960</b>	<b>3614</b>	<b>8492</b>	<b>1142</b>	<b>113</b>	<b>122809</b>	<b>186553</b>	<b>37477</b>	<b>2327</b>

Source: Directorate of Collegiate Education, Thiruvananthapuram

## Appendix.9.34

## Enrolment of PDC Students during 1999

Name of Group	P D C Students			Total
	Boys	Girls	Total	
First Group	19002	18819	37821	
Second Group	15018	32994	48012	
Third Group	21268	26057	47325	
Fourth Group	13585	14912	28497	
Fifth Group	1776	2177	3953	
<b>Total</b>	<b>70349</b>	<b>94959</b>	<b>165308</b>	

Source: Directorate of Collegiate Education

**Appendix - 9.35**  
**Details of Enrolment of B.A.Degree Students In Colleges in Kerala during 1998-99**

Sl.No	Subject	First Year			Second Year			Third Year			Total		
		Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
1	::	2	3	4	5	6	7	8	9	10	11	12	13
1	Economics	1423	5500	6923	1521	4401	5922	1344	4018	5362	4288	13919	18207
2	History	1156	2052	3208	879	1996	2875	890	1822	2512	2925	5670	8595
3	Sociology	651	306	957	309	601	910	170	198	368	1130	1105	2235
4	Politics	557	418	973	234	573	807	370	345	715	1161	1334	2495
5	Philosophy	151	168	319	266	127	393	95	115	210	512	410	922
6	Geography	28	32	62	53	12	65	33	27	60	114	73	187
7	Psychology	74	129	203	115	84	199	55	59	114	244	272	516
8	English	1240	2024	3264	1348	1889	3237	1007	1508	2515	3595	5421	9016
9	Malayalam	817	1998	2815	934	1527	2461	590	1426	2016	2141	4951	7092
10	Hindi	559	384	943	409	555	964	273	575	848	1241	1514	2755
11	Islamic Histor	123	138	261	168	106	274	147	60	207	438	304	702
12	Arabic	206	105	311	186	120	306	128	165	293	520	390	910
13	Sanskrit	160	67	227	121	102	223	107	103	210	388	272	660
14	Kannada	4	15	16	9	10	19	12	8	20	25	33	58
15	Tamil	21	13	34	24	12	36	12	10	22	57	35	92
16	Music	16	19	35	21	13	34	5	8	13	42	40	82
<b>TOTAL:</b>		6986	13368	20354	6597	12128	18725	5238	10247	15485	18821	35743	

Source: Directorate of Collegiate Education

### Appendix 9.36

#### Details of Enrolment of B.Sc Degree Students in Colleges in Kerala during 1998-99

Sl No	Subject	First Year			Second Year			Third Year			Total		
		Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
1		2	3	4	5	6	7	8	9	10	11	12	13
1	Mathematics	1958	3326	5284	1829	2831	4660	1202	2857	4059	4989	9014	14003
2	Physics	1876	2753	4629	1584	2277	3861	1973	1689	3662	5233	6719	11952
3	Chemistry	1433	2963	4396	1476	2461	3937	1344	1917	3261	4253	7341	11594
4	Zoology	807	2818	3625	1177	2292	3469	1094	1786	2880	3078	6896	9974
5	Botany	607	2472	3079	563	1826	2389	707	1802	2309	1877	5900	7777
6	Statistics	135	128	263	91	106	197	59	89	148	285	323	608
7	Geology	71	139	210	84	111	195	58	104	162	213	354	567
8	Home Science	144	133	277	66	141	206	51	136	187	261	409	670
9	Bio-Chemistry	15	39	54	19	31	50	5	7	12	39	77	116
10	Polymer Chemistry	23	99	122	56	52	108	47	52	99	126	203	329
11	Bio- Technology	5	19	24	6	18	22	..	..	..	11	35	46
12													
13	Computer Science and Fisheries	49	32	81	37	35	72	7	15	22	93	82	175
14	B.Sc Electronics	10	6	18	5	11	16	..	..	..	15	17	32
15	Analytical Chemistry	44	15	59	32	18	50	39	15	54	115	48	163
		4	8	12	4	6	10	..	..	..	8	14	22
<b>TOTAL:</b>		<b>8981</b>	<b>14950</b>	<b>21931</b>	<b>7029</b>	<b>12213</b>	<b>19242</b>	<b>6388</b>	<b>10269</b>	<b>18855</b>	<b>20596</b>	<b>37432</b>	<b>58028</b>

Source: Directorate of Collegiate Education

### Appendix 9.37

#### Details of B.Com Degree Enrolment In Colleges in Kerala 1998-99

Year	Enrolment		
	Boys	Girls	Total
First Year	3171	3409	6580
Second Year	3033	3303	6336
Third Year	3225	3215	6440
<b>Total</b>	<b>9429</b>	<b>9927</b>	<b>19356</b>

**Appendix - 9.38****Details of Enrolment of M.A. Students in Colleges during 1998-99**

Sl.No	Subject	First Year			Second Year			Total			
		Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	
1	2	4	5	6	7	8	9	10	11	12	13
1	Economics		254	659	913	283	594	877	537	1253	1790
2	History		103	256	359	97	242	339	200	498	698
3	Sociology		2	10	12	3	8	11	5	18	23
4	Politics		63	127	190	64	123	187	127	250	377
5	Philosophy		9	23	32	5	5828	33	14	51	65
6	Geography		3	16	19	3	16	19	6	32	38
7	Psychology		6	26	32	5	28	33	11	54	65
8	English		212	413	625	185	389	574	397	802	1199
9	Hindi		42	137	179	40	103	143	82	240	322
10	Geology		15	12	27	8	9	17	23	21	44
11	Malayalam		66	242	308	85	188	273	151	430	581
12	Arabic		21	37	58	36	18	54	57	55	112
13	Sanskrit		17	148	165	55	88	143	72	236	308
14	Kannada		3	7	10	4	6	10	7	13	20
15	Islamic Hlstory		25	41	66	30	37	67	55	78	133
16	Tamil		5	9	14	3	12	15	8	21	29
<b>TOTAL:</b>			<b>848</b>	<b>2163</b>	<b>3009</b>	<b>906</b>	<b>1889</b>	<b>2795</b>	<b>1752</b>	<b>4052</b>	<b>5804</b>

Source: Directorate of Collegiate Education

**Appendix - 9.39****Details of Enrolment of M.Sc. Students in Colleges during 1998-99**

Sl.No	Subject	First Year			Second Year			Total		
		Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
1	2	3	4	5	6	7	8	9	10	11
1	Mathematics	108	497	605	122	479	601	230	976	1206
2	Statistics	72	253	325	63	217	280	135	470	605
3	Physics	109	278	387	118	249	367	227	527	754
4	Chemistry	83	268	351	104	225	329	187	493	680
5	Zoology	99	256	355	113	223	336	212	479	691
6	Botany	76	277	353	81	253	334	157	530	687
7	Home Science	..	10	10	..	10	10	..	20	20
8	Geology	15	12	27	2	7	9	17	19	36
9	Analytical Chemistry	3	9	12	7	5	12	10	14	24
<b>TOTAL:</b>		<b>565</b>	<b>1860</b>	<b>2425</b>	<b>610</b>	<b>1668</b>	<b>2278</b>	<b>1175</b>	<b>3528</b>	<b>4703</b>

Source: Directorate of Collegiate Education



**Appendix 9.40****Details of M.Com Enrolment in Kerala during 1998-99**

Sl.No	Year	Enrolment		
		Boys	Girls	Total
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1	First Year	338	505	<b>843</b>
2	Second Year	349	407	<b>756</b>
<b>Total</b>		<b>687</b>	<b>912</b>	<b>1599</b>

**Appendix- 9.41****Number of Teachers in Arts & Science Colleges (1995-97)**

Sl.No.	Name of University	Number of Teachers								
		1995			1996			1997		
		Men	Women	Total	Men	Women	Total	Men	Women	Total
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>
1	Kerala	2281	1763	4044	2248	1751	3999	2241	1742	3983
2	Calicut	3012*	1618*	4630*	2994*	1584*	4578*	2310	1230	3540
3	Mahatma Gandhi	3121	1725	4846	3035	1628	4663	3047	1649	4696
4	Kannur	..	..	..	..	..	..	894	363	1057
<b>TOTAL:</b>		<b>8414</b>	<b>5106</b>	<b>13520</b>	<b>8277</b>	<b>4963</b>	<b>13240</b>	<b>8292</b>	<b>4984</b>	<b>13276</b>

Source: Directorate of Collegiate Education, Thiruvananthapuram

\* Includes Kannur University

**Appendix - 9.42**  
**Year-wise Break up of Private Registration (1987 to 1997)**

Year	Kerala University										Calicut University										Mahatma Gandhi University									
	Pre-degree	BA	MA	B.Com	M.Com	M.Sc	Total	Pre-degree	BA	B.Sc	B.Com	MA	M.Sc	M.Com	Total	Pre-degree	BA	MA	B.Com	M.Com	Total									
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22									
1987	38000	2900	3800	7200	1500	..	53400	33792	6081	489	4500	1204	527	370	46963	..	..	..	..	..	..									
1988	26841	4697	5120	8724	1575	..	46857	36547	7650	852	6086	1464	738	870	53885	..	..	..	..	..	..									
1989	26440	3250	5325	6170	2000	..	43185	39771	11700	1173	8086	2021	738	665	64134	..	..	..	..	..	..									
1990	26329	4200	5636	6320	2500	..	44995	44782	12217	1647	9875	2383	809	716	73364	..	..	..	..	..	..									
1991	26000	4283	6580	5977	2342	..	47164	60753	14836	1800	10400	2658	1170	884	92490	32452	2431	..	6310	..	44193									
1992	27000	6000	7000	6250	2200	..	48450	55347	11714	..	8266	2864	..	763	78935	26528	3138	..	7282	..	36948									
1993	27600	5600	9500	7000	1900	590	52190	58800	13147	..	10217	3992	..	929	87085	30777	3582	..	8310	..	42669									
1994	31000	5500	7800	7000	2169	650	54119	49461	7849	..	9281	3132	566	884	71173	29135	4001	..	8345	..	41481									
1995	25000	5100	5675	6200	2400	650	45025	46512	8902	..	11535	3139	428	681	71197	24992	2384	..	5632	..	33008									
1996	26226	4067	5765	6268	1860	554	44740	43256	11791	..	14100	1981	457	1134	72719	25303	2206	..	5769	..	33278									
1997	24100	4010	5800	6490	2090	610	43100	39282	15000	..	11500	3600	800	1378	71560	21931	2204	..	6762	..	30897									
1998								59324	14821	..	12463	3517	757	27	90909															
1999								60270	14682	..	13347	3950	722	..	92971															

Source: Universities in Kerala

### Appendix - 9.43

#### University-wise and Management-wise Details of Training Colleges in Kerala (1998)

Sl. No.	Name of University	No. of Training Colleges			Student Strength			Number of Teachers		
		Govt:	Pvt: Aided	Total	Govt:	Pvt: Aided	Total	Govt:	Pvt: Aided	Total
1		2	3	4	5	6	7	8	9	10
1	Kerala	1	7	8	202	1017	1219	16	51	67
2	Calicut	2	2	4	241	318	559	19	23	42
3	Mahatma Gandhi		6	6		1004	1004		58	58
4	Kannur	1		1	120		120	8		8
<b>TOTAL:</b>		<b>4</b>	<b>15</b>	<b>19</b>	<b>563</b>	<b>2339</b>	<b>2902</b>	<b>43</b>	<b>132</b>	<b>175</b>

Source: Directorate of Collegiate Education, Thiruvananthapuram

## Appendix - 9.44

## Details on Cochin University of Science and Technology (1998-99)

Sl.No	Department or School	Courses of Study and Research	No. of Students admitted	Intake	
1	2	3	4	5	
I	DEPARTMENT OF APPLIED CHEMISTRY	1. M.Sc Applied Chemistry	10	14	
		2. M.Phil. Chemistry		10	
		3. M.Tech. (industrial Catalysis)	16	16	
		4. Ph.D.			
II	DEPARTMENT OF BIO-TECHNOLOGY	1. M.Sc. Biotechnology	11	12	
		2. Ph.D.			
III	DEPARTMENT OF MATHEMATICS	1. M.Sc. Mathematics	19	22	
		2. M.Phil. Mathematics		11	
		3. Ph.D.			
IV	DEPARTMENT OF STATISTICS	1. M.Sc. Statistics	20	16	
		2. Ph.D.			
		3. M.Phil. Statistics	7	7	
V	DEPARTMENT OF PHYSICS	1. M.Sc. Physics	21	28	
		2. M.Phil. Physics		9	
		3. Ph.D.			
VI	DEPARTMENT OF FOREIGN LANGUAGES	1. Certificate courses			
		a. German	}	19	
		b. Russian		4	
		c. French		17	
		d. Japanese	10	42	
		2. Diploma Courses			
		a. German	}		25
		b. Russian			
		3. PG. Diploma in Functional Arabic		25	
		1. M.A Hindi	28	29	
2. M.Phil. Hindi		10			
3. PG. Diploma in Translation, Administrative Writing & Reporting in Hindi	28	28			
5. PG. Diploma in Functional Hindi	28	28			
VIII	SCHOOL OF LEGAL STUDIES	1. LL.M	36	36	
		2. LL.B	110	110	
		3. Ph.D.			
IX	SCHOOL OF ENVIRONMENTAL STUDIES	1. M.Sc. Environmental Technology	10	12	
X	SCHOOL OF MARINE BIOLOGY, MICRO BIOLOGY & BIO-CHEMISTRY	1. M.Sc Marine Biology	17	18	
		2. Ph.D.			
XI	SCHOOL OF INDUSTRIAL FISHERIES	1. M.Sc. Industrial Fisheries	17	23	
		2. Ph.D.			
XII	DEPARTMENT OF PHYSICAL OCEANOGRAPHY	1. M.Sc. Oceanography	10	12	
		2. Ph.D.			
XIII	DEPARTMENT OF ATMOSPHERIC SCIENCES	1. M.Sc. Meteorology	8	12	
		2. M.Tech. (Atmospheric Science)	7	18	
		3. Ph.D.			
XIV	DEPARTMENT OF MARINE GEOLOGY AND GEOPHYSICS	1. M.Sc. Marine Geology	10	11	
		2. M.S.c (Tech) Marine Geophysics	8	11	
		3. Ph.D.			
XV	DEPARTMENT OF CHEMICAL OCEANOGRAPHY	1. M.Sc. Hydro-Chemistry	11	11	
		2. Ph.D./M.phil		6	

1	2	3	4	4
XVI	DEPARTMENT OF COMPUTER SCIENCES	1. M.Tech. (Computer and Information Science)	18	19
XVII	DEPARTMENT OF COMPUTER APPLICATIONS	1. M.C.A	64	64
XVIII	DEPARTMENT OF ELECTRONICS	a. Digital Electronics 3. M.Sc. (Tech.) Electronics 4. Ph.O.		11
XIX	DEPARTMENT OF POLYMER SCIENCE & RUBBER TECHNOLOGY	3. B.Tech. (Polymer Science) 4. Ph.D.		
XX	DEPARTMENT OF SHIP TECHNOLOGY	2. M.Tech. Computer Aided Structural Analysis and Design 3. Ph.O.	8	15
XXI	DEPARTMENT OF INSTRUMENTATION	1. B.Tech. In Instrumentation 2. Ph.O.	28	28
XXII	INTERNATIONAL SCHOOL OF PHOTONICS	1. M.Tech. Opto Electronics & Laser Technology 2. Ph.O.	10	12
		1. B.Tech. Electronics and Communication Engineering	62	60
		2. B.Tech. Computer Science and Engineering	62	60
		3. B.Tech. Information Technology	62	50
		11. B.Tech. In Civil Engineering (Habitat Engineering and Constn. Management)	61	40
		12. B.Tech. In Mechanical Engineering (Computer Aided Design and Manufacture)	60	40
		13. B.Tech in Safety Engineering (Subject to approval)	30	30
XXIV	DEPARTMENT OF APPLIED ECONOMICS	1. M.A. Business Economics	15	20
		1. Diploma in Export Management MIB	30	30
XXV	SCHOOL OF MANAGEMENT STUDIES	2. M.B.A. (Full-time) 3. M.B.A. (Part-time) 4. Ph.O.	51 30	58 30
XXVI	DIVISION OF FINANCE MANAGEMENT	1. MIBF 2. M.Phil (Commerce)	.. ..	25 7
	<b>TOTAL:</b>		<b>1171</b>	<b>1450</b>

Source: Cochin University of Science & Technology

**Appendix - 9.45**  
**Distribution of Total Seats in Various Engineering Colleges (Branch-wise) - 1999**

Sl.No.	Name of Course	TVM	TCR	KNR	KTM	TKM	MAC	NSS	MES	MDL	CHN	ADR	KSD	SCT	UCE	TRV	PKV	KKD	WYD	PTA	VDA	TOTAL	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
1	Civil Engg	122	90	60	60	90	90	90	..	..	..	..	..	..	..	..	..	..	..	..	..	602	
2	Mechanical Engg.	121	100	60	60	100	100	100	60	..	..	60	60	..	..	..	..	60	..	..	..	881	
3	Electrical & Electronics Engg.	100	100	60	60	100	100	100	40	..	..	..	60	..	..	..	..	..	..	..	..	720	
4	Electronics & Communication Engg.	60	60	60	60	50	60	50	60	..	..	..	60	60	60	60	60	60	60	60	60	880	
5	Computer Science & Engineering	60	60	..	60	50	45	40	60	..	..	..	60	60	60	60	60	60	60	60	60	735	
6	Applied Electronics & Instru. Engineering	60	..	..	..	..	..	..	60	..	..	..	..	..	..	..	..	60	..	..	..	180	
7	Architecture	40	..	..	..	40	..	..	40	..	..	..	..	..	..	..	..	60	60	..	..	180	
8	Industrial Engineering	30	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	30	
9	Chemical Engineering	..	50	..	..	40	..	..	..	..	..	..	..	..	..	..	..	60	..	..	..	150	
10	Production PlanT Engineering	..	30	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	30	
11	Production Engineering	..	..	..	..	30	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	30	
12	Instrumentation & Control Engineering	..	..	..	..	..	..	40	..	..	..	..	..	..	..	..	..	..	..	..	..	40	
13	Computer Engineering	..	..	..	..	..	..	..	60	120	60	..	..	..	..	..	..	..	120	..	..	360	
14	Electronics Engineering	..	..	..	..	..	..	..	60	120	120	..	..	..	..	..	..	60	60	..	..	360	
15	Bio-medical Engg. Mechanical	..	..	..	..	..	..	..	40	..	..	..	..	..	..	..	..	..	..	60	60	40	
16	Engg.(automobile) Mechanical	..	..	..	..	..	..	..	..	..	..	..	..	60	..	60	..	..	..	..	..	120	
17	Engg.(Production)	..	..	..	..	..	..	..	..	..	..	..	..	60	..	..	..	..	..	..	..	60	
18	Polymer Engineering	..	..	..	..	..	..	..	..	..	..	..	..	..	60	..	..	..	..	..	..	60	
19	Information Technology Electronics & Instrumentation	..	..	..	..	..	..	40	..	..	..	..	..	..	60	60	60	60	60	60	60	280	
20	TOTAL:	593	490	240	300	500	395	420	360	160	240	240	240	240	160	180	180	180	180	180	240	240	5798*

\* Excluding the seats in REC. Calicut

Source: Directorate of Technical Education, Thiruvananthapuram

**Appendix - 9.46**  
**Number of Students and Teachers in Govt & Pvt. Aided Engineering Colleges - 1998-1999**

Sl. No.	Type of Institutions	Student Enrolment										Teachers			
		1998					1999					1998		1999	
		Boys	Girls	Total	Boys	Girls	Total	men	Women	Total	men	Women	Total		
1	2	3	4	5	6	7	8	9	10	11	12	13	14		
1	Government Engineering College, Thiruvananthapuram	372	191	563	..	..	563	170	82	252	172	84	256		
2	Engineering College, Thrissur	316	144	460	..	..	460	108	45	153	112	47	159		
3	Engineering College, Kannur	138	62	200	..	..	200	34	18	52	39	22	61		
4	R.I.T.Kottayam	110	72	182	..	..	200	26	16	42	32	18	50		
5	New Engineering College, Tvpm	..	..	..	110	70	180	..	..	..	10	2	12		
6	Engineering College, Palakkad	..	..	..	135	45	180	..	..	..	6	2	8		
7	Engineering College, Kozhikode	..	..	..	..	..	180	..	..	..	7	5	12		
8	Engineering College, Wayanad	..	..	..	..	..	180	..	..	..	7	1	8		
1	Private Aided T.K.M College, Kollam	..	..	500	..	..	500	113	66	179	114	66	180		
2	M.A. College, Kothamangalam	..	..	380	..	..	380	81	35	116	82	36	118		
3	N.S.S.College of Engineering, Palakkad	..	..	380	..	..	380	100	42	142	102	44	146		
<b>TOTAL:</b>		..	..	<b>2665</b>	..	..	<b>3403</b>	<b>632</b>	<b>304</b>	<b>936</b>	<b>683</b>	<b>327</b>	<b>1010</b>		

Source: Directorate of Technical Education, Thiruvananthapuram.

**Appendix - 9.47**  
**Course-wise Annual Intake of Students in Engineering**  
**Colleges at Post Graduate Level - 1999**

Sl.No.	Name of Course	No.of Students
1	2	3
1	Civil Engineering	57
2	Mechanical Engineering	42
3	Electrical Engineering	41
4	Electronics Engineering	5
5	Chemical Engineering	6
6	Production-cum-Plant Engineering	..
7	Instrumentation & Control System	10
8	Production Engineering	6
9	Applied Electronics and Instrumentation	5
10	Achitecture	5
11	Industrial Engineering	5
12	Electrical Communication	..
13	Computer Science	..
14	Production & Management	..
15	M.C.A	120
<b>TOTAL:</b>		<b>302</b>

Source: DTE, Thiruvananthapuram.



**Appendix - 9.48****Annual intake and students strength in Polytechnics in Kerala -  
(1995-96 to 1999-2000)**

year	No.of Polytechnics			Students Strength			Annual Intake		
	Govt:	Private	Total	Govt:	Private	Total	Govt:	Private	Total
1	2	3	4	5	6	7	8	9	10
1995-96	32	6	38	14516	3758	18274	5380	1280	6660
1996-97	32	6	38	14661	3850	18511	5380	1280	6660
1997-98	32	6	38	15171	3965	19136	5380	1280	6660
1998-99	36	6	42	15591	3992	19583	5800	1280	7080
1999-2000	41	6	47	16321	3965	20286	7430	1280	8710

Source:- Directorate of Technical Education

**Appendix - 9.49****Number of Students and Teachers in Polytechnics (1998 & 1999)**

Year	Students						Teachers					
	1998			1999			1998			1999		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
1	2	3	4	5	6	7	8	9	10	11	12	13
Government	10716	4455	15171	11779	4542	16321	890	282	1172	979	299	1278
Private	2753	1212	3965	2753	1212	3965	237	74	311	238	76	314
<b>TOTAL</b>	<b>13469</b>	<b>5667</b>	<b>19136</b>	<b>14532</b>	<b>5754</b>	<b>20286</b>	<b>1127</b>	<b>356</b>	<b>1483</b>	<b>1215</b>	<b>373</b>	<b>1592</b>

Source: Directorate of Technical Education

**Appendix - 9.50****Number of SC/ST Students and SC/ST  
Teachers in Polytechnics (1996-99)**

year	Students			Teachers		
	Total	SC	ST	Total	SC	ST
1	2	3	4	5	6	7
1996	1759	1162	285	1429	78	4
1997	18511	1343	108	1442	86	5
1998	19136	1384	112	1483	88	5
1999	20286	1476	135	1642	96	8

Source: Directorate of Technical Education

**Appendix - 9.51**  
**Number of Students and Teachers in Technical High Schools - (1994 - 1999)**

Year	Students			Teachers		
	Boys	Girls	Total	Men	Women	Total
1	2	3	4	5	6	7
1994	6302	608	6910	818	198	1016
1995	6233	692	6925	818	198	1016
1996	5639	616	6255	818	198	1016
1997	5593	562	6155	826	190	1016
1998	5410	476	5886	837	192	1029
1999	5361	407	5768	832	183	1015

Source: Directorate of Technical Education

**Appendix - 9.52**  
**Details of Computer Course in Kerala**

Course	Duration	Annual Intake							Total	Remarks
		Engg. Colleges	University Depts./ Colleges	Poly technics	ITI/ ITC	Autonomous insns.	Private Insns (Universal & Tandem)			
1	2	3	4	5	6	7	8	9	10	
M. Tech (Computer Science)	3 Semesters		25					25	CUSAT - 17, Kerala - 8	
B. Tech (Computer Science & Engg.)	8 Semesters	490	60					550	DTE-430, REC - 60, CUSAT- 60	
B. Tech (Computer Engg.)	8 Semesters	240						240		
B. Tech (IT)	8 Semesters	50						50	CUSAT	
M.C.A.	6 Semesters	120	64				100	284	CUSAT - 64, TANDOM (IGNOU) - 100	
M.Sc. (Computer Science)	4 Semesters		45					45	Kerala - 20, MG - 25	
B.Sc. (Computer Science)	3 Years		530					530	UIT (Kerala) - 200, Colleges - 330	
B.C.A.	3 Years		305				200	505	COLLEGES - 305, TANDOM -200	
Diploma in Comp. Engg.	3 Years			840				840		
Diploma in Computer Hardware Maintenance	3 Years			130				130		
Diploma in Computer Application and Business Management	3 Years			170				170		
Diploma in Computer Applications	1 Year					2000	2600	4600	IHRDE - 1000, LBS - 1000, Univ - 2520, Tandem - 80	
Diploma in Data Processing and Office Automation	1 Year					500		500	IHRDE	
P.G. Diploma in Computer Applications / Science	1 Year					3490	630	4120	ER&DC - 490, IHRDE - 2000, LBS - 1000, Univ - 630	
P.G. Diploma in Software Tech.	1 Year					30		30	CDIT (NCST)	
P.G. Diploma in IT	6 Months					60		60	IMG	
Engg.	6 Months					60		60	IMG	
NCVT Course - Data Preparation and Computer Software	1 Year				1776			1776		
NCVT Course - Computer Operator & Programming Asst.	1 Year				3408			3408		
Data Entry and Software Operation	3 Months				1000			1000	LBS	
<b>TOTAL:</b>								<b>18932</b>		

**Appendix - 9.53**  
**Medical Institutions and beds under Allopathy System**  
**in Kerala - 1966 to 1999**

Year	No.of Medical Institutions	No.of beds	Growth Index	No.of beds per lakh of population (Govt. Sector Only)
1	2	3	4	5
1966	490	18526	100	98
1967	503	19950	108	101
1968	518	20166	109	100
1969	529	20279	109	98
1970	534	21169	114	100
1971	553	21777	117	102
1973	783	24184	130	108
1975	881	25312	137	108
1976	885	27568	149	115
1977	888	27607	149	113
1978	893	28862	156	116
1979	898	29947	162	119
1980	918	30220	163	119
1981	968	32447	175	127
1982	991	32532	176	126
1983	1005	32880	177	125
1984	1009	33380	180	124
1985	1014	33329	180	124
1986	1015	35740	193	128
1987	1048	36344	196	128
1988	1066	36668	198	127
1989	1126	37100	200	127
1990	1199	38223	206	128
1991	1226	38726	209	133
1992*	1229	40496	219	137
1993*	1240	41018	221	137
1994*	1249	41651	225	137
1995*	1263	42126	227	137
1996*	1295	42569	230	137
1997*	1310	43165	233	137
1998*	1316	43672	236	137
1999*	1317	44500	240	137

Source : *Economic Review, SPB and Statistics for Planning, various volumes. \* Projected*

*population furnished by the Department of Economics and Statistics is used to*

*calculate the number of beds per lakh of population.*

**Appendix - 9.54**  
**Growth of Institutions and Beds (Allopathy) 1950-51 to 1998-99**

Year	Govt. Hospitals	Govt. Dispensaries and T.B.Clinics	Primary health Centres including MCH centres	Grant in aid Institutions with beds	Others including CHCS	Total No. of Institutions	Total No. of beds
1	2	3	4	5	6	7	8
1950-51	56	135	6	33	—	230	6752
1951-52	58	134	6	31	—	229	7480
1952-53	58	138	6	31	—	233	7480
1953-54	58	146	6	32	—	242	8219
1954-55	58	156	6	33	—	253	8321
1955-56	59	150	57	33	4	303	9405
1960-61	67	197	82	—	10	356	13006
1965-66	101	217	157	13	2	490	18526
1966-67	105	219	163	14	2	503	19950
1967-68	107	230	164	15	2	518	20166
1968-69	108	241	163	15	2	529	20279
1969-70	108	247	163	14	2	534	21169
1970-71	112	261	163	15	2	553	21777
1978-79	141	583	164	11	6	905	29967
1979-80	144	583	164	11	16	918	30220
1980-81	145	645	173	12	6	981	31206
1982-83	149	654	184	14	6	1007	32428
1983-84	147	652	192	15	6	1012	33320
1985-86	151	543	299	16	6	1015	35740
1986-87	153	420	444	25	6	1048	36344
1987-88	141	208	547	25	115	1066	36668
1988-89	143	92	740	34	117	1126	37100
1989-90	140	71	883	36	69	1199	38223
1990-91	140	738	908	36	69	1226	38726
1991-92	141	76	907	36	69	1229	40496
1992-93	141	76	918	36	67	1204	41018
1993-94	148	75	924	36	66	1249	41651
1994-95	147	73	940	36	67	1263	42126
1995-96	149	74	961	36	75	1295	42569
1996-97	150	73	956	36	95	1310	43165
1997-98	149	74	962	36	95	1316	43672
1998-99	143*	74	944	36	120	1317	44500

\* : Including Kannur Medical College Hospital

**Appendix - 9.55****Spatial Distribution of Medical Institutions and Beds under Allopathy/District-wise**

District	No. of Medical Institutions		No. of Beds	
	1998	1999	1998	1999
1	2	3	4	5
Thiruvananthapuram	115	115	7167	7187
Kollam	88	88	2078	2078
Pathanamthitta	64	64	962	1062
Alappuzha	90	90	4016	4016
Kottayam	85	85	3378	3378
Idukki	63	63	840	840
Ernakulam	117	117	4137	4137
Thrissur	122	122	4119	4119
Palakkad	112	112	2208	2208
Malappuram	123	123	2165	2183
Kozhikode	96	96	4729	4745
Wayanad	40	40	811	811
Kannur	105	105	2151	2175
Kasargode	60	60	689	739
<b>TOTAL:</b>	<b>1280</b>	<b>1280</b>	<b>39450</b>	<b>39678</b>

Source: Directorate of Health Services

N.B: Excluding Grant-in-aid institutions and Kannur Medical College Hospital.

**Appendix - 9.56****District-wise institutions and beds per lakh of Population 1999**

District	No. of Institutions	No. of Beds	No. of beds per lakh of Population
1	2	3	4
Thiruvananthapuram	115	7187	244
Kollam	88	2078	86
Pathanamthitta	64	1062	89
Alappuzha	90	4016	201
Kottayam	85	3378	185
Idukki	63	840	78
Ernakulam	117	4137	147
Thrissur	122	4119	150
Palakkad	112	2208	93
Malappuram	123	2183	71
Kozhikode	96	4745	181
Wayanad	40	811	121
Kannur	105	2175	97
Kasargode	60	739	69
<b>STATE</b>	<b>1280</b>	<b>39678</b>	<b>136</b>

Source: Directorate of Health Services

## Appendix - 9.57

## Medical Institutions and Beds in Kerala - Category-wise - 1999

District	Hospitals		PHCs including MCH Centres		Community Health Centres		Dispensaries		T.B. Clinics/Centres		Leprosy Control Clinics/ Units/ Leprosy Sanatorium
	No.	Beds	No.	Beds	No.	Beds	No.	Beds	No.	Beds	
1	2	3	4	5	6	7	8	9	10	11	12
Thiruvananthapuram	19	6257	77	404	10	464	7	34	1	28	1
Kollam	9	1465	66	266	8	347	..	..	2	..	3
Pathanamthitta	7	618	51	251	4	191	1	..	1	12	1
Alappuzha	12	3442	65	215	8	273	2	..	2	76	..
Kottayam	13	2501	62	425	8	392	..	..	2	60	..
Idukki	3	328	54	374	4	138	1	..	1	..	..
Ernakulam	22	2991	78	621	10	417	3	68	4	40	..
Thrissur	18	3373	87	445	9	295	5	6	1	..	2
Palakkad	8	1151	86	652	8	405	8	..	1	..	1
Malappuram	7	1302	97	546	8	283	6	..	2	52	3
Kozhikode	10	4168	70	231	10	346	3	..	1	..	2
Wayanad	2	331	25	216	8	264	6	..	1	..	..
Kannur	9	1675	80	200	7	244	8	56	1	..	..
Kasargode	3	433	46	163	5	143	3	..	1	..	2
<b>TOTAL:</b>	<b>142</b>	<b>30035</b>	<b>944</b>	<b>5009</b>	<b>105</b>	<b>4202</b>	<b>53</b>	<b>164</b>	<b>21</b>	<b>268</b>	<b>15</b>

Source: Directorate of Health Services

## Appendix - 9.58

## Rural Health Infrastructure -1986-1999

Year	Primary Health Centre		Community Health Centre		Sub Centre	
	No.	Beds	No.	Beds	No.	Beds
1	2	3	4	5	6	7
1986	299	2880	..	..	2774	..
1987	444	3400	..	..	3374	..
1988	577	3274	29	2226	3874	..
1989	740	3686	29	2292	4374	..
1990	883	4480	54	3127	5094	..
1991	908	4714	54	3159	5094	..
1992	907	5031	54	3216	5094	..
1993	918	5116	54	3285	5094	..
1994	924	5228	51	2772	5094	..
1995	940	5371	52	2797	5094	..
1996	961	5338	60	3007	5094	..
1997	958	5100	80	3442	5094	..
1998	962	5253	80	3348	5094	..
1999	944	5009	105	4202	5094	..

Source: Directorate of Health Services

**Appendix - 9.59**  
**Medical and Paramedical personnel in the Health Services Department**

Sl.No.	Category	1992	1993	1994	1995	1996	1997	1998	1999
1	2	3	4	5	6	7	8	9	10
1	Medical Officers	2905	3134	3251	3284	3365	3460	3474	3421
2	Dentists	66	66	66	70	69	71	79	72
3	Senior Nurses	1954	1954	1954	1954	1958	1954	1969	1969
4	Junior Nurses	4137	4137	4195	4195	4201	4707	4824	6067
5	Lady Health Inspectors	894	923	923	923	913	912	942	942
6	Pharmacists	1681	1681	1681	1681	1680	1757	1762	1728
7	Junior PH Nurses (ANMS)	5281	5508	5533	5911	5926	5911	5911	5591
8	Junior Health Inspectors	4505	4505	4505	4505	4502	4505	4505	3711
9	Health Inspectors	845	845	845	845	850	845	874	915
<b>TOTAL:</b>		<b>22268</b>	<b>22753</b>	<b>22953</b>	<b>23368</b>	<b>23464</b>	<b>24122</b>	<b>24340</b>	<b>24416</b>

Source: Directorate of Health Services

**Appendix - 9.60**  
**District-wise Number of Medical and Paramedical Personnel Under DHS - 1999**

District	Medical Officers	Dentists	Senior Nurses	Junior Nurses	Lady Health Inspectors	Pharmacists	JPHN (ANMS)	Junior Health Inspectors	Health Inspectors
1	2	3	4	5	6	7	8	9	10
Thiruvananthapuram	491	9	465	978	67	216	508	362	124
Kollam	222	5	86	249	79	108	427	291	88
Pathanamthitta	149	4	42	164	71	76	266	184	42
Alappuzha	249	5	161	538	71	145	382	284	53
Kottayam	242	5	145	509	46	102	337	220	51
Idukki	113	3	26	127	58	70	316	222	54
Ernakulam	378	8	224	454	74	152	454	335	62
Thrissur	301	7	220	536	73	174	499	328	79
Palakkad	240	5	86	418	81	134	517	295	72
Malappuram	284	5	55	392	97	145	589	335	82
Kozhikode	294	7	284	1051	67	166	419	270	66
Wayanad	102	2	29	136	34	47	205	126	30
Kannur	230	4	113	372	83	130	423	290	74
Kasargode	126	3	33	143	41	63	249	169	38
<b>TOTAL:</b>	<b>3421</b>	<b>72</b>	<b>1969</b>	<b>6067</b>	<b>942</b>	<b>1728</b>	<b>5591</b>	<b>3711</b>	<b>915</b>

Source: Directorate of Health Services



**Appendix - 9.61****District-wise availability of Vehicles under DHS -1999**

Sl. No.	Distrtict	Vehicles in Running	Vehicles in workshop	Others	Total
1	2	3	4	5	6
1	Thiruvananthapuram	135	8	35	178
2	Kollam	41	5	13	59
3	Pathanamthitta	37	4	7	48
4	Alappuzha	48	9	14	71
5	Kottayam	42	7	1	50
6	Idukki	36	2	19	57
7	Ernakulam	47	2	15	64
8	Thrissur	49	10	10	69
9	Palakkad	56	3	23	82
10	Malappuram	68	6	30	104
11	Kozhikode	51	6	11	68
12	Kannur	32	11	..	43
13	Kasargode	35	..	..	35
14	Wayanad	39	13	..	52
	<b>TOTAL:</b>	<b>716</b>	<b>86</b>	<b>178</b>	<b>980</b>

Source: Directorate of Health Services

**Appendix - 9.62****Statement showing No.of attack and death due to major principal diseases during 1998-99**

Sl.No.	Name of Diseases	Attack 1998-99	Death 1998-99
1	2	3	4
1	Acute Diarrhoeal Diseases	559582	49
2	Diphtheria	15	1
3	Acute Poliomyelitis	4	1
4	Tetanus-Others	17	2
5	Neonatal Tetanus	5	1
6	Whooping Cough	369	..
7	Measles	5322	..
8	Acute Respiratory Infection	4526942	354
9	Pneumonia	24087	48
10	Enteric Fever	9885	3
11	Viral Hepatitis	15104	17
12	Japanese Encephalitis	199	14
13	Menningococal Menningitis	50	2
14	Rabies	105	15
15	Syphillis	136	..
16	Gonococcal Infection	482	..
17	Pulmonary Tuberculosis	41175	123
18	All Other Diseases	14977425	3842
19	Gunica Worm	..	..

Source: Directorate of Health Services

**Appendix - 9.63**  
**Prevalence rate of Public Health Diseases in Kerala 1999**

Sl.No	Name of Diseases	Prevalence rate per 1000 Population in Kerala
1	2	3
1	Leprosy	1.24
2	Tuberculosis	1.27
3	Filaria*	0.25
4	Acute diarrhoeal diseases	17.3
5	Enteric fever	0.3
6	Viral Hepatitis	0.47
7	Measles	0.16
8	Acute Respiratory infection	139.77
9	Pneumonia	0.74
10	Malaria	0.15

\* Prevalence rate of Filaria among the coastal belt population  
Source: Directorate of Health Services

**Appendix - 9.64**  
Morbidity Rates per 1000 for  
Chronic Illness

Illness	Females	Males
1	2	3
Diarrhoea	27.4	22.5
Fever	117.9	119.5
Malaria	0.34	0.35
Filaria	0.23	0.18
Chicken pox	0.51	0.35
Measles	0.48	0.71
Mumps	0.61	0.32
Diphtheria	0.27	0.14
Tetanus	0.1	0.28
Jaundice	2.7	2.9
Typhoid	0.2	0.35
Asthma	5.5	4.7
Pneumonia	0.57	0.46
Heart Attack	0.95	1.3
Paralysis	2	1.9
Diabetes	1.6	1.3
Hypertension	2.3	1.7
Goiter	0.48	0.21
Allergy	3	2.6
Others	58	50.6
<b>Total:</b>	<b>209.2</b>	<b>203.4</b>

Source: Health and  
Development in Rural

**Appendix - 9.65**  
Chronic Illness to Women and Men  
(per 1000)

Illness	Females	Males
1	2	3
Leprosy	0.37	0.5
Tuberculosis	4.05	8.8
Filaria	0.78	0.74
Bronchitis Asthma	16.8	16.3
Hypertension	14.6	8.9
Heart Disease	4.4	5.6
Cancer	1	0.81
Peptic ulcer	4.4	9.9
Diseases of Uterus	9.1	..
Urinary diseases	4.8	4.7
Bone and Joint disease	22.5	13.9
Goitre	3.2	0.99
Diabetes	2.9	3.9
Others	66.4	61.9
<b>TOTAL:</b>	<b>155.8</b>	<b>137.5</b>

Source : Health and Development  
in Rural Kerala (KSSP)

**Appendix - 9.66****Medical College wise distribution of Hospital beds, Inpatients and Out patients treated during 1998-99**

Medical College	No.of Beds	No.of Inpatients	No.of Outpatients
1. Thiruvananthapuram (Including SAT, Chest Hospital, Ophthalmic Hospital)	3124	102312	515754
2. Kozhikode	2313	126201	344735
3. Kottayam	1101	66441	857154
4. Alappuzha including Vandanam	936	47122	298265
5. Thrissur	885	40702	211806
6. Pariyaram Medical College Kannur	600	14610	189930

Source: Directorate of Medical Education

**Appendix - 9.67****Number of delivery cases attended by Medical college Hospitals - 1998**

Medical College Hospitals	No.of delivery cases	
	Normal	Caesarean
1	2	3
1. Thiruvananthapuram	16190	4028
2. Kozhikode	18176	4758
3. Kottayam	5037	2190
4. Alappuzha	5145	1475
5. Thrissur	3349	1048
6. Kannur	44	169
<b>Total</b>	<b>47941</b>	<b>13668</b>

Source: Directorate of Medical Education

## Appendix - 9.68

**Details of Personnel ( Clinical/Non-clinical) in Medical Colleges  
1991-1999**

Sl. No.	Category	No. of Clinical/Non-Clinical Personnel								
		1991	1992	1993	1994	1995	1996	1997	1998	1999
1	2	3	4	5	6	7	8	9	10	11
1	Professor	186	188	188	190	191	198	207	233	248
2	Associate Professor	193	194	195	202	212	214	240	265	296
3	Assistant Professor	422	425	425	432	438	461	379	536	570
4	Tutor/Lecture	687	692	697	714	729	822	611	924	966
<b>Nursing Education</b>										
5	Director	3	3	3	3	3	3	3	3	3
6	Professor	4	4	4	4	4	4	4	7	7
7	Associate Professor	16	16	16	16	16	16	15	15	16
8	Assistant Professor	22	22	22	22	22	22	23	23	25
9	Tutor	37	37	37	37	37	37	42	42	42
<b>M.L.T. Course</b>										
10	Director	1	1	1	1	1	1	1	1	1
11	Assistant Professor	6	6	6	6	6	6	6	6	6
12	Tutor	4	4	4	4	4	14	14	14	14
13	Tutor Technician	14	14	14	14	14	14	14	14	14
<b>Dental</b>										
14	Principal	—	—	—	—	—	—	2	2	2
15	Professor	18	19	19	19	19	19	16	16	16
16	Associate Professor	4	4	4	4	6	6	6	6	14
17	Assistant Professor	24	25	25	24	23	23	25	25	26
18	Tutor/Lecture	36	36	36	36	36	34	44	44	49
<b>Pharmacy</b>										
19	Director	1	1	1	1	1	1	1	1	1
20	Professor	3	3	3	3	3	3	4	4	4
21	Associate Professor	4	4	4	4	4	4	4	5	5
22	Assistant Professor	10	10	11	11	11	11	11	11	13
23	Lecture	26	26	26	26	26	26	27	26	30
<b>TOTAL:</b>		<b>1721</b>	<b>1734</b>	<b>1741</b>	<b>1773</b>	<b>1806</b>	<b>1939</b>	<b>1699</b>	<b>2223</b>	<b>2368</b>

Source: Directorate of Medical Education

## Appendix - 9.69

Medical and Para-medical courses conducted in the Medical College with an annual intake of Students

Name of Courses	No. of seats in Medical Colleges					
	Thiruvanantha puram	Kozhikode	Kottayam	Alappuzha	Thrissur	Kannur
1	2	3	4	5	6	7
1. M.B.B.S.	200	200	100	100	100	100
2. B.D.S	40	40	—	—	—	—
3. B.Sc. Nursing	50	50	50	—	—	—
<b>Sub. Total</b>	<b>290</b>	<b>290</b>	<b>150</b>	<b>100</b>	<b>100</b>	<b>100</b>
<b>Post Graduate Courses</b>						
1. M.Sc. Nursing	16	8	—	—	—	—
2. M.D.S.	18	12	—	—	—	—
3. M.D.Anaesthesia	7	5	3	—	—	—
4. M.D.Biochemistry	1	2	—	—	—	—
5. M.D.Forensic medicine	1	2	—	—	—	—
6. M.D.Dermatology and Venereology	3	3	2	—	—	—
7. M.D.General Medicine	10	9	6	1	—	—
8. M.D.Microbiology	2	1	—	—	—	—
9. M.D.Obstetrics and Gynaecology	6	6	3	—	—	—
10. M.D.Pathology	5	1	2	—	—	—
11. M.D.Pharmacology	3	1	—	—	—	—
12. M.D.Physiology	2	2	1	—	—	—
13. M.D.Paediatric	5	4	2	—	—	—
14. M.D.Psychiatry	1	2	—	—	—	—
15. M.D.Radio Diagnosis	2	1	—	—	2	—
16. M.D.Radiotherapy	2	—	—	—	—	—
17. M.D. Community Medicine	2	2	1	—	—	—
18. M.D.T.B. And Respiratory Diseases	3	2	—	—	—	—
19. M.S. Anatomy	1	2	2	—	—	—
20. M.S.ENT	1	2	1	—	—	—
21. M.S.General Surgery	15	9	7	1	—	—
22. M.S Orthopaedics	3	3	2	—	—	—
23. Ophthalmology	5	3	2	—	—	—
<b>Sub - Total</b>	<b>114</b>	<b>82</b>	<b>34</b>	<b>2</b>	<b>2</b>	<b>—</b>
<b>Super Speciality course</b>						
1. Mch.Paediatric Surgery	2	2	—	—	—	—
2. Mch.Plastic Surgery	2	2	1	—	—	—
3. Mch. Genito Urinary surgery	2	2	1	—	—	—
4. Mch. Thoracic Surgery	2	2	1	—	—	—
5. Mch. Neuro Surgery	2	1	2	—	—	—
6. D.M.Gastro Enterology	2	1	—	—	—	—
7. D.M.Neurology	1	1	1	—	—	—
8. D.M.Cardiology	2	1	2	—	—	—
9. Mch.Gastro Enterology and Surgery	2	—	—	—	—	—
10. D.M.Nephrology	1	1	1	—	—	—
<b>Sub - Total</b>	<b>18</b>	<b>13</b>	<b>9</b>	<b>—</b>	<b>—</b>	<b>—</b>

1	2	3	4	5	6	7
<b>Diploma Courses</b>						
1. Diploma in Anaesthesia	6	4	5	-	-	-
2. Diploma In child Health	5	9	4	-	-	-
3. Diploma in Clinical Pathology	3	4	-	-	-	-
4. Diploma in Dermatology and Venerology	-	2	-	-	-	-
5. Diploma in Larynology and Otology	6	4	2	-	-	-
6. D.M.R.D	2	1	-	-	-	-
7. D.M.R.T.	2	2	-	-	-	-
8. Diploma in Obstetrics and Gynaecology	9	9	7	-	-	-
9. Diploma in Ophthalmology	2	5	3	-	-	-
10. Diploma in Orthopaedic Surgery	6	5	4	-	-	-
11. Diploma in Physical Medicine and Rehabilitation	4	4	-	-	-	-
12. Diploma in Psychiatric Medicine	5	-	-	-	-	-
13. Diploma in Public Health	9	-	-	-	-	-
14. D.T.C.D	2	3	-	-	-	-
<b>Sub - Total</b>	<b>61</b>	<b>52</b>	<b>25</b>	-	-	-
<b>Diploma / Certificate Courses.</b>						
1. B.Pharm	28	-	-	-	-	-
2. M.Pharm	8	-	-	-	-	-
3. B.Sc. MLT	24	-	-	-	-	-
4. MLT Certificate(2 years)	40	50	15	15	15	-
	20*				20*	
5. Diploma in Radiological Technology (2 Years)	10	30	15	10	15	-
	30*				20*	
6. Ophthalmic Assistant Certificate(2 Years)	10	20	15	5	5	-
	20*				20*	
7. D.Pharm(2 years)	20	50	30	35	-	-
	30*					
8. Dental Mechanic Certificate Course( 2 Years)	5	10	-	-	-	-
	10*					
9. Dental Hygienist Certificate Course	10	-	-	-	-	-
10. Certificate Course In Nursing SC/St (3 Years)	30	30	-	-	-	-
<b>Sub - Total</b>	<b>185</b>	<b>190</b>	<b>75</b>	<b>65</b>	<b>35</b>	-
	<b>110*</b>				<b>60*</b>	
<b>TOTAL:</b>	<b>668</b>	<b>627</b>	<b>293</b>	<b>167</b>	<b>137</b>	100
	<b>110*</b>				<b>60*</b>	

\* Courses conducted in the Priyadarshini Institute of Para-Medical Sciences, Thiruvananthapuram & Medical College Thrissur for (SC/ST only).

Source: Directorate of Medical Education

**Appendix - 9.70**  
**Annual Intake of Nursing Courses on different Categories during**  
**1998-99**

Sl. No.	Institutions	Number of Institutions	Total Annual Intake
1	2	3	4
<b>I Integrated (General Nurse-cum-Mid-wives) 3 Years Course</b>			
a)	Government Nursing Schools	11	317
b)	Private Nursing Schools	70	1845
c)	Medical College, Kozhikode	1	30
d)	Medical College, Kottayam	1	..
d)	Medical College, Thiruvananthapuram	1	30
<b>II Junior Public Health Nurses (18 months course)</b>			
a)	Government Nursing Schools*	4	180
b)	Private Nursing Schools	18	501
<b>III B.Sc Nursing (4 years Course)</b>			
a)	Medical College, Thiruvananthapuram	1	50
b)	Medical College, Kottayam	1	50
c)	Medical College, Kozhikode	1	50
<b>IV M.Sc. Nursing</b>			
a)	Medical College, Thiruvananthapuram	1	16
b)	Medical College, Kozhikode	1	8

\*During 1997-98 13 JPHN schools were functioning in the Govt. Sector. Due to unemployment problem at present only four schools are functioning with the total annual intake of 180 students

Source: Directorate of Health Services



**Appendix - 9.71**  
**Medical Parctitioners, Hospitals, Dispensaries and Beds**  
**under Ayurveda During 1975-1999**

Year	No.of Medical Practitioners	No.of Hospitals	No.of Dispensaries	No.of Beds
1	2	3	4	5
1975-76	10318	65	482	1282
1976-77	10484	67	401	1362
1977-78	10613	67	401	1362
1978-79	10792	68	406	1438
1979-80	11028	85	410	1818
1980-81	11043	85	419	1618
1981-82	11224	92	439	1639
1982-83	11410	93	453	1674
1983-84	11550	93	455	1702
1984-85	11696	94	457	1679
1985-86	11835	94	473	1689
1986-87	11902	97	497	1769
1987-88	12047	101	496	1869
1988-89	12250	101	498	1929
1989-90	12431	101	506	1979
1990-91	12573	105	529	2229
1991-92	12748	105	550	2229
1992-93	12894	106	566	2259
1993-94	13034	107	579	2309
1994-95	13185	108	584	2329
1995-96	13600	108	587	2349
1996-97	14987	108	614	2349
1997-98	15106	109	623	2369
1998-99	15230	111	631	2514

*Source: Directorate of Ayurveda and TC Medical Council,  
Thiruvananthapuram*

**Appendix - 9.72**  
**District-wise distribution of Insitutions,Beds and Patients treated under Ayurvedic system of**  
**Medicine in Keraia (1998 and 1999)**

Sl. No.	District	No. of Hospitals		No. of Beds		No. of Dispensaries		Total NO. of Institutions		Total No. of Patients treated in 1998		Total Number of Doctors
		1998	1999	1998	1999	1998	1999	1998	1999	Inpatients	Outpatients	
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Thiruvananthapuram	13	13	255	255	54	55	67	68	3323	1928985	92
2	Kollam	9	9	190	190	41	42	50	51	2576	1517630	64
3	Alappuzha	10	10	180	180	46	47	56	57	1543	1850541	69
4	Pathanamthitta	4	5	80	100	36	36	40	41	2886	1009484	50
5	Kottayam	8	8	150	150	36	37	44	45	2269	1219461	58
6	Idukki	3	3	110	160	29	29	32	32	764	746486	48
7	Ernakulam	13	13	230	270	51	51	64	64	2598	2386650	80
8	Thrissur	14	14	243	253	72	72	86	86	2789	2007861	104
9	Palakkad	5	5	130	130	58	59	63	64	1653	1057592	78
10	Malappuram	11	11	220	220	57	58	68	69	2533	1960639	79
11	Kozhikode	6	6	170	170	43	44	49	50	1708	1505573	57
12	Wayanad	2	3	100	120	20	19	22	22	1595	713674	32
13	Kannur	6	6	211	216	49	50	55	56	2711	1956188	67
14	Kasargode	5	5	100	100	31	32	36	37	961	710291	44
<b>TOTAL:</b>		<b>109</b>	<b>111</b>	<b>2369</b>	<b>2514</b>	<b>623</b>	<b>631</b>	<b>732</b>	<b>742</b>	<b>29909</b>	<b>20571055</b>	<b>922</b>

Source: Directorate of Ayurveda

**Appendix - 9.73**  
**Number of Medical Institutions and beds- Homoeopathy (1970-71**  
**to 1998-99)**

Year	Hospitals	Dispensaries	Total No.of Institutions	Beds
1	2	3	4	5
1970-71	2	45	47	..
1975-76	8	113	121	250
1978-79	10	133	143	300
1979-80	16	154	170	510
1980-81	17	159	176	535
1981-82	22	191	213	650
1982-83	23	200	223	675
1983-84	23	200	223	675
1984-85	23	200	223	675
1985-86	24	227	251	700
1986-87	24	255	279	715
1987-88	24	255	279	715
1988-89	24	262	286	715
1989-90	24	274	298	715
1990-91	30	312	342	900
1991-92	30	338	368	900
1992-93	31	360	391	950
1993-94	31	374	405	950
1994-95	31	384	415	950
1995-96	31	394	425	950
1996-97	31	405	436	950
1997-98	31	445	476	970
1998-99	31	474	505	970

Source: Directorate of Homoeopathy

**Appendix - 9.74**  
**District-wise Distribution of Institutions and Beds under Homoeopathy (1998-1999)**

Sl.No.	District	No.of Hospitals		No.of Beds		No.of dispensaries		Total No.of Institutions		Total No. of Patients treated in 1998		Total Number of Doctors
		1998	1999	1998	1999	1998	1999	1998	1999	Inpatients	Outpatients	
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Thiruvananthapuram	4	4	185	185	43	46	47	50	2363	1351192	53
2	Kollam	3	3	75	75	32	35	35	38	828	861166	38
3	Pathanamthitta	1	1	25	25	21	22	22	23	NR	453069	22
4	Alappuzha	3	3	75	75	35	37	38	40	1304	762978	41
5	Kottayam	3	3	175	175	38	40	41	43	2464	1434761	48
6	Idukki	2	2	50	50	28	31	30	33	1024	474023	32
7	Ernakulam	3	3	85	85	44	46	47	49	573	1058522	50
8	Thrissur	1	1	25	25	33	35	34	36	1365	744881	35
9	Palakkad	1	1	25	25	32	34	33	35	446	45283	34
10	Malappuram	2	2	50	50	36	38	38	40	733	594802	40
11	Kozhikode	3	3	75	75	37	40	40	43	1089	567183	44
12	Wayanad	1	1	25	25	16	17	17	18	NR	127844	18
13	Kannur	1	1	25	25	32	34	33	35	748	215713	33
14	Kasargode	3	3	75	75	18	19	21	22	1135	502678	24
<b>TOTAL:</b>		<b>31</b>	<b>31</b>	<b>970</b>	<b>970</b>	<b>445</b>	<b>474</b>	<b>476</b>	<b>505</b>	<b>14072</b>	<b>9194095</b>	<b>512</b>

Source: Directorate of Homoeopathy

**Appendix - 9.75**  
**Number of Practitioners (Numbers Cum)**

Sl.No.	System	Class of Registration	1998	1999
1	2	3	4	5
1	Modern Medicine	A	27156	28252
		B	635	635
		Listed	204	204
	<b>Sub. Total</b>		<b>27995</b>	<b>29091</b>
2	Homoeopathy	A	6272	6444
		B	1489	1489
		Listed	279	279
	<b>Sub. Total</b>		<b>8040</b>	<b>8212</b>
3	Ayurveda	A	6968	7067
		B	6112	6112
		Listed	603	603
	<b>Sub. Total</b>		<b>13683</b>	<b>13782</b>
4	Sidha	A	127	128
		B	1218	1218
		Listed	41	41
	<b>Sub. Total</b>		<b>1386</b>	<b>1387</b>
5	Unani	A	4	5
		B	51	51
		Listed	5	5
	<b>Sub. Total</b>		<b>60</b>	<b>61</b>
	<b>Grand. Total</b>		<b>51164</b>	<b>52533</b>

Source: T.C. Medical Council

**Appendix - 9.76**  
**List of Registered Para-medical Practitioners(Number cum)**

Sl. No.	Category	1998			1999		
		Male	Female	Total	Male	Female	Total
1	2	3	4	5	6	7	8
1	Nurses	672	21197	21869	868	24510	25378
2	Midwives		21388	21388		24913	24913
3	Nurses & Midwives(integrated)		25112	25112		26869	26869
4	Auxiliary Nurse		11896	11896		12401	12401
5	Health Visitors						
	<b>TOTAL:</b>	<b>672</b>	<b>79593</b>	<b>80265</b>	<b>868</b>	<b>88693</b>	<b>89561</b>

Source: T.C. Medical Council

## Appendix - 9.77

## District - wise Number of Family Welfare Centres (1999)

Sl.No.	District	Rural Main Centres (PHC, CHC)	Sub Centres
1	2	3	4
1	Thiruvananthapuram	79	455
2	Kollam	66	449
3	Alappuzha	67	368
4	Pathanamthitta	52	260
5	Kottayam	64	359
6	Idukki	55	231
7	Ernakulam	80	351
8	Thrissur	88	492
9	Palakkad	88	471
10	Malappuram	98	508
11	Kozhikode	72	389
12	Wayanad	25	204
13	Kannur	81	352
14	Kasargode	47	205
	<b>KERALA</b>	<b>962</b>	<b>5094</b>

Source: Directorate of Health Services

## Appendix - 9.78

## Target and Achievement of Family Welfare Programme

Sl.No	Item	Unit	1997 - 98		1998 - 99	
			Target	Achievement	Target	Achievement
1	2	3	4	5	6	7
I	<b>Family Welfare Programme</b>					
	<b>Sterilization( Vasectomy,</b>					
a)	Tubectomy)	Nos	125126	139804		139718
b)	I.U.D.Insertion	Nos	75373	79407		81759
c)	C.C.Users	Nos	223511	182685		185569
d)	O.P. Users	Nos	34614	32506	Target free	30235
II	<b>M.C.H. Programme</b>					
e)	<b>Immunisation Programme</b>					
(I)	Polio	Dose	548300	601754	548300	605654
(ii)	B.C.G.	Dose	548300	640981	548300	638701
(iii)	Measles	Dose	548300	524929	548300	562613
(iv)	T.T for Pregnant women	Dose	582700	522039	582700	529307
(v)	D.P.T	Dose	548300	595537	548300	596410
(vi)	T.T. for 10 Years	Dose	811300	352250	611300	445647
(vii)	T.T. for 18 Years	Dose	595300	329825	595000	425850
b)	<b>Prophylaxis against nutritional anaemia</b>					
(i)	Women	Dose	582700	572391	582700	214124
(ii)	children'	Dose	1883636	482003	..	..
c)	<b>Prophylaxis ageinst Blindness</b>	Dose	1723500	1508102	1723500	1453375
	<b>dur to vitamin A deficiency In children</b>					

Source: Directorate of Health Services

## Family Welfare Programme in 1998-99 - District -wise

District	Vasectomy	PPS	Minilap	Laparoscopic	Total (3+4+5)	Cu -T	Nirodh supplied CC	Oral pills	Induced Abortion
1	2	3	4	5	6	8	9	10	11
Thiruvananthapuram	7	13502	1968	2550	18020	6488	2132817	33465	2204
Kollam	2	11230	1096	52	12378	5233	1101769	41139	752
Alappuzha	65	6182	1914	55	8131	5330	739901	16492	372
Pathanamthitta	4	4122	677	589	5388	3003	460147	27887	228
Kottayam	89	7278	421	1013	8712	9402	862011	32124	1219
Idukki	4	4363	467	629	5459	3610	680986	14054	459
Ernakulam	190	14163	812	1729	16504	7150	610335	24533	1529
Thrissur	23	10002	1648	616	12266	6740	1190620	38318	869
Palakkad	5	7866	574	3759	12199	9209	1356418	37829	633
Malappuram	65	9143	605	324	10072	6463	989113	35164	1986
Kozhikode	88	10603	2024	59	12686	6528	1103381	32616	3091
Wayanad	21	4975	443	-	5418	3180	471757	16593	381
Kannur	23	8837	819	-	9456	5892	1129464	38064	2317
Kasarode	1	2322	405	302	3029	3533	539044	4782	299
<b>TOTAL:</b>	<b>567</b>	<b>114568</b>	<b>13473</b>	<b>11677</b>	<b>139718</b>	<b>81759</b>	<b>13367763</b>	<b>393060</b>	<b>16339</b>

Source: Directorate of Health Services

Appendix- 9.80  
List of institutions under DHS transferred to Local Bodies as on 30.9.1999

Category	Grama Panchayat		Block Panchayat		Corporation		Municipality		District Panchayat		Total Nos.
	2	3	4	5	6	7	8	9	10		
1. Dispensaries	42		5	6							53
2. Primary Health Centres		957	1	4							962
3. Community Health Centres		74..		6							80
4. Hospitals											
(a) Government Hospitals		43	9	18							70
(b) Taluk Hospitals		14	2	25							41
(c) District Hospitals									11		11
5. Maternity & Child Health	2										2
6. M.M. Units	10		1	2							13
<b>TOTAL:</b>	<b>54</b>	<b>1088</b>	<b>18</b>	<b>81</b>	<b>11</b>	<b>11</b>	<b>1232</b>				

Source: Directorate of Health

**Appendix - 9.81**  
**List of Institutions transferred to Local Bodies as on 31-03-1999 - Ayurveda**

Sl.No.	Name of District	Grama Panchayat			Block Panchayat			Corporation			Municipality			Total	
		Dispensaries (Nos)	Hospitals (Nos)	Hospitals (Nos)	Dispensaries (Nos)	Hospitals (Nos)	Hospitals (Nos)	Dispensaries (Nos)	Hospitals (Nos)	Hospitals (Nos)	Dispensaries (Nos)	Hospitals (Nos)	Dispensaries (Nos)	Hospitals (Nos)	Dispensaries (Nos)
1	2	3	4	4	5	6	7	7	8	8	9	9	10	11	12
1	Thiruvananthapuram	51	10				2				2		2	55	12
2	Kollam	42	7										2	42	9
3	Pathanamthitta	35	4								1		1	36	5
4	Alappuzha	47	4										5	47	9
5	Kottayam	37	5										3	37	8
6	Idukki	29	3											29	3
7	Ernakulam	48	7					2	1		1		5	51	13
8	Thiriesur	70	11								2		3	72	14
9	Palakkad	58	3								1		2	59	5
10	Malappuram	56	6								2		4	58	10
11	Kozhikode	44	5										1	44	6
12	Wayanad	19	1	1									1	19	3
13	Kannur	50	3										3	50	6
14	Kasargode	32	4										1	32	5
<b>TOTAL:</b>		<b>618</b>	<b>73</b>	<b>1</b>	<b>4</b>	<b>1</b>	<b>9</b>	<b>33</b>	<b>631</b>	<b>108</b>					

Source: Directorate of Ayurveda



**Appendix - 9.82**  
**LIST OF INSTITUTIONS TRANSFERRED TO LOCAL BODIES AS ON 31.3.1999 - HOMOEOPATHY**

Sl.No	District	Grama Panchayat			Block Panchayat			Corporation			Municipality			Total	
		Dispensaries (No)	Hospitals (No)	Hospitals (No)	Dispensaries (No)	Hospitals (No)	Hospitals (No)	Dispensaries (No)	Hospitals (No)	Hospitals (No)	Dispensaries (No)	Hospitals (No)	Hospitals (No)	Dispensaries (No)	Hospitals (No)
1	2	3	4	5	6	7	8	9	10	11	12	12	11	12	
1	Thiruvananthapuram	43	-	-	1	3	1	-	2	-	46	4	-	46	
2	Kollam	33	-	-	1	-	-	2	2	-	35	3	-	35	
3	Pathanamthitta	22	-	-	1	-	-	-	-	-	22	1	-	22	
4	Alappuzha	37	-	-	-	-	-	-	3	-	37	3	-	37	
5	Kottayam	39	-	-	1	-	-	1	2	-	40	3	-	40	
6	Idukki	31	-	-	1	-	-	-	1	-	31	2	-	31	
7	Ernakulam	41	-	-	-	4	1	1	2	1	46	3	-	46	
8	Thrissur	34	-	-	-	-	-	1	1	-	35	1	-	35	
9	Palakkad	33	-	-	-	-	-	1	1	-	34	1	-	34	
10	Malappuram	37	-	-	-	-	-	1	2	1	38	2	-	38	
11	Kozhikode	39	-	-	3	1	-	-	-	-	40	3	-	40	
12	Wayanad	17	-	-	1	-	-	-	-	-	17	1	-	17	
13	Kannur	31	-	-	-	-	-	3	1	-	34	1	-	34	
14	Kasarode	18	-	-	2	-	-	1	1	1	19	3	-	19	
	<b>Total</b>	<b>455</b>	<b>-</b>	<b>-</b>	<b>11</b>	<b>8</b>	<b>2</b>	<b>11</b>	<b>18</b>	<b>11</b>	<b>474</b>	<b>31</b>	<b>18</b>	<b>31</b>	

Source:- Directorate of Homeopathy

**Appendix - 9.83**

**DETAILS OF INFRASTRUCTURE IN THE DIRECTORATE OF INSURANCE MEDICAL SERVICE - District wise as on 31-3-1999**

Name of District	Name of Hospitals	Name of Beds	Name of dispensaries	No. of doctors		No. of Nurses as on 31-03-98				No of other Paramedical Staff as on 31-3-98		No. of patients treated during 1997	
				Hospital	Dispensaries	Hospital	Dispensaries	Hospital	Dispensaries	Hospital (OP)	Dispensaries (OP)	Hospital (IP)	
													5
1	2	3	4	5	6	7	8	9	10	11	12	13	
Thiruvananthapuram	1	128	11	27	22	20	7	12	32	27379	311131	3026	
Kollam	3	377	33	61	99	66	28	57	159	71928	2194595	12199	
Kottayam	1	65	7	15	13	9	6	6	20	15859	293386	1726	
Alappuzha	1	60	14	12	18	11	6	7	39	4909	481066	1781	
Ernakulam	2	220	21	42	44	36	14	15	70	70202	881272	6053	
Thrissur	2	212	15	18	26	23	7	28	41	20764	390772	2957	
Palakkad	1	50	7	10	9	7	2	6	17	3998	66467	802	
Kozhikode	1	100	16	18	31	10	14	6	58	22334	228604	4296	
Kannur	1	50	12	11	16	11	3	7	28	6681	121759	633	
<b>TOTAL:</b>	<b>13</b>	<b>1262</b>	<b>136</b>	<b>214</b>	<b>278</b>	<b>193</b>	<b>87</b>	<b>144</b>	<b>464</b>	<b>244054</b>	<b>4949052</b>	<b>33473</b>	

Source: Directorate of Insurance Medical Services

**Appendix 9.84(a)**  
**DETAILS OF BLOOD UNITS COLLECTED IN BLOOD BANKS - KERALA**

Sl. No	Name of the Institution	No. of blood units collected			
		1994	1995	1996	1998
1	2	3	4	5	6
<b>A GOVERNMENT SECTOR</b>					
<i>I MEDICAL COLLEGE HOSPITALS</i>					
1	Medical College Hospital, Thiruvananthapuram	17933	19646	20268	20400
2	Medical College Hospital, Kottayam	12658	13474	12837	12421
3	Medical College Hospital, Alappuzha	4575	4641	4548	5420
4	Medical College Hospital, Thrissur	5354	5495	5548	7061
5	Medical College Hospital, Kozhikode	15708	17111	18598	19778
6	Medical College Hospital, Pariyaram, Kannur	--	287	792	1406
<b>SUB TOTAL :</b>		<b>56228</b>	<b>60634</b>	<b>62587</b>	<b>66486</b>
<i>II GENERAL HOSPITALS</i>					
1	General Hospital, Thiruvananthapuram	--	315	328	785
2	General Hospital, Pathanamthitta	--	--	--	701
3	General Hospital, Ernakulam	64	63	797	481
4	General Hospital, Kozhikode	--	220	222	276
5	General Hospital, Thalassery	--	--	--	242
<b>SUB TOTAL :</b>		<b>64</b>	<b>598</b>	<b>1347</b>	<b>2485</b>
<i>III DISTRICT HOSPITALS</i>					
1	District Hospital, Kollam	2797	2739	2459	3642
2	District Hospital, Kottayam	109	213	260	59
3	District Hospital, Thrissur	109	510	625	621
4	District Hospital, Palakkad	48	202	207	967
5	District Hospital, Alappuzha	--	--	--	274
6	District Hospital, Manjery	365	235	476	1205
7	District Hospital, Kannur	48	776	748	2504
8	District Hospital, Mananthavady	--	--	--	493
<b>SUB TOTAL :</b>		<b>3476</b>	<b>4675</b>	<b>4775</b>	<b>9765</b>
<i>IV WOMEN &amp; CHILDREN HOSPITALS</i>					
1	Women & Children Hospital, Thiruvananthapuram	--	315	328	785
<b>SUB TOTAL :</b>		<b>--</b>	<b>315</b>	<b>328</b>	<b>785</b>
<i>V TALUK HEAD QUARTERS HOSPITAL</i>					
1	Taluk Head Quarters Hospital, Chirayinkil	--	--	--	125
2	Taluk Head Quarters Hospital, Aluva	--	--	--	67
3	Taluk Head Quarters Hospital, Perinthalmanna	1042	3671	4286	6209
4	Taluk Head Quarters Hospital, Sultanbathery	--	--	363	563
5	Taluk Head Quarters Hospital, Kasargod	--	--	--	691
6	Government Hospital, Punalur (THQH)	--	--	--	59
<b>SUB TOTAL :</b>		<b>1042</b>	<b>3671</b>	<b>4649</b>	<b>7714</b>
<i>VI OTHERS</i>					
1	INHS Sanjivai Naval Base, Kochi	474	324	295	52
<b>SUB TOTAL :</b>		<b>474</b>	<b>324</b>	<b>295</b>	<b>52</b>
<b>B AUTONOMOUS INSTITUTIONS</b>					
1	Regional Cancer Centre	3540	4149	4047	4777
2	Sree Chithira Thirunal Institute of Medical Science & Technology	5181	5349	5334	5548
<b>SUB TOTAL :</b>		<b>8721</b>	<b>9498</b>	<b>9381</b>	<b>10325</b>
<i>Total - Govt. Sector including Autonomous Institutions (A + B)</i>		<b>70005</b>	<b>79715</b>	<b>83362</b>	<b>97612</b>
<b>C PRIVATE SECTOR</b>					

1	2	3	4	5	6
1	Dr. Rao's Blood Bank, Kumarapuram, Thiruvananthapuram	2500	2670	2462	2353
2	Sree Utharadam Thirunal Hospital, Thiruvananthapuram	1643	2115	2175	2374
3	Superior Blood Bank Puthan Chantha, Thiruvananthapuram	872		1457	1568
4	PNM Hospital, Kattakkada, Thiruvananthapuram	--	--	23	35
5	Holy Cross Hospital, Kottiyam, Kollam	879	880	740	658
6	Holy Cross Hospital, Adoor, Pathnamthitta	--	944	632	469
7	Sree Shanmukha Vilasem Hospital, Punalur, Pathanamthitta	--	--	2	61
8	S.S.M Hospital, Kollam	--	--	--	537
9	Bishop Benziger Hospital, Kollam	711	967	1039	948
10	Upasana Hospital, Kollam		294	487	617
11	St. Joseph's Hospital, Anchal, Kollam	663	701	511	446
12	Udaya Blood Bank, Thazhakara, Mavelikara, Alappuzha	--	--	--	391#
13	Pushpagini Hospital Blood Bank, Thiruvalla, Pathanamthitta	1912	1913	2001	2211
14	S.H Medical Centre Nagampadam, Kottayam	677	723	711	971
15	Holy Ghost Mission Hospital, Muttuchira, Kottayem	--	--	--	53
16	Immaculate Heart of Mary Hospital, Bharanaganam, Kottayam	423	321	288	387
17	Marien Medical Centre, Arunapuram, Palai	--	--	--	574
18	Thiruvall Medical Mission Hospital, Pathanamthitta	649	733	714	741
19	Mar Geevarghese Dionysius Medical Hospital, Kangazha, Kottayem	396	479	527	386
20	Dr. Nair's Hospital, Kollam	--	100	501	662
21	Caritas Hospital, Thellakom, Kottayem	--	--	--	675
22	Morning Star Medical Centre, Adimaly, Idukki	--	--	--	387
23	Alphonsa Hospital Murickassery, Idukki	--	--	--	153
24	M.M.T. Hospital, Mundakayam, Kottayam	154	217	127	55
25	Bishop Veyelil Medical Centre, Moolamattom, Idukki	--	--	--	240
26	N.S.S Medical Mission Hospital, Pandalam	--	--	--	475
27	K.V.M Hospital Cherthala	--	--	--	214
28	Mar Baselios Medical Mission Hospital, Kothamangalam	--	--	--	487
29	St. Thomas Hospital, Chettipuzha, Changanachery	431	640	565	635
30	Medical Trust Hospital, Kochi	3405	3222	3139	3434
31	Deva Matha Hospital Koothettukulam, Ernakulam	--	--	213	925
32	M.A.J. Hospital Edappally, Kochi	--	--	--	384
33	Lourdes Hospital Cochin	720	773	1644	1619
34	Malankara Orthodox Syrian Church Medical Mission Hospital, Kolançhery	1464	2059	1488	2058
35	Lisie Hospital, Cochin	1580	1853	2090	2548
36	Elite Mission Hospital, Koorkanchery, Thrissur	--	--	--	2040

## S 237

1	2	3	4	5	6
37	Amala Cancer Hospital and Research Centre, Thrissur	--	--	--	2093
38	Little Flower Hospital & Research Centre, Thrissur	--	2121	2160	2441
39	St. Vincent De-Paul Hospital, Kuzhuppilly, Ayyampilly	--	--	--	168
40	Bishop Alappat Mission Hospital, Karanchira, Thrissur	--	--	--	93
41	IMA Voluntary Donor Blood Bank, Kochi	11669	14745	13986	19014
42	Trichur Heart Hospital	--	775	1195	1339
43	Mother Hospital (P) Ltd., Pullazhi, Thrissur	--	--	--	1340
44	Sacred Heart Mission Ltd., Hospital, Ingalakuda, Thrissur	--	--	--	88
45	St. James Hospital, Chalakudy, Thrissur	1124	1062	673	1024
46	St. Joseph's Hospital, Choondal, Thrissur	530	413	397	590
47	Unity Hospital (P) Ltd., Kunnamkulam, Thrissur	--	--	302	395
48	Royal Hospital, Kunnamkulam, Thrissur	1198	1218	618	651
49	West Fort Hospital, Thrissur	--	--	1324	2215
50	Nirmala Hospital, Marikunnu, Kozhikode	688	470	449	323
51	Baby Memorial Hospital, Indira Gandhi Road, Kozhikode	--	--	--	1415
52	Fathima Hospital, Bank Road, Kozhikode	--	--	--	1287
53	Sara Memorial Medical Laboratory & Blood Bank, Fort Road, Kannur	2133	2104	1935	2500
54	Medical Diagnostic Centre and Blood Bank, Kanhangad	--	--	97	653
55	St. Joseph's Hospital, Dharmagiri Central, Kothamangalam	905	744	892	722
56	Samaritan Hospital, Pazhanganand, Ernakulam	584	582	627	630
57	Edappal Hospital (P) Ltd.	--	--	--	261
58	Maria Theresa Hospital, Kuzhikkattussery, Thrissur	--	--	--	190
59	Sanjoe Hospital, Perumbavoor	450	538	406	492
60	St. Jude Medical Centre, Thiruvananthapuram	789	588	148	346
61	Muthoot Medical Centre, Kozhencherry	--	--	--	127
62	Amritha Institute of Medical Sciences and Research Centre, Kochi	--	--	--	183
63	Indo American Hospital Brain and Spine Centre, Chemanakary, Vaikom	--	--	--	41
<b>Total - Private Sector</b>		<b>39149</b>	<b>46834</b>	<b>48597</b>	<b>73392</b>
<b>Grand Total</b>		<b>109154</b>	<b>126549</b>	<b>131959</b>	<b>171004</b>

Source: State Planning Board Study 1999

\* Blood collected only in three months

# (Upto 31st March 1999)

## Appendix 9.84b

**Details of blood units collected in Blood Banks of Kerala  
(Summary Statement of 9.84(a))**

Sl. No	Name of Category	No. of blood units collected during				
		1994	1995	1996	1997	1998
1	2	3	4	5	6	7
<b>A GOVERNMENT SECTOR</b>						
1	Medical College Hospitals	56228	60634	62587	63844	66486
2	General Hospitals	64	598	1347	1531	2485
3	District Hospitals	3476	4675	4775	7785	9765
4	Women and Children Hospitals	-	315	328	478	785
5	Taluk Head quarters hospitals	1042	3671	4649	6569	7714
6	Other hospitals	474	324	295	240	52
	Sub Total	61284	70217	73981	80447	87287
<b>B AUTONOMOUS INSTITUTIONS</b>						
1	Regional Cancer Centre	3540	4149	4047	5302	4777
2	Sree Chitra Thirunal Institute of Science and Technology, Thiruvananthapuram	5181	5349	5334	5563	5548
	Sub Total:	8721	9498	9381	10865	10325
<b>C PRIVATESECTOR</b>		39149	46834	48597	62308	73392
<b>TOTAL : (A+B+C)</b>		<b>109154</b>	<b>126549</b>	<b>131959</b>	<b>153620</b>	<b>171004</b>

Source: State Planning Board Study 1999

**Appendix. 9.85**  
**DETAILS OF INFRASTRUCTURE, DOCTORS AND NURSES UNDER CO-OPERATIVE SECTOR**

Sl.No	Name of Co-operative Hospital	No. of Doctors	No. of Nurses	Other Para-Medical Staff	No. of Beds	No. of Patients Treated During 1998			Specialties if any
						OP	IP	8	
1	2	3	4	5	6	7	8	9	
1	Thriuvananthapuram District Ayurveda and Sidha Co-operative Hospital Ltd. T 1372	3	3	7	3	932	--		Treatment to Diabetes, Rheumatic Complaints Kayakalpa Chikitsa, Marmmathirummu Chikitsa and Ottamooly Chikitsa
2	Kollam Co-operative Group Hospital Co-operative Society Ltd. No. Q 494	10	13	32	110	66285	3081		Nil
3	Kottarakkara Taluk Co-operative Hospital Co-operative Society Ltd. No. Q 958	1	4	2	40	47673	4249		X-Ray, E.C.G. Laboratory, Ambulance
4	Pethanamthitta District Co-operative Hospital Ltd. No.A.292, Kulanada	2	2	2	32	32283	2424		Nil
5	Keduthuruthy Co-operative Hospital Ltd.No.K.379	5	9	5	17	7952	475		Orthopaedic, Paediatric
6	Alappuzha District Co-operative Hospital Society Ltd No.A.805	1	1	1	--	--	--		Scanning.
7	Kottayam District Co-operative Hospital Ltd.No.K 764	1	1	1	4	1950	287		Nil
8	Mulakulam Panchayat Co-operative Hospital Ltd.No.K 906	9	19	11	75	5141	1264		Department of General Medicine, Department of General Surgery, Department of Gynaecology, Department of Orthopaedic, Department of Dental Surgery and Department of Physiatry.
9	Idukki District Co-operative Hospital Society Ltd.No. I. 177								
10	Cochin Co-operative Hospital Society Ltd. No. E. 288	31	148	71	311	14955	7177		Cardiology, Urology, Neurology, Oncology, Paediatric Surgery
11	Thrikkakara Grema Penchayat Co-operative Hospital Ltd. NO. E. 993	8	5	4	9	Started only June 1999			General Medicine, Paediatric, E.N.T., Skin & V.D., Gynaecology
12	Koothattukulem Co-operative Hospital Society	10	19	10	150	52357	5720		General Medicine, E.N.T., Gynaecology, Ortho

(Appendix. 85 contd.....)

1	2	3	4	5	6	7	8	9
13	Thrissur District Co-operative Hospital Ltd. No. R. 306	46	58	85	210	33190	8312	Cardiology, Neurology, Gastro-enterology, Urology, Plastic and Cosmetic Surgery, General Medicine, Surgery, Gynaecology, Paediatrics, Ortho, E.N.T., Skin & V.D., Ophthalmology, Neuro Psychiatry etc.
14	Manalur Co-operative Hospital Ltd.No. R.330, Thrissur	2	2	8	12	5000	1500	Nil
15	Thrissur District Mahatma Super Speciality Co-operative Hospital Ltd.No. R.816	8	3	2	3	7800	Emergency Day-Care facility for in patient	Paediatrics, General Medicine, Ayurvede, Dental Surgery, Homoeo
16	Prakrithi Chikitse ShekaraneSanatonum, Thrissur	4	--	--	6	5870	450	Nil
17	Irinjalekuda Co-operative Hospital Society Ltd.No. R.954, Thrissur	9	21	20	85	7745	423	General Medicine, Paediatric, E.N.T., Radiology, Surgery
18	Kodungeliur Co-operative Hospital, Thrissur	1	1	--	--	584	--	Nil
19	Palakkad District Health Family Welfare Co-operative Hospital Society Ltd. No. P. 965, Nenmara	4	2	4	5	1880	288	E.N.T., Gynaecology, Children, Dental
20	Ottappalam Co-operative Hospital Society Ltd. No. P. 610, Ottappalam -2	1	--	--	--	--	--	Nil
21	The Palakkad District Co-operative Hospital Ltd.No. P.878	4	21	11	52	14740	3162	I.C.C. Unit, Operation Theatre, Labour Room, Pharmacy, Laboratory, Ambulance, Snake Bite Treatment
22	Alathur Circle Co-operative Hospital, Alathur	--	--	--	--	--	--	Nil
23	P.M./S.A. Memorial Malappuram District Co-operative Hospital	8	15	6	60	32400	3800	General Medicine, Gynaecology, Paediatrics, General Surgery, Psychiatry, Anaesthesiology
24	E.M.S. Memorial Co-operative Hospital and Research Centre Society, Perinthalmanna	12	18	28	100	23411	5750	General Medicine, Gynaecology, Ophthalmology, Orthopaedics, Paediatrics

(Appendix 9.85 contd. ....)



1	2	3	4	5	6	7	8	9
25	Nediyiruppu Co-operative Dispensary, Nediyirippu	2	3	--	10	5408	532	Nil
26	Edakkara Co-operative Hospital, Edakkara	1	8	2	40	2913	741	Nil
27	Atholi Panchayat Co-operative Dispensary	2	1	3	15	11427	954	Nil
28	Vadakara Co-operative Hospital	7	10	12	62	49592	6728	Nil
29	C.H.Muhammedkoya Memorial Co-operative Hospital Ltd. No.D.2600, Kozhikode	6	6	13	60	22164	3985	Nil
30	Nadapuram Sahakarana Hospital, Kallachi, Kozhikode	6	4	9	20	17138	3659	General Medicine, E.N.T, Eye Specialist, D.G.O etc.
31	Chombal Co-operative Clinic and Maternity Clinic, Kozhikode	1	--	2	--	10846	--	Nil
32	V.P.Kunhiramakurup Memorial Co-operative Hospital, Villiappally, Kozhikode	1	1	1	--	4000	--	Nil
33	Kozhikode District Co-operative Homeo Hospital, Kozhikode	2	--	2	--	1204	--	Nil
34	Kozhikode District Co-operative Homoeo Hospital Ltd.No. 2002	13 on salary basic, 25 on freelance	31	13	125	46415	5598	Nil
35	Elathur Co-operative Dispensary, Kozhikode	2	3	--	16	1800	9	Nil
36	Regional Ayurvedic Co-operative Hospital, Thiruvambady, Kozhikode	2	--	--	--	--	--	Nil
37	Mahatma Gandhi Memorial Co-operative Hospital, Kenichira, Wayanad	1	5	3	10	5991	8931	Nil
38	A.K.G.Memorial Co-operative Hospital, Talap, Kannur	30	34	11	250	148000	14893	Gynaecology, Ophthalmology, Paediatrics, Ortho, Surgery, Medicine, Skin end Dental
39	A.K.G.Memorial Co-operative Panchayat Dispensary Society, Kannur	2	3	1	23	21900	1856	General Medicine

(Appendix 9.85 contd.....)

1	2	3	4	5	6	7	8	9
40	Iritty Co-operative Hospital Society Ltd.No. C. 1001, Iritty, Kannur	4	10	5	35	45000	3670	Nil
41	Koavellur Co-operative Dispensary, Kannur	1	4	6	17092	108	108	Nil
42	Malur Pencheyet Co-operative Hospital Society, Kannur	1	---	2	--	10800	--	Nil
43	Peyyanur Co-operative Hospital Society Ltd.No.C. 1487, Kannur	7	14	8	50	15252	2050	Nil
44	Membaram Co-operative Hospital Society, Kennur	18	75	54	150	12000	3200	Gynaecology, Ophthalmology, Paediatrics, Ortho, General Medicine, Neurology, Anesthesia, E.N.T
45	Alakode Bhaweniamma Thamburan Co-operative Hospital, Kannur	1	4	2	26	8563	1224	Nil
46	Payyanur Block Co-operative Hospital Society, Kannur	1	4	1	10	4368	980	Nil
47	Thalassery Co-operative Hospital, Kannur	30	60	105	250	58847	9705	Cardiology, Neurology, Neuro Surgery, Urology, Nephrology, Ortho, General Medicine, E.N.T., Ophthalmology, Paediatrics, Paediatric Surgery, Gynaecology, Anaesthesia, Physical Medicine, Radiology, Chest, Rheumatology, Blood Bank, Mobile Hospital.
48	Kasaragod District Co-operative Hospital Society Ltd. No.S42	5	14	14	42	11350	1863	Gynaecology, General Medicine, X-Ray, Ambulance, OT&LT, Pharmacy
49	Kasaragod District Co-operative Homeo Hospital Society Ltd. NO. S. 34	3	--	5	--	8015	--	Nil
50	Bedadka Panchayat Hospital Co-operative Society	1	3	1	6	17056	85	Nil
51	Karibil Kunhi Kumar Memorial Co-operative Hospital Ltd. No. 943, Kasargod	1	7	4	25	4365	780	Nil
52	Rajeev Gandhi Memorial Co-operative Hospital Society Ltd. No. S. 182, Kasargod	2	6	1	10	5971	212	Nil

Source:- Office of the Registrar, Co-operative Societies

**Appendix 9.86**  
**District-wise Population covered by Urban Water Supply Scheme**

<b>Sl.No</b>	<b>District</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>
1	Thiruvananthapuram	721140	728200	728700	728700	733000	733000	733000	742900
2	Kollam	309000	312400	312850	333490	463490	463490	463490	463490
3	Pathanamthitta	84350	85200	85200	85200	85200	95700	105200	105200
4	Alappuzha	489000	494700	494700	494700	494700	494700	494700	494700
5	Kottayam	246000	248000	848250	363310	363310	363310	363310	363310
6	Idukki	10600	38900	38900	38900	38900	53900	53900	53900
7	Ernakulam	895600	904500	905100	905295	1060996	1071496	1071496	1107596
8	Thrissur	535400	540700	541300	542270	542270	542270	542270	542270
9	Palakkad	230600	232800	233100	233900	256750	256750	256750	256750
10	Malappuram	176000	177700	178050	187234	238334	256334	265634	273634
11	Kozhikide	554000	559400	559866	560116	596850	602850	611250	659250
12	Wayanad	11000	11500	11500	11500	11500	11500	11500	11500
13	Kannur	485100	489200	489520	504356	577503	577503	588103	628103
14	Kasar gode	223600	225800	225800	228850	228850	228850	228850	228850
	<b>TOTAL</b>	<b>4971390</b>	<b>5049000</b>	<b>5652836</b>	<b>5217821</b>	<b>5691653</b>	<b>5751653</b>	<b>5789453</b>	<b>5931453</b>

## Appendix - 9.87

## Details of Water Supply and Demand in Corporations / Municipalities in Kerala

Sl. No.	Name of Corporation/ Municipality	Population 1991 Census	Population 1999 Projected	LPCD 1999	LPCD Demand as per norms	Gap
1	2	3	4	5	6	7
1	Trivandrum Corporation	524006	544006	140	200	60
2	Neyyattinkara	30419	32500	70	140	70
3	Nedumangadu	49875	54375	70	140	70
4	Attingal	32634	39134	70	150	80
5	Varkala	38987	44737	20	150	130
6	Kollam	139852	148942	135	150	15
7	Pathanamthitta	35882	41254	139	120	..
8	Adoor	26639	28770	96	140	44
9	Paravoor	37185	45000	20	100	80
10	Punaloor	46279	75000	60	100	40
11	Thodupuzha	40655	47000	125	120	..
12	Moovattupuzha	29662	33229	70	120	50
13	Kothamangalam	35535	40400	134	140	6
14	Perumbavoor	24667	28120	70	115	45
15	Kochi Corporation	564589	654923	75	170	95
16	Thrippunithura	51078	59250	50	140	90
17	Kalamassery	54000	62640	120	140	20
18	Paravoor	27908	32371	70	120	50
19	Aluva	22775	26396	120	140	20
20	Angamaly	34252	39732	120	125	5
21	Kottayam	63155	85000	129	125	..
22	Vaikom	21788	22500	62	140	78
23	Pala	21890	22453	105	140	35
24	Thiruvalla	54780	60258	107	140	33
25	Changanassery	52445	57444	70	150	80
26	Palakkad Municipality	123289	139583	120	150	30
27	Chittur	32048	36283	140	140	..
28	Thalassery	103577	123784	67	135	68
29	Kuthuparamba	28908	34547	30	135	105
30	Mattannur	40470	48365	55	135	80
31	Vadakara	72434	84023	87	140	53
32	Thrissur	74604	80980	90	110	20
33	Kurinankulam	19657	21996	81.8	110	28.2
34	Guruvayoor	20216	22622	66.3	110	43.7
35	Chavakkad	37789	42286	7.1	110	103
36	Kannur	65233	75670	135	135	..
37	Tirur	49450	55680	80	125	45
38	Ponnani	51754	58275	45	125	80
39	Kalpetta	22945	27119	35	137.5	103
40	Irinjalkuda	27489	30788	110	125	15
41	Kodungalloor	31159	34898	87	125	38
42	Chalakkudy	45059	50466	80	125	45
43	Malappuram	49692	53667	120	140	20
44	Menjeri	69334	74881	70	140	70
45	Perithalmanna	39027	42149	50	140	90
48	Kanhangad	57165	68978	25.87	125	99.1
47	Kasargode	50123	58727	80	125	45
48	Ottappalam	45000	51000	72	152	80
49	Shornur	39500	43700	58	125	67
50	Kozhikode Corporation	419831	453417	14.3	70	55.7
51	Payyannur	64011	76813	3	70	67
52	Thaliparamba	37087	44504	9	70	61
<b>TOTAL:</b>		<b>3777766</b>	<b>4256635</b>	<b>4065.37</b>	<b>6744.5</b>	<b>2679</b>

## Appendix - 9.88

**Service Level of the Existing Water Supply System in Corporations /  
Municipalities in Kerala through house taps and stand posts as on 30-10-99**

Name of Corporation / Municipality	No.of Stand Posts installed	Name of Corporation / Municipality	No.of Stand Posts installed
1	2	1	2
Corporation of Thiruvananthapuram	1551	Kothamangalam	300
Corporation of Kochi	6431	Thodupuzha	377
Corporation of Kozhikode	1628	Thrissur	1560
<b>Total:</b>	<b>9610</b>	Chavakkad	122
Neyyattinkara	260	Kunnamkulam	149
Varkala	188	Guruvayoor Township	77
Attingal	278	Irinjalakuda	271
Nedumangad	209	Chalakydy	245
Punalur	320	Kodungallur	529
Paravur	331	Palakkad	986
Kollam	773	Chittur	555
Adoor	151	Shoranur	205
Pathanamthitta	369	Ottappalam	322
Thiruvalla	628	Kalpetta	218
Changanachery	294	Ponnani	475
Kottayam	960	Tirur	288
Vaikom	294	Malappuram	465
Palai	248	Manjeri	356
Muvattupuzha	1850	Perinthalmanna	235
Cherthala	452	Vadagara	453
Kayamkulam	748	Quilandy	163
Mavelikara	485	Kannur	306
Chengannur	221	Thalassery	500
Trhippunithura	452	Kuthuparamba	67
Paravoor	377	Mattannur	19
Kalamassery	525	Payyannur	43
Aluva	316	Thaliparamba	104
Ankamaly	272	Kasaragode	68
Perumbavoor	341	Kanhangad	80
Muvattupuzha	323	<b>TOTAL:</b>	<b>21203</b>

**Appendix - 9.89****Plan and Non-Plan Expenditure of Kerala Water Authority**

Schemes	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99
1	2	3	4	5	6	7
<b>PLAN EXPENDITURE</b>						
Plan Schemes other than ARP/LIC/HUDCO	4679.00	5705.00	6713.00	7138.98	12137.71	12140.05
ARP Schemes	976.00	1193.00	1498.00	2874.75	3916.22	3532.78
LIC/HUDCO	2376.00	2096.00	3236.00	2472.93	673.00	2929.7
Other Capital Expenditure	286.00	389.00	132.00	288.23	171.24	131.71
<b>Total Plan Expenditure</b>	<b>8317.00</b>	<b>9383.00</b>	<b>11579.00</b>	<b>12774.89</b>	<b>16898.17</b>	<b>18734.24</b>
<b>NON - PLAN EXPENDITURE</b>						
Salary Establishment	2744.00	3057.00	5490.00	4742.00	2596.00	3091.00
Power Charges	1357.00	1729.00	1940.00	2101.00	2900.00	3664.00
Operation and Maintenance	1472.00	1658.00	1826.00	2191.00	2329.00	2439.00
Interest on Loans (Excluding GOK Loans)	1421.00	1816.00	2225.00	2637.00	3020.00	3410.00
Repayment of Loans (Excluding GOK Loans)	624.00	772.00	884.00	948.00	1172.00	1267.00
Others	294.00	269.00	372.00	413.00	542.00	517.00
<b>Total NP Expenditure</b>	<b>7912.00</b>	<b>9301.00</b>	<b>12737.00</b>	<b>13032.00</b>	<b>15314.00</b>	<b>14388.00</b>

Note:- Establishment reduced to the extent of share Debit Transferred to plan expenditure

## Appendix - 9.90

## Financing of water supply from various sources

(Rs. in lakhs)

Year	Revenue from water /	State Government		Government of India		World Bank	Netherland	Danida	LIC	HUDCO
		Plan	Non-Plan	5	6					
1985-86	1512.75	2741.00	711.00	..	..	781.30	Nil	..	..	..
1986-87	1400.37	4164.94	1060.50	..	8.40	263.23	140.00	..	..	..
1987-88	1657.61	3967.52	1137.20	..	217.70	334.36	371.00	..	..	..
1988-89	1699.36	3918.49	2164.00	..	473.90	142.39	315.00	..	..	..
1989-90	2109.72	4800.00	2350.00	..	435.33	136.11	163.00	..	..	..
1990-91	2197.29	5967.59	2585.00	..	723.00	543.06	170.00	..	..	..
1991-92	2221.44	6693.00	2799.94	..	1027.00	227.03	300.00	..	..	..
1992-93	3066.00	8007.00	2858.00	..	273.00	380.62	120.00	1000	1395	..
1993-94	3891.00	9128.00	3440.00	..	543.00	735.00	748.00	1230	1174	..
1994-95	4387.00	9123.00	3440.00	..	1454.16	496.44	500.00	2151	1449	..
1995-96	4836.00	10635.00	3440.00	2469.00	..	305.32	..	2028	1060	..
1996-97	5814.00	11097.00	3440.00	2414.00	..	925.92	..	2266	798	..
1997-98	6697.00	16816.00	3440.00	4071.00	..	6047	..	2783	1272	..
1998-99	6954.00	13275.00	4513.00	4942.00	..	6468.00	..	..	..	3953.00

## Appendix - 9.91

## Housing Schemes Implemented by Kerala State Housing Board

Sl.No	Name of Schme	Number of Houses Constructed				
		upto1997	1997-98	1998-99	1999-2000 (as on 31-10-99)	
					Completed	Progress
1	2	3	4	5	6	7
1	<i>Public Housing Schemes</i>					
1	Layout Housing Scheme (GI)	10601	249	247	31	752
2	Rental Housing Scheme	1713	42	..	..	78
3	Working Journalists HS	23	..	..	54	..
4	NRI Housing Scheme	69	..	50	..	102
5	Housing Complexes (EWS)	3590	45	..	..	149
8	Working Womens' Hostel	..	..	..	1	1
7	Slum Clearance Scheme	616	..	..	..	..
	Kerala Village at Latur	188	..	..	..	..
8	<b>Sub Total</b>	<b>16780</b>	<b>36</b>	<b>297</b>	<b>86</b>	<b>1082</b>
II	<i>Loan Schemes</i>					
9	EWS / Maithri Housing Scheme	29214	30487	42935	37321	32631
10	LIG Cash Loan Scheme	11648	1707	1858	936	1084
11	MIG Cash Loan Scheme	5927	2076	1731	736	915
12	HIG Cash Loan Scheme	1920	663	289	52	57
13	Repair & Renewal - EWS	1742	..	..	..	..
14	Repair & Renewal - LIG	702	114	332	135	169
15	Repair & Renewal - MIG	459	105	255	73	119
16	Repair & Renewal - HIG	114	33	38	19	21
17	MLA's / MP's Housing Scheme	74	9	7	7	5
18	Housing Scheme for Flood Victims (1992)	7127	3285	4522	..	183
19	Working Journalist HS (Subsidy)	350	21	17	9	9
20	Jubilee HS (1998 - 99)	..	20	178	5	27
21	Central Govt: Employees HS.	7	..	..	..	..
22	Govt: Employees & Teachers Housing Scheme -LIG	881	..	..	..	..
23	Govt: Employees & Teachers Housing Scheme - MIG	338	..	..	..	..
24	Govt: Employees & Teachers Housing Scheme - HIG	89	..	..	..	..
25	Co-operative HS for EWS	55495	..	..	..	..
26	SASH for EWS	17950	..	..	..	..
27	H.S for Handloom Workers	68	..	..	..	..
28	H.S for Beedi Workers	434	..	..	..	..
29	Rehabilitation Housing Scheme	170977	..	..	..	..
30	H.S for Plantation Workers	26	..	..	..	..
31	Kairali Housing Scheme	21567	..	..	..	..
	<b>Sub Total</b>	<b>326907</b>	<b>38520</b>	<b>52162</b>	<b>39293</b>	<b>35220</b>
	<b>TOTAL:</b>	<b>343887</b>	<b>38856</b>	<b>52459</b>	<b>39379</b>	<b>36302</b>





## Appendix - 9.93

## District-wise No. of ITIs and seat strength in Kerala as on 31-11-1999

Sl. No.	District	No. of institution				Seat Strength			
		Govt. I.T.I		Private I.T.I		Total	Govt. I.T.I	Private I.T.I	Total
		Total	Of which affiliated to NCVT	Total	Of which affiliated to NCVT				
1	2	3	4	5	6	7	8	9	10
1	Thiruvananthapuram	5	4	45	45	50	3322	3596	6918
2	Kollam	3	2	39	39	42	1280	5604	6884
3	Pathanamthitta	1	1	31	31	32	156	3650	3806
4	Alappuzha	2	2	43	43	45	730	4430	5160
5	Kottayam	2	2	30	30	32	1166	3270	4436
6	Idukki	1	1	8	8	9	232	692	924
7	Ernakulam	2	2	51	51	53	972	6896	7868
8	Thrissur	3	3	31	31	34	1096	3092	4188
9	Malappuram	2	1	12	12	14	396	930	1326
10	Palakkad	3	2	12	12	15	856	900	1756
11	Kozhikode	3	3	22	22	25	1036	1708	2744
12	Wayanad	1	1	3	3	4	144	180	324
13	Kannur	2	2	24	24	26	952	1176	2128
14	Kasargode	2	1	2	2	4	222	180	402
<b>TOTAL:</b>		<b>32</b>	<b>27</b>	<b>353*</b>	<b>353</b>	<b>385</b>	<b>12560</b>	<b>36304</b>	<b>48864</b>

\* The defunct ITCs in private sector, 41 ITCs under S.C. Development Department and one ITC under S.T. Development Department have been excluded as they are not affiliated to N.C.V.T.

## Appendix - 9.94

## Trade wise Seat Strength in ITIs and ITCs as on 30-11-99

(one year Course)

Sl. No.	Name of Trade	Industrial Training Institutes				Industrial Training Centres			
		Total Intake	of which girls	Schedule Castes	Schedule Tribes	Total Intakes	of which girls	Schedule Castes	Schedule Tribes
1	Forger & Heat Treater	320	..	51	..	32	..	4	..
2	Carpenter	448	..	76	..	32	..	4	..
3	Mechanic Diesel	160	..	37	..	928	..	104	..
4	Plumber	320	..	93	..	1536	..	160	..
5	Sheet Metal Worker	272	..	40	..	16	..	2	..
8	Welder	812	..	95	..	348	..	34	..
7	Steno(Eng)	540	191	108	..	1760	104	182	..
8	COPA	440	110	84	..	2856	205	286	..
9	Steno (Hindi)	100	100	14	..	32	20	44	..
10	Secretarial Practice	32	24	6	..	288	190	30	..
11	Dress Making	120	120	15	..	48	6	6	..
12	D.T.P.O	120	40	27	..	80	5	9	..
13	Plastic Processing Operator Trade	80	..	11	..	..	..	..	..
14	Mechanic (Tractor)	80	..	11	..	..	..	..	..
15	Upholstry	40	..	5	..	..	..	..	..
18	Foundryman	280	..	41	..	16	..	2	..
17	Photography	..	..	..	..	16	..	2	..
18	Preservation of Fruits and Vegetables	..	..	..	..	16	10	2	..
19	Hair & Skin Care	16	10	3	..	48	10	5	..
20	Cutting and Tailoring	..	..	..	..	240	112	26	..
<b>TOTAL:</b>		<b>3980</b>	<b>595</b>	<b>717</b>	<b>..</b>	<b>8292</b>	<b>662</b>	<b>902</b>	<b>..</b>

**Appendix - 9.95**  
**Trade wise seat strength in ITIs and ITCs as on 30-11-99**

(Two year Course)

Sl. No.	Name of Trade	Industrial Training Institutes			Industrial Training Centres		
		Total Enrolment	of which girls	Schedule Castes	Total Enrolment	of which girls	Schedule Castes
1	2	3	4	5	6	7	8
1	Draftman Civil	672	396	120	7360	362	966
2	D/Mechanic	192	50	30	482	..	76
3	Electrician	864	..	172	5484	..	698
4	Fitter	1064	..	164	4340	..	590
5	Mechanic (Motor Vehicle)	556	..	98	1624	..	216
6	Machinist	516	..	48	72	..	8
7	Mechanic (Radio & TV)	800	530	194	1760	210	322
8	Wireman	832	..	174	496	..	56
9	Turner	544	..	48	120	..	14
10	Electronics Mechanic	972	612	208	4814	160	630
11	Mechanic (Refrigeration & Air Conditioning)	544	..	130	1148	..	190
12	Instrument Mechanic	160	..	30	..	..	..
13	Surveyor	416	120	62	280	80	38
14	Watch & Clock Mechanic	96	96	26	..	..	..
15	Painter General	160	..	30	..	..	..
16	Electro Plater	32	..	4	..	..	..
17	Mill wright Mechanic	32	..	4	..	..	..
18	Mechanic in Agriculture Machinery	32	..	4	..	..	..
<b>TOTAL:</b>		<b>8484</b>	<b>1804</b>	<b>1546</b>	<b>27980</b>	<b>812</b>	<b>3804</b>

**Appendix 10.1**  
**Physical and Financial Achievement under**  
**Rural Development Programmes in 1997-98 and 1998-99**

Sl. No.	Programme	Unit	Achievement	
			1997-98	1998-99
1	2	3	4	5
<b>I (a)</b>	<b>IRDP</b>			
1	Total Expenditure	Rs. Lakhs	2531.96	2769.01
2	Families assisted	No.	44191	39836
3	SC families assisted	"	14460	12750
4	ST families assisted	"	1096	875
5	Women assisted	"	22050	18594
6	Subsidy adjusted	Rs. Lakhs	2168.51	2081.45
7	Per family invested (Total)	No.	20489	21812
8	Scheduled Caste families	"	1921	1980
9	Scheduled Tribe families	"	2028	2090
<b>(b)</b>	<b>Supply of Tool Kits to Rural Artisans</b>	"	2278	7759
<b>(c)</b>	<b>TRYSEM</b>			
1	Total Youths Trained	No.	3846	2995
2	Of which SCs	"	1430	1208
3	Of which STs	"	117	87
4	Of which Women	"	2740	1959
5	Trained persons who set up their self employment ventures	"	1068	989
6	Of which SCs	"	357	291
7	Of which STs	"	21	11
8	Of which Women	"	896	789
9	Trained persons who have taken up wage employment	"	1824	1551
10	Of which SCs	"	753	668
11	Of which STs	"	82	62
12	Of which Women	"	1145	892
13	Total settled including self employed and wage employed	"	2892	2540
14	Percentage of youth settled out of trained	%	75	85
<b>(d)</b>	<b>DWCRA</b>			
1	Women Groups Organized	No.	1355	1397
2	Women Groups Functioning	No.	1016	1098
<b>II</b>	<b>JRY</b>			
1	Total Expenditure	Rs. Lakhs	3851.76	4239.95
2	Expenditure for SCs	"	831.13	972.42
3	Expenditure for STs	"	78.79	93.19
4	Mandays Generated	Lakh man days	41.82	39.39
5	Mandays Generated for SCs	"	13.84	11
6	Mandays Generated for STs	"	2.22	1.3
7	Mandays Generated for Women	"	14.44	13.65
8	Houses Constructed	No.	4969	4682
9	New Roads Constructed	Km	722.31	672.92
10	Sanitary letrines constructed	No.	11588	8154
11	Drinking water wells constructed	"	372	804
12	Irrigation Walls, Tanks and Canals	"	120	46
13	Area planted under social forestry	Ha.	1.12	
14	Saedlings distributed	No. in lakhs	3	
15	Buildings Constructed	No.	9	7
<b>III</b>	<b>KERAMS</b>			
1	Volume of business handled	Rs. lakhs	58.48	67.70

**Appendix 10.2**  
**District-wise Number of beneficiaries in Welfare Institutions 1999**

Sl.No.	Name of Welfare Institution	Thiruvananthapuram	Kollem	Alappuzha	Pathanamthitta	Kottayam	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram	Kozhikode	Wayanad	Kannur	Kasaragod	Total
1	Mahila Mandir	25	25	25	-	25	-	25	25	25	25	25	-	25	25	275
2	Home for Mentally Deficient children	50	-	-	-	-	-	-	-	-	-	50	-	-	-	100
3	Home for Physically Handicapped	25	-	25	-	-	25	-	-	25	-	25	-	-	-	125
4	Home for the cured mental patients (Asha Bhavan)	50	-	-	-	-	-	50	-	-	-	50	-	-	-	150
5	Care Home for Disabled	100	25	25	-	-	-	-	-	-	25	-	-	25	-	200
6	Old Age Home	-	100	-	-	100	100	-	-	-	100	100	-	100	100	800
7	After Care Home	50	100	-	-	100	-	-	-	-	-	100	-	100	-	450
8	Observation Home	25	25	25	-	25	25	50	25	25	-	50	-	25	-	275
9	Juvenile Homes	100	100	-	-	100	-	200	-	-	25	300	-	-	-	825
10	Government Balasadan	-	-	100	-	-	-	-	-	-	-	-	100	-	-	200
11	Rescue Home	-	-	100	-	-	-	-	-	-	100	-	-	-	-	300
12	Children's Home, Nooranad	-	-	50	-	-	-	-	-	-	-	-	-	-	-	50
13	Special Home for Boys	100	-	-	-	-	-	-	-	-	-	-	-	-	-	100
14	After Care Home for Women	50	-	-	-	-	-	-	-	-	-	-	-	-	-	50
15	Orphanages	-	-	-	-	-	-	-	-	-	-	-	-	-	-	44728
16	Fondling Home	-	-	-	-	-	-	-	-	-	-	-	-	-	-	440
17	Beggar Homes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	365
18	Home for Aged Infirm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4920

Source: Social Welfare Department

**Appendix 10.3**  
**Major Pension Schemes in Kerala- District-wise Beneficiaries**

Sl.No.	Name of Institution	Thiruvananthapuram	3	4	5	6	7	8	9	10	11	12	13	14	15	16
		Kollam	Alappuzha	Pathanamthitta	Kottayam	Idukki	Emakulam	Thirissur	Palakkad	Malappuram	Kozhikode	Wayanad	Kannur	Kasargod		
1	Pension Schemes															
1	Agricultural Workers Pension Scheme	31377	22460	40425	11909	13276	5244	10945	23584	30456	36215	40888	7547	21762	8550	
2	Widow Pension Scheme	11898	8905	9770	3925	4065	135	9212	7895	10538	18138	20868	1418	16368	5964	
3	Kerala Destitute/Old Age Pension Scheme	5200	3810	4700	1620	2134	674	3276	6890	10415	3830	3515	683	3990	1218	
4	Special Pension for the Physically handicapped	10076	6875	8611	3020	5100	3180	8014	6950	8010	6840	6880	5990	9160	2200	
5	T.B, Leprosy, Cancer patients	415	329	259	57	46	30	30	222	267	193	346	17	178	11	
6	Others	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Source: Different Welfare Fund Boards

**Appendix 10.4**  
**Major Welfare Fund Boards in Kerala- District-wise Beneficiaries During 1998-99**

Sl.No	Name of Welfare Fund Board	State Level coverage of members	District-wise Beneficiaries														Kasaragod
			3	4	5	6	7	8	9	10	11	12	13	14	15	16	
1	Kerala Toddy Workers Welfare Fund Board	36939	723	1123	967	3562	2710	3369	6732	5649	1327	5168	1339	1339	3398	872	
2	Kerala Building and other Construction Workers Welfare Board	1575000	99248	39863	28068	38173	18332	70000	60657	63246	57931	67642	9472	65323	80923	23437	
3	Kerala Motor Transport Workers Welfare Fund Board	193707	2079	1541	2045	2524	1045	6460	40614	8626	3297	2137	665	4916	3702	1976	
4	Kerala Abkari Workers Welfare Board	2168	279	(2)	77	176	68	197	162	351	51	107	38	124	79	47	
5	Kerala Handloom Workers Welfare Fund Board	42682	12118	3023	54	428(271)	52	497	1322	2779	3184	1402	..	5961	11304	1319	
6	Kerala Fishermen's Welfare Fund Board	223280	50840	27203	466	339331	115	6664	10885	25968	643(276)	495	..	(2519)	(3810)	(658)	
7	Kerala Khadi Workers Welfare Fund Board	12611	1435	(1854)	(37)	(1694)	177	(1775)	(177)	(1839)	3552(11)	1236	11	(109)	(671)	(2967)	
8	Kerala Cashew Workers Welfare Fund Board	155794	9532	21980	(172)	(858)	..	(288)	(2401)	(394)	246(248)	(1184)	(11)	(2014)	(89)	(89)	
9	Kerala Artisans and Skilled Workers Welfare Fund Board	181157	28345	26999	11864	20231	1275	12424	22438	8994	9577	11434	11704	11704	12750	5321	
10	Kerala Coir Workers Welfare Fund Board	139068	19102	21980	..	(41172)	..	20000	1304	7558	3182	..	..	10125	852	286	
11	Kerala State Anganwadi Workers Welfare Fund Board	22591	1627	1918	(611)	(1918)	1307	(478)	(1251)	2047	3324	(2943)	(569)	(1754)	(1569)	296	
12	Kerala State Lottery Agents Welfare Fund Board	3820	320	234	59	232	234	234	460	681	255	390	17	454	342	37	
13	Kerala Agricultural Workers Welfare Fund Board	1456893	115602	76400	94512	118996	55075	89811	162723	100444	163463	80879	122916	129696	41729	41729	





8	Welfare fund for Journalists/Dependents in distress	1. Living Journalists who are unemployed due to ill health & overage 2. Working journalists pension scheme	1976	Rs.300/-p.m	Rs.300/-p.m	Rs.500/-p.m	Rs.500/-p.m
			1993	Rs.1000/-p.m	Rs.1000/-p.m	Rs.1000/-p.m	Rs.1000/-p.m
9	Welfare fund for cine artistes	Financial assistance is given to cine Artistes is in distress. The annual family income should not exceed Rs.12,000	1981	Rs.300/-p.m	Rs.300/-p.m	Rs.400/-p.m	Rs.500/-p.m
10	Kerala Cashew workers	Cashew workers above the age of 60. Super annuation at 58/60 years	1989	Rs.100/- to workers 200/- to staff	Rs.125/- to workers 200/- to staff	Rs.125/- to workers 200/- to staff	Rs.125/- to workers 200/- to staff
11	Kerala Coir workers welfare fund scheme	1. coir workers above the age of 60 2. Member workers who has completed the age of 60 years and pays to the final contribution	1989	Rs.75/-p.m	Rs.75/-p.m	Rs.100/- p.m	Rs.100/- p.m
12	Kerala Construction workers welfare scheme	1. Construction workers having one year service and attained 60 years of age 2. Invalid pension 3. Family pension	1991 1993 1996	Rs.100/-p.m Rs.100/-p.m Rs.100 p.m	Rs.100/-p.m Rs.150/-p.m Rs.100/-p.m	Rs.150/-p.m Rs.150/-p.m Rs.100/-p.m	Rs.150/-p.m Rs.150/-p.m Rs.100/-p.m
13	Kerala Khadi Workers welfare scheme	Khadi workers having ten years service end 60 yrs of age.	1990	Rs. 60/- p.m	Rs. 60/- p.m	Rs. 180/- p.m	Rs. 100/- p.m minimum Rs. 300/- p.m maximum
14	Kerala Handloom worker welfare scheme	1. Handloom workers above the age of 60 with at least 3 years service 2. Self employed persons in Handloom industry	1989 1998	Rs. 75/-p.m ..	Rs. 75/-p.m ..	Rs.100/-p.m ..	Rs.100/-p.m Rs.100/-p.m

15	Kerala Abkari workers welfare fund scheme	A worker shall be entitled to become a member under the scheme from the date of 1.1.80 on which he has completed 3 months continuous service.	1983	Rs. 10,000/- in death cases and Rs. 5000/- for permanent disability of members	Rs. 10,000/- in death cases and Rs. 5000/- for permanent disability of members	Rs. 200/- p.m
18	Kerala Toddy workers welfare scheme	1. Worker who have not less than 10 yrs. memberships retired before/after the commencement of scheme/ super annuation Rs.10/- for each additional completed years of membership from the date of superannuation 2. Assistance to disabled workers	1997	Rs. 100/-p.m	Rs. 100/-p.m	Rs. 100/- p.m
17	Kerala Head Load workers Welfare Scheme of the committee are insured with L.I.C. Under group Insurance Scheme	1. All the workers in rolls of the committee are insured with L.I.C. Under group Insurance Scheme 2. Invalid pension 3. Family Welfare Scheme 4. Terminal benefits	1988 1987 1987 1984	Rs. 150* Rs. 10000 Rs. 10000 Rs. 10000	as per the previous year Rs. 10000 Rs. 10000 Rs. 10000	Rs. 15000 for normal death and Rs. 20000 for accidental death. Rs. 20000 for normal death and Rs. 20000 for accidental death. Rs. 150/ p.m Rs. 150/ p.m Rs. 150/ p.m
18	Kerala Motor workers Welfare fund	All members	1986	Retirement benefit PF etc. A member will get about Rs. 12000, per 5 yrs of contribution and Rs. 60000 if continued as member for 15 years	Rs. 85/-p.m	
19	Kerala Fishermen's Welfare Scheme	Benefited fishermen who has completed 60 years of age	1987			

		1978	Rs.1000/-	Rs.1000/-	Rs. 2000/-	Rs.2000/-	Rs. 2000/-
20	Financial assistance to widows for the marriage of their daughter	Yearly income of the family should not exceed Rs.10000 and income of the individual is below Rs.6000/-					
21	Tree Climbers welfare scheme	financial assistance is given to workers in the event of total accidents and permanent total disability following the accidents.	Rs. 10000 in lumpsum paid	Rs. 10000 in lumpsum paid	Rs. 10000 in lumpsum paid	Rs. 10000 in lumpsum paid	Rs. 10000 in lumpsum paid
22	Unemployment Assistance	Financial assistance is given to those who wait for employment in the live register of employment exchange for more than 3 years. Age limit 18-35 years	Rs.70-p.m	Rs.70-p.m	Rs.100-p.m	Rs.100-p.m	Rs.100-p.m
25	Self employment scheme for the registered unemployed	Unemployed Persons between 21- 40 years. Annual Family Income Rs.24000/-					Maximum loan amount Rs.30000/- subsidy 5% interest subsidy
26	National Old age Pension scheme	Above 65 years. Annual Family Income below Rs. 11000/-	Rs. 110/- p.m	Rs. 110/- p.m	Rs. 110/- p.m	Rs. 110/- p.m	Rs. 110/- p.m

Source: Different Welfare Fund Boards

**Appendix 10.6**  
**District wise List of ICDS Projects under Social Welfare Department**

Sl No.	Name of Project	Year Sanctioning	Type of Project	No.of AWCs sanctioned	No.of AWCs functioning
<b>THIRUVANANTHAPURAM</b>					
1	Thiruvananthapuram Urban I	77-78	Urban	101	101
2	Perumkadavila	82-83	Rural	122	122
3	Athiyannoor	82-83	Rural	126	125
4	Nemom	82-83	Rural	115	115
5	Chirayinkeezhu	81-82	Rural	127	123
6	Thiruvananthapuram Rural	82-83	Rural	122	113
7	Vamanapuram	86-87	Rural	219	214
8	Varkala	93-94	Rural	130	104
9	Kilimannoor	93-94	Rural	164	38
10	Kazhakuttam	94-95	Rural	230	230
11	Thiruvananthapuram Urban II	94-95	Urban	410	60
12	Nedumangad	99-2000	Rural	147	..
<b>KOLLAM</b>					
1	Oachira	80-81	Rural	73	73
2	Sasthamcotta	82-83	Rural	87	87
3	Anchalummoodu	82-83	Rural	114	114
4	Chavara	78-79	Rural	152	152
5	Vettikkavala	82-83	Rural	179	178
6	Ithikkara	83-84	Rural	138	138
7	Chittumala	85-86	Rural	123	123
8	Pathanapuram	88-89	Rural	186	164
9	Anchal	93-94	Rural	190	190
10	Kottarakara	93-94	Rural	144	143
11	Chadayamangalam	94-95	Rural	203	198
12	Karunagappalli	99-2000	Rural	146	..
<b>ALAPUZHA</b>					
1	Kanjikuzhy	82-83	Rural	114	114
2	Harippad	82-83	Rural	117	117
3	Champakkulam	82-83	Rural	116	116
4	Thycattusery	79-80	Rural	111	102
5	Pattanakkad	80-81	Rural	196	191
6	Ambalapuzha	81-82	Rural	117	106
7	Alappuzha	82-83	Urban	186	147
8	Muthukulam	83-84	Rural	156	144
9	Mavelikkara	93-94	Rural	117	97
10	Bharanikavu	93-94	Rural	150	150
11	Chengannur	94-95	Rural	171	171
12	Aryad	99-2000	Rural	111	..
13	Veliyanad	99-2000	Rural	90	..

PATHANAMTHITTA					
1	Parakkode	82-83	Rural	152	152
2	Pulikezhu	85-86	Rural	121	116
3	Konni	88-89	Rural	178	177
4	Kulanada	89-90	Rural	141	85
5	Pandalam	93-94	Rural	224	93
6	Ranni	93-94	Rural	208	206
7	Elanthur	94-95	Rural	105	105
8	Mallappally	99-2000	Rural	115	..
KOTTAYAM					
1	Vaikom	79-80	Rural	108	108
2	Lalam	82-83	Rural	100	100
3	Pampady	82-83	Rural	122	122
4	Madappally	85-86	Rural	189	185
5	Kanjirappally	89-90	Rural	226	207
6	K aduthuruthy	99-2000	Rural	156	..
7	Pallam	99-2000	Rural	234	..
8	Vazhoor	99-2000	Rural	109	..
IDUKKI					
1	Elamdesom	79-80	Rural	110	110
2	Devikulam	83-84	Rural	112	111
3	Idukki	82-83	Rural	123	123
4	Arudai	86-87	Rural	195	151
5	Kattappana	88-89	Rural	202	185
6	Adimaly	90-91	Rural	158	158
7	Nedumkandam	91-92	Rural	161	159
8	Thodupuzha	93-94	Rural	79	79
ERANAKULAM					
1	North Paravur	80-81	Rural	113	113
2	Vadavucode	82-83	Rural	127	127
3	Mattancheri	79-80	Urban	110	110
4	Vypin	83-83	Rural	125	122
5	Mulamthuruthy	89-90	Rural	144	98
6	Vyttila	93-94	Rural	50	50
7	Kochi	94-95	Urban	463	50
8	Parakkadavu	99-2000	Rural	127	..
9	Vazhakkulam	99-2000	Rural	177	..
10	Pambakuda	99-2000	Rural	92	..
11	Koovapadi	99-2000	Rural	133	..
THRISSUR					
1	Anthidad	80-81	Rural	101	101
2	Mala	82-83	Rural	118	117
3	Chavakkad	78-79	Rural	199	196
4	Chalakydy	83-84	Rural	139	138
5	Thalikkulam	85-86	Rural	121	109
6	Pazhayannur	86-87	Rural	166	166
7	Irinjalakkuda	89-90	Rural	135	132
8	Mullassery	88-89	Rural	106	95
9	Vadakkanchery	93-94	Rural	174	174
10	Vellangallur	93-94	Rural	96	96
11	Chowwannur	94-95	Rural	159	159
12	Puzhakkal	99-2000	Rural	164	..
13	Ollurkkara	99-2000	Rural	225	..

PALAKKAD					
1	Kuzhalmannam	80-81	Rural	117	112
2	Attappady	79-80	Tribal	123	123
3	Kollamgode	81-82	Rural	137	132
4	Alathur	83-84	Rural	138	138
5	Sreekrishnapuram	83-84	Rural	138	137
6	Chittur	86-87	Rural	160	159
7	Ottappalam	86-87	Rural	174	169
8	Palakkad	90-91	Rural	303	294
9	Manarkkad	88-89	Rural	250	250
10	Thrithala	89-90	Rural	186	186
11	Pattambi	91-92	Rural	226	226
12	Nenmara	93-94	Rural	71	71
13	Malampuzha	99-2000	Rural	167	..
MALAPPURAM					
1	Ponnani	80-81	Rural	108	104
2	Tirur	82-83	Rural	140	137
3	Vengara	75-76	Rural	135	135
4	Kondotty	81-82	Rural	138	138
5	Manjeri	83-84	Rural	127	127
6	Perinthalmanna	83-84	Rural	134	133
7	Thanur	83-84	Rural	124	123
8	Tirurangadi	85-86	Rural	192	185
9	Wandoor	90-91	Rural	253	252
10	Kuttippuram	91-92	Rural	157	151
11	Mankada	93-94	Rural	228	225
12	Malappuram	93-94	Rural	174	161
13	Nilambur	93-94	Rural	211	210
14	Andathodu	93-94	Rural	134	134
KOZHIKODE					
1	Kozhikode	77-78	Urban	101	99
2	Kozhikode	83-84	Urban	111	110
3	Melady	82-83	Rural	122	122
4	Koduvally	82-83	Rural	158	158
5	Kunnamangalam	83-84	Rural	134	134
6	Perambra	83-84	Rural	144	144
7	Balussery	89-90	Rural	244	219
8	Chelannur	99-2000	Rural	183	..
9	Kunnummal	99-2000	Rural	175	..
10	Panthalayani	99-2000	Rural	165	..
11	Kozhikode (Rural)	99-2000	Rural	257	..
WAYANAD					
1	Manathavady	78-79	Rural	184	184
2	Kalpetta	82-83	Rural	162	161
3	Sulthanbathery	82-83	Rural	171	171

KANNUR					
1	Edakkad	82-83	Rural	143	143
2	Thaliparamba	81-82	Rural	170	169
3	Koothuparamba	83-84	Rural	138	137
4	Kannur	82-83	Urban	37	32
5	Peravoor	86-87	Rural	136	135
6	Payyannur	93-94	Rural	342	318
7	Kannur	93-94	Rural	159	123
8	Irikkur	93-94	Rural	214	214
9	Iritty	93-94	Rural	163	163
10	Thalassery	93-94	Rural	197	178
KASARAGODE					
1	Kanhangad	80-81	Rural	195	195
2	Kasaragode	85-86	Rural	176	171
3	Manjeswaram	93-94	Rural	211	198
4	Neeleswaram	99-2000	Rural	237	..

**Appendix 10.7**  
**District Wise Details of Enroiment of Scheduled Caste / Scheduled Tribe Students at School Level as on 1-6-1999.**

Sl.No.	District	LPS			UPS			HS		
		General	SC	ST	General	SC	ST	General	SC	ST
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>
1	Thiruvananthapuram	117618	17882	670	89400	13900	777	278950	37984	1890
2	Kollam	97772	15399	376	82958	13167	350	211206	30389	878
3	Pathanamthitta	47361	7766	307	30715	5339	138	107237	16998	520
4	Alappuzha	73555	7771	225	51776	6236	112	178480	18964	377
5	Kottayam	70603	6149	617	52155	5160	600	164932	14751	1915
6	Idukki	37109	8034	1515	35798	6018	1823	87719	12138	3480
7	Ernakulam	92222	9843	364	73410	8310	614	262921	24783	957
8	Thrissur	120223	16182	427	111360	15023	300	258044	32291	401
9	Palakkad	112992	19592	2452	146409	26608	1370	211504	32345	1560
10	Malappuram	218659	15858	678	277891	21969	956	308086	23615	377
11	Kozhikode	119643	7081	269	176499	13313	306	219424	15012	607
12	Wayanad	25246	1438	5966	41583	1913	7139	61786	3602	8790
13	Kannur	102611	3786	715	158897	7173	2104	178120	7512	1033
14	Kasaragod	42596	3705	1047	68769	5672	1768	115029	8136	3290
<b>Total</b>		<b>1278210</b>	<b>140486</b>	<b>15628</b>	<b>1397620</b>	<b>149801</b>	<b>18357</b>	<b>2643438</b>	<b>278520</b>	<b>26075</b>



## Appendix 10.8

Admission Details of Scheduled Caste / Scheduled Tribe Students  
in Medical and Para Medical Courses

Sl.No.	Courses	1996-97			1997-98			1998-99		
		SC	ST	Total	SC	ST	Total	SC	ST	Total
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>
1	MBBS	43	11	54	43	11	54	43	10	53
2	BDS	5	1	6	5	1	6	5	1	6
3	B.Pharm	1	-	1	1	-	1	1	-	1
4	B.Sc Nursing (Men)	2	-	2	2	-	2	2	-	2
5	B.Sc Nursing (Women)	10	2	12	10	2	12	10	2	12
6	B.Sc. (MLT)	2	-	2	2	-	2	2	-	2
	<b>Para Medical Courses</b>									
7	MLT	19	1	20	20	-	20	20	-	20
8	CRA	28	2	30	28	2	30	28	2	30
9	Ophthalmic Assistant	20	-	20	20	-	20	20	-	20
10	Dental Mechanic Course	10	-	10	10	-	10	10	-	10
11	D.Pharm Course	30	-	30	30	-	30	30	-	30
11	Certificate Course in Nursing	30	-	30	30	-	30	30	-	30
<b>Total</b>		<b>200</b>	<b>17</b>	<b>217</b>	<b>201</b>	<b>16</b>	<b>217</b>	<b>201</b>	<b>15</b>	<b>216</b>

**Appendix 10.9**  
**Houses Constructed by the ST Development Department**

SI.No.	District	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99
1	2	3	4	5	6	7	8	9
1	Thiruvananthapuram	11	37	46	11	11	4	21
2	Kollam	5	11	18	20	7	7	7
3	Pathanamthitta	8	8	12	3	12	16	15
4	Alappuzha	14	1	26	15	-	12	5
5	Kottayam	28	18	42	6	32	31	30
6	Idukki	27	105	139	19	219	63	28
7	Ernakulam	2	11	24	5	8	-	8
8	Thrissur	8	16	4	-	11	1	28
9	Palakkad	41	130	28	17	118	10	58
10	Malappuram	-	37	67	-	51	104	30
11	Kozhikode	5	15	13	-	37	1	27
12	Wayanad	346	390	349	270	487	101	166
13	Kannur	36	82	5	28	11	79	28
14	Kasaragod	95	19	73	49	74	58	34
<b>Total</b>		<b>626</b>	<b>880</b>	<b>846</b>	<b>443</b>	<b>1078</b>	<b>487</b>	<b>485</b>

## Appendix 10 .10

## Houses Constructed by SC Development Department

<i>Sl.No.</i>	<i>District</i>	<i>1996-97</i>	<i>1997-98</i>	<i>1998-99</i>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1	Thiruvananthapuram	365	766	1025
2	Kollam	521	684	1071
3	Pathanamthitta	160	321	438
4	Alappuzha	215	382	420
5	Kottayam	143	378	347
6	Idukki	174	363	666
7	Ernakulam	162	486	511
8	Thrissur	360	676	907
9	Palakkad	471	761	1001
10	Malappuram	391	473	788
11	Kozhikode	239	375	434
12	Wayanad	49	57	71
13	Kannur	93	207	244
14	Kasaragod	199	286	547
<b>Total</b>		<b>3542</b>	<b>6215</b>	<b>8470</b>

## Appendix 10.11

## Institutions under SC Development Department (1999).

Sl. No.	District	Nursery Schools			Boy's Hostels		Girl's Hostels		Other Institutions			Model Residential Schools		Subsidised Hostels	
		3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	Thiruvananthapuram	16	6	6	8	-	1	-	-	-	-	-	-	-	1
2	Kollam	7	7	5	4	-	-	-	-	-	-	-	-	-	2
3	Pathanamthitta	2	2	4	2	-	-	-	-	-	-	-	-	-	-
4	Alappuzha	3	-	4	2	2	-	-	-	-	-	-	-	-	-
5	Kottayam	6	2	4	4	-	-	-	-	-	-	-	-	-	-
6	Idukki	5	2	3	-	-	-	-	-	-	-	-	-	-	-
7	Ernakulam	6	3	4	1	-	1	-	-	-	-	1	-	-	-
8	Thrissur	10	4	3	8	-	-	-	-	-	-	-	-	3	-
9	Palakkad	8	13	5	3	-	-	-	-	-	-	1	-	2	-
10	Malappuram	7	6	4	4	-	-	-	-	-	-	-	-	3	-
11	Kozhikode	1	7	3	2	1	1	-	-	-	-	-	-	3	-
12	Wayanad	-	1	-	-	-	-	-	-	-	-	-	-	1	-
13	Kannur	3	6	3	1	-	-	-	-	-	-	-	-	1	-
14	Kasaragod	6	6	2	2	-	-	-	-	-	-	-	-	-	-
	<b>Total</b>	<b>80</b>	<b>65</b>	<b>50</b>	<b>41</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>16</b>	<b>16</b>	<b>16</b>	<b>16</b>	<b>16</b>

ITC: Industrial Training Centre

PCTC: Production - cum - Training Centre

PETC: Pre Examination Training Centre

**Appendix 10.12****Institutions under the ST Development Department (1999).**

Sl.No.	District	Balawadies / Feeding Centres/ Kinter Garten	Boy's Hostels	Girl's Hostels	Schools	Other Institutions*
1	2	3	4	5	6	7
1	Thiruvananthapuram	7	2	1	1	9
2	Kollam	2	2	2	-	4
3	Pathanamthitta	1	2	1	1	-
4	Alappuzha	-	-	1	-	4
5	Kottayam	4	1	2	-	4
6	Idukki	8	13	7	1	9
7	Ernakulam	-	-	-	-	-
8	Thrissur	2	2	1	1	-
9	Palakkad	6	14	3	1	6
10	Malappuram	3	8	3	1	3
11	Kozhikode	2	3	1	-	-
12	Wayanad	17	25	8	3	13
13	Kannur	2	9	2	1	4
14	Kasaragod	4	2	-	1	1
	<b>Total</b>	<b>58</b>	<b>83</b>	<b>32</b>	<b>11</b>	<b>57</b>

\* 27 Training Centres, 20 Dispensaries, 1 Hospital, 5 Primary Health Centres, 2 Mobile Medical Units and 2 Mobile Employment Exchanges.

**Appendix 10.13**  
**Physical Achievements of Major Schemes for Scheduled Castes**

Sl.No.	Scheme	Unit	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99
1	2	3	4	5	6	7	8	9
1	Pre-Matriculation Studies	Students	620391	575392	579987	572700	565999	535910
2	Balawadies	Children	1948	1541	1114	690	381	-
3	Nursery Schools		1595	1265	1319	2275	2410	3296
4	Pre-Matric Hostels	Students	2977	2837	2716	2570	2743	2611
5	Boarding Grant	"	676	581	539	544	538	524
6	Post - Matric Hostels	"	944	907	804	961	1001	1060
7	Upgradation of Performance in Sports and Games	"	60	70	70	64	64	65
8	Uniform Supply	"	3635	3417	3215	3077	2944	3026
9	Special Incentive to Talented Students	"	222	517	539	1120	1308	1812
10	Tutorial System	"	1291	1732	1716	1533	1812	2514
11	Dormitories	"	144	211	62	-	-	-
12	Bharat Darshan	"	44	42	45	42	48	50
13	House Construction (Rehabilitation)	Families	1088	1173	1172	263	2000	2001
14	Housing Programme	"	738	684	647	56	2142	2278
15	Improvement of Housing Facilities	"	114	662	153	222	*	2667
16	Thatching Grant	"	1610	1600	1600	1807	1881	2214
17	Tiling Grant	"	105	105	95	82	98	76
18	Industrial Training Centres	Students	1075	1304	1215	1304	1304	1304
19	Production - Cum Training Centres	"	24	36	25	36	36	36
20	Inter - Caste Marriage Grant	Couples	594	572	519	622	363	471
21	Temple Entry Proclamation Fund	Students	93	106	77	106	80	101
22	Assistance for Marriage and Major Treatment	Persons	1174	3222	1196	2679	3006	4479

Appendix 10.13 contd....

1	2	3	4	5	6	7	8	9
23	Better Education	Students	182	194	215	237	231	253
	Dependents of Persons Engaged in							
24	Unclean Occupation in the Past	"	1084	838	1189	1266	1475	2247
25	Intensive Habitat Development Programme	Habitats	324	193	292	336 -	-	
26	Prevention of Atrocities Act	Persons	-	152	158	120	153	76
27	Pre-Examination Coaching Centre	Students	25	30	22	29	28	30
28	Assistance to Failed Students	"	-	-	-	-	2354	2976
	Book Banks in Professional Colleges and							
29	Polytechnics	Institutions	-	-	-	-	64	64
30	Coaching and Allied Scheme	Students	-	-	-	-	416	724
31	Rehabilitation of Puramboke Dwellers	Families	-	-	-	-	400	402
32	Distress Relief	Persons	-	-	-	-	-	438
	Development Programme for Vulnerable							
33	Group among Scheduled Castes	Families	-	-	-	-	208	208
34	Model Residential Schools	Students	-	-	-	-	-	90

## Appendix 10.14

**Major Physical Achievements under Special Component Plan  
and Tribal Sub Plan (1998-99)**

Sl.No.	Item	Achievement 1998-99		
		Units	SCP	TSP
1	2	3	4	5
1	IRDP	Families	12750	875
2	TRYSEM	Youths	1208	87
3	Jawahar Rozgar Yojana	Lakh Man Days	11	1.3
4	Indira Awaz Yojana	Families	5395	493
5	Million Well Scheme	Families	2681	92
6	Supplementary assistance to IAY, JRY Houses.	Families	2884	315
7	Co-operation	(1) Societies	123	1
		(2) Beneficiaries	21	NA
8	Small Scale Industries	Families	1585	-
9	Khadi & Village Industries	(1) Families	500	-
		(2) Societies	31	-
10	Coir Industry	(1) Societies	13	-
		(2) Beneficiaries	236	-
11	Handlooms	(1) Societies	15	-
		(2) Beneficiaries	89	-
12	Power	(1) Colonies Electrified	92	17
		(2) Wiring of Houses	3083	1058
13	Employment & Training	Students	309	-
14	Water Supply	Works Completed	21	4
15	Technical Education	Students	992	239



## Appendix 10.15

## Details of Schemes Implemented by KSDC for SC / ST

Sl. No.	Schemes	Achievement			
		Financial (Rs. in lakhs)		Beneficiaries	
		1997-98	1998-99	1997-98	1998-99
1	2	3	4	5	6
1	Agricultural Land Purchase	5.41	0.25	22	1
2	Foreign Employment	4.90	5.75	31	23
3	Assistance to Co-operative Society	6.45	9.75	2	1
4	Ambedkar Rural Housing	-	0.23	-	2
5	New Ambedkar Rural Housing	22.96	11.92	284	158
6	Margin Money Deposit	183.01	156.81	1181	851
7	Margin Money Loan	3.15	6.88	4	6
8	Training Programme	2.84	1.96	103	93
9	Vegetable Stalls	0.17	4.66	2	50
10	Professional Service	6.68	7.38	14	16
11	Video Camera	-	5.42	-	7
12	Milch Animal Scheme	22.82	12.42	46	60
13	Photo Copier / STD Booth / Typewriter / DTP / Lamination	12.61	14.38	29	32
14	Hollow Bricks	3.71	0.23	3	1
15	Two/Three Wheeler Workshop	2.10	0.50	5	1
16	Traditional Occupations	18.84	0.10	206	1
17	Transport Scheme IX (Autorikshow)	85.45	6.07	158	11
18	Transport Scheme X (TW load Carrier)	24.04	13.59	45	25
19	Transport Scheme XII (Car / Jeep)	160.11	6.83	44	2
20	Individual Scheme	9.44	4.83	7	3
21	Transport Scheme No.XI (Tempo)	154.78	11.11	47	3
22	Floor Polishing Unit - Mosiac	0.95	1.88	4	4
23	Mobile Ironing unit	0.70	0.20	7	2
24	Mini Hotel	1.60	0.30	2	-
25	Cool Bar	2.60	2.00	10	7
26	Cycle Hiring & Workshop	1.15	0.02	6	-
27	Tailoring Unit	4.01	10.53	10	26
28	Tent House and Decoration	0.75	0.08	1	1
29	Hair Dressing Unit	3.57	1.00	6	2
30	Piggery	3.29	7.20	9	23
31	Ready made Garments	6.24	18.87	7	18
32	Transport Scheme No.XIII (Auto)	46.06	7.38	84	13
33	Transport Scheme No.XIV (LCV goods)	33.80	7.93	8	2
34	Income Generation Linked Housing Scher	257.84	270.23	38	1140
35	Tyre Retreading	-	0.14	-	1
36	Mobile Fish Sale Unit	-	3.89	-	17
37	Mobile Cloth Sale Unit	-	1.56	-	5
38	Beneficiary Oriented Scheme	-	0.50	-	1
39	Goat Unit	-	6.56	-	36
40	Bullock Cart	-	1.23	-	11
41	Beauty Parlour	-	0.75	-	1
42	Transport Scheme No.XIX Phase II	-	68.50	-	118
43	Transport Scheme No.XV	-	1.84	-	2
44	Transport Scheme No.XVIII	-	4.98	-	6
<b>TOTAL</b>		<b>1143.20</b>	<b>698.62</b>	<b>2447</b>	<b>2783</b>

## Appendix 10.16

## Achievement of Kerala State Backward Classes Development Corporation

Sl.No.	Name of Scheme	Financial (Rs. Lakhs)		Physical (No.)	
		1997-98	1998-99	1997-98	1998-99
1	2	3	4	5	6
<b>I</b>	<b>NBCFDC Assisted Scheme</b>				
1	Pick-up Autorickshaw	-	0.47	-	1
2	Autorickshaw	-	264.56	-	474
3	Dairy Unit	39.14	0.25	95	1
4	Stationary Shop	238.48	24.91	776	10
5	Copra Processing Unit	84.70	-	37	-
6	Furniture Mart	144.5	2.20	47	2
7	Tourist Taxi Jeep	31.37	9.37	10	3
8	Textiles Unit	168.72	65.89	291	90
9	Tourist Trecker	29.26	10.95	13	5
10	Poultry Farm	33.82	91.40	42	105
11	Tailoring Unit	113.27	13.01	355	16
12	Pottery Unit	2.09	-	5	-
13	Ladies Fancy Stores	-	126.84	-	360
14	Orchid Cultivation	-	56.94	-	100
15	Photocopying Centre	-	29.95	-	29
	<b>Sub Total I</b>	<b>885.35</b>	<b>696.74</b>	<b>1671</b>	<b>1196</b>
<b>II</b>	<b>NMDFC Assisted Scheme</b>				
1	Vegetable Shop	12.78	0.21	51	-
2	Welding Workshop	3.14	0.09	6	-
3	Stationery Shop	23.09	130.18	35	422
4	Pick-up Autorickshaw	30.60	9.27	-	-
5	Photocopying Unit	64.12	14.63	61	14
6	Provision / General Stores	29.51	0.43	65	-
7	Tailoring / Readymade Units	32.02	17.63	62	31
8	Cycle Repair Shop	0.46	-	6	-
9	DTP Unit	-	2.88	-	3
10	Fancy Stores	-	40.28	-	129
11	Dairy Unit	-	25.81	-	146
12	Furniture Mart	-	122.70	-	187
13	Autorickshaw	-	52.16	-	93
14	Tatkal Scheme	-	12.54	-	82
	<b>Sub Total II</b>	<b>195.72</b>	<b>421.80</b>	<b>352</b>	<b>1127</b>
<b>III</b>	<b>State Assisted Schemes</b>				
1	Financial Assistance for Foreign Employment	8.91	19.68	46	105
2	Weaving Unit	12.64	1.55	66	2
3	Coir Production	-	12.32	-	58
4	Cycle Workshop	0.27	0.11	5	-
5	Small Business	5.20	2.23	47	4
6	Mini Hotel /Restaurant	0.27	10.38	3	62
7	Banana Chips Manufacturing	0.29	13.19	2	57
8	Hiring of Utensils for Marriage purpose	-	18.51	-	40
9	Marriage Loan	-	62.11	-	251
10	Cloth Vending	-	11.85	-	79
11	Vegetable Vending	-	0.90	-	10
	<b>Sub Total III</b>	<b>27.58</b>	<b>152.83</b>	<b>169</b>	<b>668</b>
<b>IV</b>	<b>HUDCO Assisted Scheme</b>				
		-	382.62	-	826
	<b>Grant Total</b>	<b>1108.65</b>	<b>1660.99</b>	<b>2192</b>	<b>3817</b>

### Appendix 10.17

**Registered Unemployed Scheduled Castes and Scheduled Tribes (as on 31-3-1999).**

Sl.No.	District	Scheduled Castes	Scheduled Tribes
1	2	3	4
1	Thiruvananthapuram	66704	3442
2	Kollam	44634	313
3	Pathanamthitta	20651	519
4	Alappuzha	39906	561
5	Kottayam	26239	3342
6	Idukki	10665	5487
7	Ernakulam	42001	933
8	Thrissur	50124	330
9	Palakkad	35028	887
10	Malappuram	37906	333
11	Kozhikode	34868	307
12	Wayanad	3512	6090
13	Kannur	14742	931
14	Kasaragod	5868	1932
<b>Total</b>		<b>432848</b>	<b>25407</b>

## Appendix - 12.1

State-wise Financial Assistance Disbursed by All India  
Financial Institutions During 1998-99

(Rs. Crores)

Sl. No	States	IDBI	% To Total	NABARD	% To Total	NCDC	% To Total	Grand Total	% To Total
1	2	3	4	5	6	7	8	9	10
1	Andhra Pradesh	1245.26	8.69	431.05	9.54	8.39	1.83	1684.70	8.72
2	Assam	22.88	0.16	103.43	2.29	1.31	0.29	127.42	0.68
3	Bihar	137.85	0.96	172.30	3.81	4.29	0.94	314.24	1.63
4	Gujarat	2345.40	16.36	291.71	6.45	21.89	4.78	2659.00	13.77
5	Haryana	309.22	2.18	288.19	6.37	5.90	1.29	803.31	4.12
6	Karnataka	1287.44	9.05	319.88	7.07	22.91	5.01	1640.03	8.49
7	Kerala	174.93	1.22	158.78	3.51	47.27	10.33	380.98	1.97
8	Madhya Pradesh	752.89	5.25	190.14	4.21	34.73	7.59	977.76	5.08
9	Maharashtra	2899.93	18.84	358.55	7.89	92.31	20.17	3148.79	16.31
10	Orissa	234.28	1.63	155.99	3.45	2.39	0.52	392.66	2.03
11	Punjab	489.58	3.42	400.25	8.85	4.38	0.98	894.21	4.63
12	Rajasthan	857.14	5.98	341.88	7.56	21.37	4.67	1220.39	6.32
13	Tamil Nadu	1400.97	9.77	338.32	7.48	18.92	4.13	1758.21	9.10
14	Uttar Pradesh	835.70	5.83	684.26	15.14	118.28	25.84	1638.24	8.48
15	West Bengal	668.08	4.66	158.55	3.51	21.44	4.88	848.07	4.39
	<b>Total</b>	<b>13471.16</b>	<b>89.18</b>	<b>4391.08</b>	<b>97.13</b>	<b>426.78</b>	<b>93.02</b>	<b>18288.01</b>	<b>94.70</b>
	<b>Total: All India</b>	<b>14333.38</b>	<b>100.00</b>	<b>4520.67</b>	<b>100.00</b>	<b>457.71</b>	<b>100.00</b>	<b>19311.76</b>	<b>100.00</b>

Source : 1. IDBI - Report on Development Banking in India (1997-98)

2. NABARD - National Bank for Agriculture and Rural Development -  
Annual Report 1996-97

**Appendix - 12.1(a)**  
**State-wise Financial Assistance Disbursed by All India Financial Institutions During 1997-98**

(Rs. Crores)

Sl. No	States	IDBI		4		5		6		7		8		9		10		11		12		13		14		15		16		17		18		19		20	
		Total	% To Total	Total	% To Total	Total	% To Total	Total	% To Total	Total	% To Total	Total	% To Total	Total	% To Total	Total	% To Total	Total	% To Total	Total	% To Total	Total	% To Total	Total	% To Total	Total	% To Total	Total	% To Total	Total	% To Total	Total	% To Total	Total	% To Total		
1	Andhra Pradesh	1788.80	11.80	302.30	5.35	1244.80	7.88	65.60	1.92	5.90	0.82	36.30	0.93	400.70	10.20	10.50	3.30	3855.00	7.90																		
2	Assam	14.70	0.10	37.70	0.67	19.20	0.12	-	-	0.40	0.06	-	-	81.30	2.10	1.70	0.50	155.10	0.30																		
3	Bihar	335.20	2.20	5.50	0.10	318.40	2.00	-	-	-	-	-	-	159.70	4.10	0.10	0.00	816.90	1.70																		
4	Gujarat	3184.50	21.10	1343.80	23.78	4363.70	27.81	44.80	1.31	196.30	27.38	394.60	10.09	231.10	5.90	13.70	4.30	9772.50	20.00																		
5	Haryana	439.40	2.90	114.80	2.03	398.30	2.52	-	-	2.00	0.28	4.00	0.10	256.80	6.50	3.40	1.10	1218.80	2.50																		
8	Karnataka	1179.40	7.80	341.10	8.04	1105.80	7.00	85.00	2.49	56.20	7.83	85.30	2.18	290.90	7.40	32.40	10.20	3176.00	6.50																		
7	Kerala	102.80	0.70	41.80	0.74	84.80	0.54	10.00	0.29	10.80	1.51	1.70	0.04	204.40	5.20	32.40	10.20	488.30	1.00																		
8	Madhya Pradesh	777.70	5.10	257.80	4.56	414.00	2.82	-	-	3.30	0.46	11.20	0.29	159.00	4.10	14.60	4.60	1637.50	3.40																		
9	Maharashtra	2792.30	18.50	997.70	17.88	4487.30	28.39	240.00	7.04	294.30	41.02	1982.10	50.69	332.60	8.50	105.10	33.10	11231.40	23.00																		
10	Orissa	140.00	0.90	212.80	3.77	88.90	0.44	-	-	6.80	0.95	7.00	0.18	128.30	3.30	2.80	0.80	566.40	1.20																		
11	Punjab	337.30	2.20	380.90	8.74	111.20	0.70	-	-	-	-	18.00	0.41	286.90	7.30	14.40	4.50	1146.70	2.30																		
12	Rajasthan	644.60	4.30	142.80	2.53	204.20	1.29	40.00	1.17	8.30	1.18	9.10	0.23	274.70	7.00	8.60	2.70	1332.30	2.70																		
13	Tamil Nadu	994.90	8.60	453.30	8.02	858.20	5.43	-	-	33.90	4.72	23.40	0.60	313.60	8.00	15.60	4.90	2692.90	5.50																		
14	Uttar Pradesh	789.90	5.20	515.70	9.13	838.40	4.04	-	-	17.30	2.41	47.40	1.21	542.40	13.80	28.50	9.00	2579.60	5.30																		
15	West Bengal	809.80	5.40	87.00	1.19	878.10	5.56	21.70	0.64	67.80	9.42	144.70	3.70	141.00	3.60	16.50	5.20	2146.20	4.40																		
<b>Total</b>		<b>14330.90</b>	<b>94.87</b>	<b>5216.00</b>	<b>92.30</b>	<b>15193.10</b>	<b>96.12</b>	<b>507.10</b>	<b>14.86</b>	<b>703.10</b>	<b>97.99</b>	<b>2762.80</b>	<b>70.66</b>	<b>3803.40</b>	<b>97.13</b>	<b>300.10</b>	<b>93.02</b>	<b>42815.60</b>	<b>87.66</b>																		
<b>Total:</b>		<b>16106.30</b>	<b>100.00</b>	<b>5650.10</b>	<b>100.00</b>	<b>15906.90</b>	<b>100.00</b>	<b>3411.50</b>	<b>100.00</b>	<b>717.50</b>	<b>100.00</b>	<b>3909.90</b>	<b>100.00</b>	<b>3921.90</b>	<b>100.00</b>	<b>317.40</b>	<b>100.00</b>	<b>48941.50</b>	<b>100.00</b>																		

Source : NABARD - Annual Report-1998-99, Operational Statistics of IDBI 1998-99.

**Appendix - 12.2**  
**State-wise Financial Assistance Disbursed by All India Financial Institutions**  
**as at the end of March 1999**

Sl. No	States	IDBI	(Rs. Crores)					%To Total	
			% To Total	NABARD	%To Total	NCDC	%To Total		
1	2	3	4	13	14	15	16	17	18
1	Andhra Pradesh	10298.22	9.07	4231.41	10.71	254.79	5.61	14784.42	9.38
2	Assam	548.79	0.48	595.54	1.51	79.88	1.76	1224.21	0.78
3	Bihar	1737.79	1.53	1723.33	4.36	96.84	2.13	3557.96	2.25
4	Gujarat	17498.96	15.41	2167.95	5.49	156.62	3.45	19823.53	12.58
5	Haryana	3051.92	2.69	2232.00	5.65	89.61	1.97	5373.53	3.41
6	Karnataka	7945.08	6.70	3050.53	7.72	307.87	6.77	11303.48	7.17
7	Kerala	1995.79	1.76	1855.08	4.19	317.56	6.99	3968.41	2.52
8	Madhya Pradesh	6636.93	5.84	2293.21	5.80	406.76	8.95	9336.90	5.92
9	Maharashtra	20650.32	18.18	4031.28	10.20	963.69	21.20	25645.29	16.27
10	Orissa	2433.44	2.14	1192.02	3.02	113.30	2.49	3738.76	2.37
11	Punjab	2977.02	2.62	2860.76	7.24	208.18	4.58	6045.96	3.84
12	Rajasthan	5836.69	5.14	2239.03	5.67	286.65	6.31	8362.37	5.31
13	Tamil Nadu	10706.91	9.43	2888.02	7.31	354.11	7.79	13949.04	8.85
14	Uttar Pradesh	9228.90	8.13	6062.72	15.35	539.34	11.87	15830.96	10.04
15	West Bengal	4958.44	4.37	1431.35	3.62	177.34	3.90	6567.13	4.17
	<b>Total</b>	<b>106505.20</b>	<b>93.77</b>	<b>38654.21</b>	<b>97.84</b>	<b>4352.54</b>	<b>95.77</b>	<b>149511.95</b>	<b>94.85</b>
	<b>Total: All India</b>	<b>113569.21</b>	<b>100.00</b>	<b>39508.62</b>	<b>100.00</b>	<b>4544.78</b>	<b>100.00</b>	<b>157622.61</b>	<b>100.0</b>

Source : 1. IDBI - Report on Development Banking in India (1997-98)

**Appendix - 12.2(a)**  
**State-wise Financial Assistance Disbursed by All India Financial Institutions as at the end of March 1998**  
(Rs. Crores)

Sl. No	States	IDBI	% To Total	ICI	% To Total	ICICI	% To Total	UTI	% To Total	LIC	% To Total	NABARD	% To Total	NCDC	% To Total	Grand Total	% To Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	Andhra Pradesh	9044.90	9.10	2219.60	7.22	4677.90	7.13	469.10	1.50	607.50	3.89	3800.40	10.90	246.40	6.00	21265.80	7.48
2	Assam	528.10	0.50	275.80	0.90	288.50	0.42	35.20	0.11	32.00	0.20	492.10	1.40	78.60	1.90	1728.30	0.81
3	Bihar	1600.20	1.60	228.90	0.74	1133.40	1.68	164.50	0.53	350.70	2.25	1553.00	4.40	92.60	2.30	5121.30	1.80
4	Gujarat	15124.70	15.20	5151.50	18.75	12806.40	16.43	1790.10	5.73	1877.00	12.02	1895.80	5.40	134.70	3.30	38580.00	13.57
5	Haryana	2742.70	2.80	924.20	3.00	1395.90	2.04	76.80	0.25	53.30	0.34	1943.80	5.60	83.70	2.00	7220.40	2.54
6	Karnataka	6647.10	6.70	1701.70	5.53	4561.20	6.67	556.00	1.78	575.90	3.69	2730.90	7.80	285.00	7.00	17057.80	6.00
7	Kerala	1820.90	1.80	275.00	0.89	655.10	0.98	38.30	0.12	79.20	0.51	1496.30	4.30	270.30	6.60	4633.10	1.63
8	Madhya Pradesh	5880.70	5.90	2105.40	6.85	2799.80	4.09	346.30	1.11	279.00	1.79	2103.10	6.00	372.00	9.10	13886.30	4.89
9	Maharashtra	17954.10	18.10	4951.50	16.10	20561.80	30.06	6196.10	19.85	5447.10	34.68	3674.70	10.50	871.40	21.30	58656.70	20.99
10	Orissa	2202.10	2.20	705.30	2.29	555.60	0.81	88.70	0.28	162.60	1.04	1036.00	3.00	110.90	2.70	4859.20	1.71
11	Punjab	2487.90	2.50	1871.00	5.43	802.30	1.17	107.40	0.34	107.40	0.69	2460.60	7.00	203.80	5.00	7840.40	2.76
12	Rajasthan	4979.80	5.00	1470.10	4.78	2787.40	4.08	203.60	0.65	258.70	1.86	1897.20	5.40	255.30	6.50	11861.90	4.17
13	Tamil Nadu	9306.50	9.40	2539.00	6.26	8176.40	9.03	523.80	1.68	666.70	4.27	2549.70	7.30	335.20	8.20	22097.30	7.77
14	Uttar Pradesh	6390.40	6.50	3682.30	12.00	3958.10	5.78	842.40	2.70	506.70	3.26	5378.50	15.40	421.10	10.30	23191.50	8.16
15	West Bengal	4292.90	4.30	1069.40	3.48	2804.40	3.81	439.50	1.41	708.90	4.54	1272.80	3.60	155.90	3.80	10543.40	3.71
	<b>Total</b>	<b>93000.40</b>	<b>93.80</b>	<b>26980.70</b>	<b>94.23</b>	<b>65764.20</b>	<b>96.15</b>	<b>11873.60</b>	<b>36.03</b>	<b>11714.70</b>	<b>75.01</b>	<b>34282.50</b>	<b>98.00</b>	<b>3926.80</b>	<b>96.10</b>	<b>249543.40</b>	<b>67.79</b>
	<b>Total:</b>	<b>99178.20</b>	<b>100.00</b>	<b>30756.80</b>	<b>100.00</b>	<b>68400.00</b>	<b>100.00</b>	<b>31221.60</b>	<b>100.00</b>	<b>15917.20</b>	<b>100.00</b>	<b>34986.00</b>	<b>100.00</b>	<b>4087.10</b>	<b>100.00</b>	<b>264249.85</b>	<b>100.00</b>

Source : IDBI - Operational Statistics 1998-99; NABARD - Annual Report 1998-99 & NCDC

**Appendix - 12.3**  
**State-wise Per Capita Assistance Disbursed by All India Financial Institutions during 1996-97 to 1998-99**

(Rupees)

Sl. No.	STATE	IDBI		IFCI		ICICI		LIC		UTI		GIC		TOTAL									
		1996-97	1997-98	1996-97	1997-98	1996-97	1997-98	1996-97	1997-98	1996-97	1997-98	1996-97	1997-98	1996-97	1997-98								
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
1	Andhra Pradesh	125.3	243.1	167.0	41.1	41.1	NA	119.7	169.2	NA	5.3	4.9	NA	0.1	8.9	NA	0.8	0.8	NA	292.3	468.0	NA	NA
2	Assam	9.9	5.7	9.0	42.2	14.5	NA	38.1	7.4	NA	1.1	-	NA	-	-	NA	-	0.2	NA	91.3	27.8	NA	NA
3	Bihar	6.0	33.6	14.0	1.4	0.6	NA	8.8	31.7	NA	0.1	-	NA	-	-	NA	-	-	NA	16.1	65.9	NA	NA
4	Gujarat	437.6	704.0	512.0	265.8	297.1	NA	423.5	964.7	NA	71.5	87.2	NA	44.9	9.9	NA	27.2	43.4	NA	1270.5	2106.3	NA	NA
5	Haryana	183.3	240.1	167.0	85.3	62.7	NA	135.3	217.8	NA	9.4	2.2	NA	-	-	NA	4.4	1.1	NA	427.7	523.7	NA	NA
6	Karnataka	172.4	236.6	257.0	65.0	68.4	NA	179.0	221.8	NA	13.0	17.1	NA	-	17.1	NA	2.6	11.3	NA	432.0	572.3	NA	NA
7	Kerala	52.9	32.2	54.0	12.2	13.1	NA	44.8	26.5	NA	6.6	0.5	NA	-	3.1	NA	2.2	3.4	NA	120.5	78.8	NA	NA
8	Madhya Pradesh	100.7	104.4	100.0	37.1	34.6	NA	62.7	55.6	NA	3.6	1.5	NA	-	-	NA	0.3	0.4	NA	204.6	196.5	NA	NA
9	Maharashtra	225.4	319.7	305.0	91.7	114.2	NA	417.2	513.8	NA	130.5	226.9	NA	10.1	27.5	NA	22.3	33.7	NA	897.2	1235.8	NA	NA
10	Orissa	49.1	39.7	66.0	23.7	60.4	NA	14.8	19.6	NA	8.4	2.0	NA	-	-	NA	2.4	1.9	NA	98.4	123.6	NA	NA
11	Punjab	112.4	154.2	222.0	84.4	174.2	NA	12.6	50.9	NA	1.3	7.3	NA	-	-	NA	2.1	-	NA	212.8	386.6	NA	NA
12	Rajasthan	149.1	124.0	181.0	41.0	27.5	NA	52.0	39.3	NA	10.1	1.8	NA	-	7.7	NA	1.7	1.6	NA	253.9	201.9	NA	NA
13	Tamil Nadu	186.9	164.3	229.0	80.4	74.9	NA	172.0	141.8	NA	22.8	3.9	NA	-	-	NA	11.9	5.8	NA	453.8	390.5	NA	NA
14	Uttar Pradesh	83.1	49.4	51.0	34.5	32.3	NA	48.4	39.9	NA	3.7	3.0	NA	-	-	NA	0.5	1.1	NA	170.2	125.7	NA	NA
15	West Bengal	43.9	107.3	87.0	32.0	8.9	NA	45.1	116.4	NA	12.2	19.2	NA	0.8	2.9	NA	4.8	9.0	NA	138.8	263.7	NA	NA
<b>Total: All India</b>		121.4	158.5	148.0	55.0	59.3		119.2	185.8		29.0	41.0		32.8	35.8		5.4	7.5		363.1	467.9		

Source : 1. IDBI - Report on Development Banking in India (1997-98)

NA - Not Available



**Appendix - 12.4**  
**State-wise Distribution of Commercial Bank Branches and Population Per Bank Office**

States	No. of Banks as at the end of															% to total number of offices															Average population per bank branch (in thousand) at the end of														
	Jun-69			Mar-95			Mar-96			Mar-97			Mar-98			Jun-98			Jun-99			Jun-99			Jun-99			Jun-99			Jun-99														
	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	18	19	20	21	22	23	18	19	20	21	22	23												
Andhra Pradesh	567	4784	4851	4897	4955	4979	5024	6.9	7.7	7.7	7.7	7.7	7.7	7.74	7.74	7.74	7.74	7.74	7.74	7.74	7.74	7.74	7.74	7.74	7.74	7.74	7.74	7.74	7.74	7.74	7.74														
Assam	74	1225	1232	1233	1235	1235	1238	0.9	2.0	2.0	1.9	1.9	1.9	1.92	1.91	1.91	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98														
Bihar	273	4911	4934	4955	4988	4974	4989	3.3	7.9	7.9	7.8	7.8	7.8	7.73	7.69	7.69	207	207	207	207	207	207	207	207	207	207	207	207	207	207	207														
Gujarat	852	3470	3512	3518	3550	3551	3592	9.1	5.8	5.6	5.8	5.8	5.8	5.52	5.53	5.53	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34														
Haryana	172	1335	1361	1400	1434	1449	1473	2.1	2.2	2.2	2.2	2.2	2.2	2.25	2.27	2.27	97	97	97	97	97	97	97	97	97	97	97	97	97	97	97														
Karnataka	756	4361	4445	4492	4548	4578	4634	9.2	7.1	7.1	7.1	7.1	7.1	7.12	7.14	7.14	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38														
Kerala	601	3009	3073	3121	3142	3151	3184	7.3	4.9	4.9	4.9	4.9	4.9	4.90	4.90	4.90	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35														
Madhya Pradesh	343	4423	4421	4401	4423	4440	4456	4.2	7.1	7.0	6.9	6.9	6.9	6.90	6.88	6.88	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118														
Maharashtra	1118	5745	5854	5978	6059	6101	8185	13.5	9.3	9.3	9.4	9.4	9.4	9.48	9.53	9.53	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44														
Orissa	100	2142	2154	2169	2169	2184	2207	1.2	3.5	3.4	3.4	3.4	3.4	3.39	3.40	3.40	212	212	212	212	212	212	212	212	212	212	212	212	212	212	212														
Punjab	346	2236	2275	2378	2431	2444	2469	4.2	3.6	3.6	3.6	3.6	3.6	3.80	3.80	3.80	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42														
Rajasthan	364	3156	3191	3234	3284	3270	3293	4.4	5.1	5.1	5.1	5.1	5.1	5.08	5.07	5.07	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70														
Tamil Nadu	1060	4485	4567	4615	4652	4659	4702	12.8	7.2	7.3	7.3	7.3	7.3	7.24	7.24	7.24	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37														
Uttar Pradesh	747	8820	8670	8715	8766	8809	8867	9.0	13.9	13.8	13.7	13.7	13.7	13.89	13.66	13.66	119	119	119	119	119	119	119	119	119	119	119	119	119	119	119														
West Bengal	504	4262	4291	4321	4343	4345	4368	6.1	6.9	6.6	6.8	6.8	6.8	6.75	6.73	6.73	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87														
Total	7877	58184	58831	59399	59957	60169	60881	95.34	93.7	93.6	93.8	93.8	93.8	93.51	93.47	93.47	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--														
Total: All India	8282	62100	62848	63456	64108	64342	64918	100.0	100.0	100.0	100.0	100.0	100.0	100.00	100.00	100.00	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65														

Ⓒ:excluding branches of non scheduled banks

Source : Report on Currency and Finance 1997-98 Vol.II & Economic Survey 1999-2000

**Appendix - 12.5**  
**Banking Statistics of Kerala (1990-1999)**

Ending Month	STATE BANK GROUP												
	Other Nationalised Banks						Gramin Banks						
	Total Deposit	Of which NRE Deposit	Total Advance	CD Ratio	Total Deposit	Of which NRE Deposit	Total Advance	CD Ratio	Total Deposit	Of which NRE Deposit	Total Advance	CD Ratio	
1	2	3	4	5	6	7	8	9	10	11	12	13	
1990	2406.71	800.30	1551.12	64.44	2718.06	832.34	1595.29	58.69	87.74	Nil	179.83	204.95	
1991	2854.66	949.58	1797.91	63.00	3205.41	997.48	1749.20	54.57	109.78	Nil	195.81	178.37	
1992	3410.27	1196.69	1850.95	54.28	3865.81	1262.86	1830.93	47.38	142.30	Nil	213.37	149.94	
1993	4285.29	1779.54	2146.10	50.08	4743.08	1815.06	2064.89	43.53	171.56	Nil	232.16	135.32	
1994	5312.22	2369.60	2404.91	45.27	5753.17	2418.40	2126.10	36.96	211.59	Nil	262.75	124.17	
1995	6154.52	2696.96	2934.99	47.69	6516.30	2806.37	2387.69	36.64	280.70	Nil	313.90	120.41	
1996	6935.66	3059.13	3135.42	45.21	7261.92	3140.39	2890.17	39.80	263.39	Nil	351.71	133.53	
1997	7736.39	3648.94	3604.73	46.59	8380.93	3872.82	3262.32	38.93	334.85	Nil	439.27	131.18	
1998	8965.43	4310.78	4131.40	46.18	9728.35	4763.39	4084.84	41.99	404.99	Nil	515.73	127.34	
1999	10498.17	5299.59	4670.00	44.48	10141.59	4491.70	4082.02	40.25	510.72	Nil	613.52	120.13	
1999 (Sept.)	11341.38	6245.17	4615.62	40.7	12323.73	5840.38	4705.73	38.18	567.01	Nil	660.01	116.4	

Ending Month	Appendix - 12.5 (Continued)												
	Total Public Sector Bank						Private Banks						Grand total
	Total Deposit	Of which NRE Deposit	Total Advance	CD Ratio	Total Deposit	Of which NRE Deposit	Total Advance	CD Ratio	Total Deposit	Of which NRE Deposit	Total Advance	CD Ratio	
1	14	15	16	17	18	19	20	21	22	23	24	25	
1990	5212.50	1632.64	3326.24	63.81	1407.58	286.09	791.92	56.26	6620.08	2012.21	4118.16	62.20	
1991	6169.85	1947.06	3742.92	60.66	1687.81	357.29	895.27	53.04	7857.67	2304.35	4638.19	59.00	
1992	7418.38	2459.55	3895.25	52.51	2252.55	579.33	1107.71	49.18	9670.93	3038.88	5002.96	51.73	
1993	9199.93	3594.60	4443.15	48.30	2912.31	904.31	1374.84	47.21	12112.24	4498.91	5817.99	48.03	
1994	11276.90	4788.00	4793.76	42.51	3664.17	1226.63	1647.79	44.97	14941.06	6014.83	6441.54	43.11	
1995	12931.52	5503.33	5636.58	43.59	4526.39	1382.71	2159.94	47.72	17457.91	6886.05	7796.52	44.66	
1996	14410.49	6199.52	6377.30	44.25	5710.33	1903.88	2583.61	45.24	20171.30	8103.40	8960.91	44.42	
1997	16452.17	7521.76	7306.33	44.41	6576.22	2434.92	3175.50	46.28	23029.09	9956.68	10481.83	45.52	
1998	19078.77	9074.17	8731.97	45.77	8065.02	3385.64	3542.40	43.92	27143.79	12459.81	12274.37	45.22	
1999	21150.48	9791.29	9365.54	44.28	9914.39	3204.45	4107.97	41.43	31064.87 + 466.97*	12995.74 + 332.79*	13473.51 + 103.16*	43.37	
1999 (Sept.)	24037.10	12085.53	9419.95	39.19	10538.38	4416.22	4126.17	39.15	34770.5+ 371.99*	16501.76+ 302.76*	14107.55+ 98.59*	40.42	

Source:- Banking Statistics of Kerala Reported by State Level Bankers' Committee

\* - Relating to Foreign Banks