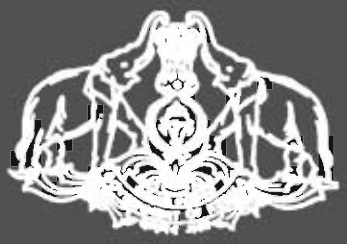


GOVERNMENT OF KERALA

ECONOMIC REVIEW

2002

STATE PLANNING BOARD

THIRUVANANTHAPURAM

TYPESET BY STATE PLANNING BOARD AND PRINTED BY THE SUPERINTENDENT OF GOVERNMENT PRESSES,
AT THE GOVERNMENT PRESS, MANNANTHALA, THIRUVANANTHAPURAM – 2003.

ECONOMIC REVIEW
2002

STATE PLANNING BOARD
THIRUVANANTHAPURAM

4/100/2003—A-1

CONTENTS

		Pages
Chapter - 1	***An Overview***	**1-3**
	National Economy	1
	State Economy	1
	Implementation of X Plan	2
	Learning Lessons and Looking Ahead	3
Chapter - 2	***State Finances***	**4-18**
	Revenue Receipts	6
	Own Tax Revenue	8
	Non Tax Revenue	9
	Revenue Expenditure	11
	Capital Expenditure	12
	Revenue Deficit	13
	Share of Central Taxes and Grants-in-Aid	14
	Debt Servicing, Pensions and Salaries	14
Chapter - 3	***Income, Employment and Population***	**19-29**
	National Income	19
	State Income	21
	Unemployment	25
	Migration	26
	Demographic Factors	28
Chapter - 4	***Agriculture and Irrigation***	**30-133**
	Farming System	34
	Tenth Plan Strategy	35
	Agricultural Income	37
	Rainfall	37
	Land Use	38
	Crop-wise Analysis	41
	Price Stabilisation Fund	52
	Agricultural Research and Education	55
	Soil and Water Conservation	57
	Land Use Board	60
	Soil Survey	60
	Western Ghat Development Programme	60
	Animal Husbandry	64
	Fisheries Development	80
	Forestry and Wildlife	88
	Agriculture Marketing	95
	Agricultural Finance	97
	Irrigation	105
	Review of Major Projects	108
	Progress under RIDF Assisted Projects	116
	Performance of Externally Aided Projects	117
	Minor Irrigation	120
	Flood Management	122
	Command Area Development	123
	Co-operation	125

4/100/2003—A-1A

Chapter - 5	***Energy Development***	**134-150**
	Major Achievements in the IX Plan	134
	Power Generation	135
	Energy Availability	137
	Transmission	138
	Distribution	139
	Thrust Areas, New Approaches and Policies	140
	Pattern of Power Consumption and Revenue Collected	141
	Plan Outlay	142
	Financial Status of KSEB	143
	Power Sector Reforms	144
	Renewable Energy	147
	ANERT	148
	Electrical Inspectorate	149
	Energy Management Centre	150
Chapter - 6	***Industry and Mining***	**151-193**
	Investment Attractions	151
	New Policies	152
	Repositioning of Traditional Industries	153
	Export Performance	153
	Index of Industrial Production	156
	Working Factories and Employment	157
	Industrial Disputes	159
	Central Sector Investment	159
	Large and Medium Industries	160
	Public Sector Manufacturing Industrial Enterprises	160
	Joint Stock Companies	163
	Village and Small Industries	163
	Industrial Promotion Agencies	173
	Mining	182
	Information Technology	183
Chapter - 7	***Tourism***	**194-204**
	Tourist Flow	196
	Earnings from Tourism	197
	State Plan	198
	Infrastructure Development	198
	Forest Tourism	200
	Kerala Tourism Development Corporation	202
	Tourist Resorts (Kerala) Limited	203
Chapter - 8	***Transport and Communications (Infrastructure)***	**205-230**
	Roads	208
	Road Transport	211
	Railways	221
	Ports	222
	Air Transport	227
	Passport	228
	Post Offices	229
	Communications	229

Chapter – 9	**Social Services**	**231-284**
	Education	232
	Health	248
	Water Supply and Sanitation	259
	Housing	276
	Urban Development	282
	Industrial Training	283
Chapter - 10	***Poverty and Special Programmes for Weaker Sections***	**285-318**
	People Below Poverty Line	285
	Implementation of Anti-Poverty Programmes	290
	Attappady Environmental Conservation & Waste Land Development Project.	295
	Social Security and Welfare	295
	Nutrition	301
	Development of Scheduled Castes and Scheduled Tribes	303
	Decentralisation	
	State Schemes and State Sponsored Schemes	311
		314
Chapter - 11	***Gender and Development***	**319-329**
	Women and Population	321
	Women and Governance	325
	Women Development Specialised Agencies in Kerala	326
	Stages in the Empowerment Process	327
	Crimes against Women and Suicides	328
	Gender Budgeting	329
Chapter - 12	***Prices, Cost of Living and Wages***	**330-346**
	Consumer Price Index	330
	Wholesale Price Index	335
	Parity Index	335
	Farm Commodity Price	337
	Wages	339
	Public Distribution System	342
Chapter - 13	***Export and Import***	**347-356**
	India's Imports	347
	Foreign Exchange Reserves	348
	Cargo Handled by Kochi Port	348
	Marine Products	349
	Coir and Coir Products	355

Chapter - 14	***Institutional and Bank Finance***	**357-369**
	Institutional Finance	357
	Bank Finance	357
	NRE Deposits	363
	Priority Sector Advance	363
	Micro Credit	365
	Rural Infrastructure Development Fund	365
	SWOT Analysis of Banking in Kerala	367
Chapter – 15	***Science and Technology***	**370-375**
	Science & Technology in Kerala	371
	Restructuring of STEC	373
	New S&T Policy for Kerala	373
Chapter – 16	***Local Governments and Decentralised Development***	**376-387**
	Performance in the IX Plan	376
	Review of Issues Related to Decentralisation	377
	Institutionalisation Efforts	378
	Towards a New Planning Approach	379
	Preparation of the X Plan	381
	Governance in Local Governments	386
Chapter – 17	***Governance Reforms***	**388-413**
	Governance Reforms in Kerala	390
	Modernising Government Programme	391
	Law Reforms	395
	E-Governance	395
	Annexures	397
Chapter – 18	***Human Development and Socio-Economic Well being in Kerala***	**414-436**
	Human Development Index	414
	Human Poverty Index	415
	Economic Attainment and Wellbeing	416
	Educational Attainment and Wellbeing	425
	Health Attainment and Demographic Indicators	428
	Other Aspects of Wellbeing	431
	Other Relevant Indicators	432
	Public Spending	435
	APPENDIX TABLES	**S 1–S 397**

Chapter 1

AN OVERVIEW

National Economy

After a bad patch the national economy is showing signs of revival. In spite of fears of a slow down the GDP growth for the year 2001-02 shows a rate of 5.6%, slightly more than the projection made a year ago of 5.4%. For the first half of 2002-03 it is seen that the GDP grew by 6% in the 1st quarter and 5.8% in the 2nd quarter significantly higher than the respective figures of 3.5% and 5.3% for the corresponding periods of the previous year.

1.2 However compared to the past year, primarily due to the failure of monsoons, agricultural growth has been affected showing a decline of 3.1% in the estimates for 2002-03. This is expected to pull down the overall GDP growth in the current year to about 4.4%. As far as industry is concerned there is a significant turn around. It shows an increase from 3.3 % in the previous year to 6.1% in the current year. Even the services sector has improved its performance from 6.5% in 2001-02 to 7.1% for the current year. Thus these two sectors have offset to some extent the effects of the monsoon failure.

1.3 It is significant to note that in spite of fall in food grain production from a high of 212 million tonnes in the previous year to 183.2 million tonnes for the current year the impact in terms of the price has not been harsh on the poor. There were no significant food shortages either.

1.4 As far as inflation is concerned the 52-week average inflation rate based on wholesale price index was only 2.6% in mid-June 2003.

1.5 The gross fiscal deficit of the Central Government is estimated at 5.5%; less than the revised estimate of 5.9% for the previous year.

1.6 The balance of payments is more comfortable during the current year with the current account indicating a surplus equivalent to 0.3% of GDP mainly due to good net invisible inflows equivalent to 2.9% of GDP. The last nine months of 2002 show exports growing at 20.4% in dollar terms. This has had a positive impact on the net foreign exchange assets, which has become 100.7% of reserve money up from 78.1% in the previous year. The foreign exchange reserve has reached 70.4 billion US dollars up from the figure of 54.1 billion US dollars for the previous year. The external debt ratio is 20.9% of GDP and the Debt Services ratio has come down to 14.1% 2001-02.

1.7 However the growth of employment has been very poor. It has been calculated that after 12 years of reform India has more unemployed people than before. Only a small percentage of 8.9% of the total work force is employed in the organised sector. During 2001 employment in the public sector which accounts for over two-thirds declined by 0.9%. This could not be offset by employment in the private sector which increased only by 0.1%.

State Economy

1.8 State's economy is turning round slowly. Cash crops like rubber, coconut, arecanut, ginger, pepper, tea and coffee experienced steep fall in prices during the last year. However there has been a significant turn around in the case of rubber and coconut in recent months.

1.9 The growth rate of the State economy during 2001-02 was 4.7% according to the quick estimates, lower than the provisional figure of 5.3% for 2000-01. The details of sector-wise growth of SDP since 1994-95 are given below:

(Base year : 1993 –94)

Year	Growth in SDP	Sectoral Growth Rates		
		Primary	Secondary	Tertiary
1994-95	8.6	9.7	12.3	6.3
1995-96	4.0	-1.4	5.0	7.3
1996-97	4.0	3.0	-0.38	6.6
1997-98	2.2	-5.6	3.0	6.7
1998-99	7.0	2.5	9.0	8.7
1999-2000	6.8	2.6	-0.2	11.7
2000-01(P)	5.3	2.6	5.3	6.6
2001-02(Q)	4.7	2.7	5.2	5.5

(P) Provisional (Q) Quick estimate

1.10 The State economy has to grow at 6.5% if the Tenth Plan targets are to be met.

1.11 The State's fiscal situation is described in detail in Chapter II. State's own revenue which came down during the previous year has shown good improvement during the current year. Sales Tax alone which is the major revenue item of the State is likely to finish at Rs.5400 crores which is more than the previous year's collection by about Rs.1000 crores.

Implementation of the Xth Plan

1.12 The National Development Council has approved the Tenth Five Year Plan. Unlike the previous Plans there are clear monitorable targets both at the national level and disaggregated at the State level. Targets for Kerala are given below:

- To ensure economic growth of 6.5% per annum in the Tenth Plan (2002-07) with 3.05% in Agriculture & Allied Sectors.
- To reduce poverty from 12.7% in 1999-2000 to 6% by 2007 and near elimination by 2012.
- To ensure 100% enrolment of all children by the end of 2003 and their retention till they complete 14 years of age. Access to schools within a range of 1 km. These goals are aimed to be achieved by 2007.
- To increase literacy rate from 90.92% in 2001 to 98% in 2007 and elimination of rural-urban female-male disparity.
- To reduce IMR from 14 per 1000 live births in 1999 to 8 per 1000 live births by 2007.
- To increase the forest tree cover from the present 26.6% to 33% by 2012 and also to ensure density of tree cover by eco-stabilisation, eco-restoration and eco-protection.
- To provide drinking water to all partially covered habitations (71% to 100%), thus making them fully covered habitations.
- To reduce gender gaps in health, education and wage rates by 50% by 2007.
- To provide all weather road connectivity to all habitations (the connectivity is now 83%) with population of 500 and above by 2007.
- To bring down the decadal population growth rate from 9.4% to 5% by 2011 and to achieve population stabilisation.
- To bring down the unemployment rate from the level of 20.4% (current daily status) in 1999-2000 to 10% by 2007 and near zero by 2012.

1.13 The growth rates expected from Kerala for the Tenth Plan are:

Agriculture Sector	3.05 %
Industries Sector	5.89 %
Service Sector	8.17 %
Total	**6.5 %**

1.14 The Planning Commission has broadly approved a Plan size of Rs.24,000 crores for the Tenth Five Year Plan. About 1/3rd of this Plan size is to be devolved to local governments. 10% of the Plan is set apart for Special Component Plan and 2.25% for Tribal Sub Plan.

Learning lessons and Looking ahead

1.15 Some important lessons of recent years of experience are:

- For purposes of the Plan, all available resources have been so far pooled and allocated for various schemes. For this to be effective, strict prioritisation and project discipline are pre-requisites. In a democratic and coalition set up it has not been possible to ensure these pre-requisites. The result is that a situation was reached when all available resources including those received or raised for specific purposes, had first to be earmarked for salaries and pensions and development became a residual. While the situation is on the mend, it appears that true priority can be followed only through recourse to functional finance.

- The government finances and the State's economy are on a turn-around from the cliff-edge they had reached towards the end of 1990s. This turn-around has to be completed in 2003 with a firm hand on the steering wheel, if the State's Tenth Plan is to be implemented fully and successfully and its objectives are to be achieved. Any slackening will only increase the danger of reverting back to the cliff-edge and the collapse of the Plan.

- When there is rising deficit and more and more of borrowed funds have to be used to meet current expenditure, it is essential to recognise the existence of a severe budget constraint while taking decisions. If anything is to be done for the poor, this is all the more necessary. For, if promises are made to please every section, it is only the more powerful and influential better-off groups who will manage to get the final decisions. The promises for the poor will remain mere promises.

- People have been moving from Kerala to where jobs are. This may not continue to be possible to the same extent in the coming future. Jobs have to be moved to where the people are and diverse job opportunities created all over the State in agriculture, agro-processing, mini and small enterprises, modernisation of traditional industries, IT Services etc. For this to happen it is necessary to have a movement to remove the fear of investment and enterprise from the minds of the people.

- The lucky break of remittance – propped luxury – which became luckiest in 1990s as a result of liberalisation of the exchange rate – cannot be expected to continue forever. There are already many warning bells. The State must heed them and utilise such breathing time as may be available during the next few years to put itself on a firm path of investment, growth and employment.

1.16 Of course the transformation of a remittance – consumption and welfare economy into a production – employment and ***sustainable***-welfare economy is an enormous social, political and economic challenge. Given the necessary social and political will and determination, the transformation can be brought about in a short period building on the strengths of the State's economy and its human resources.

Chapter 2

STATE FINANCES

State finances, all over India, have been under pressure since mid 80's as reflected in various fiscal indicators such as fiscal deficit, revenue deficit, primary deficit, level of debt and commitment towards debt services. The analysis of Kerala's finances, in the following paragraphs is made with reference to data up to 31.3.2002.Preliminary figures for 2002-03 show an improvement, especially in tax collection where in Sales Tax alone an increase of Rs.1000 crore is forecast.

2.2 The gross fiscal deficit has shown an increasing trend with revenue deficit contributing to it. The Gross Fiscal Deficit (GFD), in respect of fifteen major States is given in the Table 2.1.The situation became worse in 1999-2000,2000-01 and 2001-02 following the liberalised implementation of the fifth Pay Commission Report in the States.

Table 2.1
GROSS FISCAL DEFICIT AS A RATIO TO NSDP

(per cent)

Sl.No.	States	1990-91	1995-96	1997-98	1998-99	1999-2000
1	Andhra Pradesh	3.2	3.4	2.8	5.5	4.5
2	Bihar	7.0	4.1	1.9	4.1	9.7
3	Goa	9.4	3.5	3.5	6.6	-
4	Gujarat	7.4	2.7	4.0	6.3	-
5	Haryana	2.6	3.8	3.4	5.9	5.1
6	Karnataka	2.7	2.9	2.5	4.1	5.0
7	Kerala	6.6	3.7	5.0	5.3	-
8	Madhya Pradesh	3.8	2.8	2.6	5.2	-
9	Maharashtra	2.8	2.9	3.8	5.8	5.5
10	Orissa	6.4	6.0	6.6	9.8	11.4
11	Punjab	7.4	4.0	5.8	7.9	5.8
12	Rajasthan	3.0	6.1	4.4	8.9	9.1
13	Tamil Nadu	4.1	1.8	2.3	4.5	4.7
14	Uttar Pradesh	6.2	4.3	5.8	7.8	6.7
15	West Bengal	5.2	4.0	4.5	6.7	9.5

Source: State Finances, A Study of Budgets of 2001-02, RBI

2.3 Besides loans from the Centre and market borrowings, the other sources of growth in liabilities of States in recent years have been loans from financial institutions and the public account liabilities. In the case of Kerala there has been too much reliance on the public account over the years. Financing of GFD through public account borrowings by fifteen major States is given in Table- 2.2 . Kerala showed worst performances in 1999-2000 and 2000-2001. 63.3 per cent GFD in 1999 – 2000 and 35 per cent of GFD in 2000-2001 were financed through public account borrowings by Kerala. No other States relied so much on public account for financing GFD in this period. Public account is short-term and costly. Unlike loans from Government of India they are not liable to be restructured, rephased or swapped.

TABLE 2.2

FINANCING OF GFD THROUGH PUBLIC ACCOUNT BORROWINGS

(per cent)

Sl No	States	1990-91	1999-2000	2000-01
1	2	3	4	5
1	Andhra Pradesh	13.7	12.4	6.7
2	Bihar	20.3	24.5	23.8
3	Goa	33.4	32.3	27.8
4	Gujarat	56.6	41.9	13.2
5	Haryana	37.6	32.5	21.7
6	Karnataka	66.2	38.2	23.1
7	Kerala	42.2	63.3	35.0
8	Madhya Pradesh	54.7	27.0	26.0
9	Maharashtra	41.3	41.7	27.6
10	Orissa	33.5	43.7	29.4
11	Punjab	12.4	38.0	21.9
12	Rajasthan	26.3	29.4	21.4
13	Tamil Nadu	31.7	43.3	17.4
14	Uttar Pradesh	30.6	10.6	34.8
15	West Bengal	28.7	36.6	15.5
	All States' Average	**32.5**	**33.4**	**21.9**

Source: State Finances, A Study of Budgets of 2001-02, RBI

Current Fiscal Situation

2.4 Table 2.3 shows the current financial position of the State in 2001-02 (RE) and Table 3 (a) shows the corresponding figures for 2000-01 (RE). On comparison, it can be seen that own tax revenue estimated for 2001-02 (RE) was short by Rs. 416 crore over 2000-01 (RE), non tax revenue up by Rs. 146 crore and the non-plan expenditure short by Rs. 405 crore. The deficit after committed expenditure estimated for 2001-02 (RE) was Rs. 384 crore as against Rs. 2045 crore estimated for 2000-01 (RE). This shows that State has taken steps in reducing the ever-increasing deficit by limiting the non-plan expenditure. Sufficient measures are needed to augment own revenue collection and if it is achieved and the non-plan expenditure reduced rationally, the State would once again reach a position of revenue surplus with in 4 or 5 years.

Table 2.3
CURRENT FINANCIAL SITUATION (2001-02 RE)

Receipts (Rs. Cr.)		Expenditure (Rs. Cr.)	
Revenue receipts	**2001-02**	**Non plan expenditure**	**2001-02**
Own Tax Revenue	**6594**	**Salaries, Pensions & Interest**	**8535**
of which per month		of which per month	
Sales Tax		Salaries	
M V Tax		Pension	
Excise		Interest	
Stamps & Regn			
Others			
Non Tax Revenue	**716**	Repayments	**531**
of which per month		Grants, POL, TA etc.	**1291**
Forests			
Others			
Share of Central Taxes and grants	**2663**		
TOTAL	**9973**	**TOTAL**	**10357**
Deficit after committed expenditure			**384**

Source: Finance Dept. Govt. of Kerala

Table 2.3(a)
REVISED ESTIMATE: 2000-2001

Receipts(rs. Cr)		Expenditure (rs. Cr)	
Revenue receipts		**Non plan expenditure**	
Own Tax Revenue	7010	Salaries, Pensions and Interest	8940
Sale Tax. Vehicle Tax Excise. Stamps & Registration		Salaries Pension. Interest	
Non Tax Revenue	570	Repayments	525
Forests Others OTHER RECEIPTS		Grants, POL, TA etc.	1860
Share of Central Taxes and Non Plan grants	1700		
TOTAL	**9280**	**TOTAL**	**11325**
DEFICIT AFTER COMMITTED EXPENDITURE			**2045**

Source: Finance Dept. Govt. of Kerala

Revenue Receipts (Actuals) 2000-01 & 2001-02

2.5 Table 2.4 shows a comparative position of State's actual revenue receipts during 2000-01 and 2001-02. In 2001-02, the total revenue receipts increased by Rs. 325.53 crore (3.73per cent), from Rs. 8730.86 crore in 2000-01 to Rs. 9056.39 crore in 2001-02. The receipts are inclusive of share of Central taxes and grants, which increased by Rs.388.08 crore in 2001-02. Therefore, if we exclude the share on

Central taxes and grants from total receipts and consider only State's own revenue, it can be seen that there was a short fall of Rs. 62.55 crore in State's own revenue receipts during 2001-02 over 2000-01. This was because, though there were improvements in collection of sales tax, vehicle tax and stamps and registration tax in 2001-02,there were substantial shortfalls in the collection of excise tax by Rs. 147.48 crore and non-tax revenue by Rs. 115.71 crore. In short, the reduction in non-plan expenditure and the increased share of Central taxes and grants in 2001-02 are the two factors which reduced the revenue deficit in 2001-02.The revenue deficit in 2001-02 was reduced by Rs.541.42 crore(17.2 per cent) (See Table 2.14).

Table-2.4
Total Revenue: 2000-01 and 2001-02.(Rs. crore)

Year /Items	2000-01	2001-02	Increase	Per cent
Total Revenue(a+b+c)	8730.86	9056.39	325.53	3.73
(a)Own Tax Revenue	5870.26	5923.42	53.16	0.91
I. Sales Tax	4344.33	4440.85	96.52	2.22
ii.M.V.Tax	394.85	452.18	57.33	14.52
iii. Excise	688.94	541.46	-147.48	-21.41
iv. Stamp &Registration	341.10	394.28	53.18	15.59
v. Others	101.04	94.65	-6.39	-6.32
(b)Non-Tax Revenue	659.09	543.38	-115.71	-17.56
I.Forest	141.24	113.70	-27.54	-19.50
ii.Others	517.85	429.68	-88.17	-17.03
©Shareof Central Taxes & Grants	2201.51	2589.59	388.08	17.63

Source: Budget in brief-2002-03
Finance Accounts:2001-03

Growth characteristics

Revenue Receipts

2.6 Revenue receipts are shown in the Table 2.5 and the trend of growth of revenue receipt in Table 2.6. The revenue receipts increased by 3.7 per cent in 2001- 2002 over 2000-2001. However the trend in growth of revenue receipts has been on the decline in the State. The growth rate which was 18.05 per cent in 1991-95 declined to 10 per cent in 1996-2000.

Table 2.5
REVENUE RECEIPTS
(1957-58 and 1970-71 to 2001-02) **(crore)**

Year	Receipt	Year	Receipt	Year	Receipt
1957-58	31.50	1980-81	640.38	1991-92	2852.12
1970-71	150.79	1981-82	850.48	1992-93	3318.70
1971-72	179.19	1982-83	810.20	1993-94	3921.76
1972-73	197.40	1983-84	934.26	1994-95	4666.42
1973-74	217.71	1984-85	1124.99	1995-96	5423.56
1974-75	287.97	1985-86	1371.17	1996-97	6145.07
1975-76	351.56	1986-87	1502.53	1997-98	7118.19

1976-77	386.18	1987-88	1586.09	1998-99	7198.12
1977-78	444.94	1988-89	1897.06	1999-00	7941.75
1978-79	522.15	1989-90	2047.64	2000-01	8730.86
1979-80	591.62	1990-91	2402.94	**2001-02**	**9056.39**

Source: Finance Dept. Govt. of Kerala

Table - 2.6

Growth Characteristics of Revenue Receipts

30 year Growth Rate	**G R 70's**	**G R 80's**	**G R 90's**	**GR 1970-1975**	**GR 1976-1980**	**GR 1981-1985**	**GR 1986-1990**	**GR 1991-1995**	**GR 1996-2000**
14.87%	16.49 %	13.69 %	12.67%	17.56%	13.90%	15.13%	10.55%	18.05%	10.00%

Source: Finance Dept. Govt. of Kerala

Own Tax Revenue

2.7 The own tax revenues of the State for the last three decades are given in Table 2.7 and the growth rates of major tax revenue are given in table 2.8. The annual growth is highly fluctuating. The growth rate was 3.30 per cent in 1998-99,11.70 per cent in 1999-2000,13.03 per cent in 2000-01 and 0.91 per cent in 2001-02. The periodical growth rates during 1991-95 and 1996-2000 are 20.21 per cent and 11.31 per cent respectively. Share of major taxes in own tax revenue from 1995-96 to 2001-02 is given in Table 2.8(a)

Table -2.7

OWN TAX REVENUE

(1957-58 & 1970-71 to 2001-02) with annual growth rates.

(Rs in Crore)

Year	OTR	Annual Growth	Year	OTR	Annual Growth	Year	OTR	Annual Growth
1957-58	**13.29**		1980-81	336.55	15.73%	1991-92	1673.94	24.89%
1970-71	67.98		1981-82	374.21	11.19%	1992-93	1886.94	12.72%
1971-72	74.70	9.89%	1982-83	438.34	17.14%	1993-94	2344.87	24.27%
1972-73	82.90	10.98%	1983-84	486.77	11.05%	1994-95	2799.09	19.37%
1973-74	95.45	15.14%	1984-85	621.65	27.71%	1995-96	3382.68	20.85%
1974-75	123.57	29.46%	1985-86	730.50	17.51%	1996-97	3898.50	15.25%
1975-76	159.70	29.24%	1986-87	813.90	11.42%	1997-98	4501.05	15.46%
1976-77	186.50	16.78%	1987-88	925.23	13.68%	1998-99	4649.56	3.30%
1977-78	213.36	14.40%	1988-89	1065.47	15.16%	99-2000	5193.50	11.70%
1978-79	254.24	19.16%	1989-90	1232.51	15.68%	2000-01	5870.26	13.03%
1979-80	290.80	14.38%	1990-91	1340.36	8.75%	**2001-02**	**5923.42**	**0.91%**

Source: Finance Dept. Govt. of Kerala

Table -2.8

Growth characteristics of major tax revenues

30 year Growth Rate	G R 70's	G R 80's	G R 90's	GR 1970-75	GR 1976-80	GR 1981-85	GR 1986-90	GR 1991-95	GR 96-2000
Own Tax Revenue									
16.62%	**18.01%**	**15.63%**	**14.37%**	16.11%	16.16%	16.58%	13.97%	20.21%	11.31%
Sales Tax									
17.72%	**19.21%**	**16.15%**	**15.19%**	19.11%	13.52%	16.46%	13.80%	20.06%	13.95%
State Excise									
16.12%	**22.30%**	**12.60%**	**13.41%**	11.64%	29.67%	11.36%	13.82%	19.12%	7.10%
Stamps and Registration									
14.84%	**15.29%**	**17.90%**	**8.82%**	15.84%	14.64%	13.61%	25.02%	24.79%	-5.71%
Motor Vehicles Tax									
15.41%	**12.55%**	**15.04%**	**17.29%**	-0.52%	20.00%	19.26%	10.38%	25.50%	14.33%

Source: Finance Dept. Govt. of Kerala

Table 2.8(a)

Own Tax Revenue: Share of Major Taxes

(per cent)

Item	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	01-02(RE)
Sale Tax	67.6	71.1	68.5	72.4	74.2	74	73.8
Motor Vehicle Tax	6.6	6.4	6.7	7	7.3	6.7	7.2
Excise Tax	13.3	10.7	12.1	11.4	11.4	11.7	10.1
Stamps and Registration Tax	10.5	9.2	7.4	6.5	5.4	5.8	7.3

Source: Budget in Brief: 2002-03

State's Own Non -Tax revenue

2.8 Data on non tax revenues are shown in Table 2.9 . Growth characteristics of non-tax revenues and revenue from forests are given in 2.9 (a). Non- tax revenue decreased by 17.6 per cent from Rs.659.09 crore in 2000-2001 to Rs.543.38 crore in 2001-2002. The revenue from forests declined by 19.5 per cent from Rs. 141.24 crore in 2000-2001 to Rs. 113.70 crore in 2001- 2002.The growth characteristics of non-tax revenue shows a very dismal picture. The growth rates of non-tax revenue declined from 18.01per cent in 1991-95 to -0.22 per cent in 1996-2000. So also was the case with forest revenue. Its growth rate declined from 38.38 per cent in 1991-95 to -9.08 per cent in 1996-2000. A comparative position of non-tax revenues in neighbouring States is given in Table 2.10

Table - 2.9
Total Non Tax Revenues, Forest and others
(1957-58 and 1970-71 to 2001-02)

(Rs in Crore)

Year	Non Tax Revenue (Rs Crore)	Growth	Forest (Rs Crore)	Growth	NTR (excl. Forests) (Rs Crore)	Growth
1957-58	13.94		2.92		11.02	
1970-71	52.58		9.14		43.44	
1971-72	67.72	28.79%	10.61	16.08%	57.11	31.47%
1972-73	70.47	4.06%	10.47	-1.32%	60.00	5.06%
1973-74	74.89	6.27%	14.57	39.16%	60.32	0.53%
1974-75	117.27	56.59%	18.17	24.71%	99.10	64.29%
1975-76	130.15	10.98%	21.92	20.64%	108.23	9.21%
1976-77	134.73	3.52%	26.18	19.43%	108.55	0.30%
1977-78	162.52	20.63%	31.78	21.39%	130.74	20.44%
1978-79	192.75	18.60%	35.06	10.32%	157.69	20.61%
1979-80	164.16	-14.83%	44.01	25.53%	120.15	-23.81%
1980-81	152.43	-7.15%	45.73	3.91%	106.70	-11.19%
1981-82	305.49	100.41%	51.91	13.51%	253.58	137.66%
1982-83	185.91	-39.14%	49.64	-4.37%	136.27	-46.26%
1983-84	238.01	28.02%	40.75	-17.91%	197.26	44.76%
1984-85	270.06	13.47%	33.92	-16.76%	236.14	19.71%
1985-86	432.18	60.03%	42.55	25.44%	389.63	65.00%
1986-87	349.44	-19.14%	48.25	13.40%	301.19	-22.70%
1987-88	371.53	6.32%	40.05	-16.99%	331.48	10.06%
1988-89	394.79	6.26%	33.74	-15.76%	361.05	8.92%
1989-90	359.23	-9.01%	32.16	-4.68%	327.07	-9.41%
1990-91	208.81	-41.87%	37.33	16.08%	167.05	-48.93%
1991-92	234.71	12.40%	55.64	49.05%	174.32	4.35%
1992-93	279.40	21.50%	78.71	41.46%	200.69	15.13%
1993-94	322.92	15.58%	102.96	30.81%	219.96	9.60%
1994-95	396.35	22.74%	136.88	32.94%	259.47	17.96%
1995-96	535.49	35.11%	160.77	17.45%	374.72	44.42%
1996-97	513.80	-4.05%	162.00	0.77%	351.80	-6.12%
1997-98	552.11	7.46%	144.91	-10.55%	407.20	15.75%
1998-99	557.66	1.04%	121.03	-16.48%	436.83	7.28%
1999-00	530.71	-4.87%	109.88	-9.21%	420.83	-3.66%
2000-01	659.09	24.19%	141.24	28.54%	517.85	23.05%
2001-02	543.38	-17.56%	113.70	-19.50%	429.68	-17.01%

Source: Finance Dept. Govt. of Kerala

Table - 2.9 (a)

Growth Characteristics of Non Tax Revenues, Forest and others

GR 30 yrs	GR - 70s	GR - 80s	GR - 90s	GR 1970-75	GR 1976-80	GR 1981-85	GR 1986-90	GR 1991-95	GR 96-2000
Non Tax Revenue									
8.30%	14.03%	2.35%	10.96%	22.21%	5.98%	15.37%	-4.52%	18.01%	-0.22%
Of which Forest									
9.79%	18.73%	-1.79%	10.29%	18.74%	19.04%	-7.20%	-6.76%	38.38%	-9.08%
Other than Forests									
7.94%	12.95%	3.36%	11.17%	22.90%	2.65%	21.97%	-4.28%	11.64%	2.94%

Source: Finance Dept. Govt. of Kerala

Table 2.10

Comparative position in four neighbouring states of Non-Tax Revenue

(1999-2000 Actual figures)

(Rs in Crore)

States	Andra Pradesh	Karnataka	Kerala	Tamil Nadu
Non Tax Revenue of State	**2441.55**	**1611.28**	**530.71**	**1356.85**
Revenue Expenditure (RE)	**18037.87**	**15231.75**	**11565.96**	**20727.83**
Revenue Receipts (RR)	**16804.62**	**12906.45**	**7941.75**	**16327.53**
NTR / RE	**13.54%**	**10.58%**	**4.59%**	**6.55%**
NTR / RR	**14.53%**	**12.48%**	**6.68%**	**8.31%**

Source: Finance Dept. Govt. of Kerala

Revenue Expenditure

2.9 Table 2.11 shows the revenue expenditure of State for the last three decades and Table 2.12 shows the growth characteristics of revenue expenditure. It is for the first time in the last three decades that the revenue expenditure recorded a negative growth rate in 2001-02. The revenue expenditure declined by Rs. 215.89 crore (1.82 per cent) from Rs. 11877.91 crore in 2000-01 to Rs.11662.02 crore in 2001-02.

Table -2.11

REVENUE EXPENDITURE

(1957-58 and 1970-71 to 2001-02)

(Rs in Crore)

Year	Revenue Expenditure	Year	Revenue Expenditure	Year	Revenue Expenditure
1957-58	32.90	1980-81	667.61	1991-92	3216.47
1970-71	163.80	1981-82	754.50	1992-93	3656.14
1971-72	186.51	1982-83	783.39	1993-94	4293.36

1972-73	204.35	1983-84	992.44	1994-95	5066.30
1973-74	237.37	1984-85	1138.66	1995-96	5826.38
1974-75	287.66	1985-86	1445.34	1996-97	6788.10
1975-76	355.05	1986-87	1654.77	1997-98	8241.09
1976-77	389.48	1987-88	1780.68	1998-99	9228.08
1977-78	415.89	1988-89	2061.00	1999-00	11565.96
1978-79	479.94	1989-90	2298.09	2000-01	11877.91
1979-80	533.78	1990-91	2824.98	2001-02	11662.02

Source: Finance Dept. Govt. of Kerala

Table -2.12

Growth Characteristics of Revenue & Capital Expenditure									
30 year Growth Rate	**GR 70'S**	**GR 80'S**	**GR 90'S**	**GR 1970-75**	**GR 1976-80**	**GR 1981-85**	**GR 1986-90**	**GR 1991-95**	**GR 96-2000**
Revenue Expenditure									
15.79%	15.03%	15.93%	14.69%	15.12%	10.73%	14.28 %	12.29%	15.72%	18.70%
Capital Expenditure									
12.31%	16.82%	8.13%	12.06%	8.22%	21.76%	8.20%	3.07%	14.89%	3.56%

Source: Finance Dept. Govt. of Kerala

Capital Expenditure

2.10 The capital expenditure of the State for the last thirty years is given in Table 2.13 and the growth characteristics in Table 2.12. It can be seen from the Tables that the capital expenditure in the State has been on decline since 1997-98. This is partly because of an accounting problem. The transfer of plan amount to the local governments is to the extent of about 30-35 per cent of the plan outlay, under revenue head. But the major share of this transfer to the local bodies is being utilised as capital expenditure for asset creation. Assuming atleast 50 per cent of the expenditure of the local Governments as capital, the capital expenditure of the State will go up. However, as is evident from the Table 2.12, the growth rate of capital expenditure of the State which was 14.9 per cent during 1991-95 declined alarmingly to 3.6 per cent during 1996-2000.

Table - 2.13
CAPITAL EXPENDITURE
(1957-58 and 1970-71 to 2001-02)

(Rs in Crore)

Year	Capital Expenditure	Year	Capital Expenditure	Year	Capital Expenditure
1957-58	8.44	1980-81	121.86	1991-92	286.12
1970-71	23.41	1981-82	132.92	1992-93	277.90
1971-72	30.97	1982-83	128.47	1993-94	363.33
1972-73	34.24	1983-84	208.13	1994-95	446.01
1973-74	39.45	1984-85	167.04	1995-96	563.47
1974-75	32.11	1985-86	205.82	1996-97	622.52
1975-76	47.39	1986-87	211.04	1997-98	738.87
1976-77	56.80	1987-88	167.40	1998-99	651.63
1977-78	74.91	1988-89	180.29	99-2000	648.18
1978-79	67.14	1989-90	232.29	2000-01	577.20
1979-80	104.17	1990-91	255.97	2001-02	558.36

Source: Finance Dept. Govt. of Kerala

Revenue Deficit

2.11 The growth in revenue deficit is shown in Table 2.14. It is noteworthy that, after 1992-93, the revenue deficit recorded a decline in 2000-2001 for the first time. Revenue deficit declined by Rs.477.15 crore (13.2%) in 2000-01, and further by Rs. 541.42 (17.2%) in 2001-02.

Table –2.14

Revenue deficit with annual growth rates

(1970-71 to 2001-02)

Year	RD (In Rs Crore)	GR	Year	RD (In Rs Crore)	GR	Year	RD (In Rs Crore)	GR
1970-71	13.01		1981-82	-95.98	-452.48%	1991-92	364.35	-13.67%
1971-72	7.32	-43.74%	1982-83	-26.81	-72.07%	1992-93	337.44	-7.39%
1972-73	6.95	-5.05%	1983-84	58.18	-317.01%	1993-94	371.6	10.12%
1973-74	19.66	182.88%	1984-85	13.67	-76.50%	1994-95	399.88	7.61%
1974-75	-0.31	-101.58%	1985-86	74.17	442.57%	1995-96	402.82	0.74%
1975-76	3.49	-1225.81%	1986-87	152.24	105.26%	1996-97	643.03	59.63%
1976-77	3.3	-5.44%	1987-88	194.59	27.82%	1997-98	1122.9	74.63%
1977-78	-29.05	-980.30%	1988-89	163.94	-15.75%	1998-99	2029.96	80.78%
1978-79	-42.21	45.30%	1989-90	250.45	52.77%	99-2000	3624.21	78.54%
1979-80	-57.84	37.03%	1990-91	422.04	68.51%	2000-01	3147.06	-13.17%
1980-81	27.23	-147.08%				2001-02	2605.64	-17.20%

Source: Finance Dept. Govt. of Kerala

Gross Fiscal Deficit (GFD)

2.12 GFD is the sum of revenue deficit, capital expenditure and loan disbursed. It is a measure of the amount that a State government has to borrow to meet its total expenditure. GFD and its growth characteristics are shown in Tables 2.15 and 2.16 respectively. After a jump by 50 per cent between the period 1998-99 and 1999-2000, GFD declined by 14.48 per cent in 2000-01 and further by 15.69 per cent in 2001-02.

Table –2.15

Gross Fiscal Deficit

(1957-58 and 1970-71 to 2001-02)

Year	G F D (In Crore)	Year	G F D (In Crore)	Year	G F D (In Crore)
1957-58	9.84	1980-81	178.99	1991-92	803.45
1970-71	47.41	1981-82	61.70	1992-93	732.02
1971-72	65.63	1982-83	122.88	1993-94	935.45
1972-73	57.63	1983-84	299.31	1994-95	1108.65
1973-74	63.81	1984-85	232.26	1995-96	1302.66
1974-75	50.69	1985-86	322.31	1996-97	1542.48
1975-76	59.08	1986-87	440.78	1997-98	2413.85
1976-77	69.93	1987-88	448.09	1998-99	3012.20
1977-78	60.40	1988-89	412.13	1999-00	4534.56
1978-79	55.77	1989-90	604.53	2000-01	3877.80
1979-80	85.88	1990-91	798.57	**2001-02**	**3269.40**

Source: Finance Dept. Govt. of Kerala

Table –2.16

Growth characteristics of Gross Fiscal Deficit									
30 year Growth Rate	GR 70'S	GR 80'S	GR 90'S	GR 1970-75	GR 1976-80	GR 1981-85	GR 1986-90	GR 1991-95	GR 96-2000
16.02%	7.48%	22.18%	19.08%	1.69%	9.80%	6.73%	17.03%	8.55%	32.44%

Source: Finance Dept. Govt. of Kerala

Share of Central Taxes and grants in Aid

2.13 Share of Central taxes and grants in aid transferred to State is given in Table 2.17. During 2001-02 the share of central taxes and grants in aid to the State increased by Rs. 388.08 Crore (17.6%) from Rs. 2201.51 crore in 2000-01 to Rs. 2589.59 crore in 2001-02 as against a decrease of Rs.16.02 crore (-0.72 per cent) in 2000-2001 from Rs.2217.53 crore in 1999-2000 to Rs.2201.51crore in 2000-01. However, the general trend is on the decline in recent years

Table –2.17

SHARE OF CENTRAL TAXES & GRANT IN AID AND ANNUAL GROWTH RATE

(1970-71 to 2001-02) (crore)

Year	Share of Central Taxes &Grant in Aid	Growth rate %	Year	Share of Central Taxes &Grant in Aid	Growth rate %
1970-71	54.91		1986-87	524.78	11.20
1971-72	64.98	18.34	1987-88	472.33	-9.99
1972-73	79.48	22.31	1988-89	650.23	37.66
1973-74	82.72	4.08	1989-90	640.69	-1.47
1974-75	109.23	32.05	1990-91	853.77	33.26
1975-76	128.99	18.09	1991-92	943.46	10.51
1976-77	131.89	2.25	1992-93	1152.36	22.14
1977-78	150.94	14.44	1993-94	1253.96	8.82
1978-79	175.88	16.52	1994-95	1470.97	17.31
1979-80	178.81	1.67	1995-96	1505.39	2.34
1980-81	207.19	15.87	1996-97	1732.78	15.11
1981-82	243.94	17.74	1997-98	2065.06	19.18
1982-83	255.43	4.71	1998-99	1990.9	-3.59
1983-84	329.21	28.88	99-2000	2217.53	11.38
1984-85	369.92	12.37	2000-01	2201.51	-0.72
1985-86	471.94	27.58	2001-02	2589.59	17.63

Source: Finance Dept. Govt. of Kerala

Debt Servicing, Pension and Salaries

2.14 The details are given in Table 2.18. In the fiscal year 2000-01, debt servicing increased by 15.6 per cent, pension increased by 6.7 per cent and the salary decreased by 0.25 per cent. As indicated in the revised estimate for 2001-02, interest, salary and pension are expected to decrease in 2001-02. The growth characteristics of interest, pension and salaries are shown in Table 2.19. When the growth rate of interest declined from 24.55 per cent in 1991-95 to 20.56 per cent in 1996-2000, that of pension increased

from 17.85 per cent to 26.03 per cent and salary from 6.86 per cent to 19.20 per cent. during the same periods. However, the total salary as a percentage of total revenue, which was 56.68 per cent in 1999-2000 declined to 51.45 per cent in 2000-01 and as per the revised estimate for 2001-02 it is estimated to decline further to 44.71 per cent

Table –2.18
Interest, Pensions and Salaries
(1957-58 and 1970-71 to 2000-01)

(Rs in Crore)

Year	Interest	Pension	Salaries	Year	Interest	Pension	Salaries
1957-58	2.01	1.08		**1985-86**	127.46	103.02	635.43
1970-71	18.91	5.51		**1986-87**	177.28	172.21	739.71
1971-72	21.59	6.80		**1987-88**	213.17	183.03	804.85
1972-73	23.17	6.56		**1988-89**	244.44	186.32	922.03
1973-74	27.64	8.61		**1989-90**	293.00	209.59	1356.06
1974-75	28.53	9.48		**1990-91**	340.64	293.14	1682.65
1975-76	34.24	13.73		**1991-92**	483.42	338.96	1383.59
1976-77	37.82	14.93	207.90	**1992-93**	542.51	371.87	1419.46
1977-78	41.94	15.37	212.71	**1993-94**	687.16	464.72	1836.13
1978-79	44.01	18.27	218.68	**1994-95**	819.67	565.45	2194.25
1979-80	47.91	25.38	274.80	**1995-96**	924.16	716.85	2230.40
1980-81	48.71	31.87	296.21	**1996-97**	1103.41	753.67	2616.66
1981-82	59.83	44.37	327.87	**1997-98**	1286.09	913.02	2803.26
1982-83	63.76	54.90	384.19	**1998-99**	1446.26	1154.32	3254.68
1983-84	93.46	63.87	454.67	**99-2000**	1952.27	1808.29	4502.86
1984-85	122.51	76.04	503.71	**2000-01**	**2257.60**	**1929.48**	**4491.61**

Source: Finance Dept. Govt. of Kerala

Table –2.19
Growth characteristics of Interest, Pensions and Salaries

30 year Growth Rate	GR 70'S	GR 80'S	GR 90'S	GR 1970-75	GR 1976-80	GR 1981-85	GR 1986-90	GR 1991-95	GR 96-2000
Interest									
17.26%	10.51 %	23.08%	16.65%	10.83%	8.76%	25.93%	23.13%	24.55%	20.56%
Pension									
21.80%	20.57 %	22.95%	18.39%	14.53%	16.60%	24.28%	19.43%	17.85%	26.03%
Salaries									
N.A	12.03 %	17.85%	11.30%	NA	NA	14.19%	20.87%	6.86%	19.20%

Source: Finance Dept. Govt. of Kerala

Debt and Debt Profile of the State

2.15 Debt of the State and annual growth rate for the last thirty two years are given in the Table 2.20. For fiscal discipline, the debt –SDP ratio is to be below the prudent limit of 30 per cent. At the same time, in the case of Kerala, this ratio is 38.7 per cent at current prices. In the 90's debt of the State has been increasing at an annual average growth rate of 18 per cent. However in 2001-02 the growth rate was 12.67 per cent only showing a deceleration in the growth rate of debt in the State. The growth characteristics of

Maintenance Expenditure

2.17 Provision for maintenance expenditure for the assets already created has been on the decline year after year as shown in Table 2.24. Kerala had created excellent social and economical infrastructure. But due to the fiscal stress, the state has been not in a position to provide funds even for minimum required maintenance. This has serious implications for sustainability of development and renewal of the assets already created. The maintenance deficit needs to be bridged.

Table –2.24

Maintenance Expenditure

(1990-91 to 2001-02)

(Rs in Crore)

Year	Medical	Education	Buildings	Roads and Bridges	Total	Revenue Expenditure	Total/ Revenue Expenditure
1990-91	39.16	11.57	6.10	40.76	97.60	2824.95	3.45%
1991-92	11.02	12.28	6.94	40.94	71.19	3216.46	2.21%
1992-93	38.89	29.35	7.79	45.22	121.25	3656.13	3.32%
1993-94	48.30	32.43	9.01	61.07	150.80	4293.36	3.51%
1994-95	60.01	34.27	9.46	60.37	164.11	5066.30	3.24%
1995-96	67.09	37.72	12.71	104.17	221.68	5826.38	3.80%
1996-97	85.57	54.02	12.17	116.02	267.78	6788.11	3.94%
1997-98	73.21	28.87	11.29	136.26	249.64	8241.12	3.03%
1998-99	79.68	36.16	13.41	156.74	285.99	9228.08	3.10%
1999-00	89.66	34.78	25.46	197.18	347.08	11565.96	3.00%
2000-01	22.29	49.36	23.65	176.65	271.95	11877.91	2.29%
2001-02	26.93	38.16	19.55	188.07	272.71	11662.02	2.34%

Source: Finance Dept. Govt. of Kerala

Effect of Eleventh Finance Commission Award

2.18 Eleventh Finance Commission changed the formula for the devolution of funds to the States. As for concerned to Kerala , this change caused a severe loss and it is given in the Table 2.25.

Table –2.25

FINANCE COMMISSIONS (LOSS IN A NUTSHELL)

% shown are with respect to the total estimated amounts in the reports of the EFC and TFC

	Populat ion Share	Share of Taxes	Share of Grants	Share of Total Transfers	Estimated Loss in Rs. Cr. over that of the Tenth FC
Tenth FC	3.438%	3.498%	2.489%	3.407%	Rs.3664 cr.
Eleventh FC	3.490%	3.057%	1.387%	2.832%	

Source: Finance Dept. Govt. of Kerala

Conclusion

2.19 The fiscal position of the State has been under stress over the years and became severe in the late 90's. This has hampered the State's development. The State's fiscal stress stems from inadequacy of receipts in meeting the growing expenditure. The level of resource flows to the State is determined by the efforts of the State in generating its own resources as well as the resources transferred from the Centre. The internal resource mobilisation by the State has been constrained as the PSUs, especially the electricity Board and Transport Corporation which have been incurring losses putting further pressure on State resources. In this context sincere efforts are to be made for aggressive revenue mobilisation, both tax and non-tax and prudent control of expenditure by sharply focusing on expenditure that gives maximum social and economic returns, by removing waste, fraud and feather-bedding, taking measures for making PSUs economically viable and trying to get maximum resources transferred from the Centre.

Chapter 3

INCOME, EMPLOYMENT AND POPULATION

A. INCOME

National Income

The Gross Domestic Product (GDP) at factor cost at constant (1993-94) prices in 2001-02 is estimated to be at Rs. 12,65,429 crore as against Rs. 11,98,685 crore in 2000-01 registering a growth rate of 5.6% during 2001-02 compared to the growth rate of 4.4% during the previous year. At current prices, GDP in 2001-02 is estimated at Rs.20,94,013 crore as against Rs. 19,17,724 crore in 2000-01 showing an increase of 9.2% during the year.

3.2 At constant (1993-94) prices the national income (i.e. Net National Product at factor cost) in 2001-02 is estimated at Rs. 11,15,157 crore as against Rs. 10,50,177 crore in 2000-01 showing a rise of 6.2% during the year. At current prices, the National Income in 2001-02 is estimated at Rs. 18,64,292 crore as compared to Rs.17,02,454 crore in 2000-01 showing a rise of 9.5% during the year.

3.3 The growth rate of 5.6% in the GDP during 2001-02 has been achieved because of high growth rate in Agriculture (from (-) 0.4 to 5.7%), Hotel & Restaurants and Trade (from 4.1 to 8.8%) and financing, Insurance, Real Estate and Business Services (from 3.5 to 4.5). (See Table 3.1)

Fig 3.1
GDP at 1993-94 Prices (Rs. Crore)

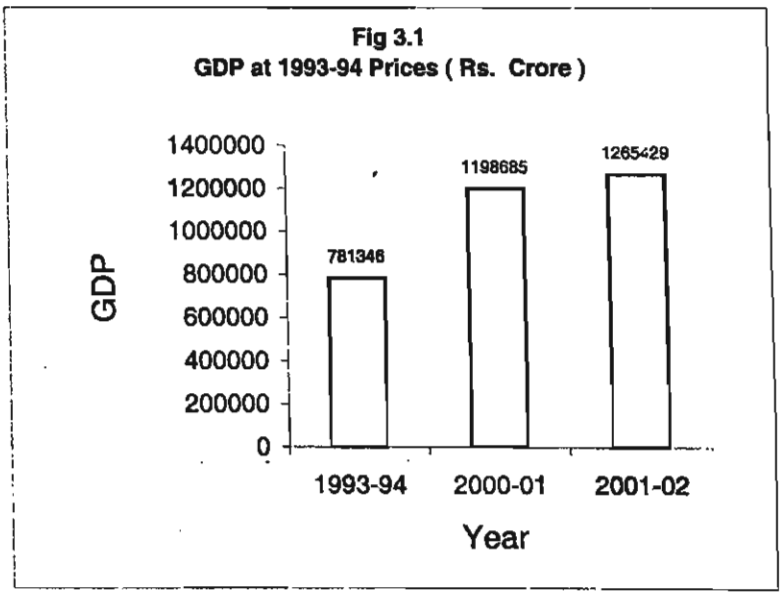


Table 3.1
Sectoral Real Growth Rates in GDP (All India)
(At Factor Cost by Economic Activity - 2000-01 to 2001-02)

Sl. No.	Industry	Percentage change over the previous year			
		At Current Prices		At 1993-94 Prices	
		2000-01@	2001-02*	2000-01@	2001-02*
1	Agriculture, Forestry & Fishing	3.6	9.2	-0.4	5.7
2	Mining & Quarrying	9.9	1.9	2.4	1.0
3	Manufacturing	13.0	6.1	7.3	3.4
4	Electricity, Gas & Water Supply	10.1	7.3	5.0	4.3
5	Construction	10.7	7.7	6.9	3.7
6	Trade, Hotels & Restaurants	10.8	10.9	4.1	8.8
7	Transport, Storage & Communication	12.8	10.1	12.2	8.5
8	Financing, Insurance, Real Estate & Business Services	8.3	11.8	3.5	4.5
9	Community, Social & Personal Services	9.5	10.1	5.6	5.6
10	**Total GDP at factor cost**	**8.8**	**9.2**	**4.4**	**5.6**

*@: Provisional Estimates, *: Quick Estimates*
Source: Central Statistical Organization

Per Capita National Income

3.4 The per capita income (per capita net national product at factor cost) in real terms, ie. at 1993-94 prices, is estimated at Rs. 10,754 for 2001-02 as against Rs. 10,306 for 2000-01, registering an increase of 4.3% during the year. The per capita income at current prices is estimated at Rs.17,978 in 2001-02 as against Rs. 16,707 for the previous year showing a growth of 7.6%.

3.5 Details of National Income are given in Appendices 3.1 to 3.4

Table 3.2
National Product, Domestic Product & Per Capita Income at Factor Cost (All India)

(Rs. Crore)

Sl. No.	Item	At Current Prices		At 1993-94 Prices	
		2000-01@	2001-02*	2000-01@	2001-02*
1	Gross National Product (GNP)	19,00,310 (8.8)	20,81,350 (9.5)	11,86,246 (4.3)	12,57,043 (6.0)
2	Net National Product (NNP) i.e. National Income	17,02,454 (8.8)	18,64,292 (9.5)	10,50,177 (4.2)	11,15,157 (6.2)
3	Gross Domestic Product (GDP)	19,17,724 (8.8)	20,94,013 (9.2)	11,98,685 (4.4)	12,65,429 (5.6)
4	Net Domestic Product (NDP)	17,19,868 (8.9)	18,76,955 (9.1)	10,62,616 (4.2)	11,23,543 (5.7)
5	Per Capita National Income	16,707 (6.9)	17,978 (7.6)	10,306 (2.4)	10,754 (4.3)

Figures within parentheses indicate percentage change over the previous year.
@: Provisional Estimates * : Quick Estimates
Source: Central Statistical Organization

Table 3.3
Gross Domestic Product at Factor Cost - Percentage Distribution (All India)

Sl. No.	Industry	Percentage Distribution of GDP			
		At Current Prices		At 1993-94 Prices	
		2000-01@	2001-02*	2000-01@	2001-02*
1	Agriculture, Forestry & Fishing	24.9	25.0	23.8	23.9
2	Mining & Quarrying	2.5	2.2	2.3	2.2
3	Manufacturing	15.7	15.3	17.2	16.8
4	Electricity, Gas & Water Supply	2.4	2.4	2.5	2.5
5	Construction	6.1	6.0	5.2	5.1
6	Trade, Hotels & Restaurants	14.2	14.4	14.6	15.1
7	Transport, Storage & Communication	7.3	7.4	8.2	8.4
8	Financing, Insurance, Real Estate & Business Services	12.5	12.8	12.6	12.5
9	Community, Social & Personal Services	14.5	14.6	13.5	13.5
10	Total GDP	100	100	100	100

*@: Provisional, *: Quick Estimate*
Source: Central Statistical Organization

State Income

3.6 State Income i.e. Net State Domestic Product at factor cost at constant prices (1993-94) is estimated at Rs. 36079.75 crore during 2001-02 as against Rs. 34450.65 crore during 2000-01 recording a growth rate of 4.7% compared to the growth rate of 5.3% for 2000-01. At current prices the state Income is estimated at Rs. 69602.12 crore during 2001-02 as against Rs. 63094.12 crore during 2000-01 registering a growth rate of 10.3% compared to 10.8% in 2000-01. (see Table 3.4). The computation of state income does not include remittances from outside the State. If remittances from outside the State were added to SDP, the State Income would have been more than 20% of the present SDP.

Table 3.4
Net State Domestic Product and Per capita Income of Kerala

Sl. No	Item	Year			Growth rate	
		1999-2000	2000-01 (P)	2001-02 (Q)	2000-01 (P)	2001-02 (Q)
1	Net State Domestic Product(Rs.in crore)					
	a) At current prices	56926.04	63094.12	69602.12	10.8	10.3
	b) At constant prices	32716.15	34450.65	36079.75	5.3	4.7
2	Per Capita Income (In Rs.)					
	c) At current prices	17709	19463	21310	9.9	9.5
	d) At constant prices	10178	10627	11046	4.4	3.9

P: Provisional, Q: Quick Estimate
Source: Department of Economics & Statistics.

Sectoral Distribution of State Income

3.7 The contribution from primary, secondary and tertiary sectors to the Net State Domestic Product at constant prices (1993-94) constitutes 24.8%, 19.6% and 55.6% respectively during 2001-02. At current prices, the primary, secondary and tertiary sectors contribute 24.5%, 22% and 53.5% respectively to the Net State Domestic Product during the year 2001-02. The details of sectoral contribution of State Income during the last two years is given in Table 3.5.

Table 3.5
Sectoral Share of Net State Domestic Product at Factor Cost

Sl No	Item	At Current Prices		At Constant Prices ('93-94)	
		2000-01(P)	2001-02 (Q)	2000-01(P)	2001-02(Q)
1	Agriculture, Forestry & Fishing	25.2	24.3	25.1	24.6
2	Mining & Quarrying	0.2	0.2	0.2	0.2
Sub Total: Primary		**25.4**	**24.5**	**25.3**	**24.8**
3	Manufacturing	10.6	10.7	11.3	11.3
4	Electricity, Gas & Water Supply	1.5	1.7	1.7	2.0
5	Construction	9.1	9.6	6.5	6.3
Sub Total: Secondary		**21.2**	**22.0**	**19.5**	**19.6**
6	Transport, Storage & Communication	6.6	6.5	7.7	7.7
7	Trade, Hotels & Restaurants	22.4	22.1	19.9	19.8
8	Banking, Insurance & Real Estate	10.2	10.5	13.0	13.3
9	Public Administration and other Services	14.2	14.4	14.6	14.8
Sub Total: Tertiary		**53.4**	**53.5**	**55.2**	**55.6**
Total - NSDP		**100**	**100**	**100**	**100**

P - Provisional, Q - Quick Estimate
Source: Department of Economics & Statistics

Per Capita State Income

3.8 Per capita Net State Domestic Product at current prices increased from Rs. 19463 in 2000-01 to Rs. 21310 in 2001-02 recording a growth rate of 9.5%. The per capita State income at constant prices (1993-94) is Rs. 11046 in 2001-02 with a growth rate of 3.9%. At the same time the National Per Capita Income at constant prices is Rs.10754 during 2001-02.

District-wise Income

3.9 District-wise distribution of Net State Domestic Product at factor cost at current prices shows that Ernakulam District continues to have the highest income at Rs. 8486 crore in 2001-02 as against Rs. 7659 crore in 2000-01 recording a growth rate of 10.8% over the previous year. Thiruvananthapuram District stands second with an income of Rs. 7423 crore in 2001-02 followed by Thrissur (Rs. 6916 crore), Kozhikode (Rs. 6316 crore), Kollam (Rs. 5650 crore) and Malappuram (Rs. 5324 crore). The lowest District income was recorded in Wayanad (Rs. 1885 crore) in 2001-02 preceded by Kasaragod (Rs. 2620 crore) and Pathanamthitta (Rs. 2657 crore). The District-wise income at current and constant (1993-94) prices is given in Table 3.6.

Table 3.6
District-wise Distribution of Net State Domestic Product

(Rs. Crore)

Sl No	District	Net State Domestic Product at Factor Cost				Growth rate (%)	
		At 1993-94 Prices		At Current Prices		At 1993-94 Prices	At Current prices
		2000-01 (P)	2001-02 (Q)	2000-01 (P)	2001-02 (Q)	2001-02	2001-02
1	TVM	3688.66	3873.52	6709.96	7422.67	5.0	10.6
2	KLM	2789.12	2925.15	5125.49	5650.25	4.9	10.2
3	PTA	1355.12	1421.19	2407.41	2657.11	4.9	10.4
4	ALP	2332.51	2450.04	4256.28	4711.81	5.0	10.7
5	KTM	2331.19	2442.15	4242.39	4668.87	4.8	10.1
6	IDI	1463.93	1529.14	2608.50	2853.71	4.5	9.4
7	EKM	4126.69	4326.60	7658.69	8486.44	4.8	10.8
8	TCR	3415.72	3580.45	6251.11	6915.91	4.8	10.6
9	PKD	2484.03	2600.78	4484.60	4942.51	4.7	10.2
10	MLP	2610.90	2728.39	4833.12	5323.77	4.5	10.2
11	KKD	3063.46	3210.17	5719.38	6316.23	4.8	10.4
12	WYD	960.85	995.81	1738.09	1885.42	3.6	8.5
13	KNR	2526.38	2638.74	4670.30	5146.96	4.4	10.2
14	KSD	1302.09	1357.62	2388.80	2620.46	4.3	9.7
State		**34450.65**	**36079.75**	**63094.12**	**69602.12**	**4.7**	**10.3**

P - Provisional, Q - Quick Estimate
Source: Department of Economics & Statistics

District-wise Per Capita Income

3.10 Among the Districts, Ernakulam stood first with the per capita District income of Rs. 26839 at current prices in 2001-02 as against Rs. 24399 in 2000-01 with a growth rate of 10%. Wayanad has the second largest per capita District income of Rs. 25006 in 2001-02 followed by Idukki (Rs. 23584), Kottayam (Rs.22753), Thrissur (Rs. 22505) and Thiruvananthapuram (Rs.22439). The lowest per capita income was recorded in Malappuram (Rs. 15316) in 2001-02.

3.11 During 2001-02 the highest rate of growth of per capita income was recorded in Ernakulam District with 10% followed by Alappuzha (9.9%), both Thiruvananthapuram and Thrissur (9.8%), Kozhikode (9.6%) and Pathanamthitta (9.5%). Lowest growth rate in per capita income was recorded in Idukki District (8.6%) preceded by Kasaragod (8.9%). The District-wise per capita income with growth rate is given in Table 3.7.

Table 3.7
District-wise Per Capita Income at Current Prices

Sl No	District	2000-01 (P) (Rs.)	Rank	2001-02 (Q) (Rs.)	Rank	Growth rate (%) 2001-02
1	Thiruvanaanthapuram	20439	6	22439	6	9.8
2	Kollam	19111	9	20911	10	9.4
3	Pathanamthitta	18183	12	19918	12	9.5
4	Alappuzha	19086	10	20979	9	9.9
5	Kottayam	20827	4	22753	4	9.2
6	Idukki	21719	3	23584	3	8.6

7	Ernakulam	24399	1	26839	1	10.0
8	Thrissur	20495	5	22505	5	9.8
9	Palakkad	16898	13	18484	13	9.4
10	Malappuram	14009	14	15316	14	9.3
11	Kozhikode	19600	8	21476	8	9.6
12	Wayanad	23236	2	25006	2	7.6
13	Kannur	18622	11	20368	11	9.4
14	Kasaragod	20007	7	21783	7	8.9
	State	19463	-	21310	-	9.5

P - Provisional, Q - Quick Estimate
Source: Department of Economics & Statistics

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

3.12 At the State level, secondary sector recorded the highest rate of growth with 14.6% in 2001-02 followed by tertiary sector with 10.5% and primary sector 6.3%. In Districts, rate of growth of primary sector ranged between 5.2% and 7.3%, secondary sector between 13.3% and 16.8% and tertiary sector between 10.4% and 11.1%. The highest rate of growth of primary sector was recorded in Pathanamthitta District (7.3%) and secondary and tertiary sectors in Idukki District (16.8% and 11.1%). The District-wise and sector-wise details of income and growth rate are presented in Table 3.8.

Table 3.8
District-wise Rate of Growth of Sectoral Income during 2001-02 at current Prices

Sl No	District	Primary		Secondary		Tertiary	
		Income (Rs.crore)	Growth rate (%)	Income (Rs.crore)	Growth rate (%)	Income (Rs.crore)	Growth rate (%)
1	Thiruvananthampuram	1283.65	5.8	1588.72	15.1	4550.30	10.6
2	Kollam	1548.91	6.7	1339.66	14.0	2761.68	10.5
3	Pathanamthitta	868.65	7.3	398.20	15.6	1390.26	10.9
4	Alappuzha	761.43	5.9	1359.90	13.7	2590.48	10.6
5	Kottayam	1112.19	5.2	842.41	15.2	2714.27	10.6
6	Idukki	1591.25	7.1	317.52	16.8	944.94	11.1
7	Ernakulam	1538.21	6.1	2378.82	14.9	4569.41	10.4
8	Thrissur	1230.61	6.5	1796.11	14.1	3889.19	10.4
9	Palakkad	1247.98	6.5	977.16	14.2	2717.37	10.6
10	Malappuram	1413.51	6.5	927.28	14.9	2982.98	10.5
11	Kozhikode	1464.82	6.5	1362.25	15.0	3489.16	10.4
12	Wayanad	967.61	6.0	133.26	15.4	784.55	10.5
13	Kannur	1244.93	6.0	1209.86	14.2	2692.17	10.5
14	Kasaragod	792.63	5.6	655.19	13.3	1172.64	10.6
	State	**17066.38**	**6.3**	**15286.34**	**1 4.6**	**37249.4**	**10.5**

Source: Department of Economics & Statistics

3.13 Sector-wise and district-wise details of State Domestic Product are given in Appendices 3.5 to 3.14.

B. EMPLOYMENT

Unemployment

3.14 The main feature of unemployment in Kerala is that the total number of job seekers in the live registers of employment exchanges is increasing year after year. A close scrutiny of the live registers reveals that youngsters register their names in Employment Exchanges mainly for white collar jobs while they may be engaged in some useful productive work especially in the unorganized sector or might have migrated either to other states or to foreign countries. The Department of Employment conducted verification of the names in live registers of all employment exchanges and removed lapsed registrations with the result that the total number of work seekers in the live registers in the employment exchanges in Kerala decreased significantly.

3.15 According to live registers of employment exchanges in Kerala, the total number of work seekers in 2001 was 44.31 lakh, up from 39 lakh in 1999 and 42.15 lakh in 2000. But it has declined to 39.56 lakh as on September 2002. The peculiarity of this declining trend is that the total number of general work seekers has declined from 42.54 lakh in 2001 to 37.85 lakh in 2002.

3.16 The total number of work seekers below SSLC has sharply decreased from 9.67 lakh in 2001 to 7.75 lakh in 2002. The total number of job seekers who possess SSLC and above decreased from 34.64 lakh in 2001 to 31.81 lakh in 2002. At the same time their percentage share to total work seekers has increased from 78.18 % in 2001 to 80.42% in 2002. This percentage was only 68.04 in 1995.

3.17 The number of graduates who registered in employment exchanges stood at 2.81 lakh in 2001. It has come down to 2.51 lakh in 2002. The number of job seekers with postgraduate degrees decreased from 0.66 lakh in 2001 to 0.56 lakh in 2002 (Appendix 3.16)

3.18 The number of professional and technical job seekers has also decreased. The total number of professional and technical work seekers was 177130 in 2002. This number decreased to 171333 in 2002. But the number of medical and veterinary graduates increased during the period - the number of medical graduate job seekers from 2734 in 2001 to 3575 in 2002 and the number of veterinary graduates from 383 in 2001 to 452 in 2002. The number of Engineering graduates, Diploma holders and I.T.I. certificate holders and agricultural graduates registered in Employment Exchanges came down during 2002. (See Appendix 3.17)

3.19 A significant and peculiar feature of Kerala's unemployment situation is that women outnumber men who seek employment through employment exchanges. This position is reflected in all the districts in Kerala. Total number of women job seekers has also come down from 23.135 lakh in 2000 to 22.26 lakh in 2002.

3.20 Thiruvananthapuram District ranks first in the number of work seekers in general as well as professional categories. In 2002, the total number of work seekers in Thiruvananthapuram District was 5.49 lakh out of which 3.23 lakh were women and 2.26 lakh men. The second largest number of work seekers is from Kollam District. There were 4.38 lakh job seekers in Kollam District in 2002, out of which 2.57 lakh are women and 1.81 lakh are men. The lowest number of work seekers is in Wayanad and Kasaragode Districts. In Wayanad, there are 0.80 lakh work seekers, whereas in Kasargode the number is 0.94 lakhs in 2002.

Unemployment dole

3.21 Government of Kerala introduced an unemployment assistance scheme in 1982. Initially the scheme was introduced for a period of 4 years w.e.f. 12.11.1982. Thereafter the scheme is being extended annually. Under the scheme , unemployed youths remaining in the live registers for over 3 years, (But physically handicapped needs two years) after attaining the age of 18 and have passed SSLC (but the SC/ST & physically handicapped candidates need have only appeared SSLC examination) and having annual family income below Rs.12000/- are eligible for an unemployment assistance of Rs.120/- per month up to the age of 35 from April 2000. During 2000 an amount of Rs. 36.89 crore was disbursed to 346114 beneficiaries. But during 2001 the total amount disbursed decreased to Rs.21.76 crore and the number of beneficiaries had increased to 351685. At present the total number of beneficiaries is 373034 in the State. As per the Kerala Panchayat Raj Act and Municipalities Act 1994 the scheme of unemployment assistance has been transferred to local governments for implementation since June 1998.

3.22 A scheme called KESRU-99 (Kerala State Self Employment Scheme for the Registered Unemployed) has been implemented since March, 1999. All registered and literate unemployed candidates within the age group of 21 to 40 are eligible to apply under the scheme if their annual family income is below Rs. 24,000/-. The loan amount admissible is between Rs. 30,000/- to Rs. 50,000/-. Two or more persons can join together and avail the loan facilities. 20 percent of the loan amount is as subsidy.

Employment in the Organized Sector

3.23 Total Employment in the organized sector grew slightly during 1999, 2000 and 2001. Total number of persons employed in the organized sector during 2000 was 1241355 persons and 1241694 persons in 2001. Out of this 1241355 persons, 643576 persons worked in Public Sector and 597779 persons in Private sector during 2000. During 2001 the total number of persons engaged in public sector was 644906 and in private sector 596788.

Placement through Employment Exchanges

3.24 Placement through Employment Exchanges has been declining since 1999. Total placement through employment exchanges during 1999 was 23419 persons which declined to 17970 in 2000 and 15750 in 2001 and it has sharply declined to 9555 persons in 2002. So also monthly average number of employers using employment exchanges sharply declined from 475 employers in 1998 to 324 in 2001. During January 2002 up to September only 229 employers used the service of employment exchanges in the State.

Migration

3.25 Migration from Kerala to other States in India and to countries outside is common and its impact is felt on every aspect of life in the State. Till 1940's Kerala had a basically non-migrating population.

3.26 According to CDS study on migration entitled as "Kerala's Gulf connections", edited by K.G. Zachariah, K.P. Kannan, S. Irudaya Rajan, the best estimate of the number of emigrants from Kerala was 1.36 million. Between 1988/92 and 1993/97 the number of emigrants increased by 120 percent. Arab Countries of the Middle East were the destination of 95% of the emigrants with Saudi Arabia alone accounting for nearly 40% of the total.

3.27 In terms of emigrants per 100 households, Malappuram was in the lead with a rate of 49; Pathanamthitta came second with a rate of 33. Thrissur, Kozhikode and Palakkad had higher than average migration. The lowest was from Wayanad and Idukki..

3.28 According to a study conducted in 1999 by the Department of Economics & Statistics entitled as "Survey on Activity Status and Rehabilitation of Migrants from Kerala" there are 11.41 lakh Keralites

working in different parts of the world. The migrants constitute about 3.6% of total population of Kerala and 95.6% of the migrants are in Gulf Countries.

3.29 According to this study among the districts the highest number of migrants are from Malappuram followed by Thrissur, Thiruvananthapuram, Kannur, Kozhikode, Alappuzha and the lowest is from Idukki followed by Wayanad District. About 16.9% of migrants are working abroad in Medical/Technical field and 46.7% in Education/Office work and remaining 35.4% are in other categories which include labourers also. About 21.1% went abroad for better employment. Out of 11.41 lakh migrants about 2.21 lakh people (19.4%) received only less than Rs. 5,000/- per month. But more than 50% of the migrants (5.75 lakhs) received monthly income of more than Rs.5,000/- but less than Rs. 10,000/-. About 20.7% of the migrants received an amount of more than Rs. 10,000/- but less than Rs. 20,000/- per month. Only about 0.2% of migrants (2200 persons) received a monthly income of above Rs. 1 lakh. About 27.1% of the migrants utilized their major portion of income to purchase land and construction of buildings. Another 60% of the migrants utilized their earnings for purposes like marriage, education, treatment and others. The study reveals that 5.43 lakh persons have returned to Kerala due to different reasons.

3.30 According to the CDS study the total cash remittances received by Kerala households during a 12 month period in 1998 was Rs. 35,304 million. Cash remittances constituted about 9.3% of the SDP. If the remittances were added to SDP, the per capita SDP would have been Rs. 13,041 instead of the actual Rs. 11,936. The annual remittances received by the Kerala households were 2.55 times higher than what Kerala received from the Central government as budget support. According to the study, by the early 1990's remittances to Kerala economy had assumed a significant share of State Income. This ranged from 17% during 1991-92 and 24% during 1997-98 with an average of 22% for the second half of the 1990's. The large increase in rupee terms is also due to the nearly twice fold depreciation in the value of the rupee vis-a-vis the US dollar from Rs. 17.50 at the beginning of the decade for over Rs. 48 at the end. The state thus benefited significantly from the liberalization of the exchange rate. The study added the remittance income to the SDP and constructed a modified State Income series. As a result Kerala's per capita income not only caught up with the average per capita income for India but started exceeding it reaching 49% above the national average by the end of 1990's. This tallies with per capita consumer expenditure in Kerala, which was in excess of 41% above the national average by the end of 1990's.

3.31 By the nineties savings rates in the Kerala economy seem to have reached such high levels as those comparable to the East and South East Asian countries. By the end of the nineties remittances reached such levels that they were well above the total State Government expenditure. Workers remittances to Kerala (about Rs. 13-14 thousand crores by the turn of the century) constituted as much as 22% of the Net State Domestic Product by 2000. Remittances in 2001 were larger than the annual budget of Kerala for the year 2001-02. In short migration seems to be the single most dynamic factor in the otherwise slow growth and dreary employment scenario of Kerala during the last 25 years.

Placement through ODEPC

3.32 The Overseas Development and Employment Promotion Consultants Ltd. (ODEPC) was incorporated in 1977 with the main objective of promoting employment in foreign countries. So far, the company could deploy only 4153 personnel to various foreign countries like Saudi Arabia, UAE, Qatar, Oman, Bahrain, Kuwait, Libya, Singapore, Malaysia, Brunei, Cyprus etc. During the period 1.4.02 to 30.11.02, 104 persons were deployed, of them 91 to Saudi and 13 to Oman. The number of persons registered with ODEPC during 2001-02 is 1811.

C. POPULATION

Demographic Factors

3.33 Kerala's population as per Census 2001 is 318.39 lakh consisting of 154.69 lakh males and 163.70 lakh females with a decadal growth of 9.42%. Kerala has the lowest population growth rate compared to other States in India. The population of India as per 2001 Census was 102.7 crore (17% of global population) comprising of 53.13 crore males and 49.57 crore females with a decadal growth rate of 21.34%. Kerala's share in the population of India is 3.1%. Of the total population of Kerala, 74% live in rural areas. Projected population of Kerala during 2001-02 is 326.62 lakh while that of India is 103.7 crore.

3.34 An analysis of the decadal growth rate of All India population shows that it increased from the year 1921 to 1981 and since then it started declining. In Kerala the decadal growth rate increased from the year 1941 to 1971 and from 1971 onwards it started declining. The decadal growth rate of Kerala population during 1991-2001 was 9.42 as against the growth rate of 14.32 during 1981-91. The details on All India and Kerala population from 1901 are given in Table 3.9.

Table 3.9
Population and Its Growth from 1901 to 2001

Census Year	All India		Kerala	
	Population (In lakhs)	Decadal Growth Rate	Population (In lakhs)	Decadal Growth Rate
1901	2383.9	-	63.9	-
1911	2520.9	5.75	71.5	11.75
1921	2513.2	-0.31	78.0	9.16
1931	2789.8	11.00	95.1	21.85
1941	3186.6	14.22	110.3	16.04
1951	3610.9	13.31	135.5	22.82
1961	4392.3	21.64	169.0	24.76
1971	5481.6	24.80	213.5	26.69
1981	6833.3	24.66	254.5	19.24
1991	8433.9	23.86	290.9	14.32
2001	10270.2	21.34	318.4	9.42

3.35 Among the Districts in Kerala, Malappuram has the highest population of 36.3 lakh followed by Thiruvananthapuram (32.35 lakh) and Ernakulam (30.98 lakh). Wayanad is the least populated district in Kerala with a population of 7.87 lakh preceded by Idukki (11.29 lakh) and Kasaragod (12.03 lakh). Among the districts, Pathanamthitta had the lowest decadal (1991-2001) growth rate of population of 3.72% and Malappuram the highest decennial growth rate of 17.22%.

3.36 The details of State-wise All India Population and District-wise Kerala population are given in Appendices 3.22 and 3.23.

Population Density

3.37 As per 2001 Census, the density of population for India as a whole is 324 persons per sq. km. where as the density of population for Kerala is 819 persons per sq. km. Among the Indian States, Kerala is in third position in respect of density, the first being occupied by West Bengal and the second by Bihar. In 1881, Kerala's population density was 134 persons per sq. km. During the last 120 years the figure has gone up almost 6 times.

3.38 Among the Districts, Alappuzha has the predominant position with 1489 persons per sq. km. closely followed by Thiruvananthapuram District with 1476 persons per sq. km. Idukki District has the lowest density of 252 persons per sq. km. Eight districts have densities higher than the State average and six Districts lower than the State average.

Sex Ratio

3.39 Kerala has a unique position in regard to sex ratio. In all the Censuses, females outnumbered males in Kerala, which is contrary to All India pattern. The sex-ratio of Kerala has gradually increased from 1004 in 1901 to 1028 in 1951 and then to 1058 in 2001. The 2001 Census reflects that the State of Kerala is the only state in India where sex ratio is above the equality ratio and is a 100 year high with 1058 females per 1000 males. District-wise analysis shows that the highest sex-ratio of 1094 is found in Pathanamthitta District and the lowest in Idukki District with 999 females per 1000 males.

Aged Population

3.40 India has the second largest number of elderly persons after China. There were about 43 million elderly, comprising 6.5% of the population in 1981; 57 million or 6.7% of population in 1991. The Planning Commission had projected the number of elderly to be around 113 million accounting for nearly 9% of the population in 2016. The proportion of elderly to the total population in rural areas is higher than that in urban areas for the Census years 1981 and 1991, while in rural areas it has shown a decline from 7.23% to 7.04%.

3.41 It is a noteworthy feature of Kerala that the aged population (above 60 years) is increasing year after year. During 1961 the aged population constituted only 5.9% of the total population in Kerala. It increased to 6.2% in 1971; 7.5% in 1981. The percentage of aged population to total population of Kerala further increased to 10.6% in 1991 and has estimated to reach about 15% in 2001.

3.42 In Kerala the highest percentage of old age population is in Alappuzha followed by Ernakulam, Kottayam, Thrissur and Thiruvananthapuram. The lowest is in Kozhikode and Wayanad Districts.

3.43 The relatively higher proportion of elderly persons in the population has several implications in relation to health needs, work participation rate, dependency rate and pension requirements.

Birth, Death and Infant Mortality Rate

3.44 Kerala's Birth, Death and Infant mortality rates are 17.9, 6.4 and 14 respectively. Kerala's Natural growth rate of population is 11.4 during 2000 and life expectancy for male is 69.1 and for female 76.1 according to data available in 1998.

Box 3.1

1. *India possess 12th place in 2000 and 11th in 2001 among the whole nations in the world in the case of growth rate of GDP.*
2. *If remittances from abroad were added to SDP the per capita income of Kerala would have been more than 50% of the national average.*
3. *Total no. of main workers in Kerala as per 2001 Census is 82.367 lakhs which is 2.6% of All India level.*
4. *Total no. of work seekers below SSLC has sharply decreased from 9.67 lakhs in 2001 to 7.75 lakhs in 2002.*
5. *Many of the elderly in Kerala have a high degree of economic security. While about 30% of the elderly (about 1 million) earn their living, the balance 70% (about 2.4 million persons) depend on their children or other relatives or charity for survival.*
6. *Migration has increased loneliness of the elderly by 50%. Had there been no emigration or out migration, the number of elderly without any younger person living with them would have been only about 155 thousand instead of the actual of 231 thousand.*

Chapter 4

AGRICULTURE AND IRRIGATION

Introduction

Agriculture in the State now is in an unprecedented crisis. The growth rate in agriculture has decelerated during the late nineties. The marginalisation of agricultural holdings due to extreme sub division and fragmentation; and the decreasing trend in family participation in the farm operations with resultant increase in production costs and dominance of perennial crops make the Kerala agriculture more vulnerable. Being the major cash crop producing State in the country, Kerala is perhaps the most affected by agriculture related trade policies adopted by the Government of India . The removal of QRs on imports has several adverse implications for the sustainability of cash crops of Kerala. Although the Agreement on Agriculture (AoA) under the World Trade Organisation provides opportunities for protecting the domestic trade and vulnerable sections of the community through appropriate import tariffs, this aspect has not been given due consideration. Liberalisation of imports does not mean that the country should resort to indiscriminate import of agricultural commodities and low quality products at reduced rates much below the domestic prices. It was with the intention of pre-empting such consequences that the permissible limits of import duties for agricultural commodities have been fixed at high levels. Unfortunately there was no effort whatsoever in this direction at the national level thereby permitting large scale imports of important commodities at lower tariff rates where small and marginal farmers predominate.

4.2 The Agreement on Agriculture (AoA) which forms part of the final act of Uruguay Round of Multilateral Negotiations contains provisions in three broad areas (BOX 4.1).The Agreement on Agriculture (AoA) under WTO aimed at promoting trade by reducing level of protection and by removing various kinds of trade barriers and distortions resulting from domestic policies. It was anticipated that implementation of the new agreement would benefit developing countries like India. Thus global liberalization of agricultural trade was seen as a great opportunity for promoting agricultural exports. Contrary to expectations, the price situation changed dramatically after 1996, which was the first year after implementation of the agreement and international prices of agricultural commodities since then have plummeted. Cheap imports are hitting India's markets.

4.3 Long run series of international prices show cyclical movements. The prices have a tendency to rise for 4-5 years and thereafter decline for about same number of years. Such behavior implies that low level of international prices could largely be a part of their cyclical behavior. International prices of agricultural commodities are characterized by high volatility, which is the crucial factor for the trade policy and strategy. An appropriate and suitably strengthened mechanism in the state needs to be put in urgently to facilitate Trade Policy formulation in the dynamic context.

4.4 In order to assist the State Government in managing the crisis arising from the paradigm shift in the global farm trade regime brought about by AoA, a Commission on WTO concerns in Agriculture was set up by the Government on 31st July 2001, under the Chairmanship of Prof. M.S.Swaminathan. The major recommendations of the Commission are shown in Box 4.2. The Report offers suggestions for the consideration of the Government of India, based on the UN Millennium Goals for Poverty Eradication, as well as on the principle that the trade should strengthen and not erode the livelihoods of small farmers and farm and plantation labour. That farming constitutes the backbone of the livelihood security system of predominantly agricultural and rural economies should be recognised in the re-negotiated AoA.

BOX – 4.1
AGREEMENT ON AGRICULTURE (AoA) UNDER WORLD TRADE ORGANISATION

The key components of Agreement on Agriculture (AoA) under WTO include improved market access for trading agricultural commodities in member countries and reduction in domestic support given to agriculture in the member countries and reduction in export subsidies

1. MARKET ACCESS

The agreement envisages tariffication of all non-tariff barriers. This includes tariffication, tariff reduction and access opportunities. Non-tariff barriers such as quantitative restrictions are to be replaced by an equivalent tariff. The average reduction of tariff would be 36 per cent for developed countries with a minimum rate of reduction of 15 per cent for each tariff item over a six-year period (1995-2000) with base 1986-88. Developing countries are required to reduce tariff by 24 per cent with a minimum cut of 10 per cent for tariff items in 1995-2004. A minimum access equal to three per cent of domestic consumption in 1986-88 will have to be established for the year 1995 rising to five per cent at the end of the implementation period.

2. DOMESTIC SUPPORT

This envisages the reduction commitments of subsidies provided to domestic producers. It stipulates that the total support given in 1986-88 measured by the Total Aggregate Measure of Support (AMS) should be reduced by 20 per cent in developed countries and 13.3 per cent in developing countries. It is also stipulated that if domestic support is less than 5 per cent of the total value of production in developed countries and less than 10 per cent in developing countries, these countries are excluded from any reduction commitments. The domestic support is further classified into five categories. (a) Aggregate Measure of Support (AMS) which includes product specific and non-product specific support (b) green box support (c) blue box support (d) de-minimus support and (e) special and differential (S&D) treatment box support.

3. EXPORT COMPETITION

Developed countries are required to reduce their export subsidy expenditure by 36 per cent and volume by 21 per cent in six years in equal installments (from 1986-1990 levels) during 1995-2000. The percentage reductions are 24 and 14 per cent respectively in equal annual installments over 10 years for developing countries (1995-2004).

4.5 Domestic products may have to compete with cheaper imports due to increasing liberalisation of import regulations. More on Agriculture suffers from low productivity of crops and poor quality of products. Quality standards have several dimensions like adherence to global environmental and health standards and proper certification. A thorough review of adequacy of institutional arrangements in quality control, certification and trading in the agriculture sector should be a state priority to take advantage of global opportunities particularly in spices, marine products, horticulture products and medicinal plants. Greater awareness on quality consciousness among the farmers through appropriate extension support, improved post harvest technology and infrastructure support could help increase agricultural exports from the state.

4.9 It is now a fact that further growth in the agriculture could be achieved mainly through increase in productivity which is possible through accelerated development and dissemination of improved technologies. Since most of the cutting edge technologies are knowledge intensive, new institutions and organisations are needed for their development, management and use.

Farming System

4.10 The major strength of the mixed cropping pattern traditionally followed in Kerala was the high degree of resilience for meeting the adverse conditions emerging from the loss in revenue as a result of the fall in prices of agricultural commodities. Fluctuations in the prices of agricultural commodities normally do not adversely affect a cross section of the commodities concurrently and the mixed cropping system thus acts as a cushion for absorbing the shock through cross subsidisation, especially across the economy. However, the extent of coverage under mixed cropping system is quite low in the state. Eventhough this strategy was advocated for the last 15 years, the adoption rate as well as success stories reported are far from the potential. Instead a system of monoculture got prominence in the crop production sector. Perhaps favourable factor price ratio and institutional support for monoculture might have led to the situation.

4.11 Coconut based cropping system involving cultivation of compatible crops in the interspaces of coconut and integration with other enterprises like dairying, offer scope for improvement in income and more efficient utilisation of resources like sunlight, soil and labour. Coconut based multiple cropping system is being practised in Kerala, from the time immemorial in a scattered manner.

4.12 Diversification of agriculture needs to encompass subsidiary farm activities such as apiculture, dairying and poultry and appropriate marketing strategies need to be designed to make these products internationally competitive.

4.13 The results of the trials in CPCRI indicate the feasibility of several crop combinations in coconut gardens. A number of studies on coconut based inter/mixed crops and mixed farming have been done in India, Indonesia, Philippines and Sri Lanka. (BOX-4.4)

BOX: 4.4
Coconut based farming system
Practised in South East Asia

- *In the coconut based high density multi species cropping system experiment at CPCRI, Kasaragod maximum per palm coconut yield was obtained with 2/3rd recommended dose of fertilizer. The coconut yield ranged from 128 nuts/palm/year under control experiment to 162 nuts/palm/year at 2/3rd of the recommend fertilizer dose, and net income was also the highest with 2/3rd of recommended fertilizer dose.*

- *High density multi species system for higher income generation have been designed and planted in Sri Lanka for lower elevation with 13 crop species such as jack, bread fruit, avacado, mango, coconut, nutmeg, clove, papaya, arecanut, lime, banana, pepper and coffee (robusta) and for high elevation with coffee, pepper , coconut and other crops. Models for homesteads with crops having different root and canopy architecture was specified.*

- *Experiments conducted in Indonesia in coconut based farming system showed that a farming system with clove and ginger as intercrops gave the highest income followed by the combination of coconut, clove and coffee; and coconut, clove, coffee and*

ginger.

- *Coconut-cocoa is a common mixed cropping in Papua New Guniea.*
- *Coffee, cocoa, pepper, mangosteen and jack are grown with coconut in Thailand. Cattle rearing is also integrated.*
- *Colocassia, tapioca, cocoa, coffee ,vanilla, cattle, and goat rearing are integrated with coconut in Fiji.*
- *Maximum nuts yield per hectare was obtained in experiments with coconut and cinnamon followed by coconut and coffee and coconut and cocoa in Sri Lanka.*
- *Cocoa, robusta coffee and black pepper are integrated in coconut holdings in Vietnam.*

4.14 Perennial crops like coconut which occupy the land solely and continuously for several decades neither result in realisation of the full potential of the land nor in protecting the sustainability of the land (because of depletion of certain nutrients). More focused attention is needed to promote multi species cropping system not only as an income security strategy in combination with supplementary enterprises but also to optimise biophysical and socio economic resource use. This strategy is more urgent now in the post-WTO context of reduced protection.

Tenth Plan Strategies for Agriculture and Allied Sectors

4.15 The National Agricultural Policy (2000) envisages a growth rate exceeding 4 per cent per annum in agriculture sector. The Tenth Plan also targets a 4 per cent growth rate in the agriculture sector. The regionally differentiated strategy based on agro climatic conditions and natural resources will be continued during the Tenth Plan and the agricultural growth projected for Kerala is 3.05 per cent to realize a national growth rate of 4 per cent in agriculture. The agricultural growth of this order is expected to put the other sectors also on a higher trajectory of growth. The thrust areas in Tenth Five Year Plan for the agriculture and allied sectors are shown in BOX.-4.5

BOX-4.5
Major Thrust areas in Tenth Plan for agriculture and allied sectors

- *Promotion of Farming Systems approach.*
- *Watershed approach for natural resource management.*
- *Strengthening of marketing, processing and value addition.*
- *Revamping and modernisation of agricultural extension.*
- *Strengthening quality assurance system.*
- *Agro ecological zone specific strategies for agricultural growth*
- *Promotion of private participation.*
- *Promotion of Horticulture.*
- *Functional integration of Land Use Board, Soil Survey and Soil Conservation.*
- *Functional integration of agencies in Horticulture sub sector.*
- *Strengthening quality of Veterinary services.*
- *Animal health care.*
- *Promotion of fodder production.*
- *Promotion of micro enterprises.*

- *Development of inland fisheries.*
- *Integrated approach for sustainable development of fisheries and aquaculture.*
- *Participatory forest management.*
- *Promotion of homestead forestry.*

Investments in agriculture

4.16 There is a decline in public sector capital expenditure for agriculture in all the States. The highest decline is observed in resources allocated by Government of India for agricultural infrastructure. The decline is not confined to investment in irrigation projects and it is rather sharper in other heads of agricultural development. This declining trend in public sector agricultural investment should be reversed by increasing allocation to check the adverse impact on agricultural output. As the public investment is meant for infrastructure development and to augment productive capacity, the level of public investment is crucial for long term growth of output.

4.17 In a recent study conducted by National Centre for Agricultural Economics and Policy Research, plan wise public investment in agriculture was quantified and analysed the relationship between public and private investment. The private fixed capital formation in agriculture was the highest in Kerala and it was Rs. 257 per hectare of net sown area at 1980-81 prices during 1991-92. The salient findings of the study are shown in BOX.-4.6

BOX- 4.6
Salient findings of State wise analysis on investment in Agriculture

- *The CSO series on Public investment termed as investment in agriculture includes investment mainly under medium and major irrigation systems. The series does not include investment in rural roads, markets, godown, storage, rural electrification etc. which are investment for agriculture. In this study a new series was constructed referred to as broad series which includes all major item of investment related to the sector and constructed state wise series from 1974-75 to 1996-97. The study found that CSO series excludes 52 percent of public sector expenditure meant for capital formation in agriculture.*

- *Investment in major and medium irrigation projects continued as the dominant item of capital expenditure on agriculture. Annual expenditure under this head at 1980-81 prices was around Rs. 1350 crores during the Fifth Plan which declined to Rs. 989 crores during Eighth Plan period. Food, Storage, Warehousing and agriculture markets remained the second most important item of Public investment for agriculture. Crop husbandry was the third important item of capital expenditure during 1974-75 to 1978-79 with about 15 per cent share in total capital expenditure on agriculture and its importance started diminishing subsequently. It declined from Rs. 668 crores during Fifth Plan to Rs. 24 crores in Eighth Plan period at 1980-81 prices. The combined capital expenditure on hill and north east areas and other special area programmes have been steadily increasing despite the decline in the overall capital expenditure on agriculture.*

- *Among the major states, capital expenditure on agriculture remained highest in Jammu & Kashmir, about 4-5 times the national average from 1974-75 to 1996-97. The Annual average for 27 years was Rs. 1242 per ha of net sown area at 1980-81 prices. It was Rs. 295 per ha. of NSA for Kerala with an all India average of Rs. 239 per ha. of NSA. Punjab turned out to be the second highest state with an annual outlay of Rs. 616,. Rajasthan, Madhya Pradesh and Tamil Nadu invested less than Rs. 100 per hectare during the past two decades.*

- *In Kerala capital expenditure per hectare of net sown area at 1980-81 prices declined from Rs. 362 during Fifth plan period to Rs. 229 during Seventh Plan period which increased to Rs. 282 in Eighth Plan period.*

- *State wise Private fixed capital formation was estimated for 1981-82 and 1991-92 at constant prices. it was highest for Punjab in 1981-82 with Rs. 262 per ha. of NSA followed by Kerala with Rs. 210 per ha. of NSA. In 1991-92 it was highest for Kerala with Rs. 257 per ha of NSA followed by Tamil Nadu (Rs. 245). Punjab became eighth with Rs. 173 per ha of NSA in 1991-92. All India average for 1991-92 was Rs. 126 per ha of NSA.*

- *During 1981-82, both public sector investments in agriculture and institutional term loans to the farmers exerted positive and significant impact on private sector capital formation in agriculture. However, during 1991-92 public sector capital expenditure ceased to cause significant influence on private sector capital formation.*

Agricultural Income

4.18 The trends in agricultural income in Kerala during the last nine years is shown in Table-4.1. Eventhough the sector has recorded positive trend in growth performance in nineties, it has not been consistent. During the last four years, the annual rate of growth was around 1.75 per cent. Food crops in general have suffered a set back in area and production despite a sizeable investment. On the other hand, perennial cash crops in general and coconut and rubber in particular recorded expansion in area.

Table 4.1
Growth of Agricultural Income in Kerala
(at 1993-94 prices)

Sl. No.	*Year*	** Agricultural Income (Rs. in crore)*	*Rate of change over previous year (%)*	*Percentage contribution to State income*
1	*2*	*3*	*4*	*5*
1.	1993-94	6256	-	26.23
2.	1994-95	6897	10.25	26.62
3.	1995-96	6947	0.72	25.78
4.	1996-97	7115	2.42	25.39
5.	1997-98	6777	- 4.75	23.67
6.	1998-99	6900	1.81	22.52
7	1999-00	7017	1.70	21.45
8	2000-01	7140	1.75	20.73
9	2001-02	7264	1.74	20.13

** Includes Livestock subsector*
Source: Directorate of Economics and Statistics

Rainfall

4.19 Rainfall was only 2515 mm in 2002, indicating a deviation of 14 per cent from the normal.. Highest deviation from normal was recorded in July and shortage of South West Monsoon was to the extent of 33 per cent from the normal (Table-4.2). Highest departure from the normal in the last two decades was recorded during the South West Monsoon of 2002. This has adversely affected the crop production prospects of the state. However North East Monsoon was above normal (32%). The

deviation in rainfall, apart from affecting production and productivity of annual crops, it may affect the productivity of perennial crops such as coconut, rubber and pepper in the long run. Spatial pattern of rainfall and related data are shown in Appendix 4.3, 4.4. and 4.5. Maximum deviation from the normal was observed in Wayanad (-44%) followed by Thiruvananthapuram (-23%) during 2002.

Table 4.2
Percentage Departure of Rainfall from Normal
(1990 to 2002)

Sl.No.	*Year*	*Annual*	*South West Monsoon*	*North East Monsoon*
(1)	(2)	(3)	(4)	(5)
1.	1990	-28	-25	-4
2.	1991	-39	18	-21
3.	1992	-37	15	35
4.	1993	-08	-12	32
5.	1994	11	15	13
6.	1995	-06	-6	-22
7.	1996	-13	-8	2
8.	1997	3	6	31
9.	1998	0	2	30
10	1999	-8	-25	23
11	2000	-21	-18	-27
12	2001	- 6	- 13	0
13	2002	- 14	- 33	32

Source: Meteorological Centre, Thiruvananthapuram.

Land Use

4.20 Data on land use pattern of Kerala for the year 2000-01 is given in table 4.3. Out of a total geographical area of 38.85 lakh ha. net sown area is about 56 per cent. Forest occupies around 28 per cent. Agriculture and forest sectors together account for over 84 per cent of the land area (see Fig. 4.1). In view of the high density of population, the pressure for non-agricultural uses is increasing. Land under non-agricultural uses was 9.10 percent in 1999-2000 and has increased to 10.10 per cent in 2001-02. There was no perceptible improvement in the extent of land use for agriculture. In fact, net cropped area has declined from 22.06 lakh ha. to 21.91lakh ha. and the cropping intensity has not improved between 2000-01 and 2001-02. There was an increase in the area under current fallows (1417ha) and fallow other than current fallow (343ha). The area under cultivable waste also increased by 4514 ha and barren and uncultivated land by 410 ha.

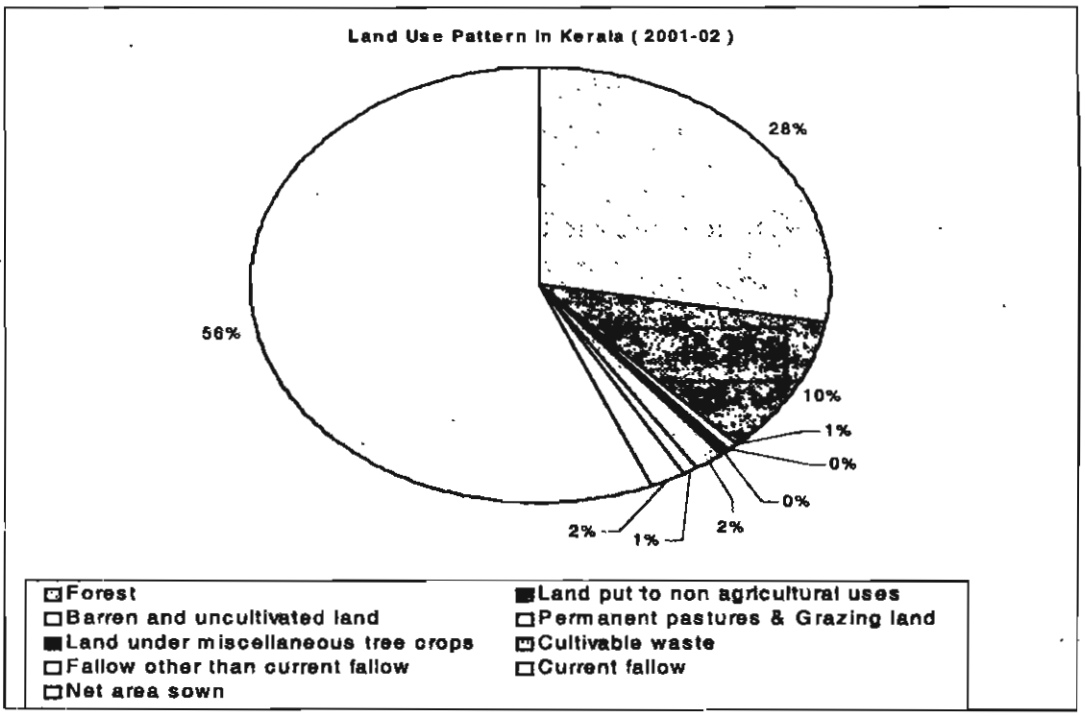
Table 4.3
Land Use Pattern in Kerala

(ha)

Sl. No.	Classification of Land	1999-00	2000-01	2001-02		Change in Area between 2000-01 & 2001-02	
				Actual	% of Geo. Area	Actual	%
1	Total Geographical Area	3885497	3885497	3885497			
2	Forest	1081509	1081509	1081509	27.83	0	0
3	Land put to non agricultural uses	354390	381873	392352	10.10	10479	2.7
4	Barren and uncultivated land	28884	29318	29728	0.77	410	1.4
5	Permanent pastures & Grazing land	253	164	233	0.01	69	42.1
6	Land under miscellaneous tree crops	18515	15409	13613	0.35	-1796	-11.7
7	Cultivable waste	58297	59257	63771	1.64	4514	7.6
8	Fallow other than current fallow	32138	33988	34331	0.88	343	1.0
9	Current fallow	72166	77853	79270	2.04	1417	1.8
10	Net area sown	2239363	2206126	2190690	56.38	-15436	-0.7
11	Area sown more than once	762341	815556	801562		-13994	-1.7
12	Total cropped area	3001704	3021682	2992252		-29430	-1.0
13	Cropping intensity	134	137	137			

Source: Directorate of Economics & Statistics

Fig 4.1



Trend in area, Production and Productivity of Crops

4.21 Data regarding the area, production and productivity of important crops grown in Kerala are shown in Tables - 4.4 and Appendix 4.6. Out of a gross cropped area of 29.92 lakh.ha. in 2001-02, food crops comprising rice, pulses, minor millets and tapioca occupy only15%. Kerala state which had a low base in food production is facing serious challenges in retaining even this meagre area. Kerala agricultural economy is undergoing structural transformation from the mid seventies by switching over a large proportion of its traditional area which were devoted to subsistence crops like rice and tapioca to more remunerative crops like coconut and rubber. The trend in area under various crops during 2001-02 reveals that the urge for replacing seasonal and annual crops by perennial crops like rubber, coconut is not persisting.

4.22 The area under rice has come down from 3.47 lakh ha. in 2000-01 to 3.22 lakh ha. in 2001-02. In the case of tapioca also the area has declined from 1.15 lakh ha. to 1.11 lakh ha during this period. The area under commercial crops in general and rubber in particular has increased considerably during the last two decades. The trend seems to have slowed down in late nineties. During 2001-02 the rate of increase in area under rubber declined and the absolute increase was only 675 ha. compared to previous year. The low price of rubber that prevailed during the last four years might have influenced the slow rate of area expansion.

4.23 In the case of coconut area was at its peak during 2000-01. During the year 2001-02 area declined by 20065 ha. from the previous year. The low price of coconut coupled with the widespread incidence of mandari pest might have influenced the decline in area. Other major commercial crops which had recorded expansion of area during 2001-02 from previous year include arecanut (5833 ha), coffee (60 ha), tea (52 ha), cardamom (48 ha) banana and plantain (6642 ha) and pepper (1823 ha). The major crops with considerable loss in area apart from coconut include cashew (2404 ha), ginger (906 ha) and turmeric (569 ha).

4.24 With respect to productivity, the tendency of different categories of crops is just the opposite of the trend in respect of area coverage. The major crops with positive growth in productivity levels are coconut (70 nuts/ha), cashew (16 kg), banana (111 kg), cardamom (19 kg) and ginger (76 kg), and rice (20 kg) . The productivity declined in respect of pepper (-16 kg), plantain (-302kg), arecanut (-98 kg), coffee (-46 kg) and tea (-85 kg). The productivity is stagnant for rubber during 2001-02.

4.25 Crops which have failed to sustain the production level of 2000-01 as in the previous year include rice (-47824 t), pepper (-2689 t), ginger (-2518 t), arecanut (-3266 t), tapioca (-131023 t), plantain (-10513 t), coffee (-3860 t), coconut (-57 m. nuts), cashew (-311 t) and tea (-3042 t). Increase in production reported during this period include cardamom (800 t), banana (47948 t), and rubber (484t).

Table 4.4

Area, Production and Productivity of Principal Crops

Sl. No	Crops	Area (ha)		Production (tons)		Productivity (kg/ha)	
		2000-01	2001-02	2000-01	2001-02	2000-01	2001-02
1	Rice	347455	322368	751328	703504	2162	2182
2	Pulses	6986	2902	5472	6281	783	2164
3	Pepper	202133	203956	60929	58240	301	286
4	Ginger	11612	10706	42699	40181	3677	3753
5	Turmeric	4127	3558	9037	7895	2190	2219
6	Cardamom	41288	41336	7580	8380	184	203

7	Arecanut	87360	93193	87947	84681	1007	909
8	Banana	45059	50871	327955	375903	7278	7389
9	Other Plantains	54353	55183	403695	393182	7427	7125
10	Cashewnut	92122	89718	66178	65867	718	734
11	Tapioca	114609	111189	2586903	2455880	22572	22087
12	Coconut *	925783	905718	5536	5479	5980	6049
13	Coffee	84735	84795	70550	66690	832	786
14	Tea	36847	36899	69132	66090	1876	1791
15	Rubber	474364	475039	579866	580350	1222	1222

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

Source : Directorate of Economics and Statistics

Crop Wise Analysis

Rice

4.26 The average annual decline in area under rice during the Eighth Five year Plan was around 22000 ha, whereas it has come down to an average of 13000 ha. during the Ninth Plan period. During 2001-02, the reduction was to the tune of 25000 ha. and rice production declined from 7.51 lakh tonnes to 7.04 lakh tonnes from the previous year. The average productivity was stagnant at around 2.2 tonnes/ha.(Table-4.5)

4.27 The area and production of rice which was steadily increasing till the mid seventies had to succumb to economic pressure emanating from other remunerative crops like banana and coconut which resulted in the decline of more than 4 lakh ha of area under paddy cultivation during the last two decades. Rice production touched its peak level of around 14 lakh tonnes in mid seventies with a coverage of 8.81 lakh ha.

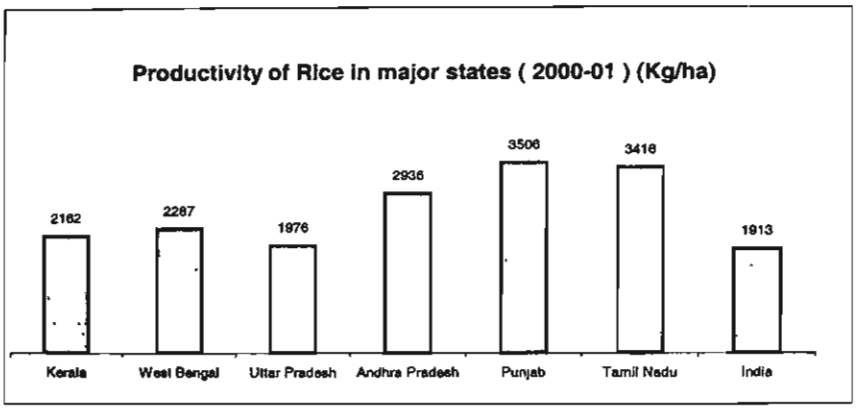
4.28 Rice productivity at current level is sub optimal. Although the average productivity is higher than the national average of 1913 kg/ha, it is lower than the levels achieved by the major rice producing states of Punjab, West Bengal and Tamil Nadu (Fig 4.2). The future of rice production in the state lies in improving the productivity through promotion of high yielding varieties under scientific management. The consistent failure of the crop to rise to the expectations has raised series of questions about the policy to sustain rice production at any cost. The enormous increase in the prices of fertilizers and wages and non-availability of labour in peak seasons in certain locations, the failure of the irrigation system to service the areas to the extent desired etc. are problems to be tackled to sustain this crop. Strengthening of the group farming samithies with the required facilities and gradually raising them to the level of self supporting institutions is perhaps one way to circumvent these problems. However past experience with the group farming programme suggests that neither input subsidies nor infrastructure support *per se* can bring about substantial change in area and production. Instead of pumping in more money by way of additional incentives, appropriate institutional arrangements for organising common services coupled with participatory irrigation management and selective mechanisation could improve the situation. Applied research on emerging technologies are also equally important. The recommendations of the Expert Committee appointed by Government to examine the scope of augmenting rice production, needs to be considered especially for implementation in the dominant rice producing blocks of 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
1992-93	537	41775	1085	72867	2018	1740
1993-94	507	42539	1004	80298	1977	1890
1994-95	503	42814	975	81814	1937	1910
1995-96	471	42837	953	76975	2023	1800
1996-97	431	43433	871	81737	2023	1882
1997-98	387	43446	765	82535	1975	1900
1998-99	353	44598	727	85995	2061	1930
1999-00	350	44972	771	89680	2203	1994
2000-01	347	44361	751	84871	2162	1913
2001-02	322	NA	704	NA	2182	NA

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

Fig 4.2



Season wise performance

4.29 Season wise data on the performance of rice during the last three years is shown in Appendix 4.8 Data shows decline in area in all three seasons with relatively less reduction in Mundakan season. There was 10 per cent reduction in area during Virippu season in 2001-02 compared to previous year and 21 per cent reduction in Punja season. Area under Virippu is gradually shrinking and about 45000 ha out of double cropped land are remaining fallow during Virippu season. Group farming samithies should concentrate their efforts in such areas with a view to bringing such areas under double cropping. Mundakan season account for highest share in production with 52 per cent followed by 33 per cent in Virippu and 15 percent in Punja season. However productivity recorded in Punja is the highest with 2395 kg. per ha. which was 14 per cent lower than 2000-01. All these disturbing issues substantiate the view that rice cultivation in Kerala has not yet acquired the required resilience.

High Yielding Varieties

4.30 The coverage of high yielding variety is given season wise in Appendix.4.9 Inspite of sharp decline in the area under rice, the coverage under high yielding varieties remains steady and is increasing. The coverage which was stagnating in the range of 1.65 to 1.75 lakh ha during the last decade, has registered marked improvement for the last three years. However after a consistent increase in HYV area, from 1.69 lakh ha in 1997-98 to 2.27 lakh . ha in 2000-01, it declined slightly to 2.22 lakh ha. in 2001-02. Maximum high yielding variety coverage was in Punja season with 93 percent area under HYV followed by Virippu (68%) Mundakan (63%)and overall coverage was 69 percent. The average productivity of high yielding varieties during 2000-01 was 2327 kg/ha. This implies that the high yielding varieties are not receiving the needed attention and scientific management for securing optimal productivity as there still exists a wide gap between potential yields as established in experimental farms and those actually realised under field condition.

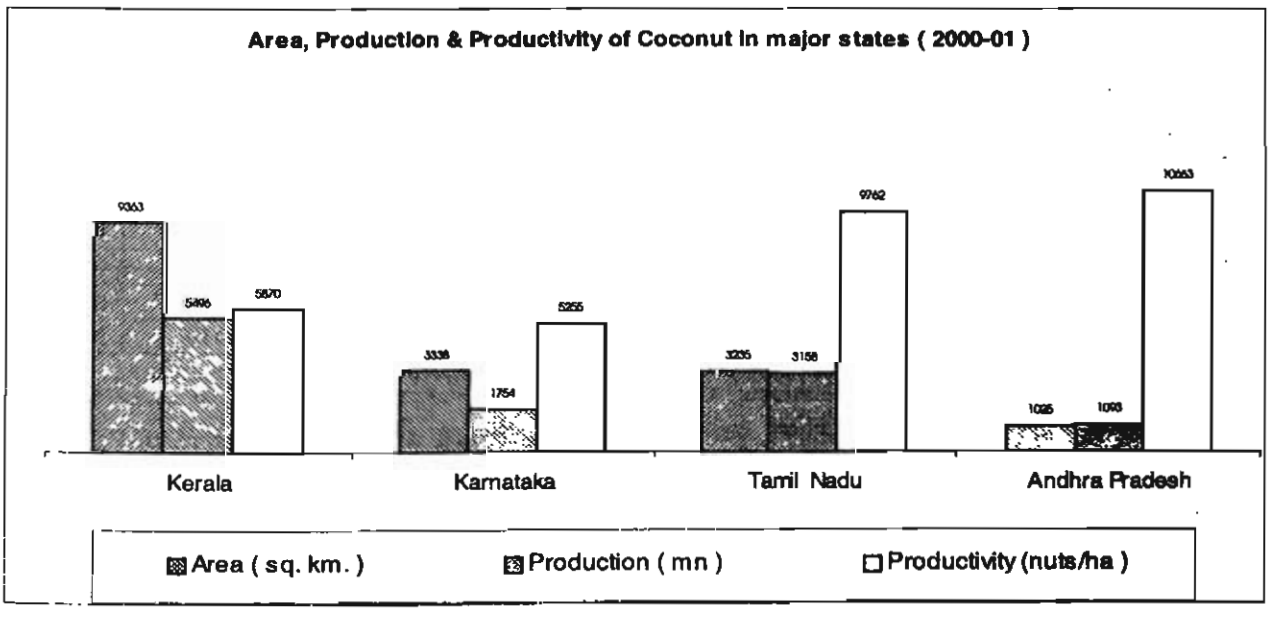
4.31 Eventhough Mundakan season accounts for the largest share in coverage of area under rice its share in high yielding varieties is lower compared to Virippu season.. This is mainly because of inadequate research support to evolve varieties with multiple disease resistance suitable for cultivation in different localities in Kerala during Mundakan season.

Coconut

432 Kerala's share in area as well as production of coconut in the country is declining over a period. The share of area declined from 56% in 1991-92 to 50 % in 2000-01 with a corresponding decline in share of production from 46% to 44%. While share of area in Karnataka and Tamil Nadu together increased from 29% in 1992-93 to 36% in 2000-01.

4.33 With a coverage of 9 lakh ha, coconut occupies 41 per cent of the net cropped area and provides livelihood for over 3.5 million families in Kerala. Area as well as production declined by 2.2 percent and 1 percent respectively in 2001-02 compared to the previous year. The widespread attack of mandari pest could perhaps be the factor responsible for the decline in production. It is noteworthy that the average productivity has improved slightly in 2001-02 by 1.16 per cent to 6049 nuts/ha compared to 2000-01. (Table 4.6) However, the productivity levels in Kerala are lower than other major producing states (Fig 4.3)

Fig 4.3



4.34 Coconut has been facing a severe crisis in view of the sharp decline in prices during the last year. The average price of coconut which was Rs. 4.80 a nut during 1999-2000 has fallen sharply and the average farm price declined to as low as Rs. 2.81 a nut during the year 2000-01. However it improved to Rs.3.41 in 2001-02. The minimum support price announced by Government of India for the period and the market intervention operation supported by Government of India had very little impact on the price of copra and coconut oil.

4.35 The volume of copra procured at the all India level during 2000 was the largest ever. In Kerala and Tamil Nadu, about 15 percent of the estimated production was procured. Neverthless, the price of copra in the open markets continued to be quoted at below the MSP level all through the season. Although the low and declining prices of both copra and coconuts is attributable mainly to the low and declining price of edible oil in general and coconut oil in particular and coupled with large scale imports of many varieties of refined as well as crude edible oils which are cheap substitutes.

4.36 The International coconut oil price (Philippines) declined from $ 737.08 per tonne in 1999 to $ 318.08 in 2001 which recovered slightly to $421.00 in 2002. The international price of palm oil reached a peak in 1998 with $671.08 per tonne; it declined to $ 285.67 in 2001, and improved to $ 390.25 in 2002. The recovery of international prices of oils seems to have a positive effect on the domestic price of coconut also. The price of coconut has started increasing towards the end of 2002.

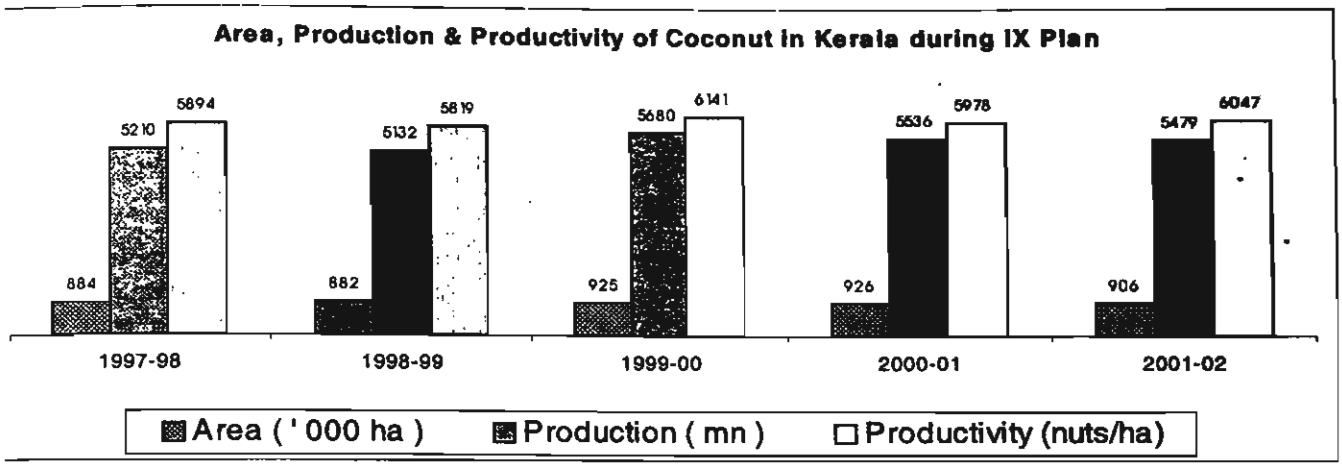
4.37 It should be recognised that mere diversification and value addition will not make the Indian coconut economy internationally competitive, unless the cost of production of coconut is contained and brought down in real terms over time. For this the primary task is to raise the yield of coconuts.

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	911	1714	5336	13300	5858	7760
1995-96	914	1833	5155	12952	5638	7066
1996-97	902	1891	5276	13061	5849	6908
1997-98	884	1898	5210	13096	5891	6902
1998-99	882	1755	5132	12536	5817	7145
1999-00	925	1768	5680	12129	6140	6860
2000-01	926	1840	5536	12597	5980	6847
2001-02	906	NA	5479	NA	6049	NA

Source: Directorate of Economics and Statistics, CMIE.

Fig 4.4



Pepper

4.38 India is the largest producer of pepper in the world with 20 per cent in world share of production followed by Indonesia with 19 per cent and Vietnam with 15 per cent in 2001. While in 1991, Vietnam was in seventh position with a share of just 3.8 per cent of world production. There is concurrent increase in area, production and productivity in Vietnam over the period and productivity in Vietnam is around 1.3 tonnes/ha.

4.39 The state continues to enjoy a near monopoly in area and production of pepper, accounting for 95 per cent each in area and production in the country. The crop productivity achieved its peak level of 376 kg. per ha during 1998-99. The productivity of pepper recorded during 2001-02 was only 286 kg, per ha. and its production declined from 60929 tonnes during 2000-01 to 58240 tonnes. At the same time, pepper is one crop which has improved its area coverage substantially. Pepper produced in Kerala fetches a premium price in international market in view of its intrinsic quality. However consequent to the liberalisation of imports, there are reports of low quality pepper arriving from other producing countries.

4.40 India could export 42803 tonnes of pepper in 1999-2000 which declined to 19250 tonnes in 2000-01 and slightly improved to 24000 tonnes in 2001-02.

BOX -4.7
EXPORT COMPETITIVENESS OF PEPPER

- *Price realised for export from various countries varied in a narrow range from 1991-92 to 1999-2000*
- *Domestic prices of black pepper were only slightly lower than the export price.,*
- *The Nominal Protection coefficient (NPC) during 1997-98 was even greater than 1. From 1992-93 to 1999-2000, NPC varied from 0.86 to 0.94.This indicates that exporters of black pepper are operating at a low margin.*

4.41 Price of pepper moved consistently upwards from early nineties and reached a peak level in 1999-00 with Rs. 205 per kg. Since then declined to Rs. 125 per kg. in 2000-01 and further down to Rs. 69 per kg. in 2001-02.

4.42 The state has to bestow specialised attention for upgrading the productivity through an organised replanting programme. The productivity in India is the lowest among the major producing countries. It is the highest in Thailand with 4.3 t/ha. followed by Malaysia with 2 t/ha in 2001. The varietal selection and improvement through genetic upgradation is also important for stabilizing and retaining its lead share in global trade.

4.43 The pattern of global demand for the crop is undergoing changes. The consumer preference is for value added form of pepper such as white pepper, pepper in brine, oleoresin etc. Kerala could not take full advantage of the emerging opportunities for want of raw material of desired quality.

4.44 Emerging trends and market potential indicate that both supply and demand for organic spices are growing throughout the world. India has developed the national standards for organic production and prescribed the guidelines for production of organic spices. Accreditation criteria for inspection and certification agencies are stipulated. Production programmes for promotion of organic spices in collaboration with Spices Board can go a long way in exploiting the world organic spice market.

Cashew

4.45 Area under the crop in Kerala, has been declining steadily from 1.25 lakh ha. in 1988-89 to 0.90 lakh ha. in 2001-02 and the production declined from 1.08 lakh tonnes to 0.66 lakh tonnes during the period. The share of Kerala in the area under cashew in the country has come down from 23 per cent in 1987-88 to 13 percent in 2000-01 and the corresponding decline in share of production from 31 per cent to 15 per cent respectively. Area and production are increasing steadily in other producing states in the country. Maharashtra is the leading producer with 22 percent share in production during 2000-01, whose share was only 10 per cent in 1990-91. Area increase in Maharashtra was to the tune of 431 per cent during this period.

4.46 In spite of operating special schemes for expansion of area under cashew, the coverage has been steadily declining during the last two decades. The decline in area from 1980-81 to 2001-02 was to the tune of 51500 ha. Productivity of the crop, which was around 900 kg. per ha. during late eighties has also started declining from 1995-96 onwards, reaching 562 kg. per ha. during 1998-99 which improved to 735 kg. per ha. during 2001-02 (see Table 4.7).

4.47 India exported cashew kernels worth Rs. 1776.70 crore during 2001-02 and imported raw nuts worth Rs. 949.25 crore resulting in a net foreign exchange earning of Rs. 827.45 crore. U.S.A. is the major export market with 50% export share followed by Netherlands (14%). Out of imported nuts 54% of imported raw nuts is bought to Kerala during 2001-02 which was 46% in 1998-99. Raw nuts are mainly imported from Tanzania and Ivory coast. Cashew processing industry is finding it extremely difficult even to maintain the present level of capacity utilization because of the lower availability of local raw cashew nuts. Concerted efforts are needed to nurture this crop in the state with programmes to promote high density planting with high yielding cashew grafts.

Table – 4. 7

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	589.0	87.0	371.2	823	630
1995-96	103.3	652.0	82.8	417.8	801	641
1996-97	97.1	659.0	69.0	430.0	710	653
1997-98	94.7	701.0	56.9	360.0	601	514
1998-99	91.3	732.0	51.3	460.0	562	628
1999-00	89.4	686.0	65.5	520.0	733	758
2000-01	92.1	720.0	66.2	450.0	718	625
2001-02	89.7	NA	65.9	NA	735	NA

Source: Directorate of Economics and Statistics & CMIE

Medicinal Plants

4.48 The world trade in medicinal and aromatic plants is currently valued at US $ 60 billion and India accounts for a negligible share valued at about US $ 100 million only where as China accounts for about 40 per cent of world trade. One of the major benefits of globalisation has been the growing awareness about herbal and aromatic plants. Global market for medicinal plants has been growing at a healthy 7% annually. The potential for exploitation of this market in India is recognised now.

4.49 Quality control is critical in this business. The herbal and medicinal market in India is still unorganised but has great potential if made systematic and organised. The Tewari Committee of the Government of India has made a number of recommendations. Kerala can make a major contribution in this regard for which concerted action, as in the field of tourism, is necessary.

BOX-4.8
MAJOR RECOMMENDATIONS OF THE TASK FORCE ON CONSERVATION AND SUSTAINABLE USE OF MEDICINAL PLANTS (TEWARI COMMITTEE)

- *Establishment of 200 Medicinal Plant Conservation Areas ((MPCA), preferably inside the protected areas already notified under the Wildlife Act.*
- *Medicinal plant species which are rare or endangered or threatened should be identified and their ex-situ conservation may be attempted.*
- *Three gene banks created with the financial assistance of Department of Biotechnology should properly store the germplasm of all medicinal plants.*
- *Two hundred "Vanaspati Vans" may be established in degraded forest areas (with an area of about 3500 – 5000 hectares each) and should be managed under JFM for benefit sharing to alleviate poverty of tribals.*
- *One million hectares of forest area rich in medicinal plants (about 5000 hectares each at 200 places) should be identified, their management plans formulated and sustainable harvesting encouraged preferably under the JFM system.*
- *Recommended twenty five species having the maximum demand should be cultivated under captive and organic farming.*
- *Safety, efficacy, quality control, pharmacopoeia development should be expedited and completed by 2003.*
- *Policy, legal and institutional supports should be extended to the sector for adopting standards, quality control efficacy and effectiveness of herbal drugs.*
- *Drug Testing Laboratories for ISM&H products should be established with qualified staff to test the plant/mineral based products.*
- *Efforts should be intensified to create an Indian Traditional Knowledge Base Digital Library.*
- *Establishment of "Medicinal Plant Board" for an integrated development of the medicinal plants sector. It is expected to formalize and organize medicinal plants marketing and trade, coordinate efforts of all the stakeholders of the sector and ensure health for all by improving*

the awakening and availability of herbal products.

- *Ten major medicinal plants identified for export should be extensively studied and appropriate literature on every aspect of such plants may be made available in the world market.*

Plantation crops

4.50 Kerala has a substantial share in the four plantation crops of rubber, tea, coffee and cardamom. These four crops together occupy 6.38 lakh ha, accounting for 29 per cent of the net cropped area in the state and 45 per cent of the area under these crops in the country. Kerala's share in the national production of rubber is 92 per cent, cardamom 74 per cent, coffee 22 per cent and tea 8 per cent.

4.51 Plantation crops in general are either export oriented or import substituting and therefore assume special significance from the national point of view. It is estimated that nearly 14 lakh families are dependent on the plantation sector for livelihood. Each of the four plantation crops of South India has its distinct characteristics and economic problems. Consequent to the removal of quantitative restrictions on import of these commodities, plantation crops in general are facing the threat of unbridled inflow of these commodities.

Rubber

4.52 Kerala accounts for 84 percent of the area under rubber in the country. The coverage under the crop in 2001-02 was 4.75 lakh ha, higher by 675 ha. over the previous year. The production of natural rubber in Kerala during the year was 5.80 lakh tonnes against the all India production of 6.31 lakh tonnes. The increase in production registered during the year was 1 per cent over the previous year. Being predominantly a small holder plantation crop in Kerala, the average size of a small rubber holding is as low as 0.50 ha. The increasing trend in productivity continued during 2001-02. It was 1190 kg. per ha in 1998-99, which rose to 1222 kg. during 2001-02. In terms of tapping area, productivity recorded was 1612 kg. per ha which was higher than national average of 1576 kg. by 2.3 percent.

4.53 India is the third largest producer of natural rubber with a share of nine percent in the world after Thailand and Indonesia relegating Malaysia to the fourth position . Malaysia's production contracted by 9 percent in 2001 as farmers continued to shift from rubber to other crops particularly oil palm. India is at the same time the fourth largest consumer of natural rubber after China, USA and Japan. The annual growth rate in production in 2001-02 was the lowest (0.08 %) after 1982-83. Indian industry comprising 29 tyre manufacturing units and 250 medium scale and 5500 small scale units in the organised sector offers 35,000 diversified products, but over 95% of the industry is outside Kerala. The long experience in the manufacture of such a large number of diversified products and the low cost man power available have to be considered as the relative advantages the country possesses on the promotion of rubber based industries for export purposes. and steps should be taken to attract such units to Kerala.

4.54 Eventhough the domestic prices of natural rubber were more or less comparable to international prices during 2001-02 (See table 4.8 and Appendix-4.20) the industrial sector still resorts to imports in bulk quantities since the import duty is only 25%

Table 4.8

Price Trend of Natural Rubber During 2001-02

Month	India (Rs. per 100 kg. of RSS 4)	World (Rs. per 100 kg. of RSS 3) (Kualalumpur)
April 2001	2679	2721
May 2001	3295	2833
June 2001	3353	2899
July 2001	3389	2783

August 2001	3601	2740
September 2001	3154	2649
October 2001	3209	2644
November 2001	3209	2645
December 2001	3209	2475
January 2002	3209	2759
February 2002	3209	3038
March 2002	3214	3327
Average (2001-02))	**3228**	**2793**

Source: Rubber Board, Kottayam

Fig 4.5

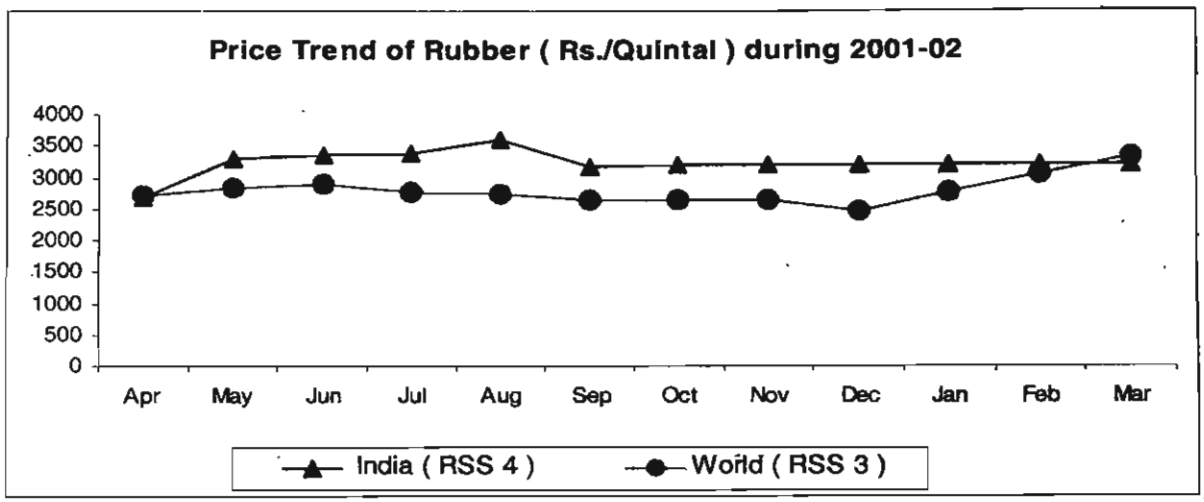


Table 4.9

Consumption of Rubber during 2000-01 & 2001-02

	Consumption (in tonnes)		**Growth (%)**
	2000-01	**2001-02**	
Natural Rubber (NR)			
Auto Tyres & Tubes	305,718	304,425	(-) 0.4
Others	325,757	333,785	2.5
Total of NR	631,475	638,210	1.1
Synthetic Rubber (SR)			
Auto Tyres & Tubes	98,362	95,277	(-)3.1
Others	72,308	79,253	9.6
Total of SR	170,670	174,530	2.3
NR & SR			
Auto Tyres & Tubes	404,080	399,702	(-)1.1
Others	398,065	413,038	3.8
Total of NR & SR	802,145	812,740	1.3

Source: Rubber Board, Kottayam

4.55 The decline in world natural rubber supply (-4 % in 2002 over 2001), appreciation in exchange rates in producing countries, large volume of purchase by China, birth of the International Tripartite Rubber Organisation (ITRO), lowest world natural rubber stock levels in 2002 since 1996 and revival of world automotive tyre industry have contributed to the recovery of international prices of natural rubber. The recovery of international prices reflected in the domestic price of rubber also. All these factors are likely to contribute to a revival of the natural rubber sector in Kerala.

Coffee

4.56 India is the sixth largest producer of coffee in the world with a share of 4.9 per cent the top producers being Brazil and Vietnam, with a share of 26 per cent and 12 per cent respectively, during 2001-02.

4.57 According to the crop estimates for 2001-02, the area under coffee in Kerala was 0.85 lakh ha out of 3.50 lakh ha in the country, which works out to 24 percent. The share of Kerala in production is 22 percent. Production of coffee during the year was only 0.67 lakh tonnes against 3.00 lakh tonnes for the country. Productivity of the crop in Kerala (786 kg/ha) is lower than the national level of 866 kg./ha. Area under coffee registered substantial increase during the last two decades with an annual growth rate of over 2 per cent. The increase in production recorded during the period was much higher and registered an annual average growth rate of nearly 9 per cent. Major variety grown in Kerala is Robusta with a share of 95 per cent in planted area. Coffee provides opportunities for livelihood to nearly one lakh families including agricultural labourers. In Kerala, coffee is also one of the small holder plantation crops with nearly 75,000 holdings coming under the category with an average size of 1.1 ha. per holding. Consumption of coffee has remained more or less unchanged at around 55,000 tonnes for the past one and half decades inspite of growth in incomes as well as population.

4.58 During the last two years coffee prices have dipped to a very low level which has created a crisis for global coffee market. Coffee is a highly export dependent crop and more than 80 per cent of domestic production is exported. The unit value realization has declined drastically from Rs. 95.37 per kg. in 1997-98 to Rs. 49.53 per kg. in 2001-02. The quantity of coffee exported from India also declined in 2001-02 to 2.09 lakh tonnes from 2.47 lakh tonnes in 2000-01. However, national production remained around 3 lakh tonnes during these two years.

4.59 International coffee price dropped further in 2001 to the lowest level since 1973. The fall in robusta prices has been particularly pronounced and it declined from 67.53 US cents per lb in 1999 to 27.54 US cents per lb in 2001. The international price trend got reflected in domestic prices also. The price of robusta coffee in 1999 was Rs. 58.86 per kg. which declined to Rs.. 28.54 per kg. in 2001.

Tea

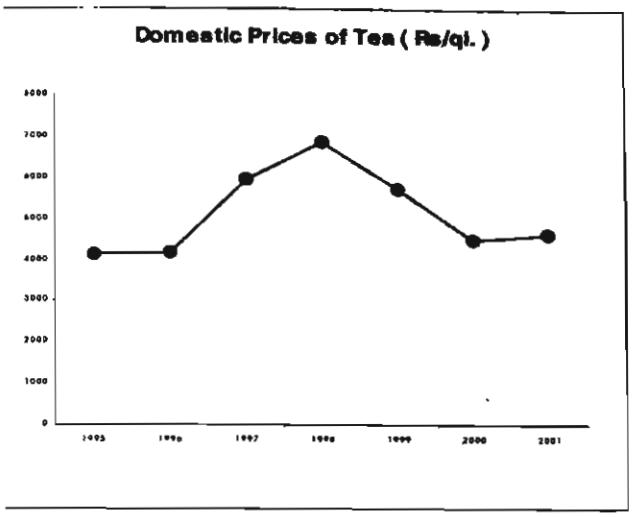
4.60 The world production of tea increased by 2.45 per cent in 2001 from the previous year to reach 3011.9 M. kgs. and India is the leading producing country with a share of 28 percent in global production. Against the total area of 4.38 lakh ha under tea (2001-02) in the country Kerala accounts for only 0.37 lakh ha. In respect of production also Kerala could retain its share of eight per cent. Tea plantations owned by big companies, employ a labour force of over 84,000 in the organised sector. There is fluctuation in production and it ranged from 64.8 M. kgs. in 1995, reaching to 69.3 M.kgs. in 2000 which declined to 66.1 M kgs. in 2001.

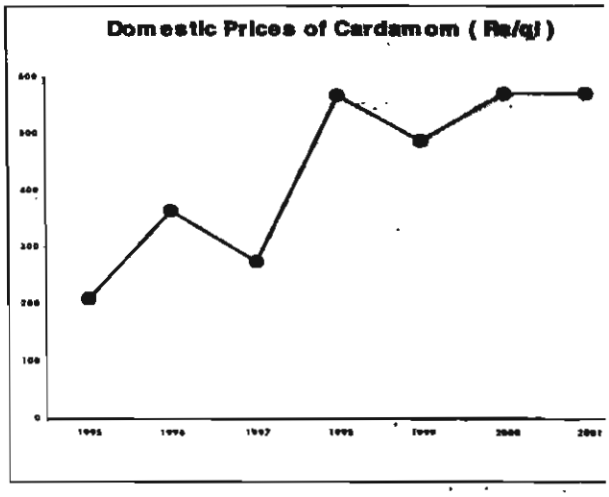
4.61 After the removal of quantitative restrictions in April 2001, one of the major threats faced by the tea industry is the increased import of inferior quality teas into India particularly from Indonesia resulting in further depression in prices. Imports increased from 13.4 M. kg. in 2000 to 16.6 M. kg. in 2001.

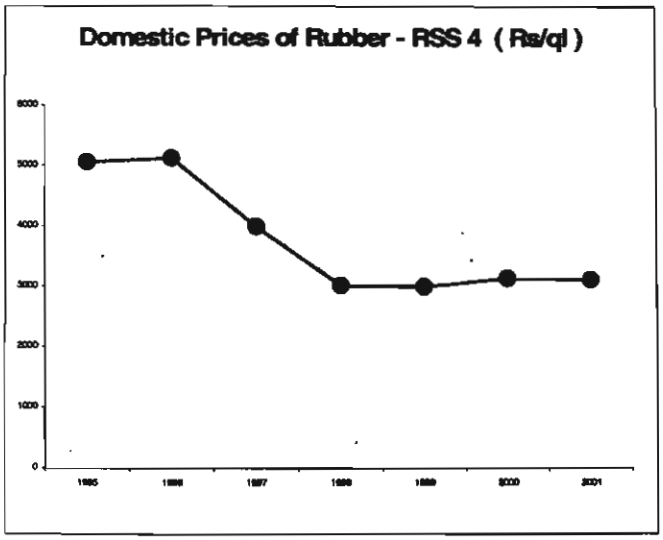
4.62 The average auction prices for 1999 at Kochi was Rs. 63 per kg. which declined to Rs. 52 per kg. in 2001. International FAO composite price also declined during this period by 10 percent.

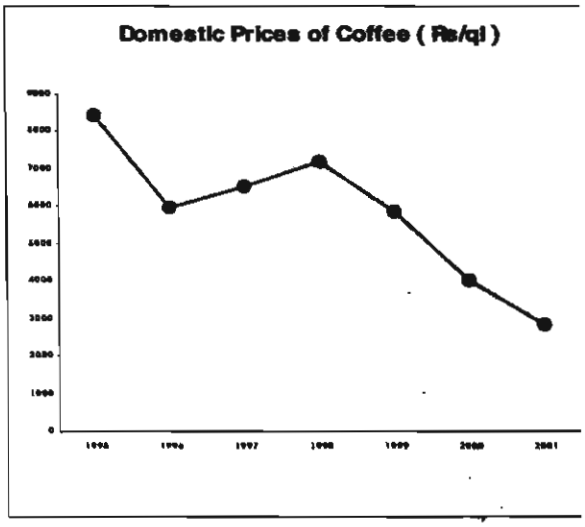
Prices of tea were bouyant during 1998 but started declining from 1999. The average auction price of South Indian tea in 1999 was Rs. 57 per kg. which declined to 46 per kg. in 2001.

Fig 4.6









Cardamom

4.63 The commodity has registered new heights in production through productivity improvement. Productivity which was more or less stagnant around 50 kg./ha. in the 1980s has improved its position to the level of around 203 kg. per ha by 2001. Kerala has improved its position by raising its productivity from 55 kg in 1980-81 to 203 kg. per ha. The share of Kerala in national production was 74 percent in 2001-02. While area under cardamom in the country has declined from 0.94 lakh ha to 0.72 lakh ha. during the last two decades. In Kerala it has come down from 56,000 ha to 41336 ha during this period. On the export front cardamom has been facing cut throat competition from Guatemala, although the quality of Guatemala cardamom is inferior. The country could tide over the challenge by expanding domestic market through market promotion. The Indian export of cardamom has increased steadily from early nineties and reached a peak level of 1100 tonnes in 2000-01 and then declined by 18.2 percent in 2001-02 to reach 900 tonnes. The unit price realised increased

steadily and increased further to Rs. 621 per kg. in 2001-02 from Rs. 514 per kg. in 2000-01. However the market for cardamom is largely domestic as could be seen from the share of exports in production is only 8.2 per cent

Price stabilisation fund

4.64 International Prices of agricultural commodities are characterised by high volatality which is a crucial factor for the trade policy and strategy. Government has been quite effective in insulating , producers from the effect of instability in international prices till early nineties before trade liberalisation. Under WTO, obligation, Quantitative Restrictions (QRs) cannot be used to check imports and price shocks in future. There is a need to develop other mechanisms to regulate imports and exports in order to insulate domestic producers. The tariff rates can be used as one of the methods. Eventhough very high tariff bound rates are fixed for some commodities especially for edible oil, the applied rate is quite low leading to higher levels of imports affecting the coconut farmers in Kerala. The tariff rates are shown in the Appendix-4.24

4.65 The world prices of almost all agricultural commodities have witnessed a steep decline after experiencing a boom in the mid 1990s. Deeply concerned with the problems that are being faced by the growers of Tea, Coffee, Rubber and Tobacco and taking into account the various options recommended by NCAER, Government of India recently established a Price Stabilisation Fund (PSF). The principle underlying the PSF is to set up a permanent pool of resources in order to reduce the burden of a sudden and unexpected demand for resources. The major recommendations of the Price Stabilisation, Committee are indicated in the BOX.-4.9. The international prices of these commodities are taken into account in fixing the bench mark for domestic prices. This is one of the better alternatives in the liberalised context to the support price schemes.

BOX-4.9
MAJOR RECOMMENDATIONS OF PRICE STABILISATION FUND COMMITEE REPORT, GOVERNMENT OF INDIA

- *Price spectrum band of 40 per cent (+/-20%) from the seven year moving average of international prices for four commodities viz., Tea, Coffee, Rubber and Tobacco to be established. When the price worsens, the participating growers will be compensated through the fund. In the boom years the growers will have to contribute a certain amount to the price stabilisation fund. It will cover only 3.42 lakh growers initially being the most needy amongst those having operational holdings upto 4 hectares. The scheme shall come into force in a particular State only after that State government has made its contribution in full.*
- *Commodity exchanges with provision for futures trading to be established.*
- *The contribution of concerned States to this fund could be based on size and operation of the plantation crops, relevant for the economy and the number of small growers of 4 ha. and below. The corpus will be built up over a period of two years according to the contributions coming from the Central Government/State Government/Subscribers in suitable instalments. Interest earnings alone be utilized for operations for different commodities.*
- *A Trust Fund could be created for operating the fund.*
- *The NABARD/designated bank will set up a plantation cell for implementing the scheme with a multi disciplinary team from the concerned Commodity Boards and financial institutions.*
- *Each Commodity Board to set up a Wing for regular operations through redeployment of staff.*

Crop Development Programmes: Review of Ninth Five Year Plan

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

4.67 During Ninth Five Year Plan an amount of Rs. 301.15 crore was set apart for the development of Crop husbandry (including Rs. 70 crores for EEC aided Kerala Horticulture Development Programme) against which total expenditure was Rs. 280.62 crores. (93.18% of the approved outlay). Apart from this an amount of Rs. 169 crore was spent through Centrally Sponsored Schemes (Table.-4.10.).

Table-4. 10
Financial Performance of Crop Husbandry sub sector during Ninth Plan

(Rs. Crores)

Sl.No.	Item	Approved Outlay	Actual Expenditure	% to total
1.	State Plan Schemes	301.15	280.62	93.18
2.	Centrally Sponsored Schemes - Central Share	390.76	169.38	43.35
	Total:	**691.93**	**450.00**	**65.04**

4.68 A number of schemes were implemented for the development of agriculture during this plan period. Major schemes on crop wise are given below.

Rice

4.69 The Ninth Plan aimed at sustaining rice cultivation in 5 lakh ha. and to augment production to 12.5 lakh tonnes by increasing the productivity to an average of 2.5 tonnes per ha. Inspite of spending Rs. 81 crores through State Plan and Centrally Sponsored Schemes and nearly double the amount through local bodies. (Table-4.11). During the period, rice production could not be salvaged from the declining trend in area and production. The target set for HYV at the end of the Ninth Plan was 3.5 lakh ha. The coverage which was stagnating in the range of 1.65 to 1.75 lakh ha. during the past decade, has registered improvement and increased to 2.30 lakh ha. by 2001-02. The weakest link in the High yielding variety programmes is the seed multiplication and distribution support.

Table- 4.11
Scheme-wise Expenditure during Ninth Plan

(Rs. lakhs)

Sl.No.	Area of Development	Actual expenditure
1.	Rice development Programme	8097.00
2.	Coconut development	3055.83
3.	Pepper development	2178.47
4.	Cashew development	1136.27
5.	Kerala Horticulture Development Programme	5298.76
6.	Vegetable Promotion Programme	2887.02

Coconut development

4.70 In respect of coconut also the performance was not encouraging. Against the Ninth Plan production target of 9000 million nuts the achievement by the end of 2001-02 was 5479 million nuts. For coconut, emphasis was on community irrigation, nutrient and disease management and

market intervention through KERAFED for price stabilisation. The centrally sponsored scheme operated with assistance from Coconut Development Board was also operational during the period.

4.71 Coconut is one crop which received considerable support under the local level plan schemes formulated by the grama panchayats. In fact, the massive spraying organised against mite was a joint effort by State, District panchayat and Grama panchayat, sharing the cost more or less equally by all. Using an amount of Rs. 354 lakhs sanctioned by coconut Development Board during 2001-02, disease management programme was implemented for 0.95 lakh palms and laid out demonstration plots in 217 ha.

Pepper

4.72 The production of pepper during the base year of Ninth Plan was 56000 tonnes which was targeted to be stepped up to 1.5 lakh tonnes by the end of 2001. Activities taken up for the production of pepper include production and distribution of rooted pepper cuttings , area expansion, rehabilitation of old pepper gardens, plant protection measures and soil conservation measures. Along with pepper, other spices such as ginger, turmeric, chillies and tree spices also received attention during the period. However, production target could not be achieved during this period.

Cashew

4.73 In the case of Cashew major emphasis under Ninth Plan was for increasing the area under the crop and improving the productivity. But the area declined from 95000 ha to 90000 ha. during the Plan period. Activities taken up were expansion of area under cashew , rehabilitation , plant protection measures , distribution of high yiuelding grafts and distribution of plant protection equipments

Vegetable

4.74 Vegetable development is an area which received priority attention in the local level schemes of the panchayats. At the state level, the programme for commercial cultivation of vegetables in selected areas through the Haritha Sanghams was continued. A total number of 1446 Haritha Sanghams were organised involving 1.25 lakh farmers. The financial assistance extended under the programme cover intensive vegetable cultivation , seed multiplication and distribution , establishment of irrigation and distribution of sprayers and marketing. The production programmes were linked with the procurement and sales network organised by the Kerala State Horticulture Products Development Corporation (HORTICORP). The corporation has 735 sale outlets which were organised on a commission basis engaging unemployed youths in important consuming centres.

4.75 The State launched an ambitious programme for achieving self sufficiency in vegetable during the Ninth Plan period. From 1997-98 to 2001-02 an amount of Rs. 28.87crores has spent on Vegetable promotion programme. Also an amount of Rs. 3.58 crores has been spent under Centrally Sponsored Schemes for Vegetable Development. The major activities carried out were vegetable cultivation through Haritha Sanghams, installation of irrigation units, seed production programme, hybrid seed demonstration etc.

Kerala Horticulture Development Programme (KHDP)

4.76 The project was with an outlay of Rs. 131.45 crores (EU 78%, GOK 21.5% and Private 0.5%) and was due for completion during December 1999. Against the total outlay of Rs. 131.45 crores, Rs. 93.38 crores was meant for operation through State Government and the balance was for components to be operated by EEC directly.

4.77 Amount invested as on 31.12.2001 was Rs. 112.74 crores (85.76% of project cost). Outlay earmarked for the project during Ninth Five Year Plan was Rs. 70.00 crores, the corresponding expenditure as on 31.3.2002 was Rs. 53.00 crores.

4.78 The programme organised 1860 Self Help Groups involving 40342 farmers ,organised 67 Karshaka Vipanies and 19 stocking centres were established under this programme. A seed processing plant was set up at Alathur near Palakkad with an installed capacity of 1650 tonnes of seed

processing per annum. The fruit processing factory at Muvattupuzha with a processing capacity of 3.5 tonnes per hour was also set up. The factory launched its first product in the brand name 'JIVE'.

4.79 To take over and carry forward the successful intervention of the programme a council has been established namely Vegetable and Fruit Promotion Council of Kerala (VFPCK) and field activities were implemented by the Council from 2001 April onwards.

Supplies and Services

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

4.81 During 2001-02, the consumption of fertilisers increased from 1.73 lakh tonnes to 1.77 lakh tonnes. The trend of fertilizer consumption shows fluctuations and it reached a peak level during 1997-98 and reached lowest level during 2000-01. The per hectare consumption is the lowest during 2000-01 at 58 kg/ha. (see Appendix 4.25). The State average is lower than the national average (86 kg.). The necessary steps are to be taken to reverse the situation so as to augment the productivity of major crops..

4.82 In plant protection, the strategy was one of need-based adoption of chemical control. The mite attack on coconut which emerged as a very serious threat for coconut warranted chemical intervention. With the active involvement of the local bodies, state government organised massive control programme for coconut mite and the menace could be contained to a great extent. However, a long term solution lies in evolving biological control measures. Selected indicators of progress are given in Appendix 4.26.

AGRICULTURAL RESEARCH AND EDUCATION

4.83 The Kerala Agricultural University is the principal institution in the state providing human resources and technology required for the sustainable development of agriculture, encompassing all production activities based on land and water, including crop production, animal husbandry, forestry and fisheries through conducting, interfacing and integrating education, research and extension in these spheres. The University fulfils its obligations and commitments through a network of 36 big and small campuses spread through out the state consisting of ten colleges, six regional agricultural research stations, twenty six research stations, five Krishi Vigyan Kendras and three centres of advanced studies. The Central Training Institute, the Centre of Excellence in Training for Plantation Crops and the Communication Centre support the training and research activities. The University has a strong technical manpower consisting of 1,000 academics and over 800 technical staff.

4.84 Research initiatives undertaken in the university are focussed on increasing the productivity of crops, livestock and fish currently raised in the state through manipulation of the genetic base; improvements in the management practices; control and management of pests; diseases and parasites; increasing the efficiency of the bio-physical and human resources, and inputs used in production; the introduction of new crops, animals, and machines; evaluating and designing policies, programmes, institutions and infrastructure; and analysis and appraisal of the value systems and gender equation which are conducive or inhibitory to the adoption of technologies and innovations evolved through research. The research support for the sustainable development of the agriculture sector of the state is rendered in a partnership mode in close association with the research institutions managed by ICAR, Commodity Boards and Department of the State and Central Governments. Over 700 research projects are currently in operation. The varieties released by the University during 2002 is shown in table-4.12. Frontline demonstrations on the management of coconut mite were started in Alappuzha, Kottayam, Ernakulam and Thrissur districts in collaboration with the State Agriculture Department.

4.85 Establishment of a 10 ha. fish sanctuary in the Vembanadu Lake was completed. Ranching of *Macrobrachium rosenbergi* was taken up and an indigenous feed was developed for its culture in collaboration with CIFT. Silver carp was identified as the ideal fresh water choice in Pokkali ponds during the low saline phase and attained a marketable size within four months. Research in Animal husbandry sub sector established the superiority of large white yorkshire compared to cross bred and desi pigs and continued conservation and evaluation studies of Malabari breed of goats.

4.86 University facilitates inservice training on new innovations, technologies and extension management to the grass roots as well as middle level functionaries of development departments and agencies drawing considerable technical, scientific and professional capacity available in the University.

4.87 In the Agricultural Technology Information Centre (ATIC) information, Production inputs and diagnostic services are made available at a single window. The University also established an Agricultural Biotechnology Agency for Rural Development (ABARD) for promoting small agro industrial units.

Table 4.12
Crop Varieties Released by Kerala Agricultural University during 2002

Sl.No.	Crop	Variety
1.	Rice (7)	Varsha, Swetha,Gouri, Kunjukunju Priya , Chingam, Dhanu
2.	Cashew (2)	Damodar, Raghav
3.	Tapioca (1)	Vellayani Harswa
4.	Vegetable Cowpea (2)	Anaswara, Varun
5.	Amaranthus	Mohini
6.	Okra	Susthira
7.	Pumpkin	Saras
8.	Chilli	Anugraha
9.	Tomato	Anagha
10.	Snakegourd	Baby
11.	Sesame	Thilarani
12.	Turmeric (2)	Sona, Varna
13.	Kacholam (2)	Kasthuri, Rajani
14.	Cardamom	PV2
15.	Cocoa (3)	CCRP 8 (Hybrid), CCRP 9 (Hybrid), CCRP 10 (Hybrid)

Source: Kerala Agricultural University

Resource allocation

4.88 With declining research funds, an objective and transparent method of research priority setting and research resource allocation may be ideal for Kerala Agricultural University. The method adopted by the International Crops Research Institute for Semi Arid Tropics (ICRISAT), Hyderabad in priority setting and resource allocation can be used as a broad framework for this in a limited budget case..

4.89 In ICRISAT model the main focus of the exercise was to eliminate those research areas which were of less relevance to the ICRISAT in a limited budget scenario. Before 1994, research resource allocation was based on mostly informal and largely based on the scientific judgement of research managers. More objective method was followed from middle nineties when the funding started declining. The ICRISAT's research focus is to enhance productivity and profitability of its five mandate crops, viz., chickpea, groundnut, pearl millet, pigeon pea and sorghum. The approach followed by ICRISAT in research resource allocation is shown in BOX.-4.10

BOX-4.10
ICRISAT'S Research Priority Model

- *A research domain was first defined*
  - *Then delineated into production system characteristics, major biotic and abiotic*
  - *constraints in the production system*
  - *Production constraints across the locations listed*
  - *Yield loss due to each constraint and expected gains resulting from successful*
  - *research were estimated.*
  - *All the scientists were involved in estimating loss and expected gain from the proposed research*
- *110 research constraints were identified for research priority setting.*
- *A multi objective scoring model was developed*
- *Ex Ante frame work was used.*
- *Composite indices were computed for different research themes.*
- *Top 92 research themes were selected to develop research projects as the funds were not available beyond that rating.*

Source: Joshi and Cynthia S. Bantilan, 2000

Soil and Water Conservation

4.90 The undulating topography with alternating hills and valleys, the high intensity of rainfall spread over two monsoons, low infiltration rate of soil and denudation of forests have accentuated the problem of soil erosion in the State. It is estimated that out of 22.4 lakh ha of cultivated land in the state, around 9 lakh ha. is prone to soil erosion. The conservation measures will be effective only if they are organised on a watershed basis. In view of the predominance of relatively small sized holdings, massive interventions on a contiguous area basis are essential with the support of local bodies. Among the major crops, plantation crops - particularly rubber are planted after proper soil conservation and land development. On the other hand, perennial crops such as coconut, pepper and cashew are planted without providing the required land preparations. Soil and moisture conservation is critically important for crops like pepper which are normally raised in the upper elevations of the land terrain. During Tenth plan watershed based approach was adopted for the development of agriculture particularly through local bodies. With the introduction of decentralised planning, there is increasing awareness about the need for effective conservation measures. Accordingly considerable attention has been paid by the local bodies for supporting the activity.

4.91 With the substantial assistance rendered by NABARD under RIDF and the inclusion of a good number of projects as part of local plans, soil and water Conservation activities in the watersheds of the State received an impetus during Ninth Five Year Plan. The cumulative coverage under soil conservation at the end of Ninth Five Year Plan was 2.40 lakh ha. The achievement of soil and water conservation programmes during Ninth Plan is given in Table-4.13

Table-4.13

Achievement of Soil and Water Conservation Programmes during Ninth Plan

Name of Scheme	Achievement	
	Financial (Rs. lakhs)	Physical (ha.)
State Plan		
i) RIDF	1924.28	11957
ii) Other State Plan schemes	188.98	884.3
Centrally Sponsored Scheme		
i) NWDPRA	2548.40	74456
ii) River valley project - Kabini	223.53	1492
Total:	**4885.19**	**88789.3**

4.92 The projects under RIDF I and RIDF II were completed in December 1997 and in December 1999 respectively. Under RIDF I, 37 watersheds in the five districts of Thiruvananthapuram, Idukki, Wayanad, Kannur and Kasaragod was completed with a total project cost of Rs.10.13 crore benefiting an area of 5718 ha. Phase II of the programme comprised of 28 watersheds with a project cost of Rs.12.93 crore benefiting an area of 7859 ha in 9 districts. Projects in phase III, VI and VII are in progress. During the period under review 1710 ha was benefited with an expenditure of Rs.386.73 lakhs. Details of RIDF projects are given in Table-4.14

Table-4.14
RIDF assisted Soil and Water Conservation Programmes

RIDF Phase	Period	No. of Watershed			Project cost (Rs. lakhs)	Project Area (Ha)	Cumulative Achievement	
		Sanctioned	dropped	Completed/ongoing			Physical (Ha)	Financial (Rs. lakh
RIDF I	1995-97	40	3	37	1013.20	5902	5718	996.06
RIDF II	1996-99	32	4	28	1292.99	8725	7859	1087.45
RIDF III	1998-02	40	-	40	2161.50	13423	10817	1828.10
RIDF VI	2000-03	20	-	20	1021.87	6220	1819.12	513.25
RIDF VII	2002-04	40	-	40	1779.32	13694	-	

4.93 The National Watershed Development Project for Rainfed Areas (NWDPRA) is a Centrally Sponsored Scheme taken up from 1990-91 onwards. During Eighth Plan, an area of 88,226 ha. coming under 114 watersheds received the benefits of the scheme with an expenditure of Rs.29.94 crore. During Ninth Plan the project was implemented in 74456 ha. coming under 114 watersheds lying adjacent to the old ones, expending an amount of Rs.25.69 crore. Government of India has revised the guidelines for implementation during Tenth Plan. As per the revised guideline 30 sub watersheds have been identified in the State with an effective project area of 72032 ha. The various committees for implementation like District Watershed Committee, District Nodal Agency and Watershed Development Team, Project Implementation Agency etc. have been constituted in almost all districts. During 2001-02 an amount of Rs.799 lakhs has been spent for covering an area of 32984 ha.

4.94 River valley project - Kabini is a centrally sponsored inter state scheme of Kerala and Karnataka started in the year 1998 being implemented in the catchment of Kabini river (Kerala portion) which originates from Kerala State. The major portion of the catchments of Kabini (Kerala portion) is spread over Wayanad district which comes under high altitude zone of Kerala. An integrated watershed management approach is being adopted in this project. Total catchment area of Kabini is 1.635 lakh ha of which 1.05 lakh ha requires soil and water conservation measures. An amount of Rs.223.53 lakh has been spent upto 3/2002 for covering an area of 1492 ha which includes an expenditure of Rs.103 lakhs during 2001-02 for covering an area of 845 ha. The implementation of the project will benefit substantial area of Wayanad district including land owned by Scheduled Tribe (13%) and Scheduled Caste families (4%).

4.95 Watershed based interventions has a direct effect on soil moisture recharge. Critical in the development of watershed is the adoption of appropriate technologies suited to different agro-ecological and socio economic situations to realize the anticipated benefits. A number of evaluation studies conducted in different parts of the country converges to 4-5 deficiencies in Planning and implementation of watershed programmes. Salient findings of an evaluation study conducted by ICAR is shown in BOX.-4.11.

BOX-4.11
Salient findings of an ICAR study conducted in different states on Watershed Programmes (1998)

- *Increase in agricultural production lasted only for two years.*
- *Structures were abandoned because of lack of maintenance.*
- *No mechanism for looking after common lands.*
- *Farmers were not convinced about the need to contribute.*
- *Too inflexible technological norms.*
- *Weak Horizontal linkages between various line agencies at the district level.*

4.96 Many states have taken up development of degraded areas under the watershed approach on a mission mode. A paradigm shift in the approach to watershed development came in 1995-96 with the adoption of revised guidelines in line with the Technical committee report headed by Dr. C.H. Hanumantha Rao . The new paradigm of "watershed plus" recognises the need to involve the community as a necessary condition for the sustainability of watershed programmes. The programme seeks to ensure convergence of all other programmes that promote economic activities and generate increased employment opportunities. Conscious efforts to promote non farm employment and increased land access for the land less as well as promotion of self help groups form a part of the new approach. The salient features of "watershed plus " approach are shown in BOX-4.12

BOX-4.12
GUIDELINES OF WATERSHED PLUS

- *A programme-specific and focused project approach.*
- *Greater flexibility in implementation.*
- *Well defined role for state, district and village level institutions.*
- *Removal of overlaps.*
- *A provision for keeping the watershed development projects on probation.*
- *An exit protocol for the project implementing agencies (PIAs)*
- *A twin track approach that provides for short term and long term benefits in the implementation of projects.*
- *A combination of government organisations / NGOs as PIA.*
- *A greater role for women.*
- *An effective role for the Panchayathi raj institutions (PRIs)*
- *Bringing self-help groups comprising rural poor, especially those belonging to SC/ST categories to the forefront.*
- *Establishing a credit facility from financial institutions.*
- *Transparency in implementation.*
- *Effective use of remote sensing data furnished by the National Remote Sensing Agency.*

4.97 The involvement of PRIs and local People in Planning and implementation of Watershed Programmes determines to a great extent the success of the programmes. A common approach in tune with the guidelines issued for implementation of Watershed Programmes through decentralised planning needs to be adopted for all Watershed Programmes implemented in the State. The success hinges on the extent of securing the participation of the local community to take care of resource management.

Land Use Board

4.98 The Land Use Board has completed the Panchayat Resource Mapping (PRM) in Palakkad District during the year 2002 and is in progress in Ernakulam district. Panchayat Resource Mapping provides the basic details in spatial format for the development activities of the panchayat. The mapping programme is done in 1:5000 cadestral scale. The present land use, infrastructure and assets, water resources and areas of specific interest in the panchayat are spatially mapped under this programme. During Ninth Plan period PRM was completed in 210 panchayats with the involvement of selected GOs/NGOs. The State Land Use Board has initiated the delineation of the State into different Agro Ecological Zones and development of zone specific representative farm models during Ninth Plan. During the period, delineation was completed in Kollam and Alappuzha districts.

Soil Survey

4.99 Soil and land use surveys provide basic information on the available natural resources, their characteristics and inherent problems aiding in their scientific utilization for the larger benefits to the society. Reconnaissance soil survey of the State was completed by the end of Eighth plan covering an area of 30.62 lakh ha. During 2001-02, 45180 ha. was covered under DSS at Panchayat level, 33319 ha under updating of DSS at Panchayat level and 12110 ha under DSS of watersheds under WGDP and 34 reports were published during the year.

4.100 The functional integration of agencies involved in various soil related activities particularly Soil Survey and Land Use Board was proposed during Tenth Plan for facilitating the optimum utilisation of soil resources. This seems more relevant in the context of the proposed Kerala Land Use Bill, 2002 which stipulates constitution of an apex Land Use Commission for setting standards on land use.

Western Ghats Development Programme

4.101 The Western Ghats Region of Kerala comprises of 31 taluks covering around 72 per cent of the geographical area and around 50 per cent of the population in the State. Out of the total length of 1600 Kms. of hill ranges under Western Ghats, about 450 kms. is in Kerala covering 28 per cent of the geographical area of the region.

4.102 The Western Ghats Development Programme which originated as part of the Hill Area Development Programme with special central assistance is being operated as an integral part of the State Plan from the Ninth Plan but fully financed by Government of India. This programme aims at the ecological and economic improvement of the area and living conditions of the local people. As a part of Tenth Five Year Plan strategy, detailed guidelines were formulated to integrate WGDP with the decentralised planning process. The sectoral plans under this programme are to be designed based on a sub plan approach aiming at the integrated development of the region on a watershed basis. The salient features of the guidelines are shown in BOX-4.13

BOX-4.13
GUIDELINES OF WESTERN GHATS DEVELOPMENT PROGRAMME (WGDP)

- *Watershed based approach is adopted for the implementation of the programmes under WGDP.*
- *Criteria for selection of watershed for the implementation of WGDP includes preponderance of degraded lands, acute shortage of drinking water, small contiguous micro watersheds with an area of 500-600 ha., large Tribal/Scheduled Caste/Agricultural labour population, sizable livestock population and assured people's participation.*
- *A District Level Co-ordination Committee (DLCC) under the Chairmanship of District Collector for the identification of watersheds, approval of projects and monitoring.*
- *Grama pranchayat is responsible for the preparation of projects in a participatory mode under the guidance of the DLCC and implementation of projects.*
- *There will be a watershed community which consists of the residents of the watershed as well as farmers who own land within the watershed area. Watershed Committee is the executive arm of the watershed community with 10 members.*
- *Watershed Development Team is in charge of technical aspects of watershed management.*
- *A project based approach is followed in programme funding with project cost shared as WGDP funds –80%, PRI/other source –10%, Beneficiary – 10%.*
- *Out of the total project cost, 80% is for development component which is further allocated as Natural Resources Management – 52.5%, Production Systems Management –20%, and Livelihood Support Systems –7.5%.*
- *Action plan for the watershed project prepared by the Watershed Committee/Watershed Development Team have to be finally approved by the watershed gramasabha which will then be placed before the panchayat committee. The panchayat committee is not empowered to alter the priority.*
- *Technical approval of the projects are given by a Technical committee.*
- *Success criteria for various activities undertaken under WGDP such as rate of prevention of soil run off, measurement of recharging of wells, increase in yield of major crops, employment generation, extent of community/peoples participation, Increase in the number of micro enterprise programme, extent of use of local solutions and indigenous technology, extent of integration of development programmes in the watershed etc.*

BOX-4.14
WATERSHED COMPONENTS

- *Land development including in situ soil and moisture conservation measures like contour and graded bunds fortified by plantation, bench terracing in hilly terrain; and nurseries for fodder, timber, fuel wood, horticulture and non-timber forest produce.*
- *Afforestation including block plantations, agro-forestry and horticultural development, shelter-belt plantations, sand dune stabilisation, etc.*
- *Drainage line treatment with a combination of vegetative and engineering structures.*
- *Development of small water harvesting structures such as low-cost farm ponds, nalla bunds, check-dams and percolation tanks and ground water recharge measures.*
- *Renovation and augmentation of water resources, desiltation of tanks for drinking water and irrigation.*
- *Pasture development either by itself or in conjunction with plantations.*
- *Repair, restoration and upgrading of existing common property assets and structures in the watershed to obtain optimum and sustained benefits from previous public investments.*
- *Crop demonstrations for popularising new crops and crop varieties or innovative crop management practices.*
- *Promotion and propagation of non-conventional energy saving devices and energy conservation measures.*

4.103 The strength and weakness of watershed programmes implemented by WGDP in earlier years were revealed in some of the studies. The major findings of a study conducted by CWRDM in three watershed programmes implemented under WGDP are shown in BOX-4.15. The findings of these studies were also taken into account while framing the new guidelines.

BOX-4.15
Major findings of an evaluation study on watershed programmes
(Findings of Edathodu Watershed in Kasaragod)

- *In the untreated micro watershed the stream flow discharge becomes negligible after October and dries up from December onwards. In the treated watershed drying up occurs only during March to May.*
- *Sediment concentration was seven times more in untreated area compared to treated area during the Monsoon period.*
- *Panchayat Member was the source of information for the people about developmental activities taking place in the watershed.*
- *The percentage contribution of rainfall to recharge was more (0.045%) in the treated area compared to untreated area. (0.035%)*
- *Groundwater fluctuation was gradual in the treated area while it was abrupt in the untreated micro watershed.*

- *Most of the officials connected with soil conservation, agriculture, Minor Irrigation, dairy development or forestry had not made any contact with the local people for the developmental activities.*
- *More than 90% of the people are unaware of the nature and extent of subsidies under different components of the watershed development programme.*
- *The sample farmers agreed that group activity is essential for the watershed development programme.*
- *None of them found any increase in yield from crops after intervention or increased availability of ground water.*
- *Farmers observed reduction in soil erosion.*
- *Low participation rate of farmers in the programme was due to lack of awareness among farmers and fragmented holdings.*

General recommendations related to three watersheds

- *Effective soil and water conservation works like Contour bunding, trenching and pitting and vegetative barriers needs to cover more area of the watershed so as to improve the lean surface flow, ground water recharge and soil erosion control.*
- *Storage tanks, ponds and checkdams should be taken up to harvest the rainfall.*
- *Better co-ordination between development departments from planning to implementation.*
- *Creation of awareness programmes along with training will improve involvement of beneficiaries.*

CWRDM

4.104 The Watershed development programmes are implemented throughout the country by Government agencies/NGOs. The experience of Ralegoan Siddhi in Maharashtra, Alwari Watershed in Alwar district of Rajasthan, Kabilnalla watershed in Karnataka and several watersheds in Jhabua district in Madhya Pradesh have proved the advantages of Watershed programmes. However nation wide the implementation of the programme is not satisfactory and the key concerns of watershed programmes are shown in BOX-4.16

BOX-4.16
WATERSHED PROGRAMMES : KEY CONCERNS

- *Lack of people's participation.*
- *Field staff unfamiliar with participatory approaches.*
- *Insecurity about fund availability at the grass root level.*
- *Limited time for preparatory activities.*
- *Little Emphasis on cohesive group formation.*
- *Lack of transparent criteria for selecting areas and villages.*
- *Limited human resource capabilities.*
- *Lack of involvement of senior government functionaries and line agencies.*
- *Weak horizontal linkages among various agencies at the district level.*
- *No exit protocol for withdrawal after project completion.*
- *Plethora of watershed development programmes with different guidelines and cost norms.*

4.105 In planning any watershed development programme, community participation is indispensable and farmers should be closely involved in the planning and implementation of the programmes. In several programmes though funds are allocated based on entire area the effective treated area in watershed is very low due to lack of proper plan, supervision and monitoring. In Madhya Pradesh the encouraging performance in some of the watershed programmes is attributable largely to the higher rate of people's participation implemented through the decentralised framework. The Panchayat Raj Institutions are given a major role in the revised guidelines of WGDP, for the implementation of watershed programmes in Kerala which may enhance effectiveness of the programmes implemented in the state.

BOX-4.17
Salient findings of assessment of watershed Development Programme in Gujarat

- *Assessment was conducted in four watersheds.*
- *Land leveling, bunding, water resource development, drainage line treatment and fire plantation significantly improved the soil moisture, and improvement in crop yield in all four watersheds.*
- *Positive impact on creation of employment opportunities.*
- *Improved groundwater table.*
- *90% of the development activities continued to private crop land and major benefits flowed to land owning class.*
- *Absence of non-farm development activities has an adverse effect on the socio economic condition of the poor.*
- *Exclusion of poor from benefits affected the maintenance of watershed structures.*

4.106 The major schemes implemented under WGDP include forestry, village and small scale industries, horticulture, soil conservation, minor irrigation, dairy development, agriculture etc. The expenditure during the Ninth plan was Rs. 6112.70 lakhs of which 21 percent was for Soil Conservation, 23 percent for Forestry schemes and 18 percent for Minor Irrigation works. The physical achievement during the period consists of Soil Conservation works in 9941 ha, fodder development in 1215 ha and construction of 3764 cattle sheds and 2216 wells. (See Appendix -4.30)

Animal Husbandry

Livestock sub sector

4.107 Livestock subsector plays an important role in creating opportunities for augmenting income and employment in the rural households of Kerala. In other words this sector has high potential for alleviating poverty and unemployment in rural areas. Majority of livestock owning farmers are either small and marginal or even landless and so the progress in this sub sector has a poverty reduction implication also. In view of its suitability for combining with crop sub sector and sustainability as a household enterprise with the active involvement of the farm women, it is emerging as a very popular supplementary avocation in the small farm segment. The rural women play a significant role in the development of Livestock Sector and are involved in operations like feeding, milking, breeding, management and health care and running micro enterprises . It is estimated that about 32 lakh out of the total number of 55 lakh households in Kerala are engaged in livestock rearing for supplementing their income. The homestead settlement pattern, the relatively high level of literacy particularly among women, the highly favourable agroclimatic conditions conducive for bio mass production and the long tradition in livestock rearing are the inherent strengths which the Kerala economy possesses in favour of livestock rearing.

4.108 Kerala accounts for 1.75% of the total cattle population in the country. About 68% of the breedable cattle in the State are crossbred which was made possible by expanded health care facilities and veterinary services. So far out of 2681 artificial insemination centers 2505 have been established by the Animal Husbandry Department 50 by Dairy Development department and 126 by other agencies. The embryo transfer technology introduced in the recent past is yet another step towards livestock development. As a result milk production increased from 9.82 lakh tonnes in 1981-82 to 22.58 lakh tonnes in 1996-97 and 27 lakh tonnes in 2001-02.

4.109 **Though livestock sub sector makes significant contribution to the State's economy, it is facing serious constraints due to inadequate fodder base as a result of sharp and continuous decline in the area under livestock-supporting seasonal crops especially paddy and the limited scope for fodder cultivation in the State.** Marginalisation of agricultural holdings, declining trend in the family participation particularly among youth and high cost of production as a result of increasing reliance on external source for inputs have further aggravated the problem. The biggest challenge faced by the State in the livestock sector is the threat of foot and mouth disease because of large scale inflow of cattle from the adjoining states.

4.110 In the context of removal of Quantitative Restrictions (QRs), measures to safeguard the domestic sector from import of cheaper products and to ensure that the incoming items conform to Indian standards are to be strengthened.

Tenth Five Year Plan Strategies

4.111 The Tenth plan strategy of Kerala is framed in consonance with the national strategy with due adaptation to the Kerala context giving due importance for Upgradation of standards of veterinary institutions and services, establishment of disease free zone, extending health cover and stock upgradation and increasing production through scientific and better management (BOX-4.18). Enhancing fodder availability and fodder seed/planting material, promotion of farming system approach, development of micro enterprises for poverty reduction are also given importance.

4.112 During the Tenth Five year plan at the national level it is targeted to attain the availability of animal protein at the rate at 20kg./day. The Plan also envisages step up of milk production to 35 lakh MT, meat production to 1.74 lakh MT and egg production to 2285 million nos. and raise the per capita availability of milk to 280 gms./day, meat by 14.2 gms./day and egg 68nos./year by the end of Tenth Five Year Plan. To increase the production, it is proposed to upgrade the cross bred population to 75% by extending AI facilities. It is also proposed to extend the area of fodder cultivation and thereby increasing the availability of quality fodder.

Box-4.18
Tenth Plan Strategies in Animal Husbandry - India

- *Conservation of native livestock to maintain diversity of breeds*
- *Immunization Programme against important animal diseases and creation of disease free zones*
- *Enhancement feed/fodder production and improvement of common property resources*
- *Creation of National Animal Health and Production Information System*
- *A transition from subsistent livestock farming to sustainable and viable livestock and poultry farming*

Ninth Five Year Plan – A Review

4.113 The total outlay approved for the livestock sector under the Ninth Five Year Plan was Rs.163.44 crores. This included Rs.147.44 crores provided for Animal Husbandry and Rs.16 crores meant for Dairy Development. (Table - 4.15)

4.114 Nearly 96% (Rs.155.72 crores) of the outlay under Plan was invested in the live stock sector during Ninth Plan period. Investment in Animal Husbandry Sector amounts to Rs.142.65 crores ie., 96.75% and in Dairy Development sector it was Rs.13.07 crores, (81.69%) of the approved outlay respectively. Shortage of financial achievements under Dairy Development was due to diversion of funds to KCMMF from State Plan for giving assistance to rehabilitate Ernakulam Regional Milk Union amounting to Rs.2.07 crores. The total Central share in plan during the period was 16.06 crores

4.115 Ninth Plan envisaged stepping up milk production from 22.58 lakh tonnes to 33.83 lakh tonnes, egg production from 2024 million nos. to 2979 million nos. and meat production from 1.40 lakh tonnes to 1.66 lakh tonnes. By the end of 2001-02 milk production reached the level of 27.18 lakh tonnes, egg production to 2002 million nos and meat production 1.73 lakh tonnes, an achievement of nearly 80.34%, 98.91%, 104.22% respectively of the Ninth Plan Targets.

4.116 A review of the Annual Plans of the local bodies indicates that substantial outlays have earmarked by them for livestock development. However the activities, by and large, are centered around distribution of poultry, goats, pigs and milch animals as well as for providing additional facilities in the livestock farms transferred to them. The flow of grant-in-aid to local bodies for the development of livestock sector was clearly two times the normal funding as part of the State sector.

Table-4.15
Financial performance of livestock sub sector during Ninth Five Year Plan

(Rs. in lakhs)

Sl. No	Sector	IX Plan (1997-2002)		Expenditure as percent to total outlay
		Approved Outlay	Expenditure	
1	Animal Husbandry	14744	14265	96.75
2	Dairy Development	1600	1307	81.69
Total :Livestock subsector		**16344**	**15572**	**95.28**

4.117 During Ninth Five Year Plan major share of Plan expenditure was routed for the development of Veterinary Services and Animal Health, Expansion of Cross Breeding Facilities, Special Livestock Development Programme, Commercial Fodder Production Programme and as assistance to Public Sector Undertakings. Approved outlay and expenditure incurred for the major activities during period are given in Table- 4.16

Table: 4.16
Scheme wise expenditure during Ninth Plan

(Rs. lakhs)

Sl. No.	Name of Scheme	Approved Outlay	Actual expenditure
1	Strengthening of Veterinary Service	1785	3440.76
2	Expansion of Cross Breeding facilities	1560	1980.15
3	Special Live Stock Development Programme	939	2858.16
4	Assistance to Public Sector undertaking viz., KLD	3615	2208.85

	Board, KCMMF, KSPDC and MPI		
5	Commercial Fodder Protection Programme	794	553.91
6	Assistance to Veterinary College, Wayanad	2000	1012.50

Livestock Population

4.118 Kerala possesses 34 lakh cattle, 1.7 lakh buffaloes, 18.6 lakh goats, 1.4 lakh pigs, 11.9 lakh ducks and 256.5 lakh poultry. The cattle population in Kerala accounts for 1.75 per cent of the total in the country. Comparative picture of livestock population during the last two Censuses 1987 and 1996 is presented in Appendix 4.32

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

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

Weak feed and fodder base

4.121 Most of the reports regarding the availability of fodder in the country project an alarming gap between demand and supply. The National Commission on Agriculture (1976) estimated the demand of fodder in the country for the year 2000 AD at 256.8 million ton dry fodder and 575 million ton green fodder. The future scenario of demand and supply position as shown in Tenth Plan Working Group Report of the Planning Commission on Animal Husbandry and dairying reveals a huge deficit (prevailing and expected) in green fodder in the country. The available fodder can meet the demand of only 46.7 percent of the total livestock .The deficit as on 2000 in green and dry fodder in the country was 61.10% and 21.93% respectively.

4.122 The situation in Kerala is worse. Kerala is a deficit State as far as fodder production is concerned. Earlier cattle rearing has been integrated with rice farming system to the advantage of both. With the shift in cropping pattern, the area under rice has come down by 50 per cent over the last two decades leading to drastic reduction in the availability of straw for feeding cattle.It is estimated that the state produces only 60% of the roughage requirement for cattle in Kerala. Regarding the cattle feed concentrate, State is not producing even half the requirement. Cheap and quality feed and fodder are scarce in Kerala. Shift to animal unfriendly cropping pattern, increased labour cost, scarcity of input for cattle feed etc., are forcing the cattle sector of Kerala to heavily depend on "imported cattle feed". Green fodder is yet to be incorporated into the state-cropping pattern because its cultivation is not as profitable as that of other crops. Non-availability of land for fodder cultivation also stands as a major limiting factor. The cost of concentrated feed is ever on the increase making it almost imposible for the dairy farmers in the State, especially those with limited financial resources to maintain cattle. The present price of compounded feed ranges from Rs.7/- to Rs.71.50 per kg. There is an increasing trend in the price of ingredients also.

4.123 Kerala farmers have addressed the situation by restricting the number of cattle and that too by preferring high yielding crossbreds. This is evident from the steady increase in the proportion of crossbred animals, which Kerala could achieve during the last three decades. The proportion of crossbred animals in the total cattle population is of the order of 68 per cent (see Appendix 4.31). There is drastic reduction in other categories of livestock such as bullocks, indigenous female cattle,

male calves etc. (see Appendix 4.33 & 4.34). The recent trend reveals that the farmers are reluctant to maintain even high yielding crossbred cows during their dry period.

Trend in Production of major Livestock Products

Indian Scenario

Milk

4.124 India is currently the largest producer of milk in the world (84.6 million tonnes during 2001-02). The per capita availability of milk in India is 226gm./day, but it is still below the world average of 285 gm/day. Out of 168 Milk Unions, 58 Milk Unions (34.5 %) were running in loss as on March 2000.

Egg and poultry meat

4.125 India ranked 4th in egg production and 19th in broiler production. Indian poultry industry has come a long way from a backyward activity to an organised scientific and vibrant industry. It is estimated that the egg production in the country is about 33.6 billion numbers (2001-02) against the Ninth Plant target of 35 billion nos. The most notable growth among the livestock products has been recorded by eggs and poultry meat and their output is growing @ 5.87% per annum. The poultry production model with high input-high output using commercially developed strain of birds has been primarily responsible for the rapid growth in production of eggs and broiler meat in the country. High feed cost, non availability of credit and marketing support are the constraints facing the poultry production units.

BOX-4.19
Animal Husbandry and Dairying - Indian Scenario

- *India is currently the largest producer of milk in the world*
- *producing approximately 84.6 million tonnes of milk*

- *It has the largest livestock population in the world accounting*
- *for 57% of buffalo population and 16% of cattle population*

- *India ranks 4th in egg production and 19th in Broiler*
- *production in the world*

- *Animal Husbandry and Dairying Sector contributes about*
- *22 % of the value of output from total Agriculture and allied*
- *sectors*

- *Investment of GOI including share of States in these sectors*
- *was extremely low and as percentage to total investment during 9th*
- *plan was only 0.4%*

Kerala Scenario

4.126 The important contribution of livestock sector to the economy is derived from milk, meat and egg. Trends in requirement and availability of major livestock products are given in Table 4.17. Milk is the only product which could maintain its growth rate in tune with the increase in demand. The per capita availability of milk during 2001-2002 was estimated at 234 gm/day. In the case of egg, the domestic production is sufficient to meet only 25 per cent of the internal requirement. The per capita availability of egg is 63 nos/per year. The state is largely dependent on external sources for maintaining the supply of meat. The internal supply is more or less around 15 gm per capita per day.

Table 4.17
Requirement and Availability of Livestock products 1981,1991 & 2001

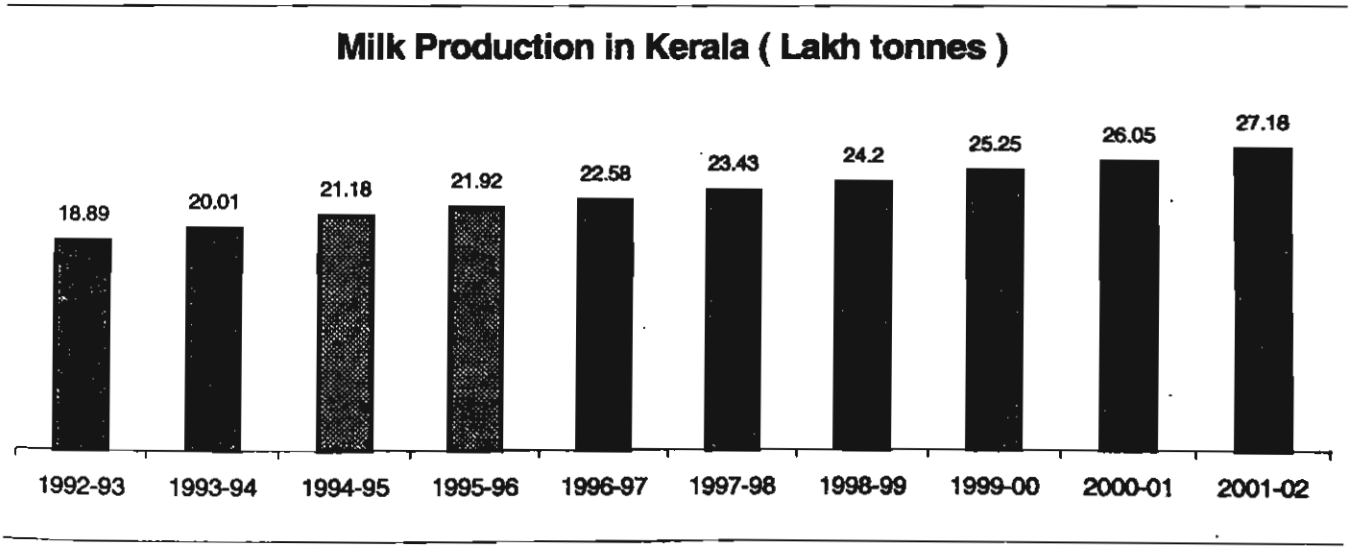
Year	*Milk (lakh tonnes)*		*Egg (million Nos.)*		*Meat ('000 tonnes)*	
	Requirement	***Availability***	***Requirement***	***Availability***	***Requirement***	***Availability****
1981	18.62	9.82	2952	1618	177	50.81
1991	21.24	17.85	3471	1710	208	120.65
2001	23.20	27.18	4230	2002	249	172.80

Source :Animal Husbandry Department **including unauthorised sector*

Milk

4.127 In spite of a shrinking fodder base, the dairy sector in Kerala could maintain its performance during the last three decades. The compound annual average growth rate recorded during the last decade was 4.2 per cent, which was maintained during 2001-02 as well. The genetic upgradation attained through the artificial insemination programme launched by the state with the support of the frozen semen technology has helped it to attain new heights in milk production. However, the high yielding potential secured through cross breeding could not be converted into a corresponding increase in productivity. Despite considerable increase in the proportion of high yielding crossbred cattle, average milk yield per animal per day remains low at 6 litres compared to its potential of 8-10 litres. However, the average productivity attained by Kerala is higher than the national average (2.78 litres) and has been increasing. Index of milk production of Kerala and India from 1984-85 to 2001-2002 is given in Appendix-4.37. Year-wise milk production for the period from 1993-94 to 2001-2002 given in fig.4.7.

Fig. 4.7



Box-4.20
Development of trade in meat and poultry products-India

Major Constraints :
- Prevalence of disease in animal
- Unhygienic abattoirs
- Lack of inspection system

Tenth Plan Strategy for meat and poultry:
- Setting up of new modern abattoirs exclusively for export
- Upgrading the existing abattoirs with hygienic facilities
- Upgrading quality control and inspection system
- Strengthening laboratory facilities and infrastructure for quality
- Control checks and inspections
- Exploring new markets and
- Promoting value added products

Egg and Meat

4.128 Poultry farming for egg production relying on purchased feed is uneconomic in Kerala. Poultry rearing on commercial lines is therefore largely confined to broiler production. However, the backyard system for egg production continues to thrive. The Egg production which has reached the level of 2024 million numbers by the end of Eighth Five Year Plan is now showing signs of slowing down. The production which was 2054 million nos. in 1999-2000 is showing a downward tendency to 2034 million nos. in 2000-01 and then to 2002 million nos. by 2001-02 of 2.5%. This is against the target of 2279 million numbers during Ninth plan. Index of egg production of Kerala and India over the years 1984-85 to 2001-02 is given in Appendix 4.37.

4.129 Meat production in Kerala comprises of beef, mutton, pork and broiler chicken. Out of this, beef is almost entirely from the culled animals brought from the neighbouring states. The rearing of goat and pig is concentrated in selected pockets. As in the case of poultry, meat production under stall-fed condition in general is not economical in Kerala. However, there is scope for fostering this activity in selected areas largely by utilising the bio wastes available.

4.130 Meat other than poultry increased from 1.22 lakh in 1999-2000 to 1.23 lakh tonnes in 2000-01 and 1.25 lakh tonnes in 2001 –02. This is against the Ninth Plan target of 1.66 lakh tonnes. The production of poultry meat including broilers is on the increase. It reached 47700 tonnes in 2001-02 as against 41512 tonnes in 2000-01. Details of milk, egg and meat production are furnished in table 4.18.

Table – 4.18
Year-wise estimate of Milk, Egg and Meat production in Kerala and India (1993-94 to 2001-02)

Year	*Milk Production (lakh tonnes)*				*% contribution of Kerala*	*Egg Production (million numbers)*				*% contribution of Kerala*	*Kerala*	
	India	*% change over previous year*	*Kerala*	*% change over previous year*		*India*	*% change over previous year*	*Kerala*	*% change over previous year*		*Meat Poultry (tonnes)*	*Meat other than Poultry (tonnes)*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*	*(7)*	*(8)*	*(9)*	*(10)*	*(11)*	*(12)*	*(13)*
1993-94	606	-	20.01	-	3.3	24167	-	1844	-	7.3	28000	101223
1994-95	638	5.28	21.18	5.84	3.3	25975	7.40	1916	3.90	7.2	30000	103551

1995-96	663	3.91	21.92	3.49	3.3	27284	5.03	1987	3.70	7.3	32000	105933
1996-97	683	3.02	22.58	3.01	3.3	27492	0.76	2024	1.86	7.4	34000	108336
1997-98	705	3.22	23.43	3.76	3.3	28400	3.30	2033	0.44	7.2	31688	114306
1998-99	752	6.67	24.20	3.29	3.2	29476	3.79	2044	0.54	6.8	32480	117840
1999-00	781	3.86	25.25	4.34	3.2	31501	6.87	2054	0.48	6.5	33204	121875
2000-01	810	3.71	26.05	3.17	3.2	32420	2.92	2034	(-)0.97	6.3	41515	122808
2001-02	846	4.44	27.18	4.34	3.2	33600	3.64	2002	(-)1.57	6.0 *	47700	125100

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

4.131 Kerala State Poultry Development Corporation was established in 1989 to give special attention for the revival of poultry farming. The Corporation had built up a broiler breeding farm and hatchery at Kudappanakunnu in Thiruvananthapuram District with a total investment of Rs.5.95 crore. The Corporation has partially commissioned a project to rear 15,000 parent stock against the target of 25,000 and to hatch 28 lakh day-old chicks against the target of 58 lakh by utilising financial assistance from the State Government and commercial banks.

New opportunities for meat production

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

Animal Health Care

Indian Scenario

4.133 India has a large network of veterinary hospital/dispensaries. At the end of 2000, there were 7749 veterinary hospitals/polyclinics, 15554 veterinary dispensaries, 27543 veterinary aid centers including mobile dispensaries. These institutions employed some 36000 professional staff and over 70000 para veterinarians. The primary emphasis is on clinical services and as a result, endemic disease such as Foot and Mouth Diseases (FMD) are still prevalent in India. The limited emphasis on preventive services contributes to India's inability to eradicate animal disease epidemics, which limits the country's competitive advantage in the global market place. Due to the prevalence of some diseases, the sanitary and phyto sanitary regulations of many OECD countries deny entry of Indian livestock products, despite the "minimum market access clause" of the World Trade Agreement.

Kerala

4.134 Health cover is an important support, which has to support the intensive cattle improvement programme. Veterinary health care programmes are implemented through a network of institutions consisting of veterinary polyclinics, veterinary hospitals, mobile units and district veterinary centres. At the end of Ninth Plan period every village panchayat in the State had a veterinary institution (hospital/dispensary) but for 23. There is a strong network of veterinary health care now in the State comprising 200 Veterinary hospitals, 938 veterinary dispensaries and 14 District Veterinary Centres and other related health care Institutions. At present 3400 cattle units are attended by each veterinarian.

4.135 Even though it was envisaged in the Ninth plan that health cover will be provided at doorstep of the farmer, this aspect could not be achieved. Similarly a systematic approach and programme could not be developed for Helminthiasis and mastitis control. The state is implementing a programme for Foot and Mouth control with the assistance of Government of India. Systematic vaccinations are over up to Central Kerala and now the programme is extended up to the northernmost district, Kasaragod. Also Brucellosis has now emerged as a new threat to the livestock wealth of the State. Helminthiasis control also needs attention. Worms and other internal parasites cause considerable economic loss to the farmers. It is necessary to control worm infestation through proper surveillance and medication. Data regarding outbreaks, attacks and deaths of major contagious diseases of animals in Kerala is given in Table 4.19.

Table - 4.19

Outbreaks, Attacks and Deaths due to major contagious Diseases during 1993-1999

Sl No.	Name of Disease	Year						
		1993	1994	1995	1996	1997	1998	1999
1	*Anthrax*							
	Outbreaks	3	4	0	0	0	11	10
	Attacks	4	52	0	0	0	463	463
	Deaths	4	3	0	0	0	22	21
2	*Black Quarter*							
	Outbreaks	2	5	3	3	1	2	0
	Attacks	24	124	300	3	1	2	0
	Deaths	22	5	22	3	1	1	0
3	Haemorrhagic Septicemia							
	Outbreaks	4	9	3	8	4	9	9
	Attacks	265	123	5	29	308	121	56
	Deaths	214	38	5	10	22	10	64
4	*Foot & Mouth Disease*							
	Outbreaks	149	481	159	79	232	475	804
	Attacks	3072	8713	3714	2253	189	14214	19205
	Deaths	241	164	31	17	6753	0	1178
5	*Rinderpest*							
	Outbreaks	2	2	0	0	0	0	0
	Attacks	15	19	0	0	0	0	0
	Deaths	13	4	0	0	0	0	0

Source: Animal Disease Surveillence Programme –1998 and A H Dept.

Production of Vaccine

4.136 Most of the major diseases of Cattle and Poultry are today checked by the use of biological products like sera and vaccines. The manufacture of biological products in our country was initiated at Indian Veterinary Research Institute.

4.137 It is over thirty years ago that the State made a small beginning in biological production by opening the Veterinary Biological Institute. The Veterinary Biologicals, Palode is the sole agency engaged in the production and distribution of animal vaccine in the State.The following viral vaccines viz. ,Ranikhet Disease Vaccine (K), (Freeze Dried Komorov Strain),Ranikhet Disease Vaccine (F),Fowl

4.138 Pox Vaccine,Freeze dried Duck Plague vaccine,Tissue culture Rinderpest vaccine and Bacterial Vaccines viz.,Haemorrhagic Septicaemia broth Vaccine, Haemorrhagic Septicemia oil adjuvant Vaccine, Black Quarter Vaccine and Anthrax Spore vaccine are manufactured here.

4.139 Compared to 1999-2000, during 2000-2001 poultry vaccine production recorded reduction of 19.34 lakh doses (35%) and livestock vaccine 0.48 lakh doses (19.2%.). During 2001-02 poultry vaccine production increased to 54.10 lakh doses and livestock vaccine to 2.30 lakh doses. Number of vaccinations done during the year was 5.24 lakh for livestock and 19.94 lakh doses for poultry. Details are given in Appendix 4.38

Breeding Support

4.140 Kerala Livestock Development Board (KLDB) is involved in the production and distribution of frozen semen and maintains three bull stations at Mattupetty, Dhoni and Kulathupuzha for the production of crossbred and purebred cattle and buffalo bulls. Production of frozen semen during 2001-02 increased to 28.94 lakh doses from 24.78 lakh doses in 1996, the terminal year of 8th Five Year Plan. The increasing trend is maintained throughout the Ninth plan period, but for the year 2000-01 during which production came down to 20.13 lakh doses. But the distribution inside the state remained more or less static. Details are furnished in Appendix 4.39

4.141 The Department of Animal Husbandry is responsible for providing artificial insemination (AI) support. The Ninth Five Year Plan envisaged providing one centre for every 500 breedable cattle and the target was 3600 centers. The number of AI centres under Animal Husbandry Department increased to 2440 in 1999-00 and to 2537 in 2000-01 and decreased to 2505 in 2001-02. Along with 176 centres operated by other agencies the total number of AI centres operational is 2681. During Tenth Plan period the target is to extend the facility to remote areas, realigning / shifting of AI centres with low performance. (See Appendix-4.40). Also there are 9 ICDP Centres and 1399 ICDP sub Centres in the State.

4.142 Animal Husbandry Department has launched a pilot programme to extend artificial insemination facilities to the doorstep of farmers. The number of AI centres has been almost doubled during the last decade. But there is no proportionate increase in the number of inseminations conducted. The achievement in this regard was 2.4 percent only. The number of inseminations done during 2001-02 was 12.49 lakh nos. and the number of calvings recorded was only 3.33 lakh. This is against 3.61 lakh calvings recorded out of 13.72 lakh AIs during the previous year. In spite of the expansion of AI facilities, the average no of insemination done by one centre during last three years shows a decreasing tendency, ie., from 570 in 1999-2000 to 542 in 2000-01 and to 499 in 2001-02 The number of AIs is more or less constant inspite of large scale expansion in the number of centres. The average number of inseminations done by one centre during the year was is very low. This is more glaring in the context of the fact that average number of inseminations needed for producing one calf is four which has remained stagnant over the last 7 years(see Table 4.20). The low calving rate also speaks of the quality of service rendered. The Tenth plan strategy is for improving the quality of AI Services rather than increasing the number of Centres,

Table – 4.20
Number of artificial inseminations conducted and calving produced
(1993 – 94 to 2001 – 2002)

Year	No. of artificial Insemination Centres	No. of Artificial Inseminations done	No of AI Done Per centre	Recorded Calving	No of insemination s per calving
1	2	3	4	5	6
1993-94	2037	1353058	664	299358	5
1994-95	2097	1464941	698	306975	5
1995-96	2298	1240116	540	323958	4
1996-97	2293	1151189	502	332962	4
1997-98	2393	1259419	526	327365	4
1998-99	2408	1251119	520	313859	4
1999-00	2440	1391495	570	348834	4
2000-01	2537	1371655	542	360645	4
2001-02	2505	1248996	499	332967	4

Source: Animal Husbandry Department.

4.143 Apart from the frozen semen technology, KLD Board is also engaged in research and development activities like progeny testing, embryo transfer, production of liquid nitrogen, fodder seed and training programmes. The Board has an embryo transfer centre at Mattupetty, a goat farm at Dhoni for production of frozen semen and kids, a pig breeding centre at Puthur etc. During the year, the Board has produced 284 Malbari kids and 22 Boer kids, collected 57 embryos and trained 309 personnel. Other activities of the Board are given in Appendix 4.41

4.144 Under herd book scheme implemented by KLD Board the female progeny born to the test bulls are identified and recorded. They are followed up at half yearly intervals by way of girth measurements. A total of 96885 animals have so far been identified and registered under the programme. Another notable achievement of KLD Board is the introduction of Boer goats which are considered far superior to any other goats for meat production into the Kerala scene. It is known for rapid weight gain and heavy muscling and has high fertility. Boers typically give birth to twins. Crosses of local goats with Boer goats have proved to be a suitable genotype for the goat production system and well adapted to all types of climate.

4.145 By the end of the financial year, there were 80 Boers in stock. 22 kids were born in the farm during the four-month period up to the end of the financial year 2002-02 with an average of 1.5 kids per kidding. Freezing of the semen of selected Boer bucks has also been started during the year.

Cattle Feed

4.146 Based on cattle population, the potential daily requirement for concentrated cattle feed in Kerala has been estimated at 5372 MT. At present the State has three cattle feed plants functioning at Pattanakkad, Malampuzha and Kallettumkara . The cattle feed plant at Pattanakkad (300 MT/day capacity) and Malampuzha (200MT /day capacity) are under KCMMF, whereas Kerala Feeds Ltd, Kallettumkara with an installed capacity of 500 MT/day commissioned in 1999 is operating under a separate management. The production of two Cattle Feed Units under KCMMF and Kerala Feeds Ltd. is insufficient to meet the internal demand.

4.147 The total production by two cattle feed units during the years 2000-2001 and 2001-02 was 1.26 lakh MT and 1.17 lakh MT respectively against the production of 1.30 lakh MT during 1999-2000. The decline in production by 3943 MT during 2000-01(3.02 % below 1999-2000) was mainly due to plant shut down for expansion activities and 13407 MT during 2001-02 (10.28% below 1999-2000) was mainly due to decline in sales consequent to preference of farmers for pellet feed instead of mash feed. The production of cattle feed by Kerala Feeds Ltd., increased from 72417 MT in 2000-01

to 82100 MT in 2001-02 showing a growth of 13.45 %. Production and sales details of the above cattle feed plants are given in Table 4.21.

Table 4.21.
Production and Sales of Cattle Feed during 2000 –01 & 2001-02

(in lakh tonnes)

Factory	Production		Sales	
	2000-01	2001-02	2000-01	2001-02
Pattanacaud (KCMMF)	0.71		0.67	0.71
Malampuzha(KCMMF)	0.55	1.17	0.57	0.45
Kerala Feeds Ltd.	0.72	0.82	0.71	0.83
Total	1.98	1.99	1.95	1.99

Better Management of Young Calves

4.148 Bringing down the age at first calving and reduction in the inter calving period of cross-breds have been recognized as the most effective measures for augmenting milk production. With this objective, a 'calf rearing programme by subsidising cattle feed for rearing cattle up to 32 months along with health cover and insurance' was under implementation during 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 government as State Sponsored Programme. This is one of the effective programmes of Animal Husbandry Department and it has helped in reducing the age at maturity and inter calving period and improving milk production. Even though 56480 calves were enrolled during Ninth Plan period enrolments during the last three years were comparatively lower than the first two years. Details are furnished in Table 4.22

Table – 4.22.
Year-wise details of calves enrolled under Special Livestock Development Programme from 1997-98 to 2001-2002

Year	No. of calves enrolled under SLBP	Amount subsidised (Rs. in lakh)
1997-98	30000	938
1998-99	10000	500
1999-00	8917	500
2000-01	6553	405
2001-02	1010	517

Source: Animal Husbandry Department

Kamadhenu Insurance Scheme

4.149 The Animal Husbandry Department in collaboration with United Insurance Company has formulated a Kamadhenu Insurance Scheme to insure the family of the farmers and their crossbred milch cows. The scheme is under implementation from 1998-99 onwards with the target of covering 400 crossbred cows per panchayat. The Animal Husbandry Department provides technical assistance and the local government are subsidising the premium at varying rates. The response from the farmers as well as the local government for participation in the scheme is encouraging. The number of cows insured during 2000-01 was 28677 and during 2001-02, 3037. Details of number of farmers insured, amount of premium remitted and claims settled are given in Table 4.23.

Table 4.23
Kamadhenu Insurance Scheme
Progress of Implementation from 1998-99 to 2000-02and details of claims settled as on 2001-02

Year	Progress of Implementation			Claims settled (cum)					
	No. of cows insured	No. of farmers insured	Amount of premium (Rs. lakh)	Cattle Insurance		Accident death		Medical Re-imbursement	
				No.	Amount (Rs. lakh)	No.	Amount (Rs. lakh)	No.	Amount (Rs. lakh)
1998-99	42583	69003	339.99	NA	NA	NA	NA	NA	NA
1999-00	37008	61288	277.24						
2000-01	28677	45607	160.25	754	52.86	16	12.36	781	12.20
2001-02	3037	3796	70.62	1009	70.55	16	0.84	761	20.32

Source: Animal Husbandry Department

Prices

4.150 Average price of important inputs and products of livestock sector for the last seven years is presented in Appendix 4.42. Compared to 1999-2000 there was an increase in the price of all meat other than broiler during 2000-01 and 2001-02. In the case of all other products though the prices showed a slight upward tendency during 2000-01, it came down by 2001-02 and price of feeds like coconut cake and straw recorded even lower prices than in 1998-99. During the year, price of milk recorded a decrease of 0.78 per cent, broiler chicken 3.52 percent, fowl-white egg 7.89 per cent, fowl- brown egg 17.32 percent and duck egg. 3.08 per cent. On the input side, the cost of groundnut cake decreased by 2.94 percent and coconut cake by 8.89 percent, gingely oil cake by 0.43%, straw by 10.64 % and fodder by 10.84%

Dairy Development

4.151 Dairy sector in Kerala made spectacular progress during the last three decades. Milk marketing continues to be largely under private sector. However, with the inception of Operation Flood Programme, the organised sector under the co-operative fold started giving lead for the production and marketing of milk in Kerala. Kerala Co-operative Milk Marketing Federation (KCMMF) (Milma) supported by the three Regional Unions has emerged as the single largest dealer of milk in Kerala with a very wide network of 2233 co-operatives regularly engaged in the procurement and distribution. The milk processing capacity of the Federation was 1.38 lakh litres at the time of its inception in 1983 which increased to 9.60 lakh litres per day during 2001-02. In addition 'Milma' has installed a milk powder plant with a capacity of 10 MT/day. Besides marketing support, the Federation also provides extension support, input delivery service and health cover.

4.152 Extension support for dairy development, fodder development programmes, advisory service, quality control measures, training of farmers etc. are the major activities coming under the purview of Dairy Development. The Department is undertaking activities such as promotion of indigenous milk product units and assisting the co-operatives for making them economic. The development programmes are operated through 3090 dairy co-operatives including 2456 Anand pattern societies functioning under KCMMF.

4.153 During Eighth Plan, quality control units were established in eight districts. Six more units were made operational by 1998-99.Out of the 93487 milk samples tested during 2001-02, 53419 (57%) were of low quality and this clearly speaks of the necessity of enforcing strict quality control measures on milk and milk products . Training programmes are organised through 5 dairy training centres. During Ninth Plan period 20000 farmer training programmes were conducted.

4.154 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 11.50 MT of fodder seeds during 2001-02 against 15.13 MT of seeds during 2000-01. (see Table 4.24.) During the year, Dairy Development Department procured and supplied 52 MT fodder seeds (from NSC, KLD Board and Government of India) against 73 MT during 2000-01 and 91 MT during 1999-2000. The Department also supplied 285 lakh root slips/stem cuttings during 2001-02 against 500 lakh during the previous year. The total area covered under fodder cultivation is 3830 ha against 4923 ha during the previous year (see Table 4.25).

Table – 4.24
Production and Sale of fodder seeds by KLD Board
1996 – 97 to 2001 – 2002

Year	Quantity of Seeds Produced (MT)	Quantity of Seeds Supplied* (MT)
1996-97	28.42	29.35
1997-98	31.64	28.96
1998-99	26.50	30.48
1999-00	30.21	28.36
2000-01	15.13	35.09
2001-02	11.50	20.68

Source: KLD Board Annual Reports
** Including sales to outside agencies and used for KLDB programme*

Table 4.25
Procurement & supply of fodder seeds / root slips and area covered under fodder cultivation – Dairy Development Department (1996-97 to 2001-2002)

Year	Procurement of seeds	Total quantity of seeds supplied to farmers	Area covered	Fodder root slips/stem cuttings supplied	Area covered	Total area covered under fodder cultivation
	(in MT)	(in MT)	(in Ha)	(in lakh)	(in Ha)	(in Ha)
1996-97	196.49	196.49	5932	546	2182	8114
1997-98	310.45	310.45	9326	200	799	10125
1998-99	307.40	307.40	9026	250	1000	10026
1999-00	91.00	91.00	3560	460	1840	5400
2000-01	73.00	73.00	2923	500	2000	4923
2001-02	52.00	52.00	2690	285	1140	3830

Source: Dairy Development Department

4.155 Besides this a large area has been brought under fodder cultivation through programmes under local government.

Milk Marketing

4.156 The Co-operative Milk Marketing Federation (KCMMF) has a wide spread network of outlets for marketing of milk. With the advent of Operation Flood Programme, under the aegis of the KCMMF, a well established system for regular procurement of milk from the producers for distribution to the regular consumers became a reality and it has helped in ensuring better returns to the dairy farmers. With the implementation of North Kerala Dairy project supported by Swiss Development Agency, the entire state is under the network of Anand pattern dairy co-operatives (APCOs). As on October 2002, the federation

was operating through 2456 APCOs with a total membership of 6.78 lakh. The average milk procured per day by APCOs during the year was 7.09 lakh litres (as on October 2002) against the previous year average of 7.14 lakh litres. The activities of KCMMF are presented in Appendix 4.43.

4.157 In Kerala, where the production of milk is concentrated in the small farm sector and ultimate supply is dependent on seasonal factors, maintaining uninterrupted supply particularly during lean period is very difficult. The federation is thus forced to import milk from the neighbouring States. The periods August-September and January-May are considered to be lean periods when the internal supplies used to shrink. As per available data for the last 5 years excess procurement over sales was recorded only during 1988 and 2001. The excess requirement was met by procurement of fluid milk and milk powder from neighbouring states. Season-wise milk production in Kerala is given in Table 4.26.. The procurement and sale of milk by KCMMF stood at 2484 and 2402 lakh litres respectively during 2001 against the procurement and sale of of 2253 and 2293 lakh litres during 2000 recording a growth rate of 10% in procurement and 5%in sales. Procurement and sale of milk by KCMMF stood at 2023 and 2080 lakh litres respectively as on October 2002. Data on procurement and sale of milk by different dairies of KCMMF during 1999 to 2002 is presented in Appendix 4.44.

Table 4.26
Season wise Estimated Production of Milk

Year	Summer		Rainy		Winter		Total
	Quantity	% to total	Quantity	% to total	Quantity	% to total	
1996-97	7.49	33.17	7.71	34.15	7.38	32.68	22.58
1997-98	7.81	33.33	7.94	33.89	7.68	32.78	23.43
1998-99	8.14	33.64	8.26	34.13	7.80	32.23	24.20
1999-00	7.83	31.01	9.48	37.54	7.94	31.43	25.25
2000-01	8.21	31.52	9.39	36.05	8.45	32.43	26.05
2001-02	8.43	31.02	9.74	35.84	9.01	33.14	27.18

Source: Integrated Sample Survey

4.158 The veterinary services rendered by KCMMF are noteworthy. During 2002, services were provided through 12 regular and 38 emergency routes and 0.36 lakh animals were treated as on October 2002. The number of animals treated through regular routes over the years shows more or less a declining trend from around 1.6 lakh in 1996 to 0.03 lakh in 2002 and cases treated through emergency routes remains more or less static. KCMMF has sold 104832 MT of cattle feed during the year . Also produced 1448 tonnes of ghee and sold 1450 tonnes of ghee during the year. Year wise details for the period from 1995 to 2002 are furnished in Appendix 4.44.

4.159 Besides milk , a wide variety of milk products are manufactured by KCMMF. A comparison of sales by KCMMF during 2000-01 and 2001-02 is given in Appendix 4.48. Among the products, sale of dairy whitener increased by 223%, cream by 149%, lassi by 55%, sipup by 37% and ice cream by 39%. The products introduced during 2001-02 are Milma Plus, Paneer and chocolik.

4.160 As part of joining the national stream to promote co-operative brand in the light of competition from private sector, Federation has introduced the mnemonic symbol of NDDB in the milk pouches in the State. Kerala is the first Federation in India to introduce the mnemonic symbol throughout the State. KCMMF have been provided financial support for carrying out local promotional activities to the tune of Rs.20 lakhs by NDDB. In this connection mass media campaign is being organized by NDDB in liaison with the Federation. The extracts of a study of milk marketing unions in Kerala conducted by NDDB/TATA group is shown in BOX 4.21

4.161 The milk and milk product market in a high consumption state like Kerala is being captured increasingly by outside players, private companies and multi nationals. If the co-operative milk structure built up in the state under Operation Flood (and which has benefited a large number of marginal and small farmers), is to survive, innovative measures have to be taken by MILMA in marketing.

4.162 An Agreement for setting up a Joint Venture Company was signed between Mother Dairy Foods Ltd, and KCMMF on 26.12.2002. The name of the new company is Milma Foods Ltd.

BOX-4.21
Extracts of the study of Milk Marketing Unions in Kerala conducted by NDDB/Tata Group

- *Inflow of cheaper milk from TN and intense competition from Multi National Companies and organised domestic players*
- *A stagnant market and intense competition in the organised sector could make the co-operative structure unviable*
- *radical measures are needed to support the livelihoods of 6.5 lakh milk producers*
- *Unions lack skills to manage the sales and marketing function, critical to face the impending competition*
- *Critical initiatives to survive competition, compete profitability and to sustain profit is needed and corrective actions would be to increase sales, reduce costs and rationalise procurement price*
- *Current organizational capabilities of the Union are inadequate to face impending competition*
- *In its present form KCMMF lacks requisite skills for marketing in a competitive environment*
- *KCMMF needs to acquire skill sets as well as operating flexibility through an alliance/joint venture*
- *Sales, Distribution and marketing of liquid milk and milk products should be centralised with the JV company while Unions should act as production centres*
- *Joint Venture needs to develop a market price point for milk bench marked with its anticipated competition*
- *JV could use Customer Value Pricing in the short term to expand market and then move to competitive pricing to create entry barrier for new entrants*
- *Marketing should migrate to a JV Company to harness scale benefits comparable to MNCs*
- *Desired result will be increased sales which could lead to greater procurement volumes that benefit 6.5 lakh producers and greater financial security*

4.163 The number of functional milk co-operatives increased from 1784 in 1996 to 2233 in 2002 and recorded an increase of 25% during Ninth Five Year Plan period. Average procurement per society increased to 335 litre / day in 2001 from 329 litre / day during 2000. The increase is only marginal and the quantum handled by many of the primaries is not adequate enough to fend for themselves. During 2002 (as on October) average procurement per society lowered to 318 litres per day. Year-wise average procurement of milk per day by APCOS is presented in Appendix 4.45

4.164 The average price of milk paid to the producer during 2000-01 remains at the same level of Rs.9.93 per litre as in 1998-99. The price at which milk is supplied to the consumer also remain at the same level of Rs.13 per litre. The last price revision was on 1-4-99. The price revision details of KCMMF are furnished in Appendices 4.46 and 4.47. From 2000-01 KCMMF is adopting a policy of differentiated price structure for different Unions.

FISHERIES DEVELOPMENT

4.165 The state has all the requisite natural endowments for building a strong and vibrant fisheries economy. They include a stretch of coastal belt extending over 590 km. and an extensive inland waterspread of around 4 lakh hectares. The exclusive economic zone (sea spread upto 200 metres) lying adjacent to Kerala coast is spread over 36000 square kilometers which is almost equivalent to the land area of the state.

4.166 There are 222 fishing villages in the marine and 113 fishing villages in the inland sector, where fishing and related activities provide livelihood to a vast majority of the population. The estimated fisher people population in Kerala during 2001-02 is 10.75 lakh which includes 8.28 lakh in marine and 2.47 lakh in the inland sector. The number of active fishermen during 1999-2000 was 2.26 lakh which comprises of 1.85 lakh in marine and 0.41 lakh in inland sector. Alappuzha district is in the first place in the number of fisher folk with a population of 1.81 lakh followed by Thiruvananthapuram (1.76 lakh). The district-wise details of fisher folk population are presented in Appendix 4.49.

4.167 The state is endowed with rich inland water bodies consisting of 44 rivers (having an area of 0.85lakh ha) 30 major reservoirs (0.30 lakh ha) fresh water ponds and tanks (0.25 lakh ha) 45 backwater and extensive brakish water area (2.43lakh ha). But the inland fish production accounts for only about 11.6% of the total production. Eventhough the State is endowed with extensive waterspreads offering tremendous potential for the development of inland fisheries, this opportunity could not be tapped to the desired extent.

4.168 The National strategy for Tenth Plan for the 'Fisheries' sector contemplates integrated development of reverine fisheries, habitat restoration and fisheries development of upland waters, development of reservoir fisheries, management of coastal fisheries, deep sea fisheries, vertical and horizontal development of aquaculture productivity, infrastructure development and improved post harvest management, policy intervention including monitoring, control and surveillance. The major thrust areas in the Tenth Plan at the national level are given in BOX.-4.22

BOX-4.22
Major Thrust areas for Tenth Plan

- Enhancing Productivity and Production from Inland Water spread.
- Technical and financial support for enhancing production and productivity.
- R&D programmes for enhancing production of quality fish/shrimp seed and feed.
- Diversification of activities for development of fisheries and aquaculture.
- Improving post harvest management by processing, value addition, setting up of cold chains and packaging.
- Creation of health and sanitary check facilities to ensure quality of products as per international standards.
- Integrated approach for sustainable development of fisheries and aquaculture.

4.169 The strategy envisaged during Ninth Five Year Plan for the sector was providing economic and physical access to the dependent population through a comprehensive approach covering access to various means of production, resource, conservation and sustainability of production, ensuring regular

flow of income, access to basic needs through an area/community approach. The plan contemplated enactment of a comprehensive legislation for empowering the traditional fishermen in all these aspects.

4.170 In the marine sector, organising resource conservation measures under a participatory approach combined with regulatory measures was given the major thrust. As part of the implementation of the strategy and to oversee the conservation measures 100 Matsyabhavans had been set up during the plan period. With the available speed boats (5) in the Department, patrolling in sea water have been conducted to regulate illicit fishing in the area and 112 lakhs of fry and 56 lakhs of fingerlings were stocked during the period.

4.171 During the period from 1997-98 to 2001-02 an amount of Rs. 17,608 lakh was provided for fisheries development. This amount was intended for meeting the expenses connected with the implementation of various developmental programmes in the sector. The actual expenditure for implementing the schemes under fisheries sector was Rs. 14679.88 lakhs and Rs. 764.98 lakhs as Ninth finance Commission award for the Ninth plan period. Hence the total expenditure was Rs. 15444.86 lakhs. Out of this amount, Rs. 6396.69 lakhs was the expenditure towards the schemes having partial assistance from Central Government. Similarly, in the fisheries sector, an amount of Rs. 1385.46 lakhs was expended towards the State Sponsored schemes implemented by local bodies during the Ninth Five Year Plan period.

4.172 Although the total potential available for inland fish production has not been quantified precisely, it can be roughly projected at 1.5 to 2.0 lakh tonnes . Past performance of the sector reveals that the state could tap only around 50 percent of the total fisheries potential. In the marine sector, the activity is largely concentrated in the inshore areas without any serious effort for tapping the potential available in the off shore and deep sea areas. Against the optimum sustainable yield of 5.7 lakh tonnes, the fish landing from the inshore area is around 6.0 lakh tonnes thus leading to a resource depletion crisis. The species wise marine fisheries potential estimated in the depth range of 0-50 m. in the state is shown in Table- 27

Table - 4.27
Estimated annual catchable potential in 0-50 m depth in Kerala

Category	Potential (Tonnes)
Oil Sardines	111274
Other Sardines	12637
Pomfrets	2226
Mackerels	48686
Ribbon fishes	18580
Penaeid Prawns	64482
Cephalopods	18852
Others	294580
Total	**571317**

Source: CMFRI, Department of Fisheries.

Species-wise composition of fish landing

4.173 Although the fish catches from the Kerala coast include more than 300 different species, the commercially important number about forty only. The high value species among the fish catches are still few, prominent among them are seer fishes, pomfrets and prawns. The ribbon fishes are now a target group and nearly 60-70 percent of the landings in frozen form are exported to China, Japan and other

South East Asian countries. During 2001, the country earned Rs. 363 crores from the export of ribbon fishes. The quantity of these high value species in the total catch ultimately decide the income of the fishermen. Unfortunately the share of these high valued varieties in the total marine fish catch has been remaining stagnant. The catch data of all these three species during the Ninth plan period remained below the potential estimate. The annual potential of prawn is estimated at 64482 tonnes while the annual average catch during Ninth Plan period was 53000 tonnes. The catch of oil sardine, the most important variety consumed mainly by the poorer sections of the society exceeded the potential in recent years.

Fishing Crafts

4.174 The developmental programmes undertaken in the marine sector include modernisation of country crafts, popularisation of new generation crafts, introduction of intermediate craft for off-shore fishing, distribution of suitable complements of fishing gear under the NCDC assisted Integrated Fisheries Development Project etc.

4.175 There was enormous increase in the number of fishing crafts operating in Kerala during the last decade. The total number of mechanised and non-mechanised crafts has increased from 34007 in 1988-89 to 55501 in 2001-02. The increase was mainly in the case of motorised crafts which rose from 9914 to 29395 (Table-4.28). However the permissible limits as estimated by Kalawar Committee in 1985 were 20,000 non-motorised crafts, 2960 Motorised crafts and 1145 mechanised boats. The enormous increase in the number of crafts does not appear to have helped in boosting the marine fish production proportionately. With the increase in the number of mechanised crafts the share of traditional crafts in the total fish landings has considerably eroded over the years. Kerala coastal waters had been witnessing continuos confrontation between traditional fishermen and trawler operators. The state has enacted the Kerala Marine Fishing Regulation Act for enforcing strict regulatory measures for restricting the number of crafts and their operational areas. As the restriction is not been followed strictly monsoon trawling has been banned as a conservative measure. The ban on monsoon trawling has been in force from 1988-89 onwards. Similar is the case with gears also.

4.176 In 1996, nearly 22000 fishing gears were in use, of which trawl nets (5200) and gill nets (4900) accounted a quarter each and the rest dragnets (3300), cast nets (3100) and others (5100). The proliferation of the mechanised boats and trawlers along the coastal line of the State and the indiscriminate use of gears and nets in violation of the Marine Fisheries Act need effective regulatory measures. Considering the quantity of juveniles landed by various destructive gears as revealed in a preliminary survey conducted by CMFRI along the Kerala coast, the total annual economic loss estimated was about Rs. 600 crores.

Table 4.28
Fishing Crafts Operating in Kerala

(Nos)

Sl.No.	Category of crafts	1988-89	1998-99	1999-00	2000-01	2001-02	Increase in 2001-02 over	
							1988-89	2000-01
1	Mechanised	3548	4040	4194	4150	4150	17	0.00
2	Motorised	9914	27094	28829	29144	29395	196	0.86
3	Non-motorised	20545	21598	21751	21854	21956	7	0.47
	TOTAL	**34007**	**52732**	**54774**	**55148**	**55501**		

Source: Directorate of Fisheries

Trend in Production

4.177 The per annum target for fish production set for the Ninth Five Year Plan was 7.5 lakh tonnes consisting of 6.0 lakh tonnes marine and 1.5 lakh tonnes inland. The overall performance during the plan period presents more or less a similar trend which has been persisting over the last decade. The marine fish production is stagnant and seems to have achieved a saturation level whereas the inland fish production is showing signs of improvement. During the Plan period the inland fish production increased from 0.58 lakh tonnes in 1997-98 to 0.78 lakh tonnes in 2001-02, while marine production increased from 5.11 lakh tonnes to 5.94 lakh tonnes. (Table 4.29) The increase in fish production was due to the resource conservation measures namely ban on monsoon trawling introduced by State Government. The salient findings of a study on inland fisheries conducted on an all India basis is shown in the BOX.-4.23

Table 4.29
Fish Production in Kerala during the last 10 years

(lakh tonnes)

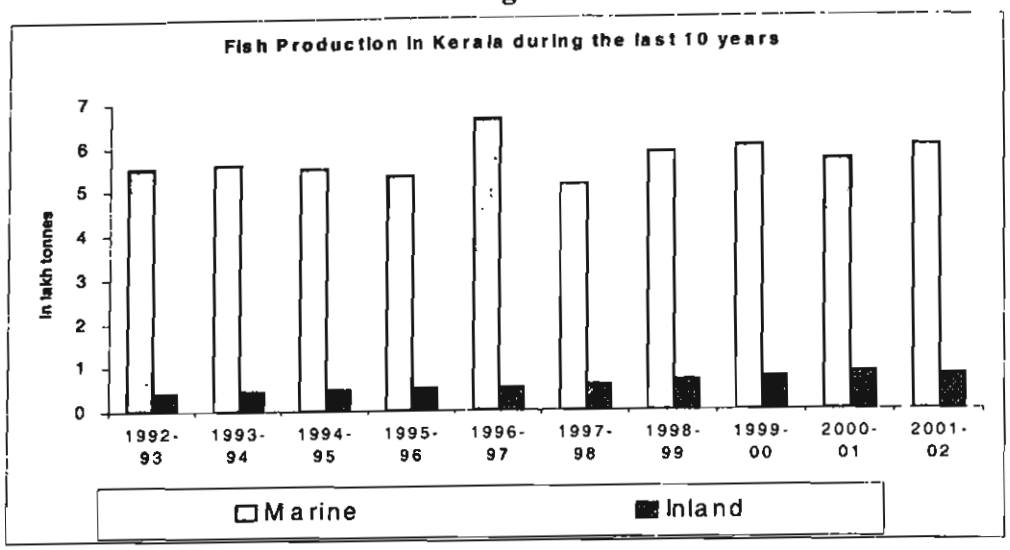
Year	Marine	Inland	Total
1992-93	5.53	0.42	5.95
1993-94	5.59	0.45	6.04
1994-95	5.49	0.48	5.97
1995-96	5.33	0.5	5.83
1996-97	6.61	0.52	7.13
1997-98	5.11	0.58	5.69
1998-99	5.82	0.66	6.48
1999-00	5.94	0.74	6.68
2000-01	5.67	0.85	6.52
2001-02	5.94	0.78	6.72

BOX-4.23
Salient findings of a study on Inland fisheries

- West Bengal with an annual production of 0.87 MT dominates the sector with almost 1/3 share of India's inland fish production in 2000. Andhra Pradesh accounts for 13% share of inland production.
- Annual growth rate in marine fish production from 1984-85 to 1999-2000 was 3% in Kerala and 12.2% in West Bengal, while annual growth rate in inland fish production during this period was 5.8% tin West Bengal and 9% for Andhra Pradesh.
- Maintenance of inland water bodies in an area of 6 M ha should be treated as national priority.
- Appropriate institutional and technological mechanisms for promoting inland fishery needed.
- Tanks and ponds remain grossly under utilised for fish production

Source: Selvarajan and Mruthyunjaya, 2002

Fig 4.8



Export

4.178 The marine products export from the state during 2001-02 was to the tune of 72756 MT valued at Rs. 951 crores constituting 17 per cent in terms of volume and 16 per cent in terms of value to Indian marine products export. The export of marine products from the state during 2001-02 declined by 18 per cent in quantity terms and 9 per cent in rupee terms compared to the previous year. The overall export from the country also declined during this period by 3.63 per cent in quantity and 7.56 per cent in value terms. The two possible reasons for the decline in export realisation could be the economic slow down in one of the major markets viz., Japan and crash in the price of back tiger shrimp in the international market. Frozen shrimp is the major item of export accounting for 58 per cent in value terms during 2001-02.

4.179 The State's share in all India export is declining in recent years. The share declined from 22 per cent in quantity terms in 1999-00 to 16 percent in 2001-02. However the share in value remained the same at 16 per cent during the last two years (Table 4.30). European Union continued to be the major market for the marine products exported from Kerala with a share of 43 per cent in value during 2001-02. Japan is the second largest market with a share of 19 per cent in value followed by USA with 18 per cent (Fig - 4.9).

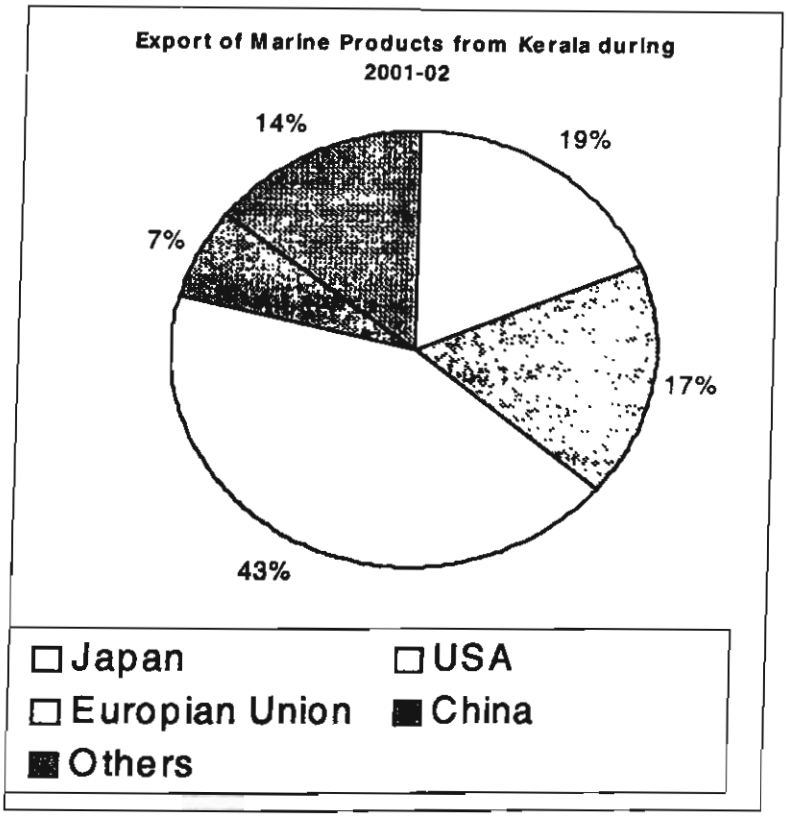
Table 4.30
Export of Marine Products from Kerala
***vis-a-vis* India (1992-93 to 2001-02)**
Q: Quantity in Metric Tonnes
V: Value in Rs. crore

Year		All India	Kerala	Share of Kerala (%)
1992-'93	Q	209025	49094	23
	V	1768	414	23
1993-'94	Q	243960	63848	26
	V	2503	622	25
1994-'95	Q	307337	74653	24

	V	3575	817	23
1995-'96	Q	296277	78895	26
	V	3501	856	24
1996-'97	Q	378199	92288	24
	V	4121	936	22
1997-'98	Q	385818	89366	23
	V	4697	948	20
1998-99	Q	302934	70641	23
	V	4627	817	18
1999-00	Q	343031	92148	27
	V	5117	1148	22
2000-01	Q	440473	88852	20
	V	6444	1046	16
2001-02	Q	424470	72756	17
	V	5957	951	16

Source: Directorate of Fisheries

Fig. 4.9



4.180 Variability in international prices arising out of inter year fluctuations has serious implications for export competitiveness. The protection coefficient related to export competitiveness of fishery products from the country are shown in BOX-4.24. The Sanitary and Phyto Sanitary (SPS) agreement under the World Trade Agreement stipulates minimum permissible chemicals residue, disease free zone and other standards. The state has to move towards international standards of product hygiene in order to retain the market share in future. A large number of countries now have specific Hazard Analysis and Critical Control Point (HACCP) based regulations regarding the safety of fish products. USA was the first to

adopt the HACCP based regulation of fish and fish products. All developed countries and a large number of developing countries have already shifted to HACCP based systems.

BOX-4.24
Export competitiveness of Indian fishery products

- Highest price for export during 1990s was realized from Japan which has been beaten by Hongkong in recent years.
- Nominal Protection Coefficient (NPC) for pomfret fish was 0.35 during 1991-92 and 1994-95 indicating that domestic prices were about one third of the prices earned from export. NPC moved upwards to 0.82 in 1998-99 which leaves export price only 18 per cent higher than domestic prices.
- Highest price for shrimp was realized from export to Japan from 1991-92 to 1999-2000. The lowest price for shrimp exports realized from China. The NPC was 0.28 in 1999-00.
- Export price realized for frozen prawn was higher than the export price realized for shrimp till 1994-95. During later years shrimp export earned higher price than prawn export. The NPC ranged from 0.16 in 1992-93 to 0.45 in 1998-99

Major developmental Programmes

4.181 The major developmental programmes implemented during the Plan period include Janakeeya Matsyakrishi, NCDC assisted Integrated fisheries Development Project schemes implemented with financial assistance from NBCDC, Fishing harbours and landing centres and programmes ensuring social and livelihood security of fishermen population.

1. Janakeeya Matsyakrishi

4.182 With a view to promoting inland fisheries, a new scheme viz., Janakeeya Matsyakrishi was introduced during Ninth Plan and implemented through FFDAs. The programme envisaged optimal utilisation of the inland water resources with people's participation in the State. The Janakeeya Matsyakrishi is an integrated programme consisting of freshwater and brackish water farming, seed rearing, setting up of hatcheries etc. The technical guidance and supply of fingerlings were provided by the Department of Fisheries while the organisation of Matsyakrishi and its management were entrusted to the beneficiary committees. The local government actively participated in the implementation of the programme. Fishermen participation was also on the increase. An area of 30843 ha. is reported to have been brought under culture fisheries and 77990 tonnes of fish/prawn has been produced worth Rs. 650 crores during the Ninth plan period. During 2001-02, fish culture was done in 5922 ha and produced 14,160 tonnes of prawn/fish valued at Rs.200 crores. The details are given in Appendix.-4.55

2, Integrated Fisheries Development Project

4.183 The NCDC assisted Integrated Fisheries Development Project is implemented by Matsyafed. Matsyafed ensures the total development of fishermen community through the implementation of various schemes aimed at promotion, production, procurement, processing and marketing of fish and fishery products.

4.184 The major schemes implemented by Matsyafed are modernisation/motorisation of country crafts with NCDC assisted Fisheries Development Project, distribution of suitable fishing gear, seed money for NBCDFC and NMDFC, kerosene subsidy for traditional fishermen etc.

4.185 MATSYAFED has completed three phases of the integrated fisheries development project. The supply of fishing inputs at subsidised prices and a lower rate of interest led to group ownership system among fishermen.

3. Social Security and livelihood support to fishermen Community

4.186 A number of programmes were under implementation for providing social security and livelihood support to the fishermen community. They include saving-cum-relief scheme NFWF housing, HUDCO assisted housing, Theerajyothi, DANIDA model sanitation, setting up of Matsya Bhavans, Group insurance to fishermen etc. The major highlights are given in Appendix-4.53

4.187 Under NFWF housing scheme, 8729 houses were constructed spending Rs. 35.02 crores. The central share of subsidy for the construction was Rs. 17.50 crores. Sanitation facilities were provided to 11200 beneficiaries during the Ninth plan period expending Rs. 2.80 crores. Under Theerajyothi programme during the ninth plan period, 28000 fishermen houses were electrified expending Rs. 2.8 crores. All active fishermen are covered under group accident insurance scheme. About 2.2 lakh fishermen are insured under the scheme. Assistance is provided to accidental death/missing of fishermen while fishing, permanent and total disability and partial disability. Under saving-cum-relief scheme 3.90 lakh fishermen were assisted.

Schemes Implemented with the Financial Assistance of NBCDFC

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

Fishing Harbours and Landing Centres

4.189 There were nine fishing harbours under implementation during Ninth Five Year plan. Of these, Neendakara, Munambam, Puthiyappa, Mopla Bay and Chombal- have been completed and commissioned. The progress of work in respect of the ongoing Harbours and landing centres is given in `Appendix.4.51 and Table 4.31. All the harbours are constructed with 50% Central assistance. The three projects Thankassery, Munambam and Neendakara, the central assistance has already been exhausted and the construction is progresssing with Government share. The revised estimates of most of the harbours are pending with Government of India.

4.190 Vizhinjam Harbour was scheduled for commission by March 1999. Rahabilitation issues, communal tensions, litigation by the contractors etc. have contributed to the delay in commissioning. Work on Muthalapozhy, Ponnani and Kayamkulam are progressing.

Table -4. 31
Fishing Harbours in Kerala

Sl.No.	Name of Fishing Harbour	Total estimated cost (in Lakhs)		Year of starting	Expenditure upto March 2002
		Original	Revised		
1.	Vizhinjam	704.0	1585.0	1987	1477.29
2.	Muthalappozhi	1366	-	2000	79.93
3.	Thankasseri	1981	4386	1989	3805

4.	Neendakara	622	-	1982	799
5.	Kayamkulam	624	1770	1995	453
6.	Munambam	1167	1895	1989	1686
7.	Puthaiappa	963	-	1990	1131
8.	Chombal	556	975	1992	870
9.	Mopla Bay	564	-	1991	971
10.	Ponnani	2759	-	2002	74
11.	Thalai	1376	1970	2000	24

4.191 There are 6 landing centres for mechanised boats. Out of this work Pollathai has been completed and the landing centres at Ettikulam, Thikkody, Kadapra, Moilalikadapuram are progressing. Two centres at Poovar in Thiruvananthapuram and Kanjanhad at Kasargod could not be commenced due to the non availability of land and resistance from local people.

4.192 The construction of fishing harbours and landing centres has to be done on a strict project mode with different methods of financing and participation.

FFDA & BFFDA

4.193 The Fish Farmers' Development Agencies are functioning in all the districts for promoting aquaculture. The FFDAs have established six fish seed farms. They have enrolled farmers, surveyed 2971 ha water area and organised fish culture in 4390 ha. in 2000-01. However the development efforts initiated under FFDAs are yet to make any percapitable impact on the development of inland fisheries. The first FFDA was established in Palakkad district in 1976. Originally it was started as a 50% scheme and later in 2000-01 it was converted as a 75% Centrally Sponsored scheme. But there was no release of funds from Government of India from 1998-99 onwards. Brackish Water Fish/Prawn Farmers Development Agencies are functioning in six districts. An area of 274 ha. has been brought under Prawn culture through the promotional programmes implemented during 2000-01 and area surveyed was 274 ha. BFFDAs were established to popularise shrimp farming.

ADAK

4.194 The Kuwait Fund assisted Prawn development project which was conceived as a major project with the objective of securing a breakthrough in the inland sector failed to take off in 1990s. It has been partially revived by ADAK, an agency for development of aquaculture. Implementation of Kuttanad project for scampi seed ranching, Fish seed ranching, fish culture cage, fish collection cage, composite fish culture, scampi culture, integrated fish culture, nursery rearing etc. were undertaken with an area coverage of 4124 ha. Multiple agencies are involved in the promotion of aquaculture in the state, working for similar objectives and functional integration is needed to exploit the institutional synergies to maximise output from the sub sector.

FORESTRY AND WILD LIFE

4.195 Forest cover of Kerala is largely spread over the Western Ghats of the State. The Western Ghats represent one of world's 18 hot spots of bio-diversity and is considered to be a repository of rare and endangered flora and fauna. The forest area in Kerala is 11.17 lakh ha. (28.74 % of geographical area) which is higher than the national average of 19.50 per cent. But the percentage of Forest cover in Kerala to that of India is only 1.5 per cent. The national forest policy envisages maintenance of environmental stability through preservation and reduction of degradation of forests, conservation of bio-diversity, increasing the productivity of forests, increasing substantially the forest cover through massive afforestation and developing participatory forest management. The present forest management policy of the State encompasses technology improvement, bio-diversity conservation and development of partnership with the forest dependent communities.

4.196 The Tenth Five Year Plan strategies of Government of India for the forestry sector are shown in BOX-4.25 The strategies adopted for the growth of forestry sector in the State are in tune with the national forest policy and Tenth Five Year plan of Government of India and the specific thrust is given to the promotion of Joint Forest Management, agro forestry, afforestation and sustainable use of non-wood forest produce.

BOX-4.25
Tenth Plan Strategies in Forestry

- *Watershed approach should be adopted for the maintenance and development of forests.*
- *The effort of JFM in regeneration of degraded forests has been very successful and its strength and weaknesses are to be identified and corrected.*
- *Special programmes for the development of degraded villages located near population centres to provide alternate sources of income.*
- *Regulation of tariffs on bulk import of round timber and other produce for large industries such as paper and pulp.*
- *Promotion of agroforestry*
- *Implementation of greening programme under the food for work programme.*
- *Protection of fragile ecosystem.*
- *Promotion of medicinal plants.*
- *Promotion of bamboo products for domestic and export market.*
- *Promotion of bio diesel from Pongamia and Jatropha.*
- *Value addition through primary and secondary processing.*

Joint Forest Management

4.197 Joint Forest Management was introduced in India through a resolution in 1990 to address the problems and constraints of government managed forests. the Communities are given rights to collect lops and tops of branches, non-timber forest produce. A recent report indicates that the coverage of forest areas under Joint Forest Management range from 0.2% in Kerala (lowest, to 95.7% in Haryana. However, area under forest in Haryana is very low (6045 sq.km). The coverage of JFM as per cent of forest cover was 35% in Andhra Pradesh, 2.5% in Karnataka, 29% in Madhya Pradesh, 54% in Uttar Pradesh and 2.7% in Tamil Nadu in 1999. As on 1.12.2001, 14.25 million ha. of forest lands in the country are being managed by 63000 JFM Committees. The Forest Development Agencies (FDA) have to be developed for promoting JFM in the State. The initial steps taken by the forest Department in this regard are to be strengthened further.

4.198 For successful implementation of Joint Forest Management, certain conditions need to be ensured. (See Box.-4.26)

BOX-4.26
Conditions suggested for Successful implementation of JFM

- *Suitable forest patches are entrusted to well defined user groups with transparent Memorandum of Understanding (MOU) on the roles and responsibilities of JFM Committee and Forest Department.*
- *Security of tenure as well as to benefits from the resource is assured to beneficiary.*
- *Silviculture prescriptions followed for management of JFM forests are sustainable.*
- *Legal back up to JFM Committee.*
- *Appropriate institutional and financial mechanism.*
- *Tie up of Village Protection Committees with inclinities for sale of JFM produce.*
- *Detailed projects to be prepared for assistance under Rural Infrastructure Development Fund (RIDF) of NABARD.*

Report of the Steering Committee on
Environment, Forest & Wild life,
Tenth Five Year Plan, Planning Commission 2002

4.199 The forest ecosystem in Kerala shows wide variation among the categories ranging from tropical evergreen to grass land. Tropical evergreen and tropical moist deciduous forest accounts for 79%. The coverage under plantation forestry is to the extent of 19%.

4.200 The recorded forest area is 11170.944 sq.km. This includes 9190.102 sq.km. reserve forest, 1827.337 sq.km. vested forests and 153.505 sq.km. proposed reserve. Out of the total of 11170.944 of forest area, effective forest area in Kerala is only 9400 sq.km. as given in table 4.32. As per the assessment of Forest Survey of India (1999), the area under forest in the state is 10323 sq.km. which is higher than the effective forest cover as assessed by the Forest Department. Division wise details of forest cover is given in Appendix 4.57. Out of the total reported forest cover 54% is in the southern districts and the remaining 46% is in the regions, north of Ernakulam district. In the south the reserve forests constitute larger segment, while the proposed reserve and the vested forests account for the major share in the northern region. Idukki and Pathanamthitta districts have a coverage of 43% of the total forest area while in Kannur district it is as low as 3%.

Table 4.32
Types of forests in Kerala

Sl. No.	Forest Type	Area (Sq.km.)	% of Total area
1	Tropical Wet Evergreen and semi evergreen Forests	3299	35.10
2	Tropical Moist Deciduous Forests	4100	43.62
3	Tropical Dry Deciduous Forests	100	1.06
4	Mountain Sub Tropical Temperate shoals	70	0.74
5	Plantation	1791	19.05
6	Grass land	40	0.43
	Total	**9400**	**100**

4.201 Out of the total forest area of 11.17 lakh ha. 1.88 lakh ha. are degraded with crown density below 40%. Afforestation of the degraded forests is one of the thrust areas for forestry development supported under various programmes which include compensatory afforestation, general forestry and

World Bank aided Kerala Forestry Project. Afforestation of degraded forests has been carried out in 1714.65 ha. during Ninth Plan under various programmes.

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

4.203 Forest plantations constitute the major source of raw material to the forest based industries. The total area covered by forest plantations of various species is about 1.79 lakh ha. which has remained more or less stagnant during the last three years. Teak is the major species planted (41.02%), followed by miscellaneous spices (31.12%) and eucalyptus (12.61%) (see Appendix 4.58).

4.204 Major forest produce includes timber, bamboo, reeds and firewood. Their total production shows a declining trend from 1993-94 onwards. Reeds and bamboos show sharp decline in supplies during the period while the extraction of timber is on the increase. The quantity of timber produced in 2001-02 was 38219 cu.m. The number of bamboos and reeds produced during 2001-02 was 509.614 lakhs. These are species, which can be promoted under farm forestry with people's participation (see Appendix 4.59)

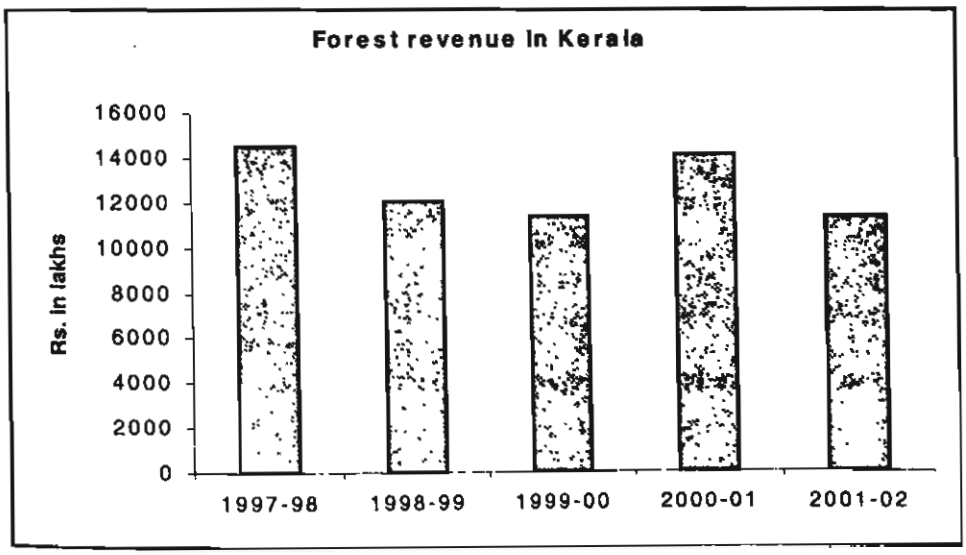
4.205 During Ninth plan an outlay of Rs.260.73 crore was provided to the forestry and wild life sector and an amount of Rs.245.05 crore was expended. The various schemes implemented during the period include improved management of natural forests with an expenditure of Rs. 76.61 crore, improved forest resource base with Rs. 26. 28 crore and strengthening forest resource conservation with Rs.25.15 crore. The World Bank aided Kerala Forestry project was started in 1998 and an amount of Rs. 102.78 crore was expended during this period.

Forest Revenue

4.206 The revenue from the forestry sector by way of sale of timber and other forest products was Rs.113.70 crores in 2001-02. (See Appendix 4.60). Around 80 percent of net revenue is realized from the sale of timber. The State Government has modified the policy of supplying raw materials to Hindustan Newsprint Ltd. at subsidized rates from 8/99 onwards. According to the new agreements entered with the company, the subsidy amount would be eliminated in five year reducing it at the rate of 20% in each year. The increase in revenue attainable through this measure is of the order of Rs.10 crore per annum. The changes in forest revenue for the last five years is shown in fig-4.10.

Fig. 4.10

Wild Life



4.207 The area covered by the two National Parks, 12 Wildlife Sanctuaries and one Biosphere Reserve coming under the category of protected areas in Kerala works out to 2.33 lakh ha. It is 25% of the total area under forests and 6% of the total geographical area, which is higher than the national average of 5% (Details are given in Table 4.33) Protected areas are managed now as showcases of bio-diversity with predominance for large animals in habitat management. Participatory forest management based on the principles of eco-development has been initiated and this strategy has attracted co-operation of the neighbour hood communities and forest dependent communities.

4.208 In November 2001, UNESCO approved designating the Sunderban (West Bengal) and Gulf of Mannar (Tamil Nadu) on the World Network of Biosphere Reserves. As a result three Biosphere Reserves from India are now included in the World Network, the third being Niligiri (Kerala, Karnataka, Tamil Nadu) which was designated earlier. This facilitates international recognition and attracts additional funding for these sites.

Table 4.33
Sanctuaries, National Parks, Biosphere Reserves and other Protected Areas in Kerala

Sl. No.	Name of NP/WLS/BR	Area in Sq.KM.	Year of formation
1	Periyar WLS	777.54	1950
2	Neyyar WLS	128.00	1958
3	Peechi – Vazhani WLS	125.00	1958
4	Parambikulam WLS	285.00	1973
5	Wayanad WLS	344.44	1973
6	Eravikulam WLS	97.00	1978
7	Idukki WLS	70.00	1976
8	Thattekkad BS	25.00	1983
9	Peppara WLS	53.00	1983
10	Cimmony WLS	85.00	1984
11	Chinnar WLS	90.44	1984
12	Shendurney WLS	100.32	1984
13	Aralam WLS	55.00	1984
14	Silent Valley NP	89.52	1984
	Total Protected Area	**2,325.26**	
15	Nilgiri Biosphere Reserve	1,455.40	1986
16	Agasthyavanam Biological Park	30.00	1992

Biodiversity Conservation

4.209 India is one of the 12 mega biodiversity countries of the World. From about 70% of the total geographical area surveyed so far about 46000 plant species and 81000 animal species have been described. The Status of Kerala is shown in BOX-4.27. India has become a party to the International Convention on Biological Diversity in May 1994. A National Policy and Action Strategy on Biological Diversity has been drawn up as a macro level statement of strategies and the preparation of micro level action plans at state and regional levels are progressing. The Biological Diversity Bill was introduced in the Parliament on 15th May 2000.

BOX-4.27
Status of biodiversity in Kerala

- *4575 species of angiosperms*
- *329 species of ferns and fern allies*
- *326 species of bryophytes*
- *428 lichens and 866 algae*
- *132 species of mammals*
- *477 birds*
- *156 reptile*
- *93 amphibians*
- *169 fresh water fishes*
- *5300 invertebrates.*

Source: KFRI

General Forestry

4.210 Under General Forestry Scheme, survey and demarcation of forest boundaries is one of the important activities taken up. Out of an estimated boundary area of 11220 kms, 770 kms. still remain unattended. The coverage during the Ninth Plan was 2193 kms. The activity deserves priority for time bound completion. Fire protection is another important area receiving attention. The coverage under this activity during Ninth Plan period was 4516 ha. The approach is one of fire tracing. The pace of implementation of the various components appears to be very slow mainly due to resource constraints. The cultural operations include special tending, timber cutting and loranthus cutting. During 2001-02 the coverage under special tending is only 66.36 ha. while the target was 555 ha. Details of physical achievements under General Forestry for Ninth Plan is shown in Appendix 4.61.

Research

4.211 The Department of Forest and Wildlife has been sponsoring relevant research programmes through research institutions like Kerala Forest Research Institute, Tropical Botanical Garden and Research Institute, Kerala Agricultural University, etc. The research includes studies on flora and fauna, eco-system analysis and technology development for better productivity in the forests.

Management of Non Wood Forest Products

4.212 The Non Wood Forest Products including medicinal plants is being given a major thrust because of their importance around the world. The productivity and management of Non Wood Forest Products are to be improved through sustainable and scientific management by adopting improved methods of harvesting, processing, value addition and marketing. In the southern states of Kerala, Tamil Nadu and Karnataka Medicinal Plants Conservation Areas (MPCA) were established for in-situ conservation of medicinal plants. In Kerala nine MPCAs were established. In addition to the protection and conservation measures taken by the department, these activities would be further strengthened by executing the same through the actual consumer groups themselves. For this purpose Vana Samrakshana Samithies (VSS) are formed by involving the user groups which include local tribals and other dependents on forests. The collection of NWFPs is entrusted with these user groups on forests through societies for which a total of 24 Forest Development Agencies (FDAs) have been registered to guide the activities of the VSSs, till 2001-02.

Farm Forestry and Social Forestry

4.213 Because of its natural endowments and unique habitat, Kerala was the home of farm forestry and agro forestry. Every homestead had many trees in its backyard. The sharp increase in population, extreme fragmentation of holdings, spread of mono culture (see Agriculture) and restrictive laws and regulations, the rich farm forestry (therefore also, farm incomes and employment) has all but vanished. Concerted efforts are necessary to repromote farm forestry. The Low Reforms Committee has proposed new legislation to encourage promotion of tree growth in homesteads.

4.214 The forestry activities comprising farm forestry and social forestry do not adequately figure in the local plans of the panchayats. Dearth of adequate planting materials of the desired species is a major constraint for popularising the activity in rural areas. District and Block Panchayats can render the required support for organising nurseries with people's participation. Planting of trees in homesteads and public places could be promoted by the Grama Panchayats by involving farmers and Non Governmental Organisations (NGOs).

4.215 Keeping in view the important role played by forestry plantation and to assess the impact of social forestry and other forestry extension programmes in meeting fuel wood and timber needs of the people and raw material requirements of the wood based industries survey of plantations outside conventional forest has also been initiated by Forest Survey of India. The survey of Trees outside Forest (TOF) has been completed in Haryana. Similar surveys have been initiated in other states also, and total area surveyed upto October 2001 was 92754 sq.km.

Integrated Afforestation and Eco-Development Programmes (IAEDP)

4.216 The IAEDP supported by the National Afforestation and Eco-Development Board (NAEDB) under the Ministry of Environment and Forest is under implementation in Kerala since 1998-99. Eco-preservation and sustainable management in selected watersheds is the ultimate objective of the scheme.

4.217 The areas covered include, Sankily Watershed in Thiruvananthapuram, Kakkad Watershed in Pathanamthitta, Deviyar Watershed in Idukki, Edamalayar and Illithode Watersheds in Ernakulam, Pulakkodu Chelakkara in Thrissur, Agali-Attappadi and Chulliar Chittourpuzha in Palakkad. The coverage under the project during 2001-02 was 2000 ha. with an investment of Rs. 1.43 crores.

Compensatory Afforestation

4.218 State Government have already taken a policy decision to issue pattayams for the forest lands encroached prior to 1977. According to the assessment made by Forest Department, the area to be dereserved for the purpose is about 28588ha. As per the National Forest Policy, such dereservation is permissible only if compensatory afforestation is organised in double the area. Accordingly, the State Government is moving ahead with a programme for compensatory afforestation with the target of covering 57176 ha. The coverage achieved till the end of 2001-02 was 48000ha.

Kerala Forest Development Corporation (KFDC), Kottayam

4.219 KFDC is a Public Sector undertaking, established on 1975, with shares owned fully by Government of India and Government of Kerala. The area under the Corporation is situated in seven Revenue Districts and ten territorial Forest Divisions. The total area of 10,717 ha. (8006.86 ha. of tree plantation and 2710.13 ha. of cash crop) under the Corporation is located in nine divisions, and 26 sub units. During 2002-03, 790.61 ha. of pulpwood plantations and 80.50 ha. of cash crop plantations were raised by the Corporation. As on 4/10/2001, 8155.60 ha. of tree plantations were also raised. The Corporation has an authorised share capital of Rs 10.00 crores of which paid up

share capital is to Rs. 7.78 Crores. The Central share released by Government of India is Rs. 93.00 lakhs. During 2002, the Corporation made a profit of Rs.114.00 lakhs.

4.220 The main activities during 2002 by the Corporation under different schemes include Bamboo plantation programme in 750 ha, schemes for planting Canes, Cashew; soil conservation works, development of Eco-Tourism Centres, pulpwood planting (289 ha) etc. The Corporation supplied 14000 MT of pulpwood to M/s. Hindustan Newsprint Ltd. at subsidised rates. The management plan for the tree plantations of KFDC for the period from 2002 to 2007 was submitted to Government of India for approval.

World Bank Aided Kerala Forestry Project

4.221 The world Bank aided project implemented from 1998 onwards and project is being extended from December 2002 by another year. The original project cost was Rs. 182.39 crores. During 2001, mid term review of the project was undertaken by the World Bank and outlay was revised to Rs. 166 crores. The cumulative expenditure upto the end of 2001-02 was Rs. 102.78 crores. The project focuses mainly on capacity building in promoting bio diversity conservation, use of modern technologies in increasing productivity, management of forests through participation of communities, adoption of information technologies in management planning and implementation etc. The important activities achieved include regeneration of forest area (22656 ha.) rehabilitation of degraded forests (13112 ha.) regeneration of reeds and bamboo (6498 ha.), raising teak plantations (1725 ha.) raising pulpwood plantations (4001 ha.), Participatory Forest Management (280 VSS have been registered and 33790 ha. of area covered). The micro planning has been completed for 104 VSSs, out of which activities are under implementation in 74 sites.

4.222 The financial and physical achievement during Ninth Plan under Kerala Forestry Project is shown in Appendix 4.62 and 4.63

Agricultural Marketing

4.223 An efficient agricultural marketing system is indispensable for the overall development of the economy. In the changing scenario, the nature of marketing support required for safeguarding the interest of the small and marginal farmers is different. In an increasingly globalised market arising out of trade liberalisation, *inter alia* through WTO Agreement impact on Kerala agriculture needs to be analysed in the context of both exports from Kerala and imports into Kerala especially spices and plantation crops.

4.224 Government of India has recognised the importance of streamlining agriculture marketing in the wake of the WTO-SPS Agreement. An expert committee was constituted under the Chairmanship of Shri. Shankarlal Guru for recommending the development and strengthening of agriculture marketing system. The major recommendations of the committee are shown in the BOX-4.28.

BOX-4.28
MAJOR RECOMMENDATIONS OF THE GURU COMMITTEE ON AGRICULTURAL MARKETING

- *Strengthen and institutionalise commodity exchanges.*
- *Promotion of direct marketing to improve price realisation. It may also be through NGOs, Farmers Associations, Farmers co-operatives etc.*
- *Use of information technology to generate and host useful portals, web sites, databases information packages etc on agricultural marketing need to be promoted for information dissemination.*
- *Promotion of private investment in the market infrastructure development especially in the development of cool chains, reefer vans etc. Investment requirement worked out at Rs.268742 crores.*
- *The institution of regulated markets has had limited success and acted more as a restrictive influence.*
- *Need for development of specialized markets for fruits, vegetables, flowers, cattle, organic products, medicinal plants etc.*
- *Promote use of technologies like irradiation, nitrogen fill packaging, vacuum packaging etc.*
- *Promote creation of facilities for cleaning, grading, quality control and packing infrastructure with Government support*
- *Central government should encourage food analysis laboratories in the country to face competition from imported products.*
- *Promotion of Agri Export Zones and Food Parks. Commodity wise studies on export potential be commissioned before establishing AEZ.*
- *A massive programme for marketing extension should be launched at the disaggregated level.*
- *Strengthen agricultural marketing research.*
- *Areas of training could cover agribusiness, WTO, post harvest management, IT, grading and quality assurance.*
- *Promote setting up of value added network services, information kiosks in rural areas, promotion of E-catalogue for commodity profiles, farmer advisory services in the fields of agricultural marketing.*

Ministry of Agriculture, 2001

Agri Export Zone

4.225 The EXIM Policy 2001 has introduced the concept of Agri Export Zones to give primacy to promotion of agricultural exports and effect a reorganisation of export efforts on the basis of specific products and specific geographical areas. The measures envisaged to promote exports from such zones include financial assistance by dovetailing and extending existing financial assistance to various agricultural export related activities and fiscal incentives. A detailed project report was prepared for establishing the Agri Export Zone covering eight districts from Thiruvananthapuram to Palakkad and by utilising an area of 2500 sq.m in the markets already constructed under the European Union assisted Kerala Agricultural Markets project. The commodities identified for export are vegetables, banana, pineapple and banana chips and MOU has been signed with Government of India for establishing the Agri Export Zone in the state. Considering the relative advantage for Kerala, steps are to be taken to establish separate Agri Export Zones for spices and medicinal plants in association with Commodity Boards and other agencies involved in the production and marketing of these commodities.

Kerala Agricultural Markets Project

4.226 The EEC aided Kerala Agricultural Markets Project was initiated during 1991 and scheduled for completion in March 1997. The project is for the construction of three urban markets and three rural markets with a project cost of Rs. 75.1 crores. The expenditure upto March 2002 was 66.94 crore. The total capacity of three urban markets in Anayara, Maradu and Vengeri together was 1500 tonnes of non-perishable and 1000 tonnes of perishable produce while the capacity of three rural markets in Nedumangadu, Muvattupuzha and Sultan batteri is 750 tonnes of non-perishable and 500 tonnes of perishable produce. All the markets are now completed except minor pending works and steps are required for the use of these infrastructure optimally, in partnership with local bodies so as to intervene in the domestic and export market.

Kerala State Warehousing Corporation

4.227 The Kerala State Warehousing Corporation at present has 61 warehouses (Own-50 and hired - 11 with a total storage capacity of 1.83 lakh tonnes (own-1.66 lakh tonnes and hired -0.17 lakh tonnes). The Corporation has diversified its activities by taking up procurement and storage of agricultural commodities, consultancy service for construction works, disinfestation and soil fumigation extension service, courier service, transportation and running own container freight station, ship and wagon clearance etc. A coconut processing unit is under construction at Nattika. The corporation realised a profit of Rs. 36.60 lakh in 2001-02. The corporation is running three shopping complexes and one more is under construction.

Agricultural Finance

4.228 Agricultural Finance has a special significance in Kerala with capital intensive perennial crops having replaced seasonal and annual crops. In the context of sharply fluctuating prices of most of the agricultural commodities, consequent to liberalisation, the small holdings which dominate the farm front are unable to generate surpluses for reinvestment to improve productivity. The co-operative institutions continued to remain an important segment of the multi-agency rural credit system in the state. The credit policies, the priorities and the directions of dispensations, the problems facing low level of recovery, existence of imbalances, poor managerial competency, unrealistic methods of fixing interest rate have to undergo appropriate changes to meet the challenges. With the introduction of financial sector reforms, credit co-operatives are coming under pressure to overhaul their functioning to remain as viable institutions in the emerging competitive scenario of the financial sector.

4.229 In Kerala, the credit needs of all the sectors are largely met by the organised sector consisting of co-operatives and commercial banks. The short and medium term co-operative credit structure comprises of a three tier system with State Co-operative Bank at the state level, 14 District Co-operative banks at District level and 1685 Primary Agricultural Credit Societies at the grass-root level. Kerala State Co-operative Agricultural and Rural Development Bank Limited is the apex institution of 44 Primary Co-operative Agricultural and Rural Development Banks (PCARDBs) operating at Taluk level, constituting the long term credit structure in the Co-operative sector. In co-operation sector Long term loans are channelised through PCARDBs and its networks. Apart from this, the commercial banking sector operates concurrently through a network of 49 banks with 2971 branches and 2 Regional Rural Banks with 347 branches.

4.230 The total priority sector lending during 2001-02 was Rs.8240.81 crores against a target of Rs. 7659 crores recording an achievement of 108%. The agency wise analysis indicates that out of the total disbursement the major share of 59% (Rs. 4863.04 crores) was through commercial banks followed by Co-operatives 31% (Rs. 2549.68 crores) RRBs 8% (Rs. 686.96 crores) and Kerala Financial Corporation 2% (Rs. 141.13 crores)

4.231 In priority sector lending the share for agriculture (farm sector) is only around 35% of the total disbursement. Though the credit disbursement to the priority sector has increased by about 14 %, compared to the last year the percentage share to agriculture has declined. The total credit to agriculture sector has declined from Rs. 2907 crores in 2000-01 to Rs. 2861.05 crores in 2001-02 (See Table - 4.34, 4.35)

Table - 4.34
Annual Credit flow to Agriculture and total priority sector in Kerala during 2000-01 and 2001-02

(Rs. in crores)

Sl. No.	Agency	Priority Sector		Agriculture	
		2000-01	2001-02	2000-01	2001-02
1	Commercial Banks	4178.08	4863.04	1536.31	1466.10
2	RRBs	683.52	686.96	422.12	413.94
3	Co-operatives including Land Development Banks	2198.87	2549.68	948.22	981.01
4	Kerala Financial Corporation	185.55	141.13	Nil	Nil
5	Grand total	7246.02	8240.81	2906.65	2861.05
6	Percentage increase of previous year	25.64	13.73	19.53	(-)

Source: State Level Banker's Committee

Table - 4.35
Flow of Credit to Priority Sector and Agriculture as a Proportion of Credit and Deposits (in percentage)

Year	All Commercial Banks			
	Priority Sector Lending		Agriculture Credit	
	As a % of Total Credit	As a% of Total Deposits	As a % of Total Credit	As a% of Total Deposits
1996	43.0	19.8	14.2	6.7
1997	44.2	20.2	15.2	6.2
1998	42.2	18.9	14.7	6.6
1999	44.2	19.0	14.4	6.2
2000	42.91	17.71	13.99	5.78
2001	46.37	19.83	14.32	6.13
2002	45.92	19.61	13.75	5.87

Source: State Level Banker's Committee

4.232 A district-wise analysis of the flow of credit to the priority sector indicates that out of the total disbursement, Kollam district advanced the major share of Rs. 1202 crores followed by Ernakulam (Rs. 1036.15 crores), Thrissur (Rs. 724 crores) and Kannur (Rs. 702 crores), Pathanamthitta district stands behind all districts in priority lending. The details of district-wise flow of credit to priority sector lending is furnished in Appendix4.80

Short Term and Medium Term Loans

4.233 A substantial portion of the short term and long term credit requirements in the state are met by the co-operative banking sector consisting of the State Co-operative Bank, District Co-operative Banks and Primary Agricultural credit Societies. They channelise funds from NABARD and use their own

funds for disbursal. They mobilise deposits through special campaigns. The total deposit of the State Co-operative Bank was Rs. 1915.02 crore and that of District Co-operative Bank was Rs. 4975 crore together accounting for 10.8 per cent of the deposits held by various financial institutions in the state as on March 2002. The total deposits of State Co-operative bank stood at Rs.1687.24 crore as on 3/2001 and increased to Rs.1915.02 crores as on 3/2002 registering an increase of 13.5%. The working results of State Co-operative Bank are given in Appendix-4.64. The purpose wise cumulative loan disbursement of State Co-operative Bank is furnished in Appendix -4.65. The cumulative loan disbursed by the bank as on 3/2002 was Rs.1226.43 crore as against Rs.1179.31 crore during the previous year. A substantial decrease was noted in the credit flow to Agriculture. The disbursement for agriculture which was to the tune of Rs. 120.69 crores has decreased to Rs. 79.88 crores (33.8%) where as the loan to housing sector has increased from Rs. 113.94 crores in 2000-01 to Rs. 128.82 crores (13%) in 2001-02. The tendency of the shift of the disbursement from farm to non-farm sector is increasing. The credit disbursement during 2001-02 includes procurement and marketing, consumption purpose, housing and other purposes.

4.234 During the period of high interst regime,the cooperative banks mobilised large sums as deposits, but the utilisation for the productive purpose was low. ' Gold loans' and consumption loans dominated lending. The cooperative banks also deposited at high interest rates large sums of money in the state government.

4.235 The total loan disbursed through the PACS during 2001-02 was to the tune of Rs. 5859.62 crores against a disbursal of Rs. 5526.71 crores during the previous year. The credit disbursed for agricultural purpose was Rs. 2100.64 crores during 2001-02 against Rs. 1900.55 crores disbursed during 2000-01. Out of the total credit, the percentage disbursed to agriculture was only 35.85%. Though a slight increase is noted in percentage as well as absolute terms in the disbursal of credit to farm sector, the non-farm sector lending still continued its dominance over farm sector. The co-operatives (PACS) which are basically meant for servicing the farm sector, seem to be moving away from their primary responsibility of catering services to the farm front. Selected indicators of credit operations of PACS are furnished in the Appendices-4.67

Long term Credit

4.236 A network consisting of Kerala State Co-operative Agricultural Rural Development Bank at the Apex and 44 PCARDBS at the Taluk level is responsible for long term credit disbursement for rural development. The various activities covered by the KSCARDB's lending include minor irrigation, farm mechanisation, land development including soil and water conservation, horticulture, plantation crops etc. Unlike other financial institutions, KSCARDB raises funds through floatation of debentures issued against Government Guarantee on land security provided by loanees. NABARD, Central and State Governments, NHB, LIC, SBI and SBT are the financial institutions which invest in the debentures floated by the KSCARDB. During 2000-01 the bank disbursed Rs.333.32 crore whereas the disbursement during 2001-02 was Rs.319.07 crore. The advances include Rs. 125.06 crore under farm sector (39.2%), Rs.119.81 crore under rural housing (37.5%) and Rs.74.20 crore under. Non Farm Sector (23%). The details of loan issued and debentures floated by KSCARDB are given in Appendix 4.69 and propose wise lending of PCARDB is given in Appendix 4.70.

Credit flow to Agriculture

4.237 The credit flow per hectare of net cropped area increased from about Rs. 3300 in 1993-94 to about 12970 per hectare during 2001-02. More than two-thirds of this credit has been for production credit for supporting agricultural operations. The production credit has increased from Rs. 547.82 crore in 1993-94 to Rs. 2311 crore during 2001-02. During this period the production credit per ha of gross cropped area has increased from Rs. 1800 to Rs. 7648.

4.238 The investment credit flow for agriculture has increased from Rs. 209 crores in 1993-94 to Rs. 550 crore in 2001-02. The investment credit per ha. of net cropped area has increased from Rs. 930 to Rs. 2495 during this period. (Fig-4.11)

Fig. 4.11

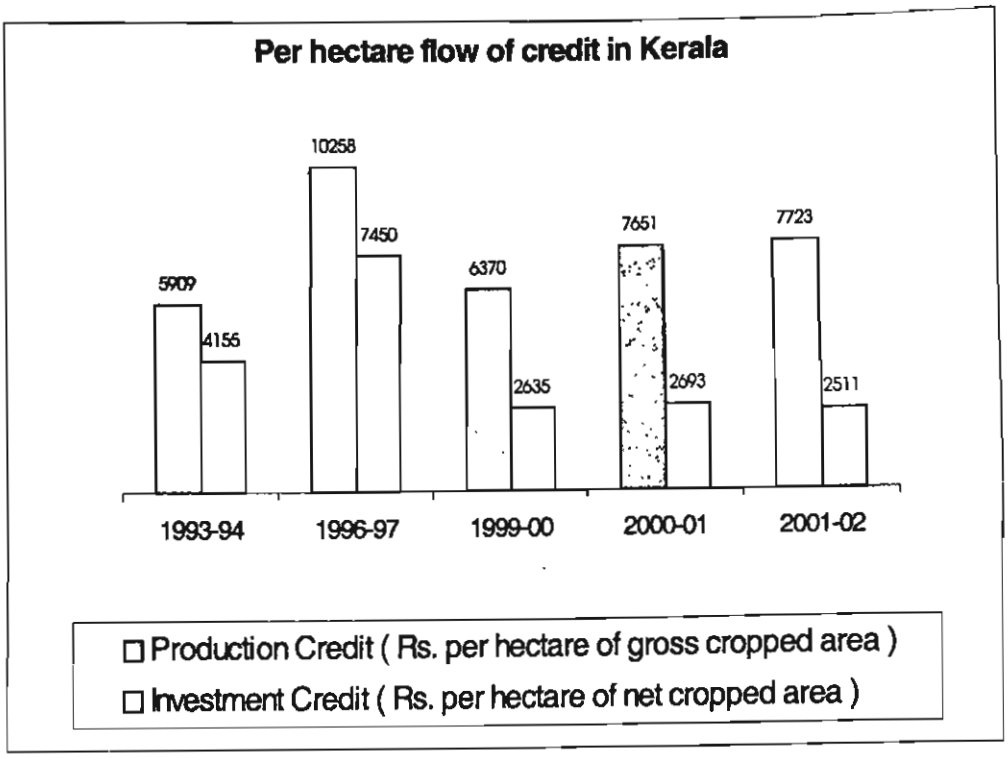


Table: 4.36
Flow of Credit to Agriculture Sector

(Rs. Crores)

Sl No.	Year	Production Credit	Investment Credit	Total
1	1999-2000	1911.49(79%)	509.08 (21%)	2420.57
2	2000-2001	2311.99(80%)	595.75 (20%)	2907.74
3	2001-2002	2310.97(81%)	550.39 (19%)	2861.36

4.239 On an average around 80 per cent of the total agricultural lending is for production and 20 per cent for investment credit. Considering the predominance of capital intensive perennial crops in the cropping system in Kerala, the average investment is low.

4.240 During 2001-02, SCARDB accounted for 22 per cent of investment credit and commercial banks share was 61 percent. The share of commercial banks in production credit was 49 per cent and RRBs with 17 per cent.

4.241 The targets set for investment credit is not achieved fully while it exceeds target in production credit. The banks could achieve only 84 per cent of the targets in investment credit while the achievement in production credit was to the tune of 111 per cent during 2001-02.

4.242 At the all India level also disbursement of short term loans to agriculture and allied sectors registered a higher trend growth in the 1990s than during 1980s. The trend growth rate of medium/long term loans which are important for capital formation in agriculture has shown only a marginal improvement. The shift in the composition of the agricultural loans towards short term loans reflects a growing 'risk aversion' among banks in respect of medium/long term loans which entail higher credit and market risk as observed by RBI.

4.243 A purpose wise analysis of the credit flow to the investment sector reveals that reduction in disbursement was mainly on plantation crops.

Refinance by NABARD

4.244 NABARD provides refinance support to both co-operatives and commercial banks. Data on agency wise and purpose wise disbursement of refinance is furnished in Appendices 4.71 and 4.72. The total refinance from NABARD as on 3/2002 was Rs.373 crore against Rs. 237 crore in 3/2001. The Kerala State Co-operative Agricultural and Rural Development Bank Limited (KSCARDB) continued to avail the largest share of refinance followed by State Co-operative Bank (7%) Regional Rural Banks and Commercial Banks 6%. During 2001-02, refinance share for KSCARDB has increased by 9%, while that of Commercial Banks and Regional Rural Banks decreased by 8%. The low intake of refinance by Co-operative sector was due to the denial of the concessional financial facility to the sector in lieu of minimum involvement of 40% in the agriculture sector out of the own funds of the co-operatives insisted by NABARD as a criteria for eligibility.

4.245 Purpose-wise refinance assistance reveals that the non-farm sector availed 56% of the total amount refinanced by NABARD, Under farm sector the plantation sector availed 14%, minor irrigation (8%) land development (7%) etc. The poor disbursal of refinance to the sectors like fisheries, poultry and horticulture which are very important for rural sector of Kerala for income and employment generation, calls for speedy attention.

Reforms in Co-operative Credit System

4.246 Over the last two years, the problems of co-operative credit institutions and the possible areas of further reform were examined by a Task force under the Chairmanship of Shri. Jagdish Capoor and expert committee on Rural Credit under the Chairmanship of V.S. Vyas. The recommendations made by the task force were deliberated upon in the Conference of Chief Ministers in August 2001. As a sequel to these discussions a Joint Committee on revitalization support to the co-operative credit structure was set up during 2001 under the Chairmanship of Balasaheb Vikhe Patil to examine further the Task force's recommendations and to determine the sharing pattern of revitalisation assistance among Government of India, State Governments and the co-operatives. The major recommendations of the Committees are given in Boxes-4.29, 4.30 & 4.31

4.247 The recommendations made by the Joint Committee are now under the consideration of Government of India. In the Union budget for the year 2002-03, a provision of Rs. 100 crore was made towards revitalisation assistance for the co-operatives by the Central Government, to start the process. The recapitalisation measure may enable co-operative banks to clear their balance sheet and wipe off losses. However, to receive this financial assistance, the co-operative credit institutions need to conform to and comply with various recommendations of the committee for introducing reforms in the sector.

BOX-4.29
Major Recommendations of Capoor Committee on Restructuring of Co-operative Banks

- *Functioning of Co-operative Credit institutions may be member driven and democratic in character*
- *Co-operatives are to be converted into professional organization- on business principles*
- *The Banking Regulation Act, 1949 should be made fully applicable to Co-operatives*
- *Co-operatives to diversify business products and services as well as resort to technology upgradation.*
- *Strengthening co-operatives by voluntary amalgamation/mergers*
- *Winding up of unviable co-operative banks*
- *Revitalization package for co-operative banks may be a four dimensional progressive encompassing financial, operational, organizational and systematic aspects.*

BOX - 4.30
Major recommendations of Vikhe Patil Committee on Revitalisation Support to Co-operative Credit structure

- *To exclude NPAs and overdue interest for working out assistance to PACs.*
- *Accounting for one time settlement of NPAs.*
- *The financial assistance for revitalization to be shared by Government of India and State Governments in the proportion of 60:40*
- *The selection of States for assistance to be based on the commitment to meet the share of State Government assistance, abolition of common cadre for secretaries, autonomy to co-operatives etc.*
- *The selection of institutions to be made on viable functioning, timely audit, deregulation of interest rates etc.*
- *Introduction of improvised accounting system and monitoring mechanism in the co-operatives in consultation with the NABARD.*

BOX-4.31
Major recommendations of Vyas Committee on Rural Credit

- *The recommendations of the Capoor committee to be implemented expeditiously.*
- *The co-operatives may be given more autonomy and accountability.*
- *The model co-operative bill may be adopted by the state governments.*
- *Expeditious steps to be taken to restore health of PACS, district and state level co-operative banks.*
- *Integration of long and short term co-operative structures.*
- *Relaxation of norms for refinance for co-operatives.*
- *Increased support from state governments for improving recovery.*
- *Abolition of cadre system of secretaries in PACS.*

Rural Infrastructure Development Fund (RIDF) of NABARD

4.248 The Rural Infrastructure Development Fund (RIDF) of NABARD was set up in 1995-96 with contributions from the Scheduled Commercial banks against their short fall in agricultural target lending upto an extent of 1.5 percent of the net bank credit. The total allocation at the all India level to the fund stood at Rs. 23000 crore at the end of March 2002. The Union Budget 2002-03 announced a further allocation of Rs. 4400 crore to the VIII tranche of the Fund. The rate of interest on loans to State governments was reduced from 11.5 per cent to 10.5 per cent per annum during 2001-02 (RIDF-VII).

4.249 The State Government has been receiving assistance under RIDF from 1995-96 onwards. The major projects for which refinance has been disbursed included infrastructure development, watershed development projects, rural bridges, rural roads and reclamation of water logged areas and inland navigation. The scope of RIDF had been widened in 1999-2000 to include lending to Grama panchayat, Self Help Groups, and non-government organizations for implementing village level infrastructure projects. The cumulative sanction including RIDF-VIII stood at Rs. 899 crore in respect of 1667 projects. This includes minor irrigating projects (720), medium irrigation projects (184), rural road projects (450), drainage/flood protection (13) and two reclamation projects and one inland navigation project. The loans disbursed to Government as on 30th November 2002 stood at Rs. 494 crore, which account for 56.04 per cent of effective sanction.

4.250 Under RIDF-I, a total of 136 Projects were sanctioned with aggregate RIDF assistance of Rs. 99.72 crore. Of these, 98 projects have been completed and the medium irrigation projects, viz., Karappuzha and Kole land Development Project are remaining to be completed. Under RIDF-II, 184 projects were sanctioned with aggregate RIDF loan of Rs. 89.43 crore. One hundred and fifty eight projects have been completed and the remaining five are in progress, and nineteen projects were dropped. A total of 317 projects with RIDF loan of Rs. 93.63 crore were sanctioned and 250 projects were completed and another 30 are in progress. The disbursement is to the tune of Rs. 64.99 crore. The loan assistance sanctioned under RIDF-IV was Rs. 64.55 crore for 162 projects. a total of 101 projects have been completed and another 31 are in progress. Aggregate disbursement of Rs. 43.70 crore has been made. Under RIDF-V, loan assistance of Rs. 127.57 crore for 237 projects was sanctioned and 140 projects have been completed and another 61 are in progress. The amount disbursed is Rs. 93.94 crore. An aggregate loan assistance of Rs. 186.33 crore for 256 projects was sanctioned and 86 projects were completed under RIDF-VI. The disbursement was Rs. 87.12 crore. An amount of Rs. 191.76 crore was sanctioned for 296 projects under RIDF-VII.

4.251 As many as 842 projects have already been completed and another 307 projects are in progress. One hundred and one projects have either been dropped or proposed to be dropped. Under various tranchies of RIDF 647 kms. of road was sanctioned for implementation by PWD, of which 251 kms. have been completed and a total of 1957 km. of road length has been sanctioned for implementation by the block panchayats of which 346 km. have been completed. one hundred bridges with a total length of 6154 m. have been completed out of a sanctioned length of 14539 m. The irrigation projects completed have benefited an area of 42680 ha. and Soil and Water Conservation projects covered an area of 22000 ha.

4.252 Studies conducted in different parts of the country revealed the strength and weakness of the RIDF projects. The Joint Forest Management Programmes implemented in Andhra Pradesh revealed that the projects generated considerable income and employment. In Rajasthan Primary School projects implemented by PRIs were completed faster with good quality than those implemented by State Governments while in North Eastern states delay in land acquisition, delay in environmental clearance and delay in procedural formalities within the State governments caused problems in implementation of the projects.

Potential Linked Credit Plan (PLP)

4.253 The preparation of Potential Linked Credit Plan (PLP) is being done by NABARD, as a strategy advocated by Reserve Bank of India for decentralizing the credit planning. In the context of Kerala it is prepared for each district, based on available resources, considering priorities and directions of investments at the grass root levels, enabling the required funds for the creation of infrastructure support. The PLPs are updated every year taking into consideration of the factors, like past trend, additional infrastructure support created, marketing support as well as the policy changes in the banking sector. Based on the PLP, the total credit disbursed under the priority sector during 2001-02 was Rs.8243 crore against the target of Rs.7659 crore recording an achievement of 108%.

4.254 The potential linked plan for the Tenth plan period envisages a credit requirement of Rs.61794 crore and an outlay of Rs.11603 crore for the year 2003-04. As against the projection of Rs.11603 crore the expected credit flow during 2003-04 is Rs.10587 crore leaving a credit gap of Rs.1016 crore. The State Credit Plan for 2003-04, an aggregation of 14 Potential Credit Linked Plans prepared by NABARD projects, a credit outlay of Rs.11603.32 crores, which envisages 16% increase over the PLP for 2002-03.

4.255 The district wise/sector wise ground level credit achievement vis-à-vis target and PLP projection for crop loan has been presented in Appendix-4.82. Except Idukki, Thrissur and Kannur districts,. all districts achieved the target under the crop loan during 2001-02. As regards term loan under agriculture, Idukki, Thrissur and Kannur could not achieve the SAP targets in 2001-02.

Kissan Credit Card Scheme

4.256 Kissan Credit Card (KCC) Scheme was introduced in 1998-99 as an innovative mechanism for issuing short term loans for seasonal agricultural operations to farmers in a flexible and cost effective manner. The popularity of the scheme has been rapidly rising. In Kerala a total number of 6.8 lakh KCCs were issued till February 2002.The commercial banks issued 49 per cent followed by Cooperative banks (28%) and RRBs (23%). In the co-operative sector only three District Co-operative Banks (Idukki, Kottayam and Kozhikode) implemented the scheme. Steps are being taken to intensify and continue the efforts to bring all the eligible farmers under the scheme. An insurance scheme was formulated for providing personal insurance package to KCC holders to cover them against accidental death/permanent disability and partial disability. Maximum amount insured is Rs. 50,000/ against death and permanent disability and Rs. 25.000/-- for partial disability. The major findings of evaluation of the scheme implemented in selected states are shown in Box-4.32

BOX-4.32
Major findings of a Study on KCC Scheme in Selected States by NABARD

- *Timely and adequate provision of credit*
- *Flexibility to borrowers for purchase of inputs from any source of their choice*
- *Convenience to borrowers for withdrawals and repayments at any time.*
- *Assured availability of credit for 3 years.*
- *Disbursement of kind component also in cash perceived as serious threat to the existing co-operative marketing structure.*
- *Selection approach being adopted in identifying beneficiaries.*
- *Levy of costly service charges by some of the banks*

IRRIGATION

4.257 Kerala receives an average annual rainfall of nearly 3000 mm. against the national average of 1190mm. Nearly 40 percent of available resources is lost as run off causing heavy floods. On an average, the number of rainy days in Kerala is in the range of 120-140 in an year. The heavy downpour concentrated over a limited number of days in a year causes heavy floods during the Monsoon periods and shortage during the remaining part of the year. Hence managing the water cycle over a year is one of the greatest challenges.

4.258 The demand for water in Kerala is mainly for domestic use, irrigation, prevention of salt water intrusion, generation of electricity and industrial purposes. The annual yield of water in a normal year is around 7030 crore cubic meters and the groundwater resources available is estimated at 704.8 crore cubic metres. The utilisable resources as per the earlier assessment is around 4200 crore cubic meters. Kerala would require around 4970 crore cubic meters of water for purposes like irrigation (3000 crore cubic meters), domestic (750 crore cubic meter) and prevention of salt water intrusion (1220 crore cubic meters). The pattern of demand for water in Kerala is undergoing gradual but continuous changes towards increasing pressure for drinking and other household and commercial needs relative to the demand for irrigation which is also decreasing due to the trend towards less water demanding perennial crops in lieu of seasonal food crops.

4.259 Conjunctive use of ground water and surface water resources needs to be planned in the irrigation projects from the beginning. There is a need to take effective steps for improving water use efficiency through renovation and modernisation of existing systems.

4.260 The utilisation of irrigation potential and sustainability of the projects are threatened mainly by non-maintenance of irrigation structures which can be improved through Participatory Irrigation Management. In 1997, the Government of Andhra Pradesh enacted an A.P. Farmer's Management of Irrigation System Act to promote PIM while Government of Gujarat has taken up 13 pilot projects to study the modalities of implementation of PIM. In Tamil Nadu, a Bill on Farmers Management of Irrigation System was introduced in 1999. The irrigated area transferred to Water Users Association (WAUs) in India is about 7 percent as against 45% in Indonesia, 51% in Mexico, 65% in Philippines, 25% in Thailand, 35% in Turkey and 19% in Sri Lanka. As a part of Tenth Plan strategy it is proposed to introduce PIM in selected projects. Government of Kerala has initiated two Pilot studies in Neyyar and Malampuzha to operationalise the modalities of implementation of PIM. Water Users' Associations will be formed for the O & M of the branch canals and distributories. An integrated Water Resources bill, in the place of several old enactments in force in different parts of the State, is on the anvil.

4.261 Rashtriya Sam Vikas Yojana (RSVY) is a new initiative of the Planning Commission approved for the development of backward districts in the country. This is a reform linked programme. The main objectives of the project are to address the problems of low agricultural productivity, unemployment and to fill critical gaps in the physical and social infrastructure . The project will be implemented in Palakkad district. Palakkad is a drought prone district and major thrust is given for irrigation for enhancing productivity. As a part of the project participatory irrigation management will be tried in Palakkad.

4.262 Keeping in line with the national perspective, Kerala also relied almost entirely on surface water irrigation systems that operate on gravitational force for distribution. Major and Medium Irrigation systems received the major share under irrigation investment. Out of a cumulative investment of Rs.3097 crores made from first to Ninth plan , Rs.2119 crores (68%) was for major and medium irrigation. Such a huge investment made has not succeeded in generating commensurate increase in area irrigated. Most of the projects remain incomplete and with escalation of cost as well as time over run. The irrigation infrastructure created was almost entirely for rice cultivation. With the fast changes taking place in the

farm front of Kerala with considerable reduction in the area under rice cultivation, it is the time to redesign the canals so as to suit to irrigate the perennial cash crops. Hence the focus is on the development of the minor irrigation schemes which are most suited to Kerala conditions, through the efforts of local governments.

4.263. As water resources are limited, these are to be conserved and allocated among a variety of uses to meet the projected demands in the best possible manner by taking river basin as the basic unit. For the planned development of river basins as a whole, basin wise studies are proposed during Tenth Plan period. The strategy adopted for Tenth Plan include (i) completion of ongoing projects in a time bound manner, (ii) revamping of first and second generation projects to improve the water use efficiency (iii) water resources planning and management at river basin level by preparing watershed based plans in five river basins viz., Chaliyar, Bharathapuzha, Periyar, Pamba-Achancovil and Neyyar. New strategies proposed are more or less in tune with the National Water Policy 2002 which warrants the revamping of old dams for increasing the water use efficiency, timely and proper maintenance of the irrigation structures, participatory planning etc.

4.264 The salient features of the National Water Policy are given in Box-4.33

BOX - 4.33
Salient features of National Water Policy 2002

- *Approach to management of droughts and floods has to be co-ordinated and guided at the National level*
- *A standardised national information system to be established with a net work of data banks and data bases, integrating and strengthening the existing central and State level agencies*
- *Water resources development and management will have to be planned for a hydrological unit such as drainage basin as a whole or for a sub basin multi sectoraly.*
- *Watershed management to be the approach and appropriate river basin organisations should be established.*
- *Water allocation should be prioritised as drinking water, irrigation, hydro power, ecology, agro-industries and non-agricultural industries, navigation and other uses.*
- *Water resource development projects should be planned as multi purpose projects. Provision for drinking water should be a primary consideration. Preservation of ecological balance also to be considered.*
- *Improvement in quality of project preparation to avoid time and cost over runs, and efficient realization of benefits.*
- *Promotion of participatory planning*
- *Exploitation of ground water to be regulated as not to exceed the recharging possibilities.*
- *Irrigation planning should take into account the irrigability of land and close integration of water use and land use policies*
- *Water charges for various uses should be fixed to cover at least the O & M charges*
- *Promotion of participatory planning and management with necessary legal and institutional changes duly ensuring appropriate role for women. Water Users Association and the local bodies be involved in the O & M of water infrastructures, progressively transferring the management to the user groups.*

- *Promotion of private sector participation on BOT basis.*
- *Necessary legislation for preservation of existing water bodies by preventing encroachment and deterioration of water quality.*
- *There should be a water zoning.*
- *Efficiency of utilisation of water to be optimised through awareness programmes and availability augmented by minimising losses. Modernization and rehabilitation of existing system to be promoted.*
- *There is a need to give greater emphasis on the improvement of performance of existing system.*
- *There should be a master plan to flood control and management for each flood prone basis. Each coastal State to prepare a comprehensive coastal land management plan.*
- *In planning water resources development projects, the needs of drought prone areas should be given priority.*
- *A close monitoring of projects to obviate time and cost over run and monitoring and evaluation of the performance and socio- economic impact of the project.*
- *Inter State Water disputes Act of 1956 may be suitably reviewed and amended for timely adjudication of water disputes referred to the Tribunal.*
- *There should be organisational arrangements for ensuring the dam safety and dam*
- *Safety legislation may be enacted.*

4.265 Kerala had framed a State Water Policy in 1992 complementary to the National Water Policy of 1987. The State Water Policy stressed the need for (i) establishing a network of data banks & data bases of Water resources for Planning, (ii) integrated river basin development & integrated watershed management (iii) a master plan for water resources development for the State, (iv) maximising water availability (v) fixing topmost priority for drinking water (vi) maintaining the water quality (vii) need for hydropower generation (viii) need for formation of Water Resources Control Board (WRCB) to over see and co-ordinate all the activities and implement the State Water Policy. The strategies adopted for IX Plan were in relation to the State Water Policy. But all the strategies could not be put into action. Many changes and challenges had emerged in the development and management of the Water resources. Therefore it is high time to review and update the State Water Policy.

4.266 The strategy adopted for the development of water resources and its management during the Ninth Plan period aimed at conservation of natural resources including rainwater through appropriate intervention and ensuring its optimal utilisation. (It also contemplated 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, demarcation 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 was given the main thrust in the past, minor irrigation is also gaining importance. In the allocation of resources for the irrigation sector during the Ninth plan the major share was for the major and medium irrigation sector i.e., (63%), followed by minor irrigation (24%), coastal zone management (5%), command area development (4%) and flood management (4%). Ninth plan envisaged an investment of Rs.1054.87 crores against the target of Rs.1028 crores. The allocation of resources and expenditure incurred for various sectors under irrigation are given in Table-4.37

Table -4.37
Outlay and Expenditure of Irrigation Sector during Ninth Plan

(Rs. Crores)

Sl.No.	Sub Sector	Ninth Plan	
		Outlay	Expenditure
1.	Major & Medium Irrigation	650.00	688.79
2.	Minor irrigation		
	(a) Ground Water Development	110.00	49.52
	(b) Surface Water Development	140.00	147.82
3.	Command Area Development	40.00	49.39
4.	Flood Management	38.00	50.95
5.	Coastal Zone Management	50.00	75.41
Total		**1028.00**	**1054.58**

4.267 On the physical side, the cumulative coverage under irrigation as reported by the Director of Economics & Statistics as on March 2002 is 3.77 lakh ha. (net) and 4.32 lakh ha. (gross). Out of this the contribution by the major and medium irrigation is 1.45 lakh ha (net) and 2.25 lakh ha (gross).
The physical target set for coverage under irrigation for the Ninth Plan period was 2.44 lakh ha. (gross) through completion of major/medium projects (1.50 lakh ha) and supplementing irrigation support under minor irrigation (0.94 lakh ha.). The coverage reported is 30000 ha. (20%)under major and medium and 35000 ha.(37%) under minor irrigation.

4.268 With the introduction of decentralized planning, during the Ninth Plan period, one of the major transformations that the state could bring was the devolution of funds and authority of planning and execution of minor irrigation schemes to local bodies. During the Ninth plan period eventhough actual figures are not readily available, it is estimated that about Rs.480 crores has been invested for agriculture and allied sectors through local bodies. Out of this a major share has been invested for minor irrigation schemes.

Review of Major Projects

4.269 At the beginning of the Ninth Plan there were 14 completed projects and 15 ongoing projects which were in different stages of implementation. The strategy adopted for major and medium irrigation was (i) time bound completion of ongoing projects which are in an advanced stage of completion (ii) revamping and consolidation of old generation projects through a modernization programme (iii) reinvestigation of projects which are in the initial stages of investigation, (iv) optimum utilisation of the potential already created through proper maintenance and (v) introduction of multipurpose and self supporting medium projects under autonomous authorities. Among the five strategies only three could be partially achieved. The introduction of multipurpose and self supporting medium project under autonomous authorities could not be materialised.

4.270 Under time bound completion, eight projects were targeted during the period. Against this four projects, viz.; Chimmoni-Mupli, Pazhassi, Kanakkankadavu and Kanhirappuzha could be completed. Kallada, Muvattupuzha, Karapuzha & Idamalayar are the projects which could not be completed as scheduled.

4.271 Kallada Irrigation and Tree Crop development Project is the second largest project in Kerala started in 1961 with an original cost of Rs.13.28 crores. The final estimate of the project was Rs.725

crores in the 1999 schedule of rates. The cost escalation reported is 5356%. The ayacut targeted was 61630 ha.(net) and 92800 ha. (gross). Though the project was targeted for completion and priority in allocation was given during Ninth Plan it could not be completed and commissioned fully. The implementation of the project was not in a systematic way. The organisation of the work programme was so sporadic and piece meal, without any perspective for completing the project in meaningful sequence commencing from the main canal followed by branches and distributories. This 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 led to cost escalation substantially and it became difficult to complete the project with the normal plan funding. This project was posed for assistance from the AIBP of Government of India for quick completion. An assistance to the tune of Rs. 28.85 crores was availed under AIBP for the project. Even then it could not be completed. A project-wise comparison reveals that the project consumed nearly 1/4 of the total investment under major irrigation projects in Kerala. Though full commissioning of the project could not be done during the Ninth Plan period, almost all the works in head structure, main canal and branches could be completed. Only minor works remain to be completed. Hence some funds were provided in the Tenth plan for meeting the expenditure towards winding up of the project. The expenditure incurred as on 3/02 aggregates to Rs. 644 crores and the achievement reported as on 3/02 was 43626 ha. (net). As far as Muvattupuzha Project 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 21.05 km. has been completed and out of 184 kms. of distributories only 34.33 km. has been completed. The progress of execution was very slow and the ayacut achieved is only 2750 ha. as on 3/02.

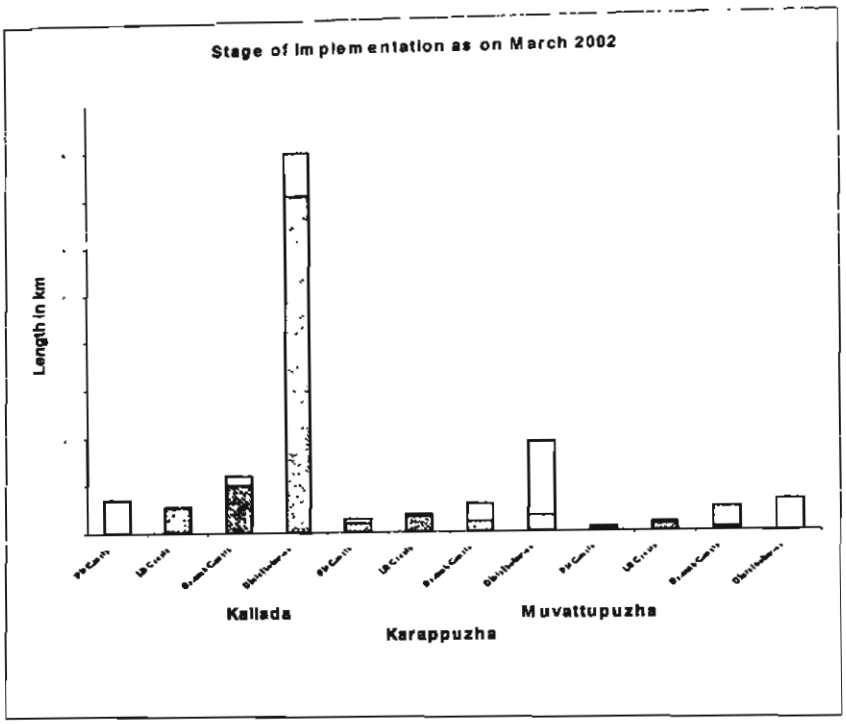
4.272 In the case of Idamalayar project, out of the 32.278 kms. of Main canal work relating to 8.18 kms. completed and in the case of low level canals, only 3.58 km. completed.

4.273 The Karappuzha project is also nearing completion. All the major works except the distributories have been completed. Though showed good progress in execution no ayacut is achieved till date. As time over run the cropping pattern in the ayacut has changed and it is doubtful whether the original ayacut targeted could be achieved.

4.274 The physical achievement of the works in main canals, branch canal and distributories of the 3 projects Kallada, Muvattupuzha and Karappuzha which are in the advanced stage of completion aregiveni in Fig.4.12

4/100/2003—A-8A

Fig. 4.12.



4.275 The overall performance of the major and medium irrigation sector during the Ninth Plan period was not encouraging. Additional irrigation facility could be extended mainly in the case of Kallada project, Pazhassi and Muvattupuzha. The cumulative area brought under irrigation through major and medium irrigation projects is 1.45 lakh hectares (net) and 2.25 lakh hectares. (gross). The details of the progress of implementation of ongoing project as on 3/2002 is given in Table-4.38

Table 4.38
Project-wise Details of Ongoing Projects

(Rs. lakhs)

Sl. No.	*Name of Project*	*Year of starting*	*Original estimate*	*Revised estimate*	*Year of revision*	*Cost escalation (%)*	*Expenditure upto March 2002*	*Target area to be irrigated (Ha)*		*Physical achievements (Ha)*	
								Net	*Gross*	*Net*	*Gross*
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*
1	Kallada	1961	1328	72500	1999	5356	64409	61630	92800	43626	65875
2	Kanhirapuzha	1961	365	14000	1999	3735	11196	9713	21853	7266	16348
3	Pazhassi	1962	442	15000	1999	3293	15712	11525	19650	11525	23650
4	Muvattupuzha	1974	2086	51500	1999	2368	37515	17737	34737	2750	5386
5	Idamalayar	1981	1785	41200	1999	2208	11912	14394	29036		-
6	Kuriyarkutty-Karappara	1987	1036	15830	1999	1427	1237	17488	34976		-
7	Karapuzha	1979	760	25300	1999	3228	18037	5221	8721		-
8	Banasurasagar	1979	800	5000	1999	525	673	2800	4740		-
9	Chamravattom	1985	1327	12000	1999	804	1194	3106	9659		-
10	Thrithala	1998	1900	2660	1999	40	1256	1303	3997		

4.276 The progress of implementation of various major irrigation projects indicate several problems in timely completion of the projects. In completed projects also the conveyance efficiency is only around 60%. In a recent study on the sustainability status of irrigation infrastructure in major states also revealed the declining performance over the years. The salient findings of the study are shown in the BOX-4.34

BOX-4.34
Sustainability Status of India's Irrigation Infrastructure

- *Canals in Uttar Pradesh are irrigating 30.6 lakh ha. in the triennium ending 2000 against 33.39 lakh ha. in the triennium ending 1985.*
- *In Andhra Pradesh, canals irrigate 11% less area than what was irrigated 15 years back.*
- *On many irrigation commands, effective irrigated area has declined due to deterioration in the distribution infrastructure.*
- *Andhra Pradesh, Tamil Nadu, Karnataka and Orissa together accounting for 60% of India's tank irrigation areas have lost about 37% of the area irrigated by tank during 1965-2000.*
- *Average O&M expenditure remained low at 30% of the desired level.*
- *Andhra Pradesh and Haryana have registered low cost recovery of 26% and 41% respectively.*
- *Water User Groups need to be empowered with the management responsibilities.*
- *Low Water rates, under assessment of irrigated area and poor collection rate continued to deprive the irrigation sector from realizing the potential revenue.*

4.277 A major chunk of the outlay on Irrigation sector has been earmarked for Major & medium irrigation. The gestation period of the projects are found considerably longer than initial design. The delay in completion, escalation of costs, and backlog of execution are the major factors that hinder the timely completion of the projects. The delay and resultant low returns from the projects than actually anticipated has become serious concern for the planners in the wake of the Tenth Five Year Plan. The government policy to prefer spillover projects to new ones further aggravates the situation many folds. At this juncture, the State Planning Board has conducted a quick study on the ongoing major and medium irrigation projects to assess justification for their continuance as spillover schemes and to suggest suitable measures for completion of these projects in a phased manner with a period of 2-3 years. The major suggestions based on the study are given in BOX-4.35

BOX-4.35
Suggestions of the Evaluation Study on Ongoing major & medium projects, 2002

1. Kallada

- *Winding up of the project by completing the works essential for optimizing the benefit of the infrastructure already created.*
- *Auctioning of the acquired land for branches which are kept unutilized.*
- *Unutilized infrastructure to be transferred to local governments.*
- *Reduction of the establishment charges by retaining skeleton staff required for the maintenance and upkeep of the project.*
- *The funds required for the O&M charges and completion of minor works, repairs has to be mobilized by collecting the power generation charges from KSEB, auctioning of fish in the reservoirs etc.*

2 ***Muvattupuzha***

- *Top priority for completion*
- *Expedite action for clearing the pending vigilance cases and vacating the court stays.*
- *Explore the possibility of external assistance for quick completion of the project.*

3. ***Karapuzha***

- *It is not economical to pump in more money into the project as the ayacut has shrunk due to changes in cropping pattern.*
- *Winding up the project by completing the essential items of work which will help in achieving the ayacut.*
- *Land acquired but not utilized for branch canals is to be auctioned or to be considered for lift irrigation schemes.*

4. ***Banasurasagar***

- *Explore the possibility of obtaining external assistance.*
- *In the absence of external aid, adequate funds may be provided under Plan for the project for completion.*

5. ***Kuriyarkutty- Karappara***

- *As the construction of the Head structure of this multi purpose project (Irrigation & Power generation) is not yet started it is better to stop the construction at a convenient stage. Construction to be resumed after completion of the head structure by KSEB.*

6. ***Idamalayar***

- *The project to be revised and scaled down the cost judiciously in keeping with the ayacut area benefited and get approval of CWC for the revised project. Steps are to be taken to complete the project in the Tenth Plan so that the cost and benefit of the project can be optimised.*
- *Inadequate earmarking of funds for the project during X Plan will lead to further escalation in cost.*

7. ***Chamravattom Bridge-cum-Regulator***

- *The project to be considered for implementation on BOT basis either fully or partially*

8. ***Thrithala Bridge-cum-Regulator***

- *The storage capacity of the project to be reduced to 6 Mm3 from 13.3 Mm3 as recommended by CESS based on a quick EIA study conducted by them.*

9. ***Attappady***

- *As the irrigable area in the ayacut is less and gravitational flow is very expensive in this region, the scope of the project should be scaled down to small projects. The possibility of taking up a series of checkdams to provide irrigation is to explored.*

4.278 The suggestions of the evaluation study were also taken into consideration while framing the strategy for major & medium projects during the Tenth Plan period.

Live Storage Capacities of Irrigation Reservoirs

4.279 There is a need for building up of storage capacities in reservoirs and storage tanks for the use of water during the non-monsoon seasons. The total storage built up in the projects completed upto 2000 is

about 1721 Million cubic meters. The live storage capacity of completed projects and projects under construction is given in Table-4.39

Table- 4.39

Storages in the Reservoirs (Irrigation) - Basin wise

Sl No.	Reservoirs	River Basin	Live storage capacity (million cubic meters)
A. Completed			
1.	Kuttiyadi	Kuttiyadi	113.00
2.	Peechi	Karuvannoor	108.17
3.	Vazhani	Keecheri-puzhakkal	17.00
4.	Walayar	Bharathapuzha	18.40
5.	Gayathri	Bharathapuzha	11.30
6.	Mangalam	Bharathapuzha	24.67
7.	Periyar Barrage	Periyar	28.00
8.	Malampuzha	Bharathapuzha	226.99
9.	Pothundi	Bharathapuzha	43.89
10.	NeyyarChimmoni	Neyyar basin	101.15
11.	Chimmoni	Karuvannoor	174.00
12.	Kallada	Pallickkal-Kallada	488.00
13.	Malankara	Muvattupuzha	27.00
14.	Pazhassi	Valapattanam	60.00
15.	Pamba	Pamba Basin	6.5
16.	Siruvani	Bhavani	184.00
17.	Kanhirapuzha	Bharathapuzha	58.00
B. Under Construction			
18.	Karapuzha	Kabani	31.00
			1721.07

4.280 There are 18 dams intended mainly for irrigation. Safety of the existing dams is one of the items in the National Water Policy. Almost all of them were completed in the 1950's and are constructed of masonry/earth or a combination of both. Excessive seepage/leakage, mal functioning of gates etc. caused distressed conditions as noticed by the State level Dam Safety Committee. Besides this, the storage capacity of the reservoir gets depleted due to excessive siltation. If these problems are not attended properly, it can cause down stream damages. Hence rehabilitation of the dams are essential. As per the Dam Safety Act-2000 every State having a significant number of dams shall constitute a body called 'Dam Safety Organisation (DSO). Accordingly in Kerala also constituted a 'Dam Safety Organisation'. The main responsibilities of the Dam Safety Organisation are

(i) Monitoring the post and pre-monsoon inspections of dams and maintenance and surveillance and safety activities of the dam.

(ii) Hydrological review to check the adequacy of design flood, preparation of emergency action plan. prioritization of dam for rehabilitation purposes, interaction with the Dam Safety Organisation of the Central Water Commission, conducting structural analysis, and checking the safety of dams once in 10 years.

4.281 Though DSO has been constituted, it has not started functioning in full. The salient features of the Dam Safety Act-2000 are given in BOX - 4.36

BOX - 4.36
Salient features of DAM SAFETY ACT – 2000

- *It is the intent of this Act to provide for surveillance, inspection and maintenance of all large dams and reservoirs to the extent required for the protection of public safety.*
- *All the States having significant number of dams shall constitute a body called "Dam Safety Organisation" (DSO). All dams and reservoirs in the State would be under the jurisdiction of the Dam Safety Organisation of the State.*
- *Each State shall issue executive orders for inspection, maintenance and surveillance of dams, on the advice of the Dam Safety Organisation.*
- *The follow-up action in monitoring the implementation of the executive order shall be done by the Dam safety Organisation of the state.*
- *Pre-monsoon and post-monsoon inspections of the dam shall be done by an engineer not below the rank of an Executive Engineer. The report of the inspection shall be forwarded to the Dam Safety Organisation.*
- *The Sate Dam Safety Organisation and other Organisations shall also make water-shed investigations and studies as may be necessary to keep abreast of all developments affecting stream runoff as required to facilitate decisions.*
- *The State Dam Safety Organisation and other organisations shall from time to time, but not less often than once in ten years, arrange for the safety evaluation of all large dams.*
- *Emergency action plans should be prepared for all large dams. For projects not commissioned such plans should be prepared before initial filling of the reservoir.*
- *The Emergency Action Plan should identify in advance the type of emergencies, which are likely to occur in connection with operation of any reservoir.*
- *Emergency flood warning/forecasting system should be established for all large dams.*
- *The Dam Safety Organisation of the State shall prepare annual report of its activities and safety status of dams in the State.*
- *The Dam Safety Organisation of the Central Water Commission will prepare a consolidate annual report on the safety status of dams and submit to the Ministry of Water Resources, Government of India.*

Accelerated Irrigation Benefit Programme (AIBP)

4.282 AIBP was launched by the Central Government in 1996-97 for the expeditious completion of approved ongoing major and medium irrigation projects. Central assistance is given under the programme in the form of loan and is provided to those projects which have investment clearance by Planning Commission. The pattern of assistance was on a 50:50 basis up to 1999-2000 and later it was revised in the ratio of 2:1 (Central and State). In Kerala, Kallada and Muvattupuzha projects were assisted through the AIBP.

4.283 The assistance is provided based on individual selected components of public works identified under each project. The first project assisted under the scheme was Kallada, Muvattupuzha project was included under the scheme from 1998-99 onwards. The assistance sanctioned and released for the two projects is given in Table-4.40

Table :4.40
Accelerated Irrigation Benefit Programme

(Rs. Crores)

Year	Kallada Project		Muvattupuzha Project	
	Sanctioned	Released	Sanctioned	Released

1996-97	3.75	3.75	-	-
1997-98	15.00	15.00	-	-
1998-99	-	-	20.00	-
1999-00	-	-	-	-
2000-01	10.00	9.75	12.65	12.65
2001-02	0.10	-	11.275	11.275
TOTAL	**28.85**	**28.50**	**43.925**	**23.925**

Revamping and consolidation of old generation projects

4.284 The principal requirement of a good water distribution system is that it involves minimum loss of water and ensures timely and equitable supply of water to all irrigators in the command irrespective of the relative location of their fields in the command. Due to the long gestation period most of the projects has lost their efficiency in water distribution. The remodeling and modernization of the existing system has become imperative due to various reasons such as meeting the water requirements of crops at various stages of their growth, change in cropping pattern and improvement in operational methodologies etc. Hence, Kerala also has introduced a revamping and consolidation programme for augmenting the water use efficiency of the old generation projects which had deteriorated over the years and occured radical changes in the water distribution system. Nine projects out of the old ten projects were taken up. Rehabilitation packages were drawn up based on detailed baseline study of each project and modifications/interventions necessary to make the system more effective were drawn up and implemented. Even though a time bound implementation was targeted it could not be completed as scheduled. Out of the projects taken up for implementation two projects have been completed and others spilled over to the Tenth plan. Against a financial target of Rs.50 crores under Ninth plan the expenditure incurred up to 3/2002 was Rs.28.35 crores. In the case of system modernized, the participatory approach for irrigation scheduling and management has not been included so far. The component-wise financial achievement of the projects as on 3/2002 is given in Table-4.41

Table -4.41

Details of Revamping and Consolidation Programme

Amount in lakhs

Sl. No.	Name of Project	Estimated Cost	Approved Cost of Revamping	Estimated cost and expenditure for								Total Expenditure as on 3/02
				Head Works		Main Canal		Branch Canal		Distributories		
				Estimate	Expenditure	Estimate	Expenditure	Estimate	Expenditure	Estimate	Expenditure	
1.	Malampuzha	1658	693		NIL	279.20	.57	1110.22	NIL	268.49	369	426
2.	Pothundy	831	452	53.50	NIL	150.00	48	593.75	NIL	15.15	310	358
3.	Mangalam	430	670	7.00	NIL	22.00	162	204.00	NIL	197.00	141	303
4.	Walayar	370	560	27.00	NIL	155.00	228	126.81	NIL	60.64	NIL	228
5.	Gayathri	700	465	42.00	NIL	284.45	265	331.07	NIL	42.48	NIL	265
6.	Neyyar	380	590	35.00	NIL	118.70	190	158.10	NIL	68.20	172	362
7.	Vazhani	145	360	8.00	4	45.50	225	75.50	NIL	16.00	101	330
8.	Cheerakuzhi	230	360	25.50	NIL	166.00	54	39.00	NIL		44	98
9.	Peechi	810	510	50.50	NIL	412.00	306	201.10	NIL	146.00	115	421
10	Regulators of Koleland	188	290		44		NIL		NIL		NIL	44
	TOTAL	5742	4950	248	48	1633.45	1535	2839.55		814.36	1252	2835

Progress under RIDF assisted Projects

4.285 Assistance under the RID Fund of NABARD for various infrastructural development activities were continued under various tranche. Irrigation infrastructure development was given thrust under RIDF I, II and III. The allocation was also higher compared to other sectors. But in the succeeding tranche, the trend has changed and the thrust was shifted to other sectors like rural roads, bridges etc. Subsequently the credit disbursement for irrigation has decreased. Out of a total assistance of Rs. 852.98 crores sanctioned for Kerala under RIDF of NABARD till 2001-02, 212.15 crores (24.87%) was for supporting irrigation which include assistance for the completion of the 6 medium projects viz., Kanakkankadavu, Chimmoni, Pazhassi, Kanhirapuzha, Karapuzha and the bridge -cum-regulator at Thrithala and 692 minor irrigation projects. Out of this the projects Kanakkandadavu, Pazhassi and Kanhirapuzha and Chimmoni were completed. Under minor irrigation, out of 692 projects sanctioned, 458 are completed and 57 dropped and 39 are progressing. Details of RIDF schemes under Irrigation as on 3/2002 is given in Table-4.42

Table-4.42

Details of RIDF Schemes under Irrigation (up to 31.3.2002)

Sl. No.	Description	RIDF I	RIDF-II	RIDF-III	RIDF-IV	RIDF-V	RIDF-VI	RIDF-VII	Total
1.	Total No. of Schemes Sanctioned								
	MIP	3	2				1		6
	MI	92	129	101	86	131	91	62	692
2.	No. of Schemes Dropped								
	MIP								
	MI	33	13	8			3		57
3.	No. of Schemes taken up								
	MIP	2	2						4
	MI	59	116	93	86	131	88	62	635
4.	No. of Schemes completed								
	MIP	1	3						4
	MI	58	113	88	53	96	46	4	458
5.	No. of schemes in Progress								
	MIP	1					1		2
	MI	1	3	3	3	8	17	4	39
6.	No. of Schemes not started								
	MIP								
	MI			2	30	27	25	58	142
7.	Total Estimate amount of the Schemes in Lakhs								
	MI	1772.01	1187.18	1005.17	1424.49	1456.86	902.67	697.02	8445.40
	MIP	9773	43055				2640		16718
8	NABARD Share s (in lakhs)								
	MI	1077.03	818.16	866.87	1323.37	1274.71	811.57	627.33	6799.04
	MIP	6028	3286				2040		11354
9.	Expected achievements (ha) MI	5550.15	4559.99	5009.09	4266.55	4927.50	3564.60	2177.00	30006.31
10.	Physical achievements (ha) MI	5370.79	3432.54	4243.09	2018.76	3727.50	1472.10		20264.78
11.	Loan released by NABARD to MI	1002.32	741.16	574.75	303.92	428.12	106.68		3156.95

MIP - Medium Irrigation Projects *MI - Minor Irrigation*

Performance of Externally Aided Projects

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

4.287 National Hydrology Project is a World Bank aided project implemented by the Water Resources Department (both Surface and Ground water components) with an original estimated cost of Rs. 35.97 crores. The project was started in 1995-96 and the duration of the project was 6 years from '95-96 onwards. The original scheduled period of completion was March 2002. During the Mid term review by the external agency ,the financial target has been reduced to Rs. 32.78 crores and extended the term of completion to one more year and scheduled for completion by March 2003. After reviewing the performance by the Joint Supervision Mission in April 2002, the financial target has again been reduced to Rs. 28.81 crores (Ground Water – Rs. 12.66 crores and Surface Water Rs. 16.15 crores) from Rs. 32.28 crores and physical target has also revised.

4.288 The objective of the National Hydrology project is to develop a sustainable hydrological information system covering all aspects of surface and ground water hydrology which generates data for the present and future use. Improvement of organisational arrangements, technical capabilities, physical facilities available for measurement, validation, transfer and dissemination of data which are more reliable are envisaged under the project.

4.289 More stress has been given for data collection, data management, collation, supervision and monitoring of data. The project implementation in Kerala has achieved sufficient progress towards project objectives in terms of improving the organisational arrangements, institutional and technical capabilities and physical facilities for measurement, validation, collation, analysis, transfer and dissemination of hydrological, hydro-meteorological and water quality data and for basic water resources development. Under civil works, the construction of the State Data Centre is nearing completion. Though sufficient progress has been achieved, much headway could not be done in the dissemination and use of hydrological data by the Surface Water Component.

4.290 Kerala Community Irrigation Project was implemented in Kerala jointly by the Government of Kerala and Government of Netherlands from 1994 to June 2000. The Project was started in Thrissur District in 1994 and implemented through an agency called Kerala Samuhya Jalasechena Samithy. The original cost of the project was Rs. 21.7 crores with the pattern of funding of Rs. 18.2 crores. from Government of Netherlands, Rs. 3.14 crores from Government of Kerala and Rs. 0.36 crores from the beneficiaries. The objective of the project was to develop an integrated approach to improve the living standards of small and marginal farmers especially women farmers through the harnessing and efficient use of the ground water resources for sustainable community irrigation schemes. The implementation of the project was by drilling bore wells and bringing water to each farmer through an effective conveyance system. After commissioning of the schemes the wells were handed over to the respective Water Users Associations. The cost of the maintenance of the system will be met fully by the beneficiaries by collecting monthly contribution and water cess based on the land holding or hours of water use. In KCIP, the farmer participation was developed in managing the small scale irrigation systems Beneficiaries were involved in the planning, execution and management of the programmes. The original target was to drill 210 borewells.

4.291 Later after a midterm appraisal, the target was reduced to 131 borewells. The original period of completion of the project was December 1998 which was extended to June 2000. During the project period 131 borewells were drilled; out of them 96 bore wells were commissioned. All the commissioned schemes were implemented by the farmers with the technical support of KSJS and with the financial

support of RNE & GOK. An amount of Rs. 13.18 crores have been allotted to KSJs during 1994-2000 and the total release was Rs. 9.98 crores. The expenses incurred was Rs. 6.88 crores. The claim preferred for reimbursement from Government of India upto 30.9 2000 was Rs. 4.33 crores and the amount released by Government of India as on 30.9.2000 was Rs. 4.02 crores and the project was completed by 30.6.2000.

4.292 The EEC - assisted Kerala Minor Irrigation Project aimed at creation of or rejuvenating surface water irrigation structures such as vented cross bars, tanks, weirs and sub-surface dykes in potential areas. The project was started in 1994-95 with a total cost of Rs. 52.04 crore. As per the original work plan, the area targeted for irrigation was 17,500 ha. of paddy through implementation of 575 schemes. considering the tardy performance, the target for coverage has since been reduced to 7,300 ha. and number of schemes to 251. The expenditure upto 3/2000 was Rs. 18.90 crore and created an irrigation potential of 6766 ha. The project has been completed. Details of externally aided projects are given in Appendix.4.73

4.293 The monitoring and evaluation of the Project was entrusted with the Evaluation division of State Planning Board. Out of the 251 selected schemes, 60 minor irrigation schemes were identified and suggested for concurrent monitoring and evaluation. Conduct of base line, seasonal and crop cutting surveys and hydrological studies in the selected scheme areas and analysis of data and preparation of timely reports based on the above studies are the tasks entrusted to the M&E unit. The inferences of the study conducted by the M&E Unit are given in BOX-4.37

BOX-4.37
Major findings of the M& E unit on KMIP, 2002

- *Higher productivity of paddy in most of the scheme areas*
- *Higher cropping intensity in selected scheme areas*
- *Slow pace of implementation led to non-utilisation of more than 50% funds of the project.*
- *Unrealistic physical target set for the project.*
- *Procedural delay in approval of schemes by EEC.*
- *Revision of unit cost delayed the implementation*
- *Lack of inter and intra departmental coordination*
- *Ineffectiveness of BFAs in the O&M of the completed schemes. ie., the failure of participatory approach.*

Irrigation Status

4.294 The source-wise and crop-wise area irrigated as on March 2002 is given Tables: 4.43 and 4.44. As per the assessment of the Directorate of Economics and Statistics the net irrigated area in the state as on 3/02, was 3.77 lakh ha. and the gross area irrigated is 4.3 lakh ha. Only 17.20% of the net cropped area is under irrigation. The major source of irrigation is government canals, which contribute 25.25%, private canals 1% tanks 13.11%, wells 22.88%. A slight increase is noted in the area irrigated by other sources including minor lift irrigation compared to last year. Though the area brought under irrigation has increased by 11% over a period of ten years, the area irrigated by government canals has decreased. The is due to the reduction of system efficiency of the major canals.

4.295 Among the crops, paddy continued to be the major crop supported by irrigation. It accounted for about 43% followed by coconut (36%) arecanut (7%) banana (4%) and vegetables. Even though gross irrigated area has increased and paddy remains to be the major crop accounting for irrigation, the

percentage of area irrigated for paddy has decreased from 58 to 43 over a period of 10 years. This may be due to the reduction of area under rice and the change in the cropping pattern from more water demanding to crops less water demanding crops.

Table – 4.43
Net Area Irrigated (Source wise)

(area in ha.)

Sl. No.	Source	1990-91	1995-96	1998-99	1999-00	2000-01	2001-02
1	*2*	*3*	*4*	*5*	*6*	*7*	8
1	Government canals	104265	103136	94643	81231	100926	95270
2	Private canals	3691	3681	2482	4803	4041	4413
3	Tanks	48952	49213	47532	52932	49972	49945
4	Wells	65678	73137	107213	121605	115703	86297
5	Other sources	110783	113026	122639	119472	110399	110788
6	Total	333369	342193	374509	380043	381041	377162
7	Area irrigated more than once in a year	51282	123311	46335	90655	76824	55055
8	Gross irrigated area	384651	465504	420844	470698	457865	432217
9	Net area irrigated to net area Sown(%)		15.11	16.58	16.97	17.27	17.20
10	Gross irrigated area to gross cropped area (%)		15.18	14.43	15.68	15.15	14.44
11	Irrigated area under paddy to total irrigated area	58%	49	47	44.21	45.44	42.57

Source: Directorate of Economics & Statistics

Table 4.44
Gross Area Irrigated (Crop-wise)

(area in ha.)

Sl. No	*Crops*	*1990-91*	*1995-96*	*1998-99*	*1999-00*	*2000-01*	*2001-02*
1	Paddy	225063	234409	196927	208790	208047	183992
2	Tubers	885	954	887	931	979	972
3	Vegetables	5766	7428	7049	7813	8529	8972
4	Coconut	104889	164518	152917	169894	165957	158050
5	Arecanut	20208	25544	26798	32115	30501	31467
6	Nutmeg/clove	828	1459	1804	2407	2466	2170
7	Other Spices and condiments	1361	2942	2824	2967	3074	3109
8	Banana	10557	10737	11735	18792	19448	24372
9	Betel leaves	908	931	881	1024	990	944
10	Sugarcane	2180	3844	6160	5780	3367	3267
11	Others	11916	12738	12826	20185	14507	14569
Total		***384561***	***465504***	***420844***	***470698***	***457865***	***432217***

Source: Directorate of Economics & Statistics

Minor Irrigation

4.296 Kerala has a wide network of rivers and rivulets and springs spread over the entire cropped area. Though minor irrigation Schemes are best suited for Kerala conditions, considerable thrust was not given for the implementation of minor irrigation schemes till the Seventh Plan period. Minor irrigation sector received considerable boost during the Ninth Plan period consequent to the enhanced flow of funds from the grant in aid of the local bodies as well as on account of special support received form the external agencies like European Economic Community, Dutch Government, assistance under RID fund of NABARD. All groundwater and surface water schemes having culturable command area up to 2000 ha. individually are classified as minor irrigation schemes. The major works implemented under surface water are minor irrigation Class – I & II and Lift irrigations schemes. Construction of chekdams, Vented cross bars, weirs, tanks etc are the various works executed underminor irrigation Class-I & II.

4.297 During the year under review (2001-02) the Department has invested Rs.20.88 crores for implementing surface water minor irrigation schemes. The additional area reported to be brought under irrigation during 2001-02 was only 2888 ha. The performance was not at all encouraging. Compared to the last year the achievement is less by 50%. The cumulative area brought under minor irrigation including the ground water development is 2.32 lakh ha.

4.298 During ninth plan period, the area targeted to be benefited by implementing minor irrigation schemes (both surface and ground water) was 94000 ha. where as the achievement was to the tune of 35000 ha. (30360 ha. under surface water and 4640 ha. under ground water), about 56% of the target has been achieved. Details of schemes implemented under surface water is given in Appendix- 4.74.

4.299 The undulating terrain combined with the concentration of rain in 4 to 5 months leads to high velocity of the rainwater resulting in severe soil erosion. Hence conservation of soil and moisture and minor irrigation assumes much importance in the development of agriculture.

4.300 In the IXth Plan period local governments tended to go in for structures for drainage and for land protection. Now to wean the local governments form this unproductive practice, farmer involvement is mandated. 10% of the capital cost has to be paid by the benefited farmers in cash and the entire O&M is their responsibility. Only works which result in higher water availability can be taken up in this sector.

Ground Water Development

4.301 In Kerala, groundwater occurs under phreatic, semi-confined and confined conditions. The groundwater resources are largely concentrated in the sedimentary aquifers of the coastal regions. The groundwater resources are tapped mainly for drinking and irrigation purposes. The state has a replenishable groundwater resource of 7048 million cubic meters. The net groundwater availability is 6430 million cubic meters. The gross groundwater draft is 2697 million cubic metres and the net groundwater available for future use is 3126 million cubic meters.

4.302 During the Ninth plan an amount of Rs.197.34 crores was invested for minor irrigation out of which the share of ground water development was Rs.49.52 crores ie. 25%.

4.303 Monitoring and preservation of groundwater is an important aspect which requires serious attention. The factors like over exploitation of groundwater, the deep infiltration of surface water from irrigated fields using chemical fertilisers and pesticides, infiltration of saline soils, effluents from industries affect the quality of ground water.

4.304 As per the latest groundwater estimation carried out by the Central Groundwater Board, Government of India and Groundwater Department, Government of Kerala based on Groundwater

Estimation Committee norms (1997), 15 blocks of the State fall under overexploited, critical and semi critical categories and 33 blocks show more than 70% development. Blocks were categorised based on the stage of development and long term trend of groundwater levels during pre and post Monsoon seasons. The details of the groundwater resources of the State and list of blocks in overexploited, critical and semi critical categories are given in Tables 4.45 & 4.46 respectively.

Table - 4-45
Ground water resources of Kerala

Total replishable Ground water resource	7048.66MCM
Net ground water potential	6430.06 MCM
Gross ground water draft	2696.94 MCM
Net ground water availability for future irrigation	3126.13 MCM
Overall stage of development - State	44%

Table - 4.46
Details of over-exploited, critical and semi-critical blocks in Kerala

Sl. No.	Category	Block	District
1	*Over exploited*	Chirayinkil	Thiruvananthapuram
2		Kasaragod	Kasaragod
3		Kodungallur	Thrissur
4	*Critical*	Tellichery	Kannurr
5		Parassala	Thiruvananthapuram
6		Adiyannur	Thiruvananthapuram
7		Mukhathala	Kollam
8		Anchalamoodu	Kollam
9		Balusseri	Calicut
10	*Semi Critical*	Pampaguda	Ernakulam
11		Paravur	Ernakulam
12		Mulenthuruthi	Ernakulam
13		Mala	Thrissur
14		Calicut	Calicut
15		Nemom	Thiruvananthapuram

4.305 Traditionally irrigation management has been considered as a departmental exercise without any provision for participatory approach either in the selection of works or in their execution and management. There is no effective mechanism for assessing the resource availability, its conservation and efficient utilisation during each season with a view to optimising the returns. There is need to encourage involvement of masses through community participation in the regulation of groundwater usage and its augmentation through artificial recharge. In order to regulate the over exploitation of groundwater resources Government has brought in a law which will be enacted shortly.

4.306 Groundwater management needs and options vary between areas and change over time. Artificial recharge of acquifer system is gaining importance. Rainwater harvesting and similar recharging techniques requires to be popularised and implemented with participation of water user associations and voluntary agencies.

4.307 During the period under report the progress of implementation of developmental schemes was tardy. The Department has imparted technical assistance to identify sites for 142 open wells, sites for 1757 drilled wells and constructed 460 drilled wells. The additional area reported to be brought under irrigation is 1010 ha. Training was imparted to 2 personnel. Failed well compensation was given to 5 persons.

4.308 The overall performance of the sector during the Ninth Plan period indicates that hydrological survey was conducted in 13070 Km^2, constructed 2578 drilled wells, siting was done for construction of 23425 open wells. Under MPLAD programme, 321 bore wells were constructed and fitted with hand pumps, logging was done in 187 wells, and developed 522 wells. Chemical analysis of 6328 samples were done for various purposes. Training was given to 89 personnel of the department and failed well compensation was given to 38 beneficiaries. The irrigation potential created was 4640 ha. against a target of 21000 ha. i.e., about 23.09 % alone could be achieved. One of the reasons for the short fall in physical coverage was due to the low budgetary support to the sector. The details of physical achievement is given in Appendix 4.75

Flood Management

4.309 Flood have been occuring frequently causing devastating damages to life and property. The high intensity of rains over a short spell of time combined with undulating terrain make the State highly prone to floods.

4.310 The flash flood occurs mostly in the North East moonson. The flood control measures operated in our State are more of a relief work for the affected areas. It was in the background that the State's Ninth Plan suggested a new approach for management for flood proofing after identifying the prone areas through basin wise studies.

4.311 Eventhough a basin-wise study was proposed during the Ninth Plan, it was not initiated. Flood proofing and identifying the flood prone areas are more important in managing the flood. Basin wise studies are necessary for finding out the causes of occurrence, intensity, duration etc. Traditional ways of construction of retaining walls embankments, lay out of field channels etc. are followed even now for protection.

4.312 During the year under report an amount of Rs. 4.69 crores is expended for flood protection. The physical coverage reported is 1319 ha.

4.313 By the introduction of decentralised planning, the local governments were also engaged in flood protection works. Construction of retaining walls, embankment protection, clearing of channels etc. were the activities done by the local bodies with Peoples' participation. At the State level an amount of Rs. 50.95 crores has been spent for flood management and an area of 8857 ha. has been protected during the Ninth Plan period. The cumulative area brought under flood control was 57629 ha. as on 3/2002.

Coastal zone Management

4.314 Coastal erosion is a serious problem affecting the sea coast of Kerala. Kerala has a long coastal stretch of 590 kms. and more than half of it is subjected to sea erosion. Unlike other parts in the country, Kerala seacoast is thickly populated and as a result the loss due to sea erosion is relatively very high. Instead of the traditional approach of construction of sea walls for protection, the Ninth Five Year Plan suggested a multipronged approach integrating engineering, eco preservation, regulatory and management measures. The type of management, including the type of measures for protection, has to be opted on the basis of a detailed study of the vulnerability of the region and the nature of erosion. However, for want of operationalisation of the new strategy, construction of sea walls continued to be the sole intervention for

coastal zone protection. In the area of sea wall construction and protection, modern technologies like geo textiles, polyethylene fabrics/sheets, nourishment of foreshore with biomaterials, etc. are emerging. During 2001-02 an amount of Rs.1685 lakh has been spent to construct 1.52 km. of new sea wall and to undertake reformation works in 1.00 km. Out of the total coastal stretch of 590 kms, we were able to protect about 377 Kms by constructing sea walls and reformed 97.5 Km. of old sea walls spending an amount of Rs. 205.01 crores upto 31.3.2002.The physical and financial achievement under flood management and coastal zone management during 2001-02 are given in Table-4.47

Table-4.47

Financial & Physical Progress of Flood Management and Coastal Zone Management Programmes during 2001-02

(Rs. lakhs)

Sl. No	Item	Financial Achievement 2001-02	Physical Achievement 2001-02	Cumulative Physical achievement as on 3/2002
1	Flood Management	469.30 *	1319 ha.	57629 ha.
2	Anti-Sea Erosion Works			
	a) New sea-wall constructed		1.52 km.	376.846 km.
	b)			
	c) Reformation of old & damaged sea-wall	1685.3	1.00 km.	97.50 km

Command Area Development

4.315 The Command Area Development programmes were launched with the main objective of improving the utilisation of the irrigation potential created for optimising agricultural production and productivity from the irrigated areas by integrating all functions related to irrigated agriculture.

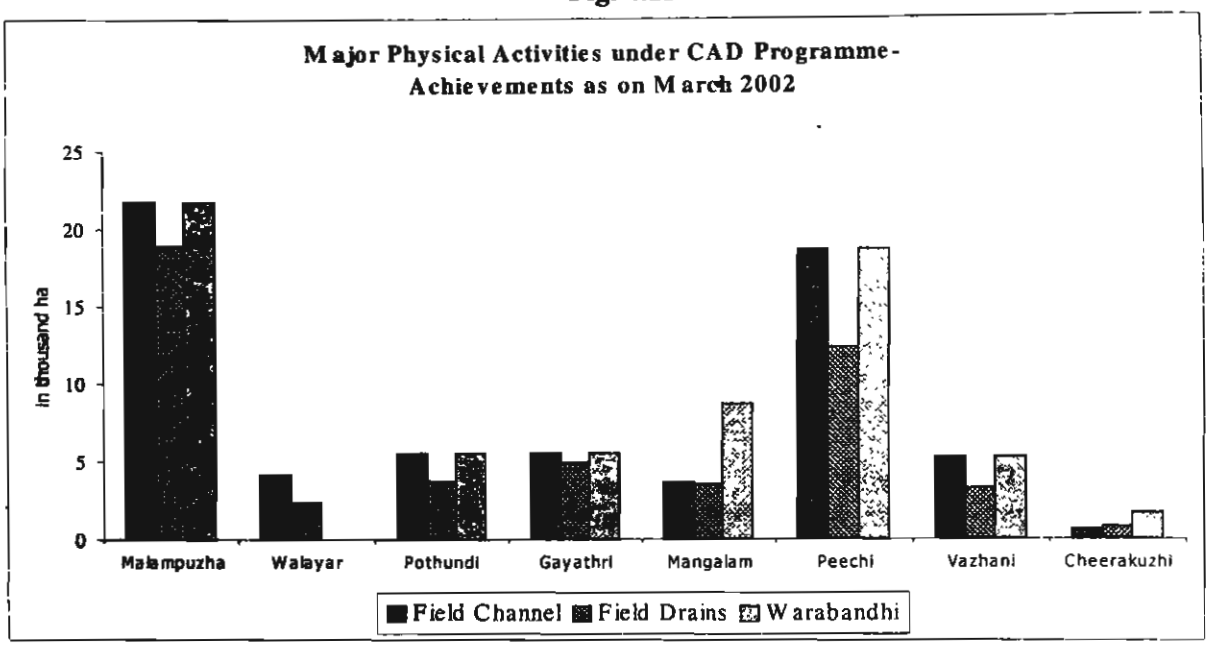
4.316 The main activities of Command Area Development Authority include construction of field channels, field drains, enforcement of warabandhi and reclamation of water logged areas. The Command Area Development (CAD) activities were carried out in the 16 completed irrigation projects, namely Malampuzha, Mangalam, Pothundy, Walayar, Cheerakuzhy, Vazhani, Peechi, Chalakudy, Neyyar, Gayathri, Pamba, Periyarvalley, Chithurpuzha, Kuttiyadi, Pazhassi and Kanhirapuzha with a total ayacut of 2.03 lakh ha. Agricultural activities like large scale demonstrations, adaptive trials, training to farmers, soil conservation, land levelling and shaping and formation of beneficiary activities are nearing completion in the first 10 projects. Though the potential created could be utilised considerably by constructing field channels and field drains, the dilapidated condition of the canal system shows that the potential created are not utilised fully. The infrastructure created under CAD programmes will become infructuous unless the system deficiencies are corrected. Hence Government of India has introduced a new scheme for correction of system deficiencies in the Tenth Plan period. The reclamation activities are progressing. Participatory irrigation management is being popularised under the auspices of CADA which is intended to create awareness among farmers.

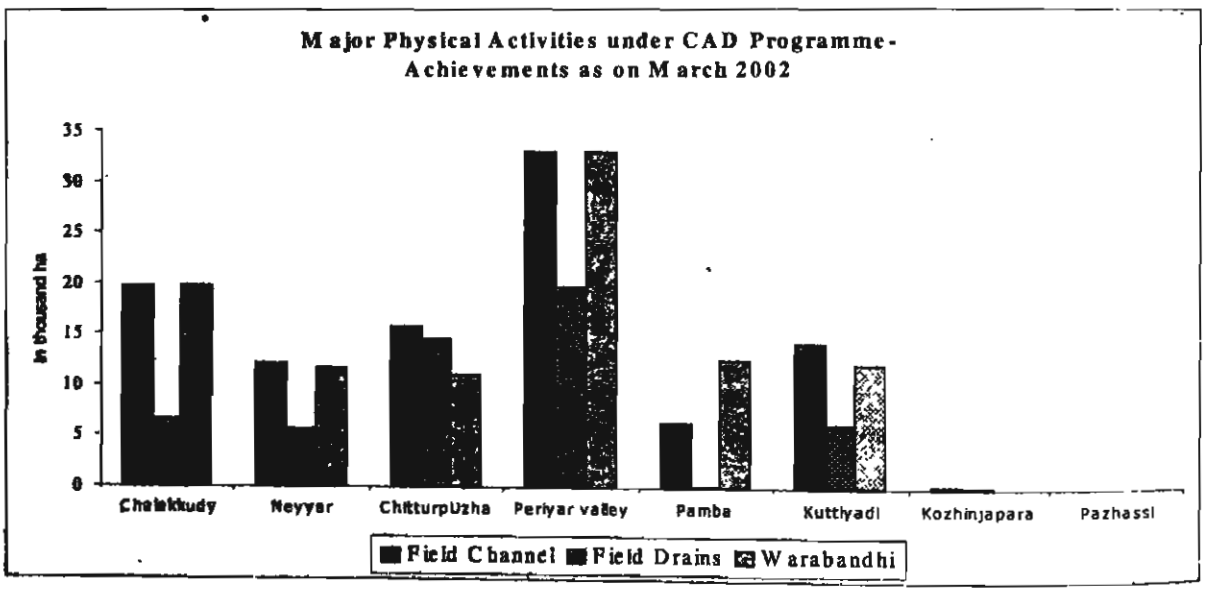
4.317 The Ninth Plan envisaged a financial target of Rs. 40 crores in the State sector for the development of CAD programmes. In the beginning of the Ninth Plan the cumulative achievement recorded for the construction of field channels was 1.47 lakh ha. The expenditure incurred upto the beginning of the ninth plan was Rs.61.80 crores (including central assistance). The activities of the CAD programmes were activated by inducting people's representation.

4.318 The performance of the sector during 2001-02 was not at all encouraging. The achievement recorded during 2001-02, include construction of field channels in 926 ha; drains to benefit 8207 ha; conducted large scale demonstration in 5201 ha; adaptive trails in 40 ha; 129 training programmes, bench mark and evaluation studies in 1263 ha. The physical achievements in almost all the activities during 2001-02 are lower than those in 2000-01. The physical achievement is given in Appendix.4.76. The cumulative achievement of the main activities of CAD programmes of all the projects are represented in Fig. 4.13

4.319 The entire programme needs to be evaluated critically in the context of PIM and necessary changes brought about in institutional arrangements and methods of work.

Fig. 4.13





CO-OPERATION

National Policy on Co-operatives

4.320 The past few decades have witnessed substantial growth of the sector in diverse areas of the economy. Inspite of the quantitative growth the co-operative sector is beset with several constraints related to legislative and policy support, resource availability, infrastructure development, institutional inadequacy, lack of awareness among the members, erosion of the democratic context in management, excessive government control etc. Government of India has adopted a National Policy on Co-operatives in 2002 to support and revitalise them. Under this Policy co-operatives would be provided necessary support, encouragement and assistance to work as autonomous, self reliant and democratically managed institutions accountable to their members. The salient features of the Policy are shown in the BOX.-4.38

BOX-4.38
NATIONAL POLICY ON CO-OPERATIVES

The Government of India in consultation and collaboration with State Governments enunciates the following policies.

- *Regulatory role of the Government will be mainly limited to the conduct of timely elections, audit of the Co-operative Societies and measures to safe guard the interest of the members and other share holders in the Co-operatives.*
- *Reiterates to commitment to the causes of the SC/ST women and other weaker sections of the society and their development through the co-operatives.*
- *Accepts the need to phase out share holdings/equity participation in the co-operatives.*
- *Recognises the role of the Government in ensuring the benefits of liberalisation and globalisation in the emerging economic environment through suitably designed investment programmes, with a view to providing the co-operatives a level playing field especially in the field of agro-processing and marketing.*
- *Recognises the need for more effective regulations of co-operatives operating in the financial sector and accepting public deposits.*
- *Recognises the need for incorporating special provision in the Co-operative Societies Act with regard to banking, housing, processing etc.*
- *Recognises the need to provide preferential treatment to co-operatives engaged in areas such as credit, labour, consumer, services, housing, development of SC/ST and women and development of emerging areas and sectors requiring people's participation especially in rural areas.*
- *Undertakes to initiate structural reforms in order to improve the functioning of the co-operatives at various levels to ensure greater efficiency and viability.*
- *Support to develop human resources, co-operative education and training to promote professional management in co-operatives.*
- *Autonomy to co-operatives, electoral reforms and establishment of independent State election commission.*

4.321 The spread and growth of co-operatives in different sectors were nurtured under development plans with government initiatives and government finance. As Co-operative movement is a peoples movement, the restrictions imposed by government has affected the growth of the sub sector. On a review of the state of affairs in the co-operative sector, the weaknesses that had developed and the failure to achieve the objectives for which the co-operatives were started under the development plans, the Planning

Commission constituted the Brahma Perkash Committee towards the end of 1980's. The Report of the Committee (1991) was a land mark in co-operative reforms. Based on the report, Government of India had circulated to State Governments suggestion for effecting necessary changes in the co-operative laws. The Ramakrishnayya Committee (1994) suggested the need for reforms in the co-operative sector. Based on the recommendations of the Committee, a draft Kerala Self-reliant Co-operative Bill 2002 has been prepared.

4.322 The model co-operative law as recommended by the Chaudhary Brahma Perkash Committee for removal of dual control over co-operatives, introduction of democratization and professionalisation also need to be introduced by various states. Andhra Pradesh was the first state to pass the 'Mutually Aided Co-operative Societies Act 1995'. A few other states like Jammu & Kashmir, Bihar, Orissa, Uttar Pradesh and Madhya Pradesh have also such enactments. In 2002, the Multi State Co-operative Societies Act was passed by Parliament. The salient features of the Act are shown in BOX-4.39.

4.323 Government of Kerala passed the Kerala Co-operative Societies (amendment) Act 1999 which came into force with effect from 1-1-2000. Providing membership to the local body institutions, Deposits Guarantee Scheme in Primary Agricultural Credit Societies, Consortium Lending Scheme, Co-operative Development and Welfare Fund, Independent Election Commission, Separate Audit Wing, Vigilance Wing, and Co-operative Examination Board are the new provisions made in the Amendment Act, Kerala Co-operative Societies Rules framed under Kerala Co-operative Societies Act 1969 was also amended consequent on the Amendment Act 1999. In accordance with the recommendation of the Subject Committee on the amending Act of 1999 and the promise in the UDF manifesto in 2001, the government has announced the decision to introduce legislation to bring in a parallel Law for self-reliant cooperatives. The Law Reforms Committee, in its first Report, has proposed the detailed draft of a Bill. Early enactment of the parallel Law and amendments to the main law in accordance with cooperative principles will go a long way to reform and revitalise the Co-operative sector in the State and make it democratic, progressive, autonomous and free from government (and consequent political) intervention and truly accountable to the members.

BOX 4.39
SALIENT FEATURES OF THE MULTI-STATE CO-OPERATIVE SOCIEITIES ACT PASSED BY PARLIAMENT ON MAY 13, 2002.

- *The registration process has been simplified*
- *Prior consultation of Central Registrar are required for amalgamation or transfer of assets and liabilities of multi-state Co-operative society.*
- *Promotion of subsidiary institution under any law allowed by multi-state Co-operative society for the furtherance of its stated objectives.*
- *Election of members of board shall be the responsibility of the existing board.*
- *Non eligibility to be elected as member of board for failure (a) to conduct elections of board (b) to call the annual general meeting(c) to prepare the financial statement and present the same in the AGM.*
- *Suppression of board in case of default or negligence in the performance of duties etc, only in multi-state Co-operative society in which not less than 51% of the paid up share capital or of the total share is held by the Central Government.*
- *Nomination of Central Government or State Government on the board restricted to (a) one member in case where share capital held by the Government is less than 26% (b) two members where share capital is 26% or more but less than 51 % (c) three members when share capital is 51% or more.*

- *Audit to be done at least once a year and the auditor to be appointed from a panel of auditors approved by the Central Registrar or from the panel of auditors if any prepared by the multi-state co-operative society.*
- *Disputes to be settled by arbitration and the arbitrator to be appointed by the Central Registrar.*
- *Power of the Central Government to exempt co-operatives from any of the provisions of the Act or Rules has been removed.*
- *Central Government's powers to give directions in public interest restricted to those co-operatives which have 51% or more share capital held by Government.*

Co-operative Companies

4.324 Co-operatives have now to compete not only with major private Indian Companies but also multi-nationals in many sectors. The society-mode even for large cooperatives and federations has acted as a major constraint in the operations of such co-operatives. The question of allowing cooperatives to constitute themselves in company form, as in many other countries, has been under consideration for long. Based on the Y.K. Alagh Committee's recommendations and draft, the Company Law was amended last year to provide for the formation of Cooperative Companies, as a special category of companies based on Co-operative principles. The salient features of the Act are shown in the Box 4.40

BOX - 4.40
SALIENT FEATURES OF THE COMPANIES (SECOND AMENDMENT) ACT 2002

- *The legislation provides for incorporation of specially structured Producer Companies possessing the unique characteristics of co-operative business. The legislation also offers a purely voluntary option for existing co-operatives to become Producer Companies.*
- *Ten or more individuals who are producers, two or more producer institutions or a combination of both can form a Producer Company.*
- *Co-operatives that are inter-state in operation, either with their membership or objects extending to more than one state, can opt to be registered as Producer Companies.*
- *In case of a Producer Company formed by individual members, each member shall have one vote irrespective of his shareholding whereas in case of a Producer Company formed exclusively by producer institutions the voting right may be computed on the basis of participation in the business.*
- *In order to further its objectives a Producer Company may collaborate to form subsidiaries, joint ventures etc.*
- *The shares or any other rights of the Producer Company cannot be traded on the stock exchange.*
- *Boards of Directors of the Producer Company are elected by the General Body. Provision for co-option of Expert Directors has been provided.*
- *The Board of Directors shall appoint the Chief Executive of the Producer Company. Other employees of the Producer Company to be appointed by the Chief Executive in accordance with the powers delegated to him by the Board. The Board of Directors of the Producer Company shall be responsible and accountable to conduct timely audit, election and general body meetings.*
- *A Producer company may provide provisions for "Special Users Right" to its active members in its articles of association.*
- *Every member of a Producer Company must participate in the company's business. The articles*

of association may establish minimum levels of participation and may provide conditions under which those who do not meet those levels, or who cease to participate, may be made ineligible to hold office, to vote or to continue their membership.

- *Producer Companies will have the freedom to frame their own articles of association that suit their own business and operational needs.*
- *Dispute settlement shall be by simple process of arbitration and reconciliation.*

Achievements in Ninth Five Year Plan

4.325 Ninth Five Year Plan envisaged revitalizing and strengthening of the cooperative base through substantial financial assistance for specific ventures for critically important areas of development rather than spreading the available meagre plan assistance. Expansion and diversification of commercial ventures in selected areas, promotion of self help groups in the farm front with the patronage of credit co-operatives, Neethi stores, involvement of co-operative movement in decentralised planning process etc. are the important new initiatives made during the Ninth plan. Attempts were also made to develop the co-operative movement as a self reliant one by augmenting the resource through mobilization of deposits in rural and urban areas, promoting integrated rural development by strengthening the links between credit, supply of inputs processing, marketing and distribution of essential commodities and developing weaker sections of the community. The financial participation of central agencies like as NABARD & NCDC for development of the sector increased considerably during Ninth Plan period.

4.326 The outlay set apart for the co-operative sector was Rs. 6666 lakhs. Against this the expenditure incurred was Rs. 8270.05 lakhs (124%).. The sub sector-wise financial achievement during the Plan period is given Table 4.48.

Table - 4.48
Financial achievement during Ninth Plan

(Rs. lakhs)

Sl.No.	Sub. Sector	Financial Achievement
1.	Credit Co-operatives	3183.44
2.	Processing Co-operatives	751.12
3.	Marketing & Storage Co-operatives	65.63
4.	Consumer Co-operatives	408.72
6.	Housing Co-operatives	673.51
7.	Other Co-operatives	2302.37
8.	Others	885.26

The important high lights of achievements during the Ninth plan period are given below.

4.327 With regard to membership, share capital, working capital, deposits, loan disbursement etc. during the Ninth Plan period all increased are indicating the strength of the movement. Eventhough separate schemes were operated under State plan as well as with NCDC assistance for reviving the potentially viable co-operatives during the Ninth plan it could not bring the desired results. The State Government is operating two special schemes for projects 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 expansion and diversification of commercial ventures. During the Ninth Plan period financial assistance to the tune of Rs.14.77 crores was provided to 87 societies under these two schemes.Selected indicators of the progress of the Primary Agricultural Credit Societies(PACs) is given in Appendix-4.66

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

4.329 Government of Kerala introduced the Co-operative Development and Welfare Fund Scheme for safeguarding the interest of the Co-operative Societies against any loss or damage to their assets and properties, despite reasonable precautions to prevent such damages or loss.
A Co-operative Academy of Professional Education (CAPE) was set up as a joint venture of Co-operatives. The Academy has already started one Medical College at Kochi and 5 Engineering Colleges.

Table - 4.49
Selected Indicators of growth of Short Term credit structure

Sl No.	Particulars	1997-98	2001-02
1.	Number of societies	1591	1685
2.	Membership (Crores)	1.13	2.25
3.	Share Capital (Rs. Crores)	194.10	361.39
4.	Working Capital (Rs. Cores)	5326.05	9351.57
5.	Deposits (Rs. Crores)	3015.94	7196.99
6.	Loans disbursed (Rs. Crores)	3239.30	5858.00
7.	Agri. Produce Marketed (Rs. Crores)	166.99	74.51
8.	Number of societies running on profit	586	663
9.	Number of societies running on loss	957	913
10.	Number of societies without profit or loss	3	
11.	Number of dormant societies	45	109

4.330 More than half of the societies are still running on loss and this warrants special attention. They are plagued by many problems like low level of recovery, existence of imbalance, poor managerial competence etc. During the year 2000-01, 774 PACs have incurred operational losses at around Rs. 115 crores, leaving 47 per cent of the total PACS without even current viability. The major observations of NABARD on the weaknesses of Primary Agricultural Credit Societies (PACS) are shown in BOX-4.41 The deposit mobilization campaigns of the co-operatives helped significantly in enhancing the deposit position of the credit co-operatives.

BOX- 4.41
Weakness of Primary Agricultural Credit Societies

- *During 1999-2000, about 350 PACS had their capital as well as deposits fully or partially eroded and 931 PACS incurred losses to the tune of Rs. 225 crores.*
- *As on March 2001, 836 PACS are on loss with an accumulated loss of Rs. 153.28 crore and another 700 are on marginal profit.*

Reasons for the weaknesses

- *Vitiated recovery climate/excessive government control/inadequate efforts by the employees/supersession of the boards/poor managerial competence/unrealistic method of fixation of interest rates/mismanagement.*

Source: NABARD

of association may establish minimum levels of participation and may provide conditions under which those who do not meet those levels, or who cease to participate, may be made ineligible to hold office, to vote or to continue their membership.

- *Producer Companies will have the freedom to frame their own articles of association that suit their own business and operational needs.*
- *Dispute settlement shall be by simple process of arbitration and reconciliation.*

Achievements in Ninth Five Year Plan

4.325 Ninth Five Year Plan envisaged revitalizing and strengthening of the cooperative base through substantial financial assistance for specific ventures for critically important areas of development rather than spreading the available meagre plan assistance. Expansion and diversification of commercial ventures in selected areas, promotion of self help groups in the farm front with the patronage of credit co-operatives, Neethi stores, involvement of co-operative movement in decentralised planning process etc. are the important new initiatives made during the Ninth plan. Attempts were also made to develop the co-operative movement as a self reliant one by augmenting the resource through mobilization of deposits in rural and urban areas, promoting integrated rural development by strengthening the links between credit, supply of inputs processing, marketing and distribution of essential commodities and developing weaker sections of the community. The financial participation of central agencies like as NABARD & NCDC for development of the sector increased considerably during Ninth Plan period.

4.326 The outlay set apart for the co-operative sector was Rs. 6666 lakhs. Against this the expenditure incurred was Rs. 8270.05 lakhs (124%).. The sub sector-wise financial achievement during the Plan period is given Table 4.48.

Table - 4.48
Financial achievement during Ninth Plan

(Rs. lakhs)

Sl.No.	Sub. Sector	Financial Achievement
1.	Credit Co-operatives	3183.44
2.	Processing Co-operatives	751.12
3.	Marketing & Storage Co-operatives	65.63
4.	Consumer Co-operatives	408.72
6.	Housing Co-operatives	673.51
7.	Other Co-operatives	2302.37
8.	Others	885.26

The important high lights of achievements during the Ninth plan period are given below.

4.327 With regard to membership, share capital, working capital, deposits, loan disbursement etc. during the Ninth Plan period all increased are indicating the strength of the movement. Eventhough separate schemes were operated under State plan as well as with NCDC assistance for reviving the potentially viable co-operatives during the Ninth plan it could not bring the desired results. The State Government is operating two special schemes for projects 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 expansion and diversification of commercial ventures. During the Ninth Plan period financial assistance to the tune of Rs.14.77 crores was provided to 87 societies under these two schemes.Selected indicators of the progress of the Primary Agricultural Credit Societies(PACs) is given in Appendix-4.66

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

4.329 Government of Kerala introduced the Co-operative Development and Welfare Fund Scheme for safeguarding the interest of the Co-operative Societies against any loss or damage to their assets and properties, despite reasonable precautions to prevent such damages or loss.
A Co-operative Academy of Professional Education (CAPE) was set up as a joint venture of Co-operatives. The Academy has already started one Medical College at Kochi and 5 Engineering Colleges.

Table - 4.49
Selected Indicators of growth of Short Term credit structure

Sl No.	Particulars	1997-98	2001-02
1.	Number of societies	1591	1685
2.	Membership (Crores)	1.13	2.25
3.	Share Capital (Rs. Crores)	194.10	361.39
4.	Working Capital (Rs. Cores)	5326.05	9351.57
5.	Deposits (Rs. Crores)	3015.94	7196.99
6.	Loans disbursed (Rs. Crores)	3239.30	5858.00
7.	Agri. Produce Marketed (Rs. Crores)	166.99	74.51
8.	Number of societies running on profit	586	663
9.	Number of societies running on loss	957	913
10.	Number of societies without profit or loss	3	
11.	Number of dormant societies	45	109

4.330 More than half of the societies are still running on loss and this warrants special attention. They are plagued by many problems like low level of recovery, existence of imbalance, poor managerial competence etc. During the year 2000-01, 774 PACs have incurred operational losses at around Rs. 115 crores, leaving 47 per cent of the total PACS without even current viability. The major observations of NABARD on the weaknesses of Primary Agricultural Credit Societies (PACS) are shown in BOX-4.41 The deposit mobilization campaigns of the co-operatives helped significantly in enhancing the deposit position of the credit co-operatives.

BOX- 4.41
Weakness of Primary Agricultural Credit Societies

- *During 1999-2000, about 350 PACS had their capital as well as deposits fully or partially eroded and 931 PACS incurred losses to the tune of Rs. 225 crores.*
- *As on March 2001, 836 PACS are on loss with an accumulated loss of Rs. 153.28 crore and another 700 are on marginal profit.*

Reasons for the weaknesses

- *Vitiated recovery climate/excessive government control/inadequate efforts by the employees/supersession of the boards/poor managerial competence/unrealistic method of fixation of interest rates/mismanagement.*

Source: NABARD

Self Help Groups

4.331 Promotion of Self Help Groups launched in 1997 in Kannur District envisages to organize marginal farmers with limited land resources, absentee cultivators and the land less labours into small groups with a views to utilizing available land for optimal agricultural production. Under the co-operative sector, as on March 2002, 2520 groups were organised by 542 selected PACS with 38799 members. The amount so far spent was Rs.21.58 lakh.

Integrated Co-operative Development Project (ICDP)

4.332 Integrated Co-operative Development Project (ICDP) aimed at the development of grass root level co-operatives in selected districts with the financial assistance of NCDC. Now ICDP covers all the districts in the State. The project was completed in Kottayam, Wayanad, Palakkad, Idukki and Thrissur district. The project in other districts is under implementation. The total amount released during 2001-02 was Rs.16.57 crore. The major projects commissioned and operated under ICDP are (i) Milk pasteurization plant of Elcakal Milk Supplies Co-operative Society (ii) Malanad Tea factory under Malanad Service Co-operative Bank (iii) Cattle feed factory under Idukki Cattle Feed Co-operative Society.

Support by NCDC

4.333 Kerala has been one of the major beneficiaries of NCDC's developmental assistance to the co-operatives in the country. As on March 2002 the Corporation had disbursed a total financial assistance of Rs.494.299 crores as term loan and Rs.25.826 crores as subsidy for various co-operative development programmes. It is worth highlighting that out of 494.299 crores, an amount of Rs.173.182 crores was availed by the co-operatives of weaker sections like Fisheries, Handlooms, Coir, SC/ST etc., which account for 35% of the total NCDC's fund flow to the State. The amount released by NCDC during 2001-02 was Rs.51.61 crores as against 69.04 crores during 2000-01, indicating decline in fund flow by 25.25%. Of the total release, Rs.33.25 crores was availed by co-operative department. The sector-wise sanction and release of assistance from NCDC in 2000-01 and 2001-02 are furnished in Appendices.4.78, 4.79. The NCDC loans are high cost loans for the state and appropriate steps at National level are to be pursued to reduce the rate of interest of these loans. NCDC has now been asked by Government of India to lend directly to cooperatives.

Agriculture Marketing Co-operatives

4.334 The cropping pattern of Kerala is dominated by export oriented cash crops. The production of which is largely concentrated in the small farm sector and also highly necessitated a marketing support for the products. In the context of the competition which the Kerala's commodities have to face in the international market, the co-operatives in Kerala have to enlarge their areas of activities and expand coverage.

4.335 The main agencies functioning in the co-operative sector for marketing of agricultural produce and the institutional network established by them and the major activities are indicated below.

(a) The Kerala State Co-operative Marketing Federation (MARKET FED)

4.336 The Federation with its headquarters at Kochi is operating through 117 primary agricultural marketing co-operatives all over the country. The commodities marketed through the federation includes copra, coconut oil, coconut cake, spices, pesticides, agro chemicals, fertilizers etc. For the expansion of marketing of spices, the Federation had started the production of 'value added consumer packet'. Besides, the Federation started producing curry massala and curry powder and marketing under the name of "Kerala Marketfed" from March 2001.

(b) The Kerala State Rubber Marketing Federation Limited (RUBBER MARK)

4.337 The federation was established in 1971 with 37 co-operative rubber marketing societies and Rubber Board and Government of Kerala as members. The Federation has now 38 Co-operative marketing societies, which spread all over Kerala. The main activities of the Federation includes marketing and Export of Natural Rubber, distribution of fertilizers and agriculture inputs and processing of Natural Rubber, product manufacturing etc.

4.338 The Federation owned and operated a Fertilizer Mixing unit under the brand name of 'Rubber Mark Mixtures' and an organic manure manufacturing unit under the brand name of 'Jaiva Meal' in the marketing field. A rubber processing unit was established and located at Kanjirapally and an Intermix factory at Kaduthuruty with a capacity of producing 5400 MTs. of rubber compound . Along with the Intermix Factory, a Tread Rubber manufacturing unit, which is producing procured tread as well as conventional tread is established by the Federation.

(c) Kerala State Rubber Co-operative Limited (RUBCO)

4.339 The unprecedented fall in the price of rubber prompted the State Government to promote a new Co-operative for procurement and processing of Natural Rubber. Accordingly Kerala State Rubber Co-operative Limited, popularly known as RUBCO was formed in 1997 with an authorised capital of Rs.300.00 crores with the main objective of setting up of industries based on rubber and rubber wood.

4.340 Kerala accounts for 92% of rubber production in the country while less than 15% of the production is commercially consumed in the state. RUBCO took-up the activities of utilizing Natural Rubber to ensure a reasonable and remunerative prices to the growers and also share value addition with them. With in the short period, the Co-operative conglomerate initiated various rubber and rubber based manufacturing and marketing activities. The details are given below:

4.341 The Co-operative is actively involved in the export of Rubber. An export contract for 10,000 MT. of Natural Rubber was entered into with a Singapore Co-operative to get a present rate of earnings at a turn of Rs.2800.00 lakh. A Hawai Chappal manufacturing unit with a capacity of 3.6 million pairs has been established with the assistance of NCDC. Besides conventional Hawai slippers, the unit is producing Ultra Lightweight Hawai Chapples with the technological assistance of Malaysian company of M/s. Hitech Setters. The sales turn over of the unit during 2000-01 and 2001-02 was Rs.230.42 lakh and Rs.349.01 lakh respectively. A cycle tyre and tube manufacturing unit at a project cost of Rs.6.00 crores was started with the assistance of NCDC. The commercial production of the unit started in July 2001.A rubberized coir mattress unit was started at a project cost of Rs.27.00 crores with an annual production capacity of 6000 tones of rubberized coir, capable of producing around 52800 units of mattress. It commenced its commercial production in December 2001. RUBCO HUAT WOODS PRIVATE LIMITED (R.H.W (P) Ltd.) is a subsidiary unit of RUBCO engaged in the production of processed rubber wood panels and furniture in technical collaboration with M/s. Long Huat Group Bershad of Malaysia. The unit produces domestic and office furniture like chairs, tables, computer tables, cot, sofa, etc. The company has reported a sales turn over of Rs. 431.00 lakh in the year 2001-02. RUBCO took over the Sreekantapuram Latex (P) Ltd. and started producing Pale Latex Crepe (PLC) and CF Latex in the unit. A new unit for manufacturing of block rubber was also commissioned. RUBCO Sales International Ltd. (RSIL) was formed for marketing all RUBCO products. Besides the marketing activities, under the roof of RSIL a sports casual shoes manufacturing unit is functioning at a total project cost of Rs.9.00 crores.

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

4.342 CAMPCO is a joint venture of Kerala and Karnataka State Governments and the institution is presently functioning under the Multi State Co-operative Societies Act, 1984. It was set up with the main objectives of procurement and sale of Arecanut and Cocoa so as to stabilise market prices. CAMPCO has 13 sales Depots throughout the country. During 2001-02, the procurement and sale of arecanut was 41242 tones and 38370 tones valued at Rs.238.59 crores and Rs.249.48 crore respectively, as against procurement and sales of 35049 tones and 34451 tonnes of Arecaunt valued at Rs.324.93 crores and Rs.335.98 crores during the year 2000-01.

4.343 CAMPCO in association with M/s. Nestle Ltd. initiated manufacture and supply of bulk quantity of chocolates and cocoa products. During 2000-01 they have produced 4598 MTs. of Chocolate and semi finished products and sold 2057MTs. valued at Rs.2526 lakh. In the year 1999-00, it was 4438 MTs. and sale was 1604 MTs. valued at Rs.2054 lakh.

4.344 One Copper Sulphate unit was established with a capacity of 300 MT production. A small consumer-packaging unit and a mobile procurement unit are also functioning under the Co-operative successfully. The details are given in Appendix-4.77 and 4.83

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

4.345 RAIDCO is a co-operative organisation functioning for the last 28 years with a membership of 1211 co-operatives and is engaged in production and distribution of agricultural implements. Other activities include marketing of agricultural machineries and implements, different types of pumpsets, pipes and accessories manufactured by reputed companies. It has 35 branches spread all over the state. A pumpest manufacturing unit, two agro service centers, three mobile workshops and a curry powder manufacturing unit were also established.

(f) Kerala Kera Karshaka Federation Ltd. (KERAFED)

4.346 KERAFED is an agency of 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. KERAFED has commerced its product diversification programme and manufacture of value added coconut products through its Herbal hair oil under the brand name of KERA KESH. Food products such as curry mix, chatney powder, confectioneries etc have also been produced and marketed by the Federation.

4.347 The procurement of copra by KERAFED during 2000-01 was 7000 MT, which drastically come down to 1778 MT during 2001-02. During the current year up to 31 October 02 it procured 3407 MT.

(g) Indian Coffee Marketing Co-operative Ltd. (COMARK)

4.348 A Multi-State Co-operative Society was formed jointly by all the coffee growers of Karnatka, Kerala and Tamilnadu in November 1992 for marketing of coffee. To procure, process and marketing of coffee, cardamom, other agricultural products are the main objectives of the Co-operative. Procurement, manufacture and supply of manure, pesticides, fungicides, fertilizers, seeds, implements are also serviced by the institution. Total share capital of COMARK is Rs. 377.32 lakh. During 2001-02 procured 182.79 MTs of Coffee valued at Rs.67.14 lakh tonnes.

4.349 During the period from 1992-93 to 1994-95 it played an important role in coffee marketing and exporting. The total quantity procured and exported during 1996-97 was 4847.84 MTs. valued Rs. 3321.22 lakhs. But the total quantity procured during 2001-02 come down to 182.79 MT valued Rs.67.14 lakhs.

Consumer Co-operatives

4..350 Kerala State Co-operative Consumer Federation Limited is the apex institution of consumer co-operatives linked to the whole sale co-operative consumer stores at District level with 11 Primary Co-operative Societies as its associated members,. The basic objective of the Federation is to procure and distribute the various consumer goods and other products of daily use at reasonable prices through the District Co-operative whole sale stores, retail outlets named 'Triveni' and through the primary consumer co-operative societies. It deals with the business of groceries, pulses, cosmetics and toiletories, household and electrical goods, note books and office stationery items, Generator, Medicine, LPG Gas, foreign liquor etc. The Federation has also established 1000 retail outlets called 'Neethi Stores' for the distribution of essential commodities, especially in rural areas in the State.

4.351 The Federation has established LPG Bottling plant and released 70,000 gas connections, with the assistance of Government. The Federation has started 119 Neethi Medical Stores, 23 godowns, and Neethi warehouses in all the districts for supplying essential commodities serviced by the Federation.

Kerala State Co-operative Housing Federation

4..352 The Kerala State Co-operative Housing Federation is the apex institution of 207 Primary Housing Co-operatives in the State. It raises funds for lending programmes as share capital from Government of Kerala and member societies, and borrowing from National Institutions like LIC, HUDCO, HDFC, NHB etc. The Federation advances housing loans to the member societies. During 2000-01 the Federation received a total assistance of Rs.42.89 crores. Total amount disbursed was Rs.92.23 crores. The financial assistance received during 2001-02 was Rs. 37.16 crores, of which to 8445. The numbers of houses completed the same period was 8266.

Kerala State Federation of Scheduled Castes and Scheduled Tribes Development Co-Operatives Ltd.

4.353 Kerala State Federation of SC/ST as the apex institution of SC/ST Co-operative Societies in the State was registered on 1981 with the aim of improving the socio-economic condition of SC/ST communities. It has four branches at Thiruvananthapuram, Kothamangalam, Thrissur, and Kalpatta. The federation is running a patrol bunk, honey processing unit, a 'Cheevaka' processing unit and an ayurvedic medicine manufacturing unit at Ancherry in Thrissur District under the brand name of 'Ayurdhara'. The total sales turn over during 2001-02 was Rs. 10.52 crores as against Rs. 8.76 crores in 2000-01.

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

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

4.355 During 2001-02 the Institute of Co-operative Management conducted 1221 training programmes by participating 4719 personnel. At the same period the State Co-operative Union has held 863 nos. of classes by participating 21299 members.

Chapter 5

ENERGY DEVELOPMENT

Kerala's resource endowment for conventional power generation is limited to its vast hydro potentials. It does not have any known reserves of coal, oil or natural gas. Its energy base is therefore very weak. Resources constraints, numerous socio-environmental concerns impede the growth and development of power in the State.

5.2 The electric supply system in the State is owned by a single public utility organisation viz; Kerala State Electricity Board (KSEB). Kerala Power System, started with 5 MW hydro plant in 1940, has grown substantially with an installed capacity of 2601.2 MW as on 31-3-02.Out of this total capacity, 20 hydel projects account for 1826 MW (70.2%) and the balance 773.11 MW (29.7%) is from thermal and 2.03 MW from wind project. The growth of power system in Kerala is shown in Appendix 5.1.

Box 5.1
Estimated Load Growth

- *Average growth of consumers – 4.00 lakhs per year*
- *Annual average capacity addition required – 200 mw per year*
- *Annual average load growth – 1100 MU per year (7%)*

5.3 The total addition to installed capacity of generation during Ninth Plan period was 1092.7 MW and the addition during 2001-02 was 128.6 MW.

5.4 The power projects are characterised by cost over run and time over run. The main reason for this are lack of proper planning, commencement of works without proper pre-construction survey, structural designs and estimates, commencement of large number of works without adequate financial resources and contract and bureaucratic delays etc. Major achievements made in the power sector during Ninth Plan are furnished in Table 5.1.

Table 5.1

Major Achievements in the Ninth Plan

Particulars	Achievements
No.of Generation projects commissioned	12
Addition to the Installed Capacity (MW)	1092.7
No.of Substations commissioned	57
Length of EHT/HT Lines (Ct.Kms)	1393.13
Length of LT Lines (Ct.Km) (including 11 kV lines)	33693.43
No.of Transformers installed (11 kV)	6854
No.of Service Connection Provided	1811978
No.of street lights provided	175831

Source: KSEB

Installed Capacity Generation

5.5 The installed capacity for generation increased from 2451.63 MW in 2000-01 to 2580.23MW in March 2002. The additional 128.6 MW has come from Kayamkulam (9.58 MW), Malampuzha (2.5 MW) and BSES 116.5 MW(three units) Kochi. Year wise details of projects commissioned during Ninth Plan (1997-2002) are given in Table 5.2.

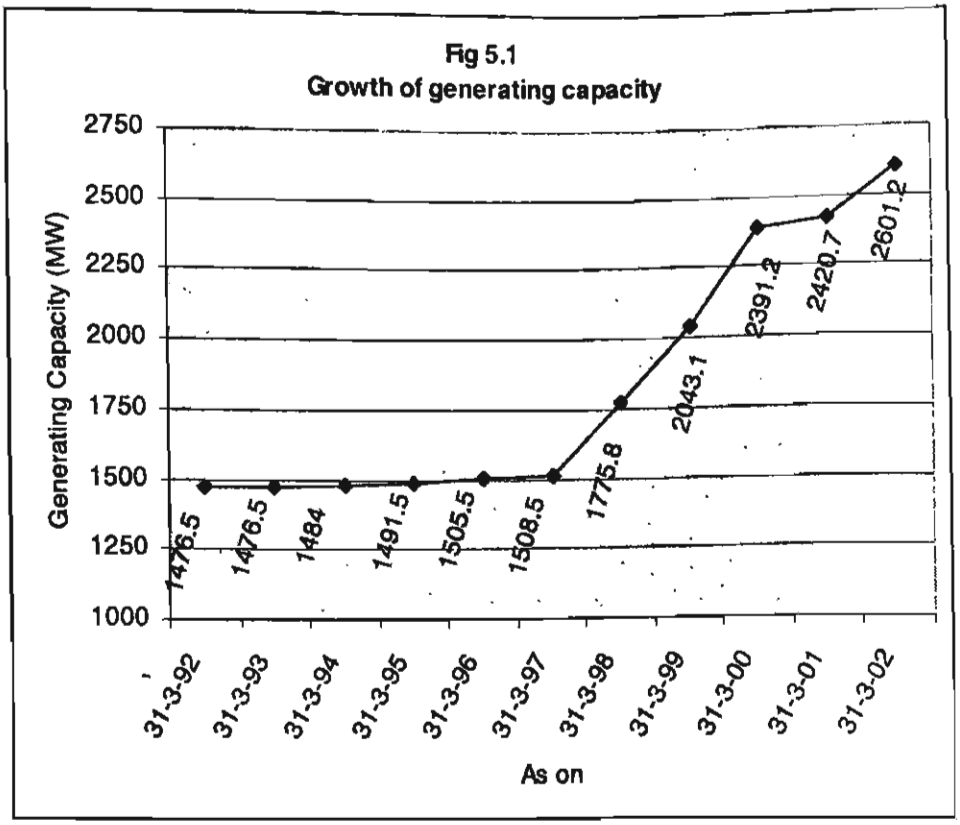
Table 5.2
Projects Commissioned during the Ninth Plan

Year	Projects	Capacity(MW) Addition
1997-98	1.Brahmapuram(Thermal)	85.28
	2.Lower Periyar(Hydel)	180
	3.Madupetty(Hydel)	2
	Total	**267.28**
1998-99	1.Poringalkuth LB Extension	16
	2. Brahmapuram(Thermal 5thUnits)	.21.32
	3. Kayamkulam (NTPC-Thermal)	230.6
	4. Kakkad(Hydel)	50
	Total	**317.92**
1999-2000	1. Kozhikode Diesel Power Plant(Thermal)	128
	2.Kayamkulam Thermal(NTPC)	119.4
	3.BSES, Kochi	40.5
	Total	**287.9**
2000-01	1. Kuttiyadi Extension(Hydel)	50
	2.Kasargode Power Plant(Thermal & Private)	20
	3. Kuthungal (Private – Hydel)	21
	Total	**91**
2001-02	1. BSES, Kochi (Private –Thermal)	116.5
	2. Malampuzha (Hydel)	2.5
	3. Kayamkulam Thermal	9.58
	Total	**128.58**
	Grand Total	**1092.7**

Source : KSEB

Power Generation

5.6 The generation from KSEB sources is predominantly hydel. KSEB has two diesel generating stations, one at Brahmapuram Kochi and the other at Nallalam, Kozhikode. In addition to this, NTPC at Kayamkulam and BSES at Kochi are Naphtha based thermal plants. Growth in Power generation is given in Fig 5.1 . Profile of on-going electric projects is given in Appendix 5.2.



5.7 The details of power projects with power generation as on 31-3-2002 is shown in Appendix 5.3. Four pilot Small Hydel projects with a total installed capacity of 12.6 MW have been initiated by KSEB with technical and financial assistance from IN-SHP China. These four projects are under various stages of implementation. They are expected to be commissioned during 2002-03. Details are furnished in Table 5.3.

Table-5.3
Pilot Projects with the Chinese Participation

Sl.No.	Name	Capacity (MW)
1	Chembukadavu Stage I	2.7
2	Chembukadavu Stage II	3.75
3	Uurumi Stage -I	3.75
4	Urumi Stage - II	2.4
	Total	**12.6**

In addition to this, Kerala is entitled to get a share from Central pool, which is delivered through Power Grid Corporation. Energy availed from central pool during 2001-02 is given in Table.5.4

Table-5.4

Supply of Power from Central Pool

Sl.No.	Name of Stations	Installed Capacity(MW)	Kerala's share (MW)
1	Ramagundam STPs	2100	245
2	NLC Stage – I	630	63
3	NLC Stage – II	840	90
4	MAPP's	340	18
5	KAPP's	440	38
6	Eastern Region	..	60
7	Western Region	..	15% of surplus power

Energy Availability

5.8 The net availability of power increased from 12464 MU in 2000-01 to 12544.05 MU during 2001-02, recording a marginal increase of 0.6%. Details are shown in Table 5.5

Table 5.5

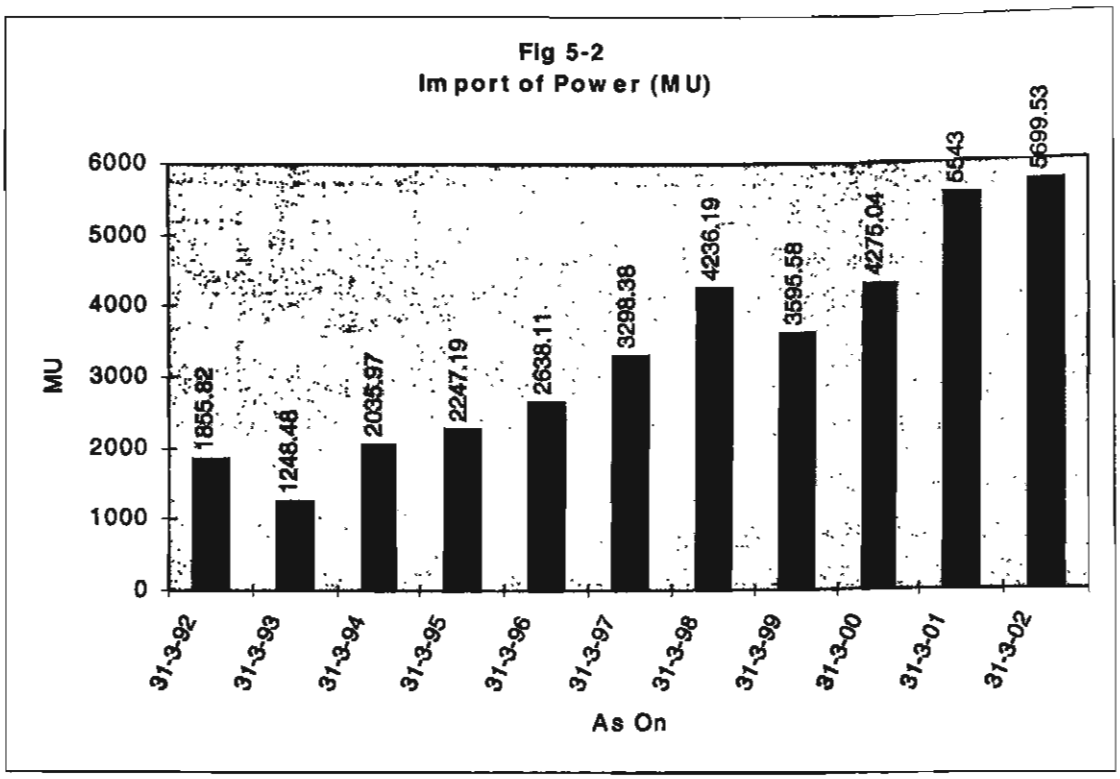
Energy Availability in the State During 2000-01 and 2001-02

Sl.No	Source	2000-01	2001-02
1	Generation (in million Units)		
a	Hydel	6191	6716.22
b	Thermal (BDPP + KDPP)	774	421.96
c	Wind farm	3	3.99
	Total (1)	**6968**	**7142.18**
2	Power Purchase (in Million KWH)		
a.	NTPC (Kayamkulam)	1944	1316.23
b.	NTPC (Ramagundam)	1650	1751.15
c	Neyveli Lignite Corporation	995	1078.65
d	Western Region	26	45.1
e	Madras Atomic Power Project	240	232.85
f	Eastern Region	318	535.92
g	Maniyar	31	37.26
h	Kaiga	186	335.16
I	BSES	153	240.45
j	Kuthungal	0	31.09
k	KPCL, Kasaragode		95.67
	Total (2)	**5543**	**5699.53**
3	**Total (1 + (2)**	**12511**	**12841.71**
4 a	Less bilateral Exchange		11.898
b	Less Losses in MU	0	240.132
c	Auxilary Consumption	47	45.64
	Total (4)	**47**	**297.67**
5	**Net Availability (in million KWH) (3)-(4)**	**12464**	**12544.05**

Source:KSEB

Import of Power

5.9 The import of power increased from 5543 MU in 2000-01 to 5699.53 MU in 2001-02 showing an increase of 2.8%. The growth of import of power during Ninth Plan is given in Fig.5.2



Transmission

5.10 The transmission and distribution system development in the State has not kept pace with the capacity addition in generation from time to time. Shortfalls in transmission and distribution programmes have resulted in a very defective power system and poor quality of power supply.

5.11 During the year 2001-02, four 110 kV substations, two 66 kV substations, 80 circuit km of 110 kV lines and 24 double circuit lines of 66 kV were completed. The achievements made in the transmission side during the IX Plan including the year 2001-02 are shown in Table.5.6

Table 5.6
Achievements in Transmission

Particulars	1997-98		1998-99		1999-2000		2000-01		2001-02		Total Achievement
	PT	PA	PT	PA	PT	PA	PT	PA	PT	PA	
220 kV substation(Nos)	5	2	3	2	1	1	Nil	Nil	3	Nil	5
110 kV Substation (Nos)	30	8	10	9	10	7	25	19	15	4	47
66kV Substation(Nos)	7	2	Nil	1	2	Nil	3	Nil	4	2	5
33 kV Substation (Nos)		0			..	..	0	Nil			Nil

220 kV Double circuit lines(Km)	548	283	281	178	194	158.5	..	..	443	..	619
110 kV Double Circuit lines (Km)	565	207	352	150	283	112.93	487	173.82	185	80	726
66 kV Double Circuit lines (Km)	63	25		1.2	49	Nil	29.6	Nil	37.22	24	50

PT-Physica Target. PA-Physical Achievement
Source-KSEB

Distribution

5.12 During the year 2001-02, 330213 domestic connections and 13919 agricultural connections were provided. 881.09 Km of 11 kV lines and 4545.92 Km of L.T.lines were constructed during this period. 1224 transformers and 33141 streetlights were also installed. The performance of the distribution side in the Ninth plan including the year under review is shown in Table 5.7. Out of four lakh house holds targetted for electrification every year during X plan, 1.73 lakhs houses were completed upto 10/2002

Table 5.7
Physical Targets and Achievements in Distribution Sector as on 31-3-2002

	1997-98		1998-99		1999-2000		2000-01		2001-02		PA upto 30-3-02
	PT	PA	PT	PA	PT	PA	PT	PA	PT	PA	
Service Connection (Including Agriculture) (Nos)	200000	287588	318015	392668	350000	390512	500000	410997	200000	330213	18743900
Agricultural Connection	10000	14260	10000	21149	16000	20711	10000	16856	10000	13919	86895
Construction of 11 kV lines (Kms)	3000	5827	1800	1006.9	1800	917.18	1100	1250.6	3800	881.09	9882.7
Construction of LT Lines (Kms)	8000	5548	7000	5957	4000	6302.7	7550	6700.8	7000	4545.92	29055.23
Errection of Transformers (Nos)	2000	853	2000	1326	2000	1580	1750	1871	3300	1224	6854
Street light Installation (Nos)	17000	17076	17585	29233	18000	48859	28700	47522	58700	33141	175831

PT-Physica Target. PA-Physical Achievement
Source-KSEB

Transmission and Distribution (T&D) Losses

5.13 Transmission and Distribution Losses has been found to be about 30 per cent as against the previously stated figure of 17 per cent. Major component of commercial loss is due to defective metering system as well as theft, pilferage and misuse. An estimate revealed that approximately eight lakh meters were defective and sluggish. Replacement of these meters would cost about Rs. 80 crore. Experiments at two sections have shown that replacement of faulty or sluggish meters could bring down T&D losses to 20 per cent and below. Reduction in T&D losses by 10 per cent could increase the revenue by about Rs.240 crore per annum. Hence replacement of defective and sluggish metres as well as anti-theft activities are given top priority.

Thrust Areas,New Approach and Policies.

Box 5.2
Thrust Areas

- *Reduction of system losses*
- *Effective collection of revenue through correct metering and prompt raising of bills*
- *Improvement of productivity*
- *Reduction and redeployment of staff*
- *Improvement of capacity utilisation.*
- *Avoidance of time and cost overrun through appropriate project monitoring, management and control.*
- *Improvement of efficiency would be the major thrust area during the Tenth Plan period.*

Box.5.3
Private Participation in Small Hydro-electric Projects-New Policy Initiatives

- Preference for power intensive Industries
- Separate guidelines for IPP's and CPP's
- State Electricity Regulatory Commission in service
- Formation of UNIDO Regional Centre for State Hydro-electric projects at Energy Management Centre (EMC)
- J.V. participation of SILK and Chinese company for State hydro-electric projects and turbine manufacturing
- Better climate for investment
- Active support from Government

Box.5.4
Highlights of IPP Policy

- *Any Individual/Company/Partnership firm/Joint Venture Companies*
- *Selection through Competitive Bidding(RFQandRFP mode)*
- *Criteria for allotment-Lowest quoted tariff*
- *No water Cess*

Box 5.5
Highlights of CPP Policy

- *Industrial Consumers of demand load 0.5 MW and above*
- *Selection through Competitive Bidding(RFQandRFP mode).*
- *Wheeling Charge and T&D loss-15%.*
- *Relief in Maximum Demand charges.*
- *100% Captive consumption allowed.*
- *BOOT Period 30 years.*

Box 5.6
Generation Projects for Private Investment

1. *Neriamangalam Extension Hydro-electric Project (25 MW)*
2. *Mankulam Hydro-electric Project (40 MW)*
3. *Thottiar Hydro-electric Project (40 MW)*
4. *Pallivasal Hydro-electric Project (60 MW)*

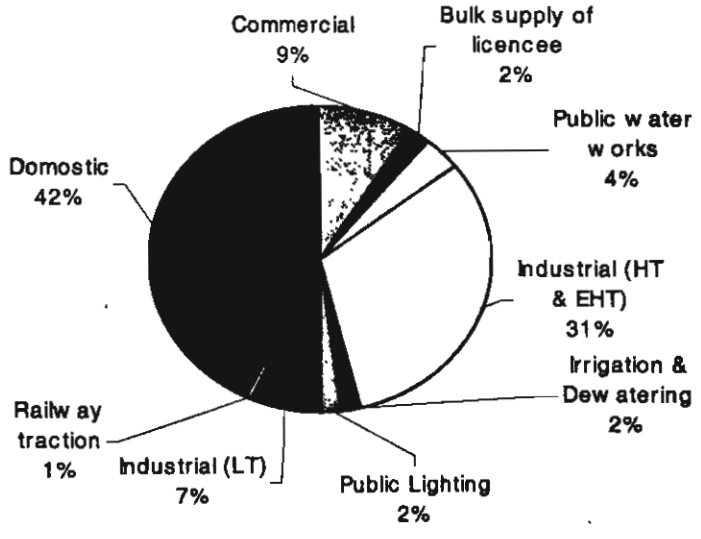
Tariff

5.14 Consumer tariff in Kerala is low compared to other States. Tariff rates were periodically revised by the KSEB. Significant changes in the hydro-thermal mix has put pressure to increase the tariff rates. The revision of tariff in October 2002 envisaged an overall increase of 20%. Average tariff has gone up from Rs 1.87 per unit to Rs.2.68 per unit. Average tariff rates and average realisation are given in Appendix 5.4 and 5.5

Pattern of Power Consumption and Revenue Collected

5.15 The pattern of power consumption and revenue collected from various categories of consumers are furnished in Appendix 5.6. The number of domestic consumers (paying) increased from 48.57 lakhs in 2000-01 to 51.69 lakhs in 2001-02 with an increase of 6.4%. But the percentage of domestic consumers decreased by 2.58 percent, from 45.31% to 42.73%. The revenue collection from domestic consumption in 2000-01 increased from Rs.37980.42 lakhs to Rs.40478.44 lakhs in 2001-02 and it constituted 20.80% of the total revenue collection. As per the power consumption pattern the HT & EHT consumers constituted 31.24% and the revenue collection from this category was 36.41% of the total revenue collection. The pattern of power consumption is depicted in Fig 5.3

Fig 5-3
Pattern of Power Consumption (%)



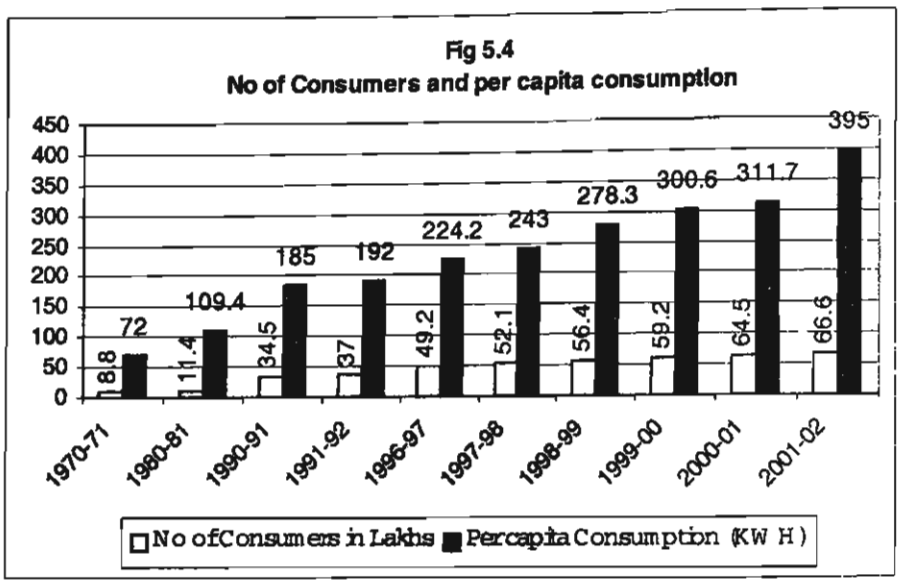
Per capita Consumption

5.16 Per capita Electricity consumption indicates the development status of economy of a country.Percapita consumption in Kerala increased from 311.67 kwh in March 2001 to 395 kwh in March 2002, showing an increase of 27% . The details of per capita consumption in electricity in various States are given in Table 5.8

Table 5.8
State Level per Capita Consumption in India 1999-2000

Name of States	Consumption (kwh)
1. Punjab	921.14
2.Gujarat	834.66
3. Delhi	653.24
4. Maharashrtra	520.49
5.Andhra Pradesh	391.00
6.Karnataka	387.09
7. Kerala	261.80
9. Pondicherry	931.85
10. Laksha Dweep	217.86
All India	354.75

Source: Annual Report on the Working of State Electricity Boards and Electricity Departments 2002, Planning Commission, Govt. of India.



The details of the number of consumers and percapita consumption is depicted in Fig.5.4.

Plan Outlay

5.17 The outlay earmarked for Power development in various Five year and Annual Plans are furnished in Appendix 5.7. The plan provision for X Plan and Annual Plans 2001-02 and 2002-03 are given in Table 5.9.

Table.5.9
Plan Outlay and Expenditure (Rs.in lakhs)

Sl.No.	Name of Sub Sector	2001-02		Tenth Plan outlay	2002-03 Outlay
		Outlay	Expenditure		
I	Generation				
i	Hydel	4496	4903.97	73185	8475
ii	Thermal/Diesel	520	225.83	4500	900
II	Transmission & Distribution.	33803	34144.57	174154	28192
III	System Improvement works	500	403.96	2250	1890
IV	Renovation & Modernisation and REC	8745	3908.66	75143	15075
V	Others	1737	1482.02	13268	4368
VI	Non-conventional Sources of Energy including ANERT, IREP & Others	1100	927.67	7500	1100
	Total	**50900**	**45996.7**	**350000**	**60000**

Source of Funding

5.18 KSEB is functioning mainly by mobilising loans from financial institutions like REC, LIC, SIDBI, PFC and from Non-SLR Bonds. Details of source of funding during 2000-01 and 2001-02 are given in Appendix 5.8

Financial Status of KSEB

5.19 Total revenue during 2001-02 was only about Rs.2236 crores as against Rs.2915 crores projected in the budget proposals. This was mainly due to the delay in tariff revision and the inability to raise tariff to the anticipated level. The amount required for servicing the debts alone would be Rs.1380 crores during 2002-03. The amount spent for debt servicing has increased from Rs.50.03 crores to Rs.1036.04 crores during the period from 1990-91 to 2001-02. During the past several years the amount spent on interest was more than the repayment of principal. The net increase in capital liabilities has decreased to Rs.174 crores in the year 2001-02 from Rs.995 crores in the year 2000-01 indicating a positive trend. In addition to the capital liabilities the current liability as on 31.3.2002 was about Rs.1585 crores payable to Central Public Sector Undertakings. All categories except commercial consumption are subsidised. The situation is all the more serious in view of the fact that maximum consumption is in the category of domestic consumers where energy is heavily subsidised.

5.20 In keeping with the terms and conditions of the tripartite agreement and the settlement scheme, it would be highly detrimental to allow to subsidies to be irrational, since any default on the part of KSEB would entail curtailment or release of plan funds from Govt. of India to the State. The paucity of sufficient resources at reasonable cost and high financing charges are serious problems. The investment in capital/developmental activities were not commensurate with the capital liability of the board due to diversion of the funds to meet revenue expenditure. Borrowing more even to meet revenue expenditure, has resulted in more amount for debt servicing, which in turn coupled with increased expenditure for power purchase led to more borrowing, especially in the absence of commensurate tariff hike or financial support from the Government. The outstanding liabilities work out to Rs 4560 crores as on 1/4/2002. As part of financial re-engineering, restructuring or redemption of loans to reduce the burden of high cost of capital is being attempted.

Box 5.7
Global Trend to Reforms

- *Reform of Electricity supply industries began in 1979/82 in Chile, both restructuring and privatisation*
- *Gathered pace in late 1980s/early 1990s with major restructuring and privatisation programmes in UK and Norway*
- *Since then major reforms have been introduced in both developed and developing countries around the world – New Zealand, Australia, USA, Canada, South Africa, Spain, Argentina, Brazil, Bolivia, Ukraine, India, etc.*
- *Reform process continuing – further states in India and USA, provinces in Canada, European countries following December 1996 Electricity Directive, Philippines, etc*

State Level Power Sector Reforms in India

5.21 State Electricity Regulatory Commissions (SERC) have been constituted or notified in 21 States. Of these, SERCs of 15 States' have issued tariff orders. The States of Andhra Pradesh, Delhi, Gujarat, Haryana, Himachal Pradesh, Karataka, Madhya Pradesh, Maharashtra, Orissa, Punjab, Rajstahn and Uttar Pradesh have enacted their State Electricity Reforms Acts which provide, inter-alia, for unbundling/corporatisation of SEBs, setting up of SERCs, etc. The SEBs of Andhra Pradesh, Delhi, Haryana, Karnataka, Orissa, Rajasthan and Uttar Pradesh have been unbundled/corporatised. Twenty-one States have signed the Memorandum of Understanding with the Ministry of Power, Government of India to undertake reforms in a time bound manner. Monitoring is being done to ensure that the agreed milestones are achieved.

5.22 The details of the initiatives taken by individual States for power sector reforms and restructuring are presented in Table 5.10.

Table 5.10
Initiatives for State-level Power Sector Reforms

States	States of Reforms and Restructuring
Andhra Pradesh	Andhra Pradesh Electricity Regulatory Commission (APERC) has been unbundled into Andhra Pradesh Generation Company Ltd. And Andhra Pradesh Transmission Company Ltd. (APTRANSCO). APTRANSCO has been further split into four distribution companies. Distribution privatisation strategy is being finalised. The APERC has issued two-tariff orders. The State has signed MOU with Government of India. Reform law has been enacted.
Arunachal Pradesh	The State notified the State Electricity Regulatory Commission (SERC).
Assam	Single member SERC has been constituted. The State has signed MoU with the Government of India.
Bihar	State has signed MOU with the Government of India. The State Electricity Board has revised tariff. SERC has been constituted.
Chhattisgarh	State has adopted the MOU signed with Madhya Pradesh. SERC has been constituted.
Delhi	SERC has been constituted. It has issued tariff order. Reform law has been enacted. Delhi Vidyuti Board has been unbundled. The distribution has been privatised.
Goa	The Government is proceeding with restructuring the power sector with

	assistance from Power Finance Corporation (PFC). The SERC has been constituted. The State Government has appointed consultants to advise and implement privatisation of transmission and distribution system. The State has signed MOU with the Government of India.
Gujarat	The State's restructuring programme has emphasised metering all categories of consumers and imposition of cap on agricultural subsidy. SERC has become functional from March 1999. It has proposed to undertake tariff and reform related studies. SERC has issued first tariff order. Reform Law has been approved by Government of India and has been introduced in the State Assembly. The State has signed MOU with Government of India.
Haryana	State Reforms Act into force in August 1998. The SEB has been unbundled into separate transmission and distribution companies. The SERC has become operational and has issued its two-tariff orders. Reform Law has been enacted. The State has signed MOU with the Government of India.
Himachal Pradesh	The State Government is committed to undertake reforms with technical and financial assistance from PFC. The State has constituted a single-member SERC. The SERC has issued its first tariff order. The State has signed MOU with the Ministry of Power for further reforms in the power sector.
Jammu and Kashmir	Reform bill has been passed by the State Assembly. The State has signed MOU with the Government of India.
Jharkhand	State has signed MOU with the Government of India.
Kerala	SERC has been constituted. The State aims to reorganise the Electricity Board into three profit centres for generation, transmission and distribution. Distribution company to be further split into three profit centres. State has signed MOU with the Government of India.
Madhya Pradesh	SERC has become operational since January 1999, SERC has issued first tariff order. Reform Law has been passed by the State Assembly and notified, SEB has been unbundled. The State has signed MOU with the Government of India.
Maharashtra	The State is committed to reforms with technical and financial assistance from PFC. Action has been initiated for undertaking tariff and reform related studies. SERC has become functional since October 1999. MSEB intends formation of Joint Venture Company for distribution of electricity in Bhiwandi area, Thane, MERC has issued two tariff orders. The State has signed MOU with the Government of India for further reforms in the power sector.
Orissa	First State to initiate power sector reforms. Reform Law has been enacted. Orissa State Electricity Board (OSEB) has been unbundled. Distribution has been privatised. Orissa Electricity Regulatory Commission (OERC) has issued four tariff orders. The State has signed MOU with the Government of India.
Punjab	The State proposes to carry out power sector reforms with the assistance from PFC. The SERC has been constituted. It has issued one tariff order. The State Government has signed MOU with the Government of India for reform and restructuring of the power sector.
Rajasthan	The State's Reforms Law has been enacted. The Rajasthan Electricity Board has been unbundled into one generation, one transmission and

	three distribution companies. Rajasthan Electricity Regulatory Commission has been constituted. SERC has issued two-tariff orders. The State has signed MOU with the Government of India.
Tamil Nadu	The State has set up the SERC. The State proposes to undertake reforms with the technical and financial assistance from PFC. The State has signed MOU with the Government of India.
Uttar Pradesh	The State has enacted the Reforms Bill. The UPSEB has been unbundled into two generation companies and one transmission and distribution company. Uttar Pradesh Electricity Regulatory Commission (UPERC) has become functional. Three tariff orders have been issued by UPERC. Distribution and privatisation strategy is to be finalised. The State has signed MOU with the Government of India.
Uttaranchal	The SERC has been constituted. The State has signed MoU with the Government of India.
West Bengal	SERC has become operational and has issued first tariff order. The State has signed MoU with the Government of India.
Others*	These States have shown willingness to constitute Joint Electricity Regulatory Commission (JERC) in order to pursue reforms in power sectors.

** Includes the States of Nagaland, Meghalaya,Mizoram,Manipur,Tripura and Sikkim.*

Source: Annual Report on the Working of State Electricity Boards and Electricity Departments, Planning Commission, Government of India,2002.

Power Sector Reforms in Kerala

Box 5.8
Goals of Reforms

- *Long term technical and financial sustainability of power sector*
- *Increase in service level to customers by providing quality power supply at reasonable price*

5.23 Reforms in the power sector are consistent with the framework of Kerala Power Policy. Power sector reforms focus on improving the efficiency of Electricity Board for their functions - generation, transmission and distribution. A Memorandum of Understanding has been signed between the Ministry of Power, Government of India and Government of Kerala to affirm the joint commitment of the two parties to reform the power sector in Kerala for fulfilling the objectives of providing good quality uninterrupted power supply at affordable rates, at the same time maintaining commercial viability of the power sector. The State has constituted Electricity Regulatory Commission in November 2002 and the Ministry of Power, Government of India have sanctioned APDRP assistance to Kerala. The APDRP scheme launched by Government of India is to finance projects relating to renovation, modernisation upgradation of Transmission and Distribution network. Computerisation at circle levels, installation of capacitors in sub-transmission and distribution lines and energy auditing measures are also being taken to improve the system as part of the reforms. Replacement of faulty meters in 3 circles was started. Anti power theft and system improvement activities are under implementation. Renovation and modernisation works of Pallivasal, Sengulam and Panniyar are nearing completion.

Box 5.9
Centre Okays Rs.8484 crores for Accellerated Power Development and Reforms Programme.(APDRP)

The Central Government has approved projects worth Rs.8484 crores for upgradation of Power transmission and distribution system across status under Accelerated Power Development and Reforms Programme (APDRP) Kerala got approval for Rs.181.59 crores for circle schemes and Rs.168.76 crores for town schemes under the scheme. The pattern of assistance is 25% grant and 25% loan from Central Government and the rest is linked to loan by KSEB.

Major issues confronting the sector

5.24 Major Issues of Power Sector in Kerala are given below.

- The average per capita energy consumption is low compared to national level. 43% of the consumers are domestic consumers. Industrial consumption is low.
- Peak demand is in the evening
- The transmission, distribution system development in the State has not kept pace with the generation capacity addition. The transmission and distribution loss in the State is estimated to be 30%
- KSEB, the principal generator and monopoly transmission and distribution agency is facing acute financial crisis.
- There is an increase in the expenditure due to high cost of purchase of thermal power from NTPC Kayamkulam and other IPPs.
- KSEB's productivity is not commensurate with the staff strength.
- The cost and time overrun of projects are high

Renewable Energy

5.25 Enviornmental concerns have led to the slow down of efforts in developing conventional hydro power. The increase in price of fuel like Naptha and depletion of other energy resources put pressure on tapping renewable sources of energy. Several renewable technologies have attained technological maturity, leading to commercialisation in their respective domains, over the past decade. The renewable energy technologies prevalent in the country are based on biomass, solar energy, and small hydro power and wind energy. An estimate of the technical potential for renewable technology as per national statistics is given in Table 5.11

Table 5.11
Potential for Renewable Energy Technologies in India

Source	Approximate potential
Biogas plants(nos)	12 million
Improved cook stoves (nos)	120 million
Biomass power	19500 MW
Solar photovoltaic	20 MW/sq.km.
Wind energry	45000 MW
Small hydro power	1500 MW
Energy from wastes	1700MW

Source:MNES

A 'Renewable Energy Policy" for the State has been announced by the Government of Kerala. The salient features include:

Box 5.10
Salient features of Renewable Energy Policy

- *ANERT shall be the nodal agency for co-ordinating all activities relating to renewable energy development*
- *All producers producing grid-grade electricity shall be "eligible producers under the policy"*
- *Inter facing, including transformers, panels, KIOSK production, metering, HY line from points of generating to the nearest HT line etc. as well as their maintenance will be undertaken by the producer as per the specification and requirement of KSEB at the cost of the producer*
- *KSEB will undertake to augment the sub station capacity at its costs to receive the power generator by the eligible producer and will also undertake the augmentation of transmission line and laying of a new line if required.*
- *Power generation through renewable energy sources, if purchased by KSEB will be at a ceiling rate of Rs.2.50 per unit from small hydel power plants.*
- *From all other renewable energy sources the ceiling rate will be Rs.2.80 per unit, with base year fixed as 2000-01 and with five per cent escalation for every year upto five years of operation.*
- *Hundred per cent banking is allowed for the period from June to February for every financial year.*
- *From March to June, the producers can bank power with KSEB. KSEB will undertake to transmit on its grids the power generator by eligible producer the wheeling charge will be at the rate of five per cent of energy fed into the grid.*
- *KSEB shall initially bear the expenditure for erection of HT sub stations and transmission infrastructure But Fifty per cent of this expenditure will be recovered from the power project promoters.*
- *Settlements regarding wheeling, banking or sale of power will be on a monthly basis.*
- *The power purchase agreement with KSEB will be a minimum period of five years.*
- *Eligible producers will be given industry status .*

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

5.26 ANERT is the nodal agency in the State for development of renewable energy sources and is recognised by DST, Government of India as a Research and Development organisation. The objective of the Agency is to gather and disseminate useful knowledge in various fields of non-conventional energy, energy conservation and rural technology conduct studies, demonstrate, implement and support implementation of schemes and projects in these fields. Major achievements of the sector during 2001-02 are furnished in Table.5.12.

Table.5.12
Major Achievement of ANERT

Sl.No.	Particulars	Achievement
1	Solar Hotwater Heater (Nos)	1
2	Bio- gas plants(Nos)	25
3	Bio-mas	0.5 Mw
4	Improved Chulahs (Nos.)	37153

5.27 During the year 2001-02 ANERT implemented the second phase of the solar village electrification project by installing 13438 home lighting systems and 865 solar street lighting system to electrify 173 remote SC/ST colonies in the State. So far 14754 home lighting systems have been established. By installing 53 bio-gas plants, 0.5 MW of energy could be generated

5.28 ANERT has conducted and completed the wind resources survey for 16 sites for power generation and has come out with guidelines for establishing wind power project in Kerala.. Master plan for Wind Generation Projects at Ramakkalmedu in Idukki District has been prepared. All-India level wind Power Installed capacity is shown in Table No.5.13.

Table No.5.13
Wind Power Installed Capacity (MW) In India

States	31-03-2001	31.03-2002	31.9.2002
Andhra Pradesh	91.9	92.6	92.6
Gujarath	166.9	166.9	166.9
Karnataka	44.6	68.6	96.2
Kerala	2	2	2
Madhya Pradesh	22.6	22.56	22.6
Maharashtra	189.9	399.2	399.2
Rajasthan	7.3	16.1	25.1
Tamil Nadu	812.6	857.5	895
West Bengal	0.5	1.1	1.1
Others	1.6	1.6	1.6
Total	**1339.8**	**1628.2**	**1702.3**

Source: Financial Express

5.29 As a part of energy conservation ANERT has distributed 16047 CFLs 5200 Solar lanterns 503 Chulhas and 373 SPV modules during the year 2002. ANERT has established a State level Renewable Energy Park at Kochi to propagate awareness of renewable energy sources and conservation of energy.

Electrical Inspectorate

5.30 Electrical inspectorate is a statutory department for implementing rules and regulations envisaged in Electricity Rules and Act. Their major functions include

- Ensuring safety by way of enforcing standard practices in electrical installations
- Issuing certificates in form D in the case of Cinema theatres for fire and electrical safety
- Implementing electricity licensing rules by issuing permits, licenses etc. in the case of electrical wiremen, electrical supervisors and various categories of electrical contractors
- Conducting periodical inspections in the HT and EHT installations

- Conducting bi-annual inspection in the case of Medium Voltage installations
- Conducting statutory enquiry in the case of electrical accidents and fire accidents and reporting to both Central and State Government

5.31 Electrical Inspectorate has established a Meter Testing and Standards Laboratory at Thiruvananthapuram as a fully equipped Centre with facilities for the testing of vital components of power sector both in public and private sectors as prescribed in BIS and NABL specifications. In connection with accreditation with NABL, two inspections have already been carried out by the assessment team of NABL, New Delhi.

Energy Management Centre (EMC)

5.32 EMC is an autonomous organisation functioning under the Department of Power devoted to the improvement of efficiency in the case of all forms of energy promotion of energy conservation and development of technologies related to energy through research, training, demonstration programmes and awareness creation. EMC implemented the following programmes during the year 2001-02.

- Energy Efficiency in brick and tile industry
- Energy Efficiency studies in PSUs and other private installations
- Domestic Energy Conservation through women volunteers
- Development of improved version of Petti and Para (high discharge low head traditional pump used in Kuttanad)
- Energy Conservation Awareness programmes in Schools and Industries
- Technical assistance for preparation of Detailed Project Report for Small hydel Project Development to District Panchayats
- Presentation of State Energy Cosnservation Awards
- Transport Clinics for improvement of fuel efficiency to drivers of KSRTC, VSSC and private organisations

EMC is networking with international organisations like Commonwealth, UNIDO, UNAPCTT, USAEP, UNESCAP for various energy conservation activities and technology upgradation.

Chapter 6

INDUSTRY AND MINING

Kerala, with all its achievements in physical quality of life of people, qualityof infrastructure, availability of qualified manpower etc. presents a paradox in the industrial front. It remains industrially backward, in spite of vast unemployed educated manpower and high savings rates. And, not only had a good part of its manpower to go outside the state for employment, its entrepreneurs also went out for investment. In order to promote investment and employment in the state, an aggressive repositioning strategy has become the need of the hour. The government has taken a series of measures since 2001 in this regard.

Box 6.1
Features of the reform Measures

- *Aggressive promotion of private investment to making the state investor friendly.*
- *Priority for attracting investment to high growth sectors such as knowledge based sectors like Information Technology and Bio-technology. Public investment in strategic areas only.*
- *Repositioning of the traditional sectors such as Coir and Handloom by modernisation and infusion of modern technology.*
- *Encouraging.private sector establishment in the traditional sectors for manufacturing value – added products. Equipping existing co-operatives to become competitive.*
- *Filling up gaps in infrastructure on top priority by attracting private investment.*
- *Reforms implementation in State Level Public Enterprises in a time bound manner by setting up Enterprises Reforms Committee.*
- *Elimination of restrictive labour practices. so as to ensure cordial industrial relations and establishment of a new work culture with productivity orientation and productivity linked wages.*
- *Making single window clearance fully operational.*
- *Special legal dispensation enabling a more liberalised environment in industrial and export processing zones, parks and estates.*

Investment Attractiveness

6.2 CII studied industrial attractive parameters of 18 Indian States. The outcome of the study is that Kerala emerged as the third best State among other Indian States in composite ranking on analysis of various attractiveness parameters.

Box 6.2
Investment Attractiveness Parameters

Kerala is the third best State in composite ranking in respect of industrial attractiveness among Indian States

Table 6. 1
Ranking of Kerala in Attractiveness Parameters

Law & order	1
Education, health expenditure	1
Social sector	2
Affluence	3
Infrastructure penetration	5
Investment attractiveness	5
General achievement	6
Finance	6
Labour	8
Investment climate	13
Overall Composite Rank	3

Source: Study by CII

New Policies

6.3 The year 2001-02 witnessed certain important initiatives to reverse the past trend, to change mind set and to boost the image of the State. Suitable policies were formulated and announced for Industry, Information Technology and Labour with the intention of repositioning the State as an investor friendly one.

6.4 The Labour Policy also contemplates creative measures to attract public and private investment and establishment of model employee – employer relationships.

6.5 Following the policy announcements concrete steps have been taken to bring those into practice. Reflections of some of the measures envisaged in the policy are seen. Efforts are on the way to reverse the slow down in the industrial front being experienced during the recent years.

Box 6.3
Major highlights of the Industrial Policy 2001

Small Scale Industries

- *Equipping the sector to cope with global competition by suitable upgradation of technology, cost reduction techniques and sound management.*
- *Modernising existing Co-operatives and promoting new ones under the self reliant co-operatives ligislation.*
- *Private participation in the development of infrastructure including new industrial estates and plots, with the Government acquiring suitable land for entrepreneurs.*
- *Remoulding SIDCO into an efficient, professional agency for marketing of SSI products with common branding and publicity as well as for other self – sustainable lines of business.*

Box 6.3 Conti..

Traditional Industries

- *Introduction of appropriate mechanisation and technology, removal of inefficiencies in the system, professionalising marketing and export and facilitating large investment of private capital in the traditional sectors like coir, handloom etc. which are now mostly dominated by co-operatives;*
- *Attracting private sector investment in these sectors, by providing a special scheme of investment subsidy with adequate incentives.*
- *both the domestic and international markets.*
- *Programme funding rather than outright grants to Apex Organisations.*
- .
-

Developing brand equity for Kerala's traditional industry products to sustain

Electronics & Information Technology

- *Emphasis on attracting substantial private investment in software, hardware and telecommunication.*

Food Processing Industry

- *Comprehensive study to identify and promote the key products for which the State has comparative advantages in agro-food processing.*
- *Developing infrastructure such as Food Parks, incentives for units manufacturing innovative value added products, specialised entrepreneurial development programmes, sourcing and development of the required technology etc.*

Biotechnology

- *Developing Kerala as a global centre of excellence in biotechnology by up-to-date education and training for the creation of a large pool of multi-skilled technically competent manpower*
- *Creating an appropriate pro-business, pro-enterprise, legal, regulatory and commercial framework to facilitate the rapid growth of BT industry in the State..*

State Public Sector

Restructuring PSUs which impose unsustainable burden on the exchequer ensuring a safety net to the workers with investment from the private sector

Repositioning of Traditional Industries

6.6 The industrial revolution led to mass production and large factories. The IT and knowledge revolution makes possible once again production by the masses in decentralised units using modern technology and earning more incomes. In village and small industries, handicrafts and traditional industries, skills have to be created to use modern technology and new designs and products have to be worked out. The Khadi and Village Industries Commission and other central organisations are giving lead to this process and Kerala State has to take full advantage of them and transform these sectors from subsistence levels to dynamic income levels.

Export Performance

6.7 Kerala holds four per cent share of exports from the country. The state is above national average in exports. Export of food products in Kerala contribute to 25% of India's Food Exports.

Table 6.2
Export from Kerala 2001-2002

Value (Rs. In crores)

Cashew Nut	965
Marine Products	951
Spices	560
Coffee	842
Tea	394
Coir & Coir Products	321
Others	3005
Total	**7038**

Source: KEREXIL

6.8 State Level Export Promotion Committee has been set up for development of export infrastructure with the assistance of Government of India under "Assistance to States for Infrastructure Development in Exports" (ASIDE) and Rs.100 crores is proposed to be invested for development of export infrastructure in the State.

Box 6.4
Proposed Export Infrastructure Projects

- *Establishment of a Testing Laboratory at Kollam for Cashew and other food products.*
- *Electronic weigh bridge at the premises of Cochin Port Trust*
- *Establishment of a modern Laboratory at Kochi for marine products*
- *Establishment of 30 pre-pocessing centre for marine products, upgration of Laboratory of MPEDA at Cochin, development of lfisheries Ports at Cochin and Munambam.*
- *Improvement of facilities at Air Cargo Complex at Trivandrum Air Port and development of Export bay by KSIF.*
- *Industrial Water Supply Scheme at KINFRA, TECNO-INDUSTRIAL PARK at KAKKAMCHERY at Malappuram.*
- *Establishment of India Institute of Export Management at Kalamassery.*

Food Processing Industry as a major Thrust Sector

6.9 Food Processing is considered as a thrust sector in the Industrial Policy 2001 and has been given special attention by Government. An important aspect of developing the Food Processing Industries in the State is the need for creating awareness regarding Food Quality and Safety. The Hazard Analysis critical Control Point (HACCP) based approach for Food Safety Management has become global requirement for International Trade as a measure of installing higher confidence in Food Safety. To bridge the gap in awareness regarding HACCP and to help food related processing and service industry to attain global standards of Food Safety, the Department of Industries has finalised an Action Plan on Food Quality and Safety. Kerala Bureau of

Industrial Promotion (K-BIP) has been approved as the Nodal Agency for HACCP certification. A national Centre for HACCP certification has already been set up in K-BIP.

Box 6.5
Kerala For Brand Positioning In International Market

Identifying native Kerala Food Exports items as the states core advantage, the State Government as decided to focus on quality upgradation, value addition and brand positioning in items like Cashew, Sea-foods and Cardamom.

Rubber Production and Tyre Industry

Statistics on Rubber Production in India and Kerala is given in Table below

Table 6.3
Rubber Production and Tyre Industry (2001-2002)

Particulars	Units	India	Kerala
Rubber Production			
Quantity	Tonnes	631400	580350
Percentage		100	92
Tyre Industry			
Tyre Companies	No.	19	1
Tyre Factories	No.	40	3
Installed Capacity	Lakh Tyres /year	605	20
Capacity Uitilisation	Percentage	72	94

Source: Rubber Board, Govt. of India.

6.10 Even though Kerala contributes 92 percentage of Rubber Production in India the processing sector development in Kerala is very poor.

Construction Industry

The cement consumption of different states in India is given below:

Table 6.4
Cement Consumption in different States in India

(Lakh Tonnes)

State	2000-01		2001-02		2002-03*	
	Total	Per capita	Total	Per capita	Total	Per capita
Maharashtra	131.26	0.136	132.31	0.137	115.39	0.119
Uttar Pradesh	112.8	0.068	120.02	0.072	104.66	0.063
Tamil Nadu	81.94	0.132	83.19	0.134	75.71	0.122
Gujarat	63.84	0.126	75.27	0.149	60.7	0.12
Andhra Pradesh	56.82	0.075	67.47	0.089	64.73	0.085
Karnataka	49.76	0.094	61.83	0.117	57.99	0.109
West Bengal	47.58	0.059	59.34	0.074	45.65	0.057
Rajashtan	47.44	0.084	52.13	0.092	50.42	0.089
Punjab	40.99	0.169	48.84	0.201	43.55	0.179

Kerala	46.66	0.146	45.56	0.143	43.91	0.138
Madhya Pradesh	48.63	0.08	40.49	0.067	40.29	0.067
Bihar	34.45	0.041	32.86	0.04	26.35	0.032
Haryana	28.48	0.135	32.53	0.154	28.79	0.137
Orissa	26.33	0.072	29.31	0.08	27.45	0.075
Chattisgarth	6.44	0.031	14.69	0.071	11.3	0.054
Jharkhand	7.14	0.026	13.98	0.052	14.45	0.054
Himachal Pradesh	10.6	0.174	12.53	0.206	12.19	0.201
Assam	9.38	0.035	8.28	0.031	6.84	0.026
*Apr 02-Jan 03						

Source:- C.M.A Publications

6.11 It can be seen that Kerala is one among the states having higher capita consumption of cement in the country. In the year 2000-01 the per capita cement consumption in Kerala was 146 kg. and ranks third among the Indian States. In the year 2001-02 the corresponding figure for per capita consumption was 143 kg and ranked five. The high per capita consumption of cement is an indicator of the continuing high investment on housing and buildings.

Global Investor Meet (GIM)

6.12 The major event, 'Global Investor Meet '(GIM) held during January 2003, could drew the attention of a number of investors from different countries. GIM has been instrumental in considering investment to the tune of Rs.26000 crores. MOUs for a total of about Rs.11159.45 Crores were signed between Kerala Government and other investors. Government have decided on institutional arrangements for speedy consideration and decision on the proposals.

Index of Industrial Production.

6.13 The general index of industrial production registered a marginal increase from 351.24 in 2000-01 to 360.20 in 2001-02. A negative growth was recorded in the case of food products, beverages, tobacco and related products, cotton textiles, wool silk and man made fibre textiles, wood and wood products, basic chemicals and chemical products (except petroleum and coal), metal products and parts except machinery as equipment and other manufacturing industries. A considerable increase was recorded in the case of machinery and equipment other than transport equipment. Details of Index of Industrial Production during 20001-02 are furnished in Appendix 6.1.

Box 6.6
Global Investor Meet (GIM)

The Global Investor Meet held on 18th & 19th January 2003 has attracted large number of investors across the globe. Against the target of 500 delegates, 850 persons registered from different parts of the globe. Out of this, 240 were foreign delegates from 27 countries. Entrepreneurs registered from Kerala was 500 and from other states of India 110.

Investor interest was received for a number of projects The projects cover all the vital areas of infrastructure, industries and services sectors. The GIM has been instrumental in bringing for consideration investments to the tune of Rs.26000 crores. MOUs have been entered into for 96 projects worth Rs.11159.45 crores. Additionally, investment decisions to the tune of Rs.10,000 crores have been announced by major public sector enterprises such as NTPC and private sector groups that include , Reliance Group, Infosys, Microsoft, Sutherland –USA, E-City

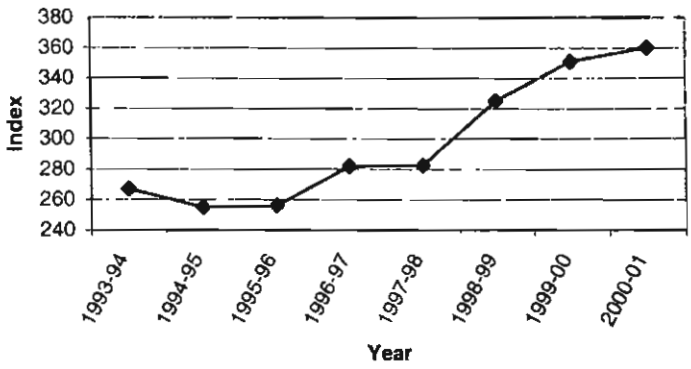
Box 6.6 Conti..

Project.

MOUs Signed

Sl No	*Particulars*	*No of Projects*	*Projected Investment (in Rs crores)*
1	*KSIDC with Public Sector Enterprises*	*3*	*4515*
2	*KSIDC with private promoters*	*21*	*2073*
3	*Tourism Department*	*7*	*745*
4	*Local Self Government*	*11*	*237*
5	*Health Department*	*13*	*1875*
6	*Education Department*	*3*	*590*
7	*Ports Department*	*1*	*350*
8	*Transport Department*	*7*	*174*
9	*KINFRA*	*27*	*588.45*
10	*NORKA Department*	*3*	*12*
	Total	***96***	***11159.45***

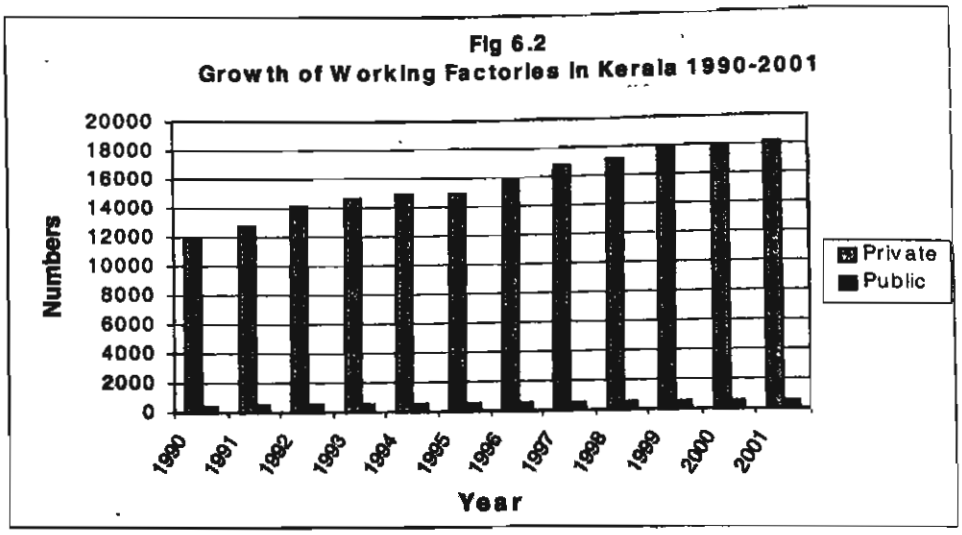
Fig 6.1
Growth in General Index of Industrial Production

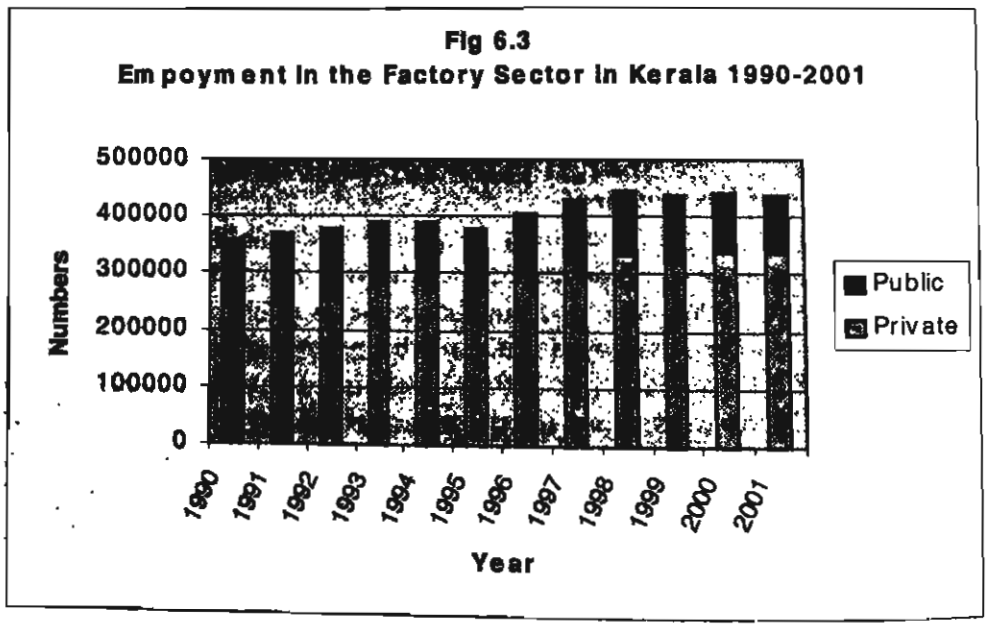


Working Factories and Employment

6.14 The number of working factories in private and public sector was 18068 and 553 respectively in 2001 as against 17986 and 558 for the year 2000. This shows an increase of only 0.46 per cent in private sector and a nominal decrease in public sector working factories. The average number of workers employed daily in the registered working factories in the State diminished from 438750 to 434918 in 2001-02 showing a marginal decrease of 0.87 per cent from 2000. Of this 338764 workers are in private sector and 96154 in public sector. The marginal decrease in the number of workers is the effect of a significant decrease in the number of public sector workers.. In private sector this number is increasing. Details regarding the growth of working factories and average daily employment during the period from 1990 to 2001 are given in Appendix 6.2.

6.15 The number of working factories in 11 districts increased marginally compared to previous year, while it decreased slightly in Thiruvananthapuram, Kollam and Palakkad. As in previous years Ernakulam distirct has the highest number of factories ie. 2944 followed by Thrissur (2571), Palakkad (1981), Kollam (1902). Unlike the previous years Pathanamthitta district witnessed the largest increase in the number of factories (6.27%) followed by Kannur (2.14%), Alappuzha (0.91%), Malappuram (0.90%). Wayanad district has the lowest number of working factories ie. 143 followed by Kasargod (269). It is to note worthy that in the previous years the number of working factories in districts like Thiruvananthapuram, Kollam and Palakkad were increasing during 2001 this was decreasing in these districts. District-wise distribution of registered working factories in Kerala since 1990 is furnished in Appendix 6.3. Number of workers in all districts except Kollam, Idukki and Kozhikode increased during the period. Pathanamthitta district recorded the largest percentage increase (7.16%) followed by Kottayam (2.57%), Idukki (2.49%) and Kozhikode (1.78%). The district-wise distribution of employment in Kerala from 1995 to 31.12.2001 is given in appendix 6.4.





Industrial Disputes

6.16 The number of disputes handled during the year 2001-02 in the State was 5597. The average number of workers involved per dispute is much lower than that of 2000-01. During the period under review 1797977 man-days have been lost due to strike and lockout which is higher than that of 2000-01. The number of disputes which led to strike diminished to nine from 21. Details of industrial disputes handled, settled etc. in the State for the period from 1996-97 to 2001-02 are furnished in Appendix 6.5.

Central Sector Investment

6.17 The Central Sector investment in Kerala was steadily declining from 3.24 per cent in 1975 to 1.50 per cent as on 31.3.98. But from 1999 Central sector investment in Kerala is showing a marginal increase and as on 31.3.2001 it was 2.34 per cent and even this was only around 70 per cent of the investment in 1975. Investment in terms of gross block in the public sector in the State was Rs.9641 crores as on 31.3.2001 as against Rs.6828 crores as on 31.3.2000. Data relating to Central investment in the country and Kerala at different intervals are furnished in Appendix 6.6 and Central sector investment and employment in selected States as on 31.3.2001 in Appendix-6.6 (a). Details on Government of India companies are given in Appendix 6.7 to 6.9.

Fig 6.4
Central Sector Investment in India and Kerala 1970-2001

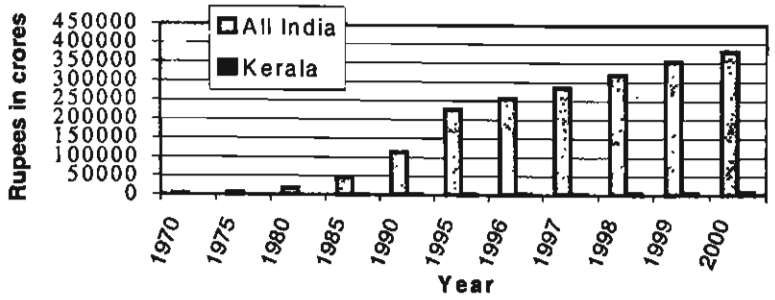
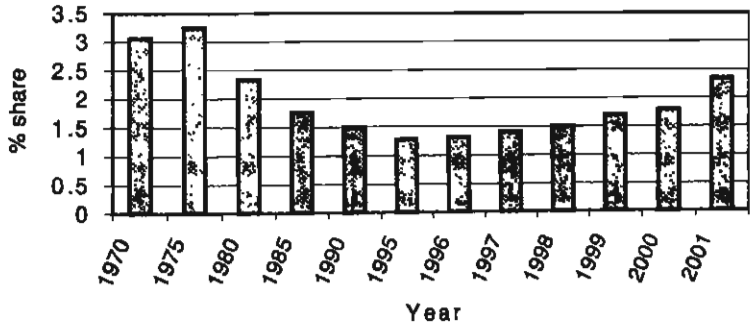


Fig 6.5
% Share of Central Investment in Kerala



Large and Medium Industries

6.17 As on 31.3.2002 there were 642 medium and large-scale industrial units in Kerala in which 19 are in Central sector, 63 in State Sector, 16 in Co-operative sector, 29 in joint sector and 515 in private sector. District-wise and sector-wise details of medium and large industrial units are given in Appendix 6.10.

6.18 As on 31.3.2002 KSIDC assisted 453 industrial units in which 31 are in the public sector and 422 in the private sector. The total project cost of the units assisted by KSIDC amounted to Rs. 4202.43 crores; Rs.343.93 crores in public sector and 3858.50 in private sector. In number of units and in project cost Ernakulam district is at the top followed by Thiruvananthapum and Alappuzha. District-wise details of large and medium units assisted by KSIDC in private and public sectors in Kerala are given in Appendix 6.11.

Public Sector Manufacturing Industrial Enterprises

6.19 Under the control of the Industries Department as on 31.3.2002 there were 60 public sector undertakings, which includes 44 manufacturing industrial enterprises. 22 units are fully owned by Government of Kerala and the balance are joint ventures managed by Government and holding companies. Details of these manufacturing industrial enterprises are given in Appendix 6.12 to 6.20 and the sector wise summary of performance of all Public Sector Enterprises in Kerala is furnished in Appendix 6.18. In line with the announcement of the Industrial Policy 2001, Government constituted an Enterprise Reform Committee (ERC) for spearheading the reform programme in the State level public enterprises in Kerala with RIAB as the technical Secretariat. The approach paper submitted by ERC was approved in March 2002. The approach paper outlines a time frame for reform intervention in each unit after a case by case analysis.

6.20 ERC has done detailed analysis of the following 12 SLPEs and Government have taken specific decisions on each SLPE.

1) eltron Counters Ltd.
2) Astral Watches Ltd.
3) The Kerala Ceramics Ltd.
4) Trivandrum Spinning Mills Ltd.
5) Kerala Soaps and Oils Ltd.
6) Kerala State Drugs and Pharmaceutical Ltd
7. Kerala State Salicylates and Chemicals Ltd.
8. Sitharam Textiles Ltd.
9. Autokast Ltd.
10. Kerala State Detergent and Chemicals Ltd.
11. Travancore Plywood Industries Ltd.
12. Kerala State Textiles Corporation Ltd.

6.21 A detailed timetable has been formulated for implementation of the decisions and this is being pursued by RIAB with support of trained professionals, management, reputed valuers and transaction advisors.The ERC has also prepared specific recommendations on Co-operative Spinning Mills and these are under consideration of Government. An approach for enterprises dealing with agricultural sector especially plantation and traditional industries is being evolved by the ERC.

6.22 Kerala Industrial Revitalisation Fund Board (KIRFB) is a special purpose vehicle of the Government of Kerala for financing potentially viable public sector units in Kerala during the transition phase of reforms. This body was constituted under the KIRF Act 1999. The total fund base is Rs.225 crores out of which Rs.180 crores was mobilised by issue of bonds guaranteed by the Government. Rs.45 crores was provided by the Government as capital fund. The tenure of the bond is 7 years from 31.3.2000. The interest rate charged by KIRFB to the PSUs is 12%. KIRFB had given loans to 23 PSUs in Kerala and the macro level details of loans as on 31.12.02 are as follows.

Box 6.7
SLPE Reforms - Approach Paper- Salient Points

- *The SLPE reform programme in Kerala may be one among the key initiatives under an integrated development policy management programme for reducing public expenditure in SLPEs and targeting savings thus achieved to reduce poverty and maximise the benefits for human development.*
- *A conducive social and political environment has to be created for undertaking the reform programme.*
- *The Government may move away from its ownership and financial support to SLPEs that need to be run oncommercial consideration, particularly if they are not generating profits or are unable to sustain in the long run.*
- *The improvement of the efficiency of the SLPEs providing utilities may be achieved by the ERC through the implementation of comprehensive reform programmes and institution of regulatory authorities with the objective of providing quality services to customers at economic and reasonable prices.*
- *A comprehensive cost benefit framework developed by the ERC shall be the basis for suggesting restructuring strategies after analysis on a case by case analysis.*
- *Cash loss funding may not be done. Any further investments for capital upgradation or margin money for working capital in SLPEs must be done by accessing commercial borrowing or private investment with out Government guarantee.*
- *Schemes like employees separation, retraining, redeployment, counselling and placement services and support for self employment may be instituted by the Government.*
- *Detailed guidelines may be evolved by ERC for ensuring transparency of the reform programme.*
- *The net proceeds may be used for meeting/servicing the cost of structural adjustment, infrastructure development, rural development and welfare activities.*
- *Sustenance of the reform intervention may be ensured by strengthening corporate governance initiatives through other provisional bodies, training institutions and technology centres.*
- *Public information campaigns may be seen as a critical factor for ensuring the success of the reform programme and hence a communication strategy may be put in place.*
- *Support from international development and reconstruction agencies and bilateral donors may be sought by the Government for implementing the reform programme.*

Box 6.8
Assistance by KIRFB

Total loans provided	-	Rs.274 crore
Loans outstanding		
a) Principal	-	Rs.168 crore
b) Interest	-	Rs.10 crore
Recovery percentage		
a) Principal	-	68
b) Interest	-	73

6.23 Data made available on the performance of PSUs under the industries department for the period 2000-01 and 2001-02 are given in the following table.

Table 6.5
Performance of PSUs under Industries Department

(Rs. lakhs)

Sl.No.	Name of Company	Turn over		Profit/loss	
		2000-01	2001-02	2000-01	2001-02
(1)	(2)	(3)	(4)	(5)	(6)
1	The Kerala Minerals and Metals Ltd.	32137.22	30046.60	12859.07	9500.00
2	Malabar Cements Ltd.	13434.45	11711.91	1945.50	855.00
3	Travancore Titanium Products Ltd.	11086.53	9315.30	528.51	736.33
4	Kerala Automobiles Ltd	3692.00	4383.00	265.00	291.00
5	United Electrical Industries Ltd.	1502.33	1828.21	16.44	53.56
6	Kerala Clays and Ceramic Products Ltd.	362.22	299.79	58.44	30.45
7	The Travancore Cement Ltd.	2173.04	2441.75	-47.40	22.62
8	Steel and Industrial Forgings	1630.00	1846.00	-109.00	22.00
9	The Metal Industries	143.71	220.00	24.74	11.29
10	Keltron Electro Ceramics Ltd.	541.03	379.47	11.99	1.49
11	Forest Industries (Travancore) Ltd.	509.45	340.78	4.96	-13.62
12	Keltron Resisters Ltd.	189.79	172.10	9.22	-16.12
13	Astral Watches Ltd.	29.70	6.35	-10.49	-27.99
14	Keltron Magnetics Ltd.	178.38	184.39	-43.34	-39.29
15	Travancore Sugars and Chemicals Ltd.	113.62	319.87	-52.81	-53.86
16	Scooters Kerala Ltd.	155.73	114.03	-95.73	-66.26
17	Foam Mattings (India) ltd.	600.49	441.00	-3.32	-70.62
18	Kerala State Detergents and Chemicals Ltd.	96.59	56.29	-80.29	-81.79
19	The Kerala Ceramics Ltd.	745.90	740.23	-77.86	-94.54
20	Kerala Garments Ltd.	86.47	57.87	-83.89	-95.94
21	Travancore Plywood Industries Ltd.	10.39	29.35	-142.61	-150.00
22	The Metropolitan Engineering Company Ltd.	235.56	209.62	-150.45	-162.69
23	Keltron Crystals Ltd.	97.31	74.08	-189.64	-186.30
(1)	(2)	(3)	(4)	(5)	(6)
24	Keltron Counters Ltd.	349.12	487.58	-360.37	-269.19
25	Keltron Component Complex Ltd.	2819.37	2754.70	-251.95	-285.26
26	Steel Industrial Kerala Ltd.	1821.39	1973.66	-557.99	-302.57
27	Hitech Industries Ltd.	736.83	748.48	-2066.91	-352.60
28	Steel Complex Ltd.	1727.56	1020.87	-315.67	-420.00
29	Autokast Ltd.	1219.68	1350.29	-891.01	-422.84

30	Transformers and Electrical Kerala Ltd.	5550.66	6529.44	-1883.55	-733.77
31	Traco Cable Company Ltd.	10808.92	4714.01	492.53	-755.21
32	Kerala State Textiles Corporation Ltd.	5130.67	4301.79	-63.90	-560.10
33	Kerala State Drugs and Pharmaceutical Ltd.	852.35	458.86	-661.20	-788.88
34	Travancore Cochin Chemicals Ltd.	10723.00	10575.00	-1284.00	-864.00
35	Kerala Electrical and Allied Engineering Company Ltd.	4629.75	3263.40	-1147.43	-1220.02
36	Kerala Construction Component Ltd.	107.71	48.26	-39.48	NA
37	Seetharam Textiles Ltd.	906.50	686.96	-163.38	-234.61

Source: RIAB, TVPM – Note: Figures are provisional

Joint Stock Companies

6.24 The total number of Joint Stock Companies working in Kerala as on 31.3.2002 was 12317 which included 10909 private limited and 1408 public limited companies. During 2001-02 a total of 696 joint stock companies were registered comprising 664 private and 32 public limited companies. No joint stock company was transferred from other states during the period. But six companies, four private and two public limited companies, were transferred to other states. A total of 561 companies were wound up/amalgamated during 2001-02, which consist of 510 private, and 51 public limited companies. Net addition to the total number of joint stock companies in Kerala during 2001-02 was only 129. Forty public limited companies were converted to private and 11 private limited to public limited companies.

6.25 As on 2001-02, total number of Government companies in the State was 109 and no company was wound up or newly registered in Kerala. Among the 109 companies 60 were private limited and 49 public limited companies. Details of joint stock companies working in Kerala are given in appendix 6.19.

VILLAGE AND SMALL INDUSTRIES

Small Scale Industries (SSI)

6.26 The Small Scale Industries sector presented a discouraging trend during the year 2001-02. During this year the sector recorded a decrease in the registration of SSI units, investment and employment. The fall in registration of units was from 20073 in 2000-01 to 18114 in 2001-02, in investment from Rs.416.65 crores to Rs.255.82 crores and that in employment from 60957 to 55587 during the same period. Total number of SSI units newly registered during 2001-02 included 263 units by SC entrepreneurs and 34 units by ST entrepreneurs recording 16.1 and 42 per cent increase respectively. Women entrepreneurs contributed 4316 units showing an increase of 1012 nos. compared to the previous year. There was a declining trend in the value of production during the year, from Rs.1227.59 crores in 2000-01 to Rs.1216.12 crores in 2001-02. The district-wise details of small scale industrial units registered in Kerala during the year 2001-02 is given in Appendix 6.20 An analysis of the district-wise performance reveals that Ernakulam district ranked first with 2131 units followed by Kollam with 2050 units and Thrissur with 1964 units. The performance of small scale sector in India and Kerala for the last six years is given in Table 6.6.

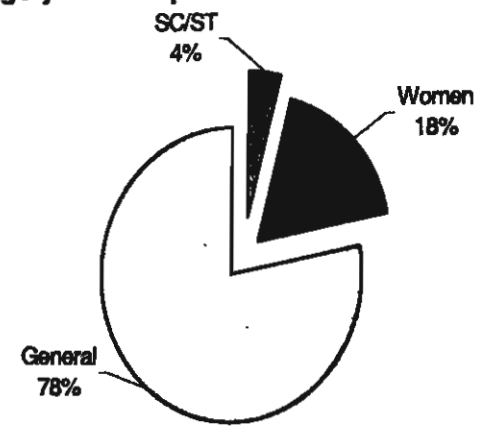
Table 6.6
Performance of Small Scale Sector

	All India			Kerala		
Year	Units (in lakhs)	Production (at current prices) (Rs. crores)	Employment (In lakh)	Units (in lakhs)	Production (at current prices) (Rs. crores)	Employment (In lakh)
1996-97	28.57	412636	160.00	1.61	6330.11	8.40
1997-98	30.14	465171	167.20	1.80	7448.4	9.10
1998-99	31.21	527515	171.58	2.00	8604.42	9.81
1999-2000	32.12	572887	178.00	2.20	9770.65	10.54
2000-01	33.70	645496	185.64	2.40	10998.25	11.14
2001-02	34.64*	697522*	192.00*	2.58	12214.38	11.73

** Anticipated*
Source: (1) India 2002 – Ministry of Information & Broadcasting GOI
(2) Directorate of Industries & Commerce

6.27 The cumulative number of SSI units registered in Kerala as on 31.3.2002 was 2.58 lakhs with an investment of Rs.3726.43 crores and employment potential of 11.73 lakhs. The value of output of these units increased by Rs.12116.12 crores during 2001-02 and amounted to Rs.12214.37 crores. The total number of SSI units promoted by SC/STs and women by March 2002 were 10491 and 45985 respectively. This showed an increase of 2.90 per cent and 10.36 respectively in 2001-02. The district-wise details of registered SSI units in Kerala as on 31st March 2002 are given in Appendix.6.21.

Fig 6.6
Category of Enterepreneurs Promoted SSI units



6.28 Out of the total number of 2.58 lakhs SSI units 5526 were identified as sick. Of these 2179 were registered sick and 1139 were revived as on 31.3.2002. During 2001-02 DIC could revive only 18 SSI units. District wise working status of SSI units as on 31st March 2002 is given in Appendix 6.22.

6.29 The performance under the Prime Minister's Rozgar Yojana Programme also was not a satisfactory one. The picture was quite dismal. The target for the year 2001-02 was 22000 persons. During this period an amount of Rs.79.04 crores was sanctioned to 14082 persons and an

amount of Rs.42.13 crores was disbursed to 7483 persons. A decrease of 16.49 per cent and 15.33 per cent is noted in the case of amount disbursed and the number of persons benefited compared to the previous year. For the implementation of the schemes changes were adopted so as to enhance the effectiveness. The introduction of a new procedure for the selection of beneficiaries under PMRY deserves special mention. The selection would be made at block/municipality/corporation level under various phases.The district wise details of achievement under self employment programme are furnished in Appendix 6.23

6.30 During 2001-02, 70 Industrial Co-operative Societies were registered afresh. The total number of industrial co-operative societies as on 30.6.2002 was 1194. Of these, 290 (24.3%) were promoted by scheduled caste entrepreneurs, 51 (4.3%) by scheduled tribe entrepreneurs and 451 (37.8%)) by women. Details of Industrial Co-operative Societies in Kerala as on 30.6.2002 are given in Appendix.6.24

6.31 The Single Window Clearance System of issuance of licences was made a reality in the State by the constitution of District Single Window Clearance Boards in the Districts and State Board set up under an Act. Common Facility Centres were established one for Bamboo product manufactures at Palakkad and another one for Bell Metal workers at Mannar in Alappuzha.

6.32 Inspite of the efforts and reform packages, the State had a low profile of development in the SSI sector. The shortage of power badly affected the power consuming units like calcium carbide manufacturing units, cement units, re-rolling mill, ceramic units etc. The liberalisation policies enabled the lifting of control measures in certain raw materials. The wax candle making units suffered a lot due to decontrol and abolishing of quota system of allotment of raw materials. A good number of units were closed down because of the increase in cost of raw materials, entry of more entrepreneurs in the area etc. More over, the free flow of finished goods due to trade liberalisastion also affected the tiny units in the State.

6.33 The Directorate of Industries and Commerce has evolved certain measures as a follow up of the reforms envisaged in the X Five Year Plan, for reversing the negative trend and for making investment in the SSI sector more attractive. Efforts at changing the role of the department as a facilitator than a regulator are in progress. An industry resource locator has been set up in the Directorate to effectively discharge its role as a facilitator. This will enable an easy reference to locate the facilities and resources available in the State. The three-tier system followed for the issue of permanent Registration Certificates to the SSI units has been changed. Under the new system if the entrepreneur is ready to file a self certification in the prescribed format and remit the required fees after furnishing the required details, the permanent Registration Certificates will be issued from the Green Channel Counter functioning in the District Industries Centres on the day of application itself. Another major change in removing the hurdles experienced by the entrepreneurs is the stopping of inspection at various levels.

6.34 A onetime settlement scheme to clear the loan arrears under the Margin Money/Seed Capital Loan Scheme is also being tried out. The available land in Kanjikodu, Ernakulam, Kasargod and Alappuzha were allotted to prospective entrepreneurs. Two Coir Parks were established in Alappuzha District – one for private sector and another for public sector units specially for setting up of coir and coir related product manufacturing units.

Bank Credit to SSI sector

6.35 The total bank credit outstanding to various sectors by 2002 amounted to Rs.22062 crores. The total bank credit outstanding to SSI sector showed a slight increase in absolute terms from 2262 crores in 2001 to 2540 crores in 2002. The percentage share of SSI sector in the total bank

credit declined from 11.79 per cent to 11.51 per cent during the same period. The details of bank credit to various sectors are given in Appendix.6.25

Handloom and Powerloom Industries

6.36 Handoom industry is a major traditional industry of Kerala providing employment to about 2.5 lakh persons. The handloom sector of the State accounts for about 13% of the total handloom exports from the country. The total number of primary handloom weavers co-operative societies remained at 755 by the end of March 2002, out of which 135 were factory type and 620 were cottage type. Of the 135 societies only 93 were working and among the 620 cottage type societies 458 were working. The largest number of societies was in Thiruvananthapuram accounting for 48% of the total and the lowest number was in Wayanad district. The District-wise details of handloom societies in the State are furnished in Appendix 6.26.

6.37 The overall production of cloth by handloom societies in Kerala showed only a marginal increase from 67.47 million meters in 2000-01 to 70.75 million meters in 2001-02. The total value of production also marked a slight increase from Rs.303 crores in 2000-01 to Rs.318 crores in 2001-02. Production and productivity under handloom industry in Kerala for the last two years are given in Appendix 6.27

6.38 Procurement and marketing of handloom fabrics in the State are being undertaken by two State level organisations, viz. Hantex and Hanveev. Hantex is the apex organisation of cooperatives in the handloom sector. The main activities of Hantex include distribution of required inputs to member societies, procurement and processing of goods produced by the member societies. The number of primary societies under Hantex increased to 450 during 2001-02 from 438 in the previous year. A decrease of 38 % is seen in the value of yarn purchased and value of yarn distributed during the year under review. The total sales turnover declined by Rs.2.58 crores and stood at Rs.18.62 crores in 2001-02. Forty-one exhibitions were conducted to increase the sales. The working results of HANTEX are furnished in Appendix 6.28

6.39 Kerala State Handloom Development Corporation (Hanveev) which started functioning in 1968 is another agency to accelerate the development of handloom industry in the state. The total sales turnover of the corporation decreased from Rs.20.32 crores in 2000-01 to Rs.16.88 crore in 2001-02. The corporation incurred a net loss of Rs.207.17 lakhs in 2001-02 compared to the loss of Rs.53.03 lakhs during the previous year. The accumulated loss increased to Rs.992.65 lakhs during the year under report. It has 32 production centres and 75 show rooms. The working results of Hanveev are given in Appendix 6.29

6.40 Kerala Garments Limited is a fully owned subsidiary of Hanveev, incorporated in 1974. The main activities of the company are stitching garments on job work and sale of readymade garments. The company produced 1.10 lakh pieces of garments worth Rs.60 lakhs, realised stitching charges of Rs.38.36 lakhs and sold garments worth Rs.14.29 lakhs during 2001-02. The company's income decreased by 72.49 lakhs from Rs.111.04 lakhs in 2000-01 to Rs.38.55 lakhs in 2001-02.

6.41 There were 2500 power looms in the state during 2001-02 of which 1037 were in the co-operative sector. The number of power loom co-operative societies remained steady at 29 as in the previous year. While the production of cloth by power loom societies marked a slight increase of 10 lakh metres during the year 2001-02 compared to the previous year, the productivity per loom showed a record increase of 134.97 metre in 2001-02. Details on the production and productivity of power loom Industry are given in Appendix.6.30

6.42 In the year 2001-02 an amount of Rs.32.2 crores was spent on various plan schemes. An amount of Rs.2 crores was distributed to primary co-operatives for strengthening their NDR for availing higher working capital credit from NABARD and 9000 weavers were benefited by the scheme. By way of hank yarn subsidy and working capital loan an amount of Rs.72.40 lakhs was disbursed to yarn banks and 468971 kg of yarn were purchased and distributed to the weavers.

6.43 As a part of the revival of the traditional handloom industry new schemes such as training and skill development of weaver, promotion of exquisite handloom Products as works of Art etc.were implemented during the year 2002 by which weavers were imparted training in design development, dying and weaving to develop unique designs and innovative value added handloom products. Government has started a handloom survey to take a stock of the real situation in the industry to evolve a strategy for revitalising the sector.

COIR INDUSTRY

6.44 Coir Industry is one of the major traditional industries in Kerala. The industry provides direct employment to 274233 workers of which 84% are women. The Coir Industry consists of three major sub-sectors namely, fibre extraction sector, spinning sector and weaving sector Coir industry is dominated by the co operative sector. Due to poor performance of coir co operatives, as a part of reform measures the 10th Plan opportunities for investment by private sector ,for modernisation and production of value added innovative products and incentives are proposed. A scheme for giving financial assistance to entrepreneurs who undertake project for better utilisation of coir pith has been introduced. Coir Geotextiles has been identified as a major coir product with huge market potential in the multi disciplinary geo textile engineering applications. Details of Coir Coperative Societies are provided in Appendix 6.31 to 6.33.

6.45 Export of Coir and Coir products from India during the year 2001-02, amounted to 7133484 tonnes valued at Rs 3205.838 million, against 67493.08 tonnes valued at Rs 3136.625 million in 2000-01. USA is the largest importer of coir products from India. Item-wise details of export of coir and coir products from India during 2000-01 and 2001-02 are given Appendix in 6.34.

6.46 Financial Assistance for setting up of 125 spinning units and 58 defiberring mills have been sanctioned under ICDP and 86 spinning units and 36 defiberring mills have been already commissioned as on 31-3-2002. The turn over of Coirfed comes to 5521.21 MT of coir yarn at a value of Rs 1518.96 lakhs and coir products valued at Rs 644.43 lakhs. The Federation has a network of 100 sales outlets through out the country including 46 agency showrooms. Sales turnover of Kerala State Coir Corporation and Foam Mattings(India) Ltd reached Rs 447.92 lakhs including export turnover of Rs 145.90 in the year 2001-02.

Box 6.9
Major highlights of Coir Industry in Kerala

- *Coir Industry is the 2nd to agriculture as a source of employment in Kerala*
- *Coir Industry is centered in 4 districts –Thiruvananthapuram, Kollam, Alappuzha and Kozhikode*
- *State's production now caters to 90% of domestic consumption and 95% of Indias exports*
- *Out of the total exports of coir and coir products from India (Rs 320 crores) in 2001-02, the share of Kerala is Rs 297crores*
- *One million hectare of land is under coconut cultivation in the state (45% of the net cropped area)*
- *Two coir parks at Alappuzha and one coir park at Kollam*

6.47 Coconut and coconut fibre production in India and other states in the year 2001-02 is given below. The utilisation of coconut husk potential in Kerala is lower than that in Tamil Nadu even though Kerala is the largest coconut producer in the country

Table 6.7
Coconut and coconut fibre production in India and other states-2001-02

States	Area (in 000'hectors)	% age	Coconut production(Million nuts)	% age	Coconut fibre production (in tonnes)	% age
Kerala	936.3	51	5496.0	44	164000	44.73
Tamil Nadu	323.5	17	3158.4	25	133000	35.47
Karnataka	333.8	18	1754.2	14	38000	10.13
Andhra Pradesh	102.5	6	1092.7	9	24000	6.40
Orissa	17.7	1	109.9	1	1000	0.27
Others	126.0	7	986.1	8	15000	4.00
Total	**1839.8**	**100**	**12597**	**100**	**375000**	**100.00**

Source: Coir Board, GOI.

Cashew Industry

6.48 Cashew, the second largest foreign exchange earner among the agricultural products exported from India, contributed 0.86 % of the total foreign exchange earnings through exports during the year 2001-02. The export of cashew kernels from India during 2001-02 was 97550 M.T. valued at Rs.1776.70 crores which registered an increase of 9.42% in quantity and a decrease of 13.31% in value. But cashew nut shell liquid recorded a decrease of 19.23% in terms of quantity and an increase of 26.22% in terms of value. In actual terms the export was 1814 MT valued at Rs.4.91 crores in 2001-02 as against 2246 M.T. valued at 3.89 crores in 2000-01.

6.49 On the production front India stands first in the case of raw cashew nuts. As per trade estimates production of raw cashewnuts marked a decrease from 301000 M.T. in 2001 to 291000 in 2002. Kerala's share was 19.93% of the total in 2001, which decreased to 18.90% in 2002. Details of foreign exchange earnings and the import of raw cashewnuts into India are shown in Appendices 6.35 & 6.36.

6.50 The Kerala Sate Cashew Development Corporation and Kerala State Cashew Workers Apex Industrial Co-operation Society (CAPEX) are the two State agencies engaged in the development of cashew industry. The main activities of the corporation consist of processing of raw cashewnuts into kernels and exporting them all over the world and dealing in cashew nut shell liquid. The total number of employees on the rolls of the Corporation as on 31-3-2002 stood at 20673, which included only 5 newly employed in 2001-02. Total quantity of production during 2001-02 was 1067.197 MTs of cashew kernels that showed an unprecedented decline by 7290.189 compared to the previous year. Total sales turnover of the Corporation decreased from Rs.162.75 crores in 2000-01 to Rs.50.84 crores in 2001-02 recording 68.76 percent of decline. Consumption of raw material of 411415 MT of raw cashew nuts comprised 1054.91 MT from within Kerala, 6361.37 from other parts of India. Exports recorded a decline from Rs.154.27 crore in 2000-01 to Rs.40.64 crores in 2001-02, while local sales registered a marginal increase from Rs.8.48 crores to Rs.10.20 crores. The Corporation could provide employment only for 23 days during 2001-02. The financial assistance to the Corporation from Government of Kerala

amounted to Rs.240.37 crores by way of grant and loan. The net loss of the corporation during the year 2001-02 was Rs.34.41 crores.

6.51 CAPEX is the apex body of cashew workers industrial co-operative societies engaged in the procurement of raw cashewnuts, distribution of the same to the primary societies and marketing the processed Kernels. It has 10 primary societies registered as members having 4300 cashew workers and it has 252 other employees. All the societies were working on loss during 2001-02. The loss of the apex society increased from Rs.363 lakhs in 2000-01 to Rs.696 lakhs in 2001-02

Khadi and Village Industries

6.52 Khadi and Village Industries Board is the nodal agency to implement Khadi and Village Industries programmes in the State. The Board implements these programmes through co-operative societies, registered institutions, individuals and departmental units by availing assistance from the State government, Khadi Commission and Nationalised Banks.

6.53 The Board has launched 'Khadi Silk Sari' during the Onam from the Payyannur Khadi Centre in the brand name **'Payyannur Pattu'.** Silk weaving was also started under two other projects, Palakkad and Kozhikode as joint schemes of the Board and Local bodies.

6.54 An amount of Rs 80 lakh was provided during the year for the purchase of cotton so as to provide regular employment to the workers in the Khadi production centres.

6.55 The Khadi Board received an amount of Rs 248.58 lakhs as margin money grant under Rural Employment Generation Programme from KVIC. The Board has disbursed a total amount of Rs 716.33 lakhs as margin money grant to 553 villge industries units creating employment opportunities to 5123 persons. Sales during the year was for Rs 847.89 lakhs of which Khadi accounted for Rs 74.27 lakhs.

6.56 With the aim of strengthening the weaving sector, semi automatic looms were installed at Kottayam with the assistance of local bodies. An amount of Rs 18.038 lakh was sanctioned to the Payyannur Khadi Centre by the local bodies in Kannur and Kasargod districts.

Table 6.8
Performance of KVIB at a glance during 2001-02

No.	Activities	Units	Qty/value
1	Production	Rs lakhs	18331.00
2	Sales	Rs lakhs	20230.00
3	Units assisted	Nos	553
4	Amount disbursed	Rs lakhs	716.00
5	Sales outlets	Nos	160

6.57 Details of production, sales, employment generation and wages paid under Khadi and village Industries sector during 2001-02 are given in Appendix 6.37.District wise number of sales outlets and their sales value during 2001-02 are given in Appendix 6.38.

6.58 KVIC has included several industrial activities under the village industries programme to enlarge the scope of village industries sector. This vastly increases the potential for growth in this sector. The negative list is very short.

Box 6.10
Negative List of activities as approved by KVIC

- ***Special ethos of KVIC-*** *Any Industry/Business connected with meat, sale of intoxicant, Tobacco as a raw materiel, tapping toddy for sale etc..*
- ***Jurisdiction*** *–Any Industry/Business connected with cultivation of crops/planatation like Tea, Coffee, Rubber etc..Serculture, Horticulture, Floriculture, Pisciculture, Piggery etc.. Khadi and poly vastra and any project producing yarn and cloth etc..*
- ***Any project which covers environment problems-*** *Manufacturing of polythene bags less than 20 microns thickness containess made of recycled plastics for storing* etc.

Handicrafts

6.59 Various agencies engaged in the promotion of handicrafts industry in the state are (i) The Kerala State Handicrafts Apex Co-operative Society Ltd.(SURABHI) (ii) Artisans Development Corporation (iii) Handicrafts Development Corporation and (iv) Bamboo Development Corporation

6.60 SURABHI – Kerala State Handicrafts Apex Cooperative Society started in 1964 with the objective of uplifting the standard of living of handicrafts artisans by marketing their products and implementing various welfare schemes with the assistance from state and central governments. At present about 102 primary co-operative societies with more than 30000-artisan members market their handicraft products through 18 sales show rooms inside and outside the state. During 2001-02 the apex society purchased handicraft goods worth Rs.176 lakhs and achieved sales of Rs.261 lakhs. During the year under report the society established a Craft Development Centre at Kaloor, Ernakulam for design and development of new crafts, training etc. and produced products worth Rs.5 lakhs. It also opened a Craft Marketing Complex at Kovalam which is a project linking tourism and handicraft marketing. Surabhi started a website for boosting domestic and export sales. Under the house-cum workshed for handicraft artisans about 500 artisans were benefited.

6.61 Kerala Artisans Development Corporation Ltd has been nominated as one of the State's channelising agencies for the implementation of the 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 employment opportunities directly and indirectly through schemes of trade fairs and marketing centres. The total sales turnover of the Corporation during 2001-02 amounted to Rs.138 lakhs as against Rs.78.28 lakhs during 2000-01 registering a record increase of 76 percent . The Corporation incurred a nominal loss of Rs.1.03 lakhs during the year under report.

6.62 Handicrafts Development Corporation of Kerala was established in the year 1968. Its activities in the sector include marketing to raw material supply,production infrastructure support, consultancy workers welfare etc. In order to ensure sustainability, the use of simple machines was encouraged and facilities are offered to artisans at its common facility service centre. Also to overcome the problem of scarcity of raw materials, bulk procurement of raw materials like rosewood, sandal wood etc. was also done by the Corporation. Facilities provided at wood seasoning plant at CFSC also help the artisans to a great extent.

6.63 The Corporation has conducted exhibitions in potential areas and tourist places inside and outside the state. The total sales turn over of the Corporation during 2001-02 was Rs.888 lakhs as against Rs.967 lakhs in the previous year, showing a decrease of 8.9%. During the year under review the Corporation supplied raw materials worth Rs.7.41 lakhs to artisans at subsidised rates @25% by availing subsidy from State Government. Setting up of Kerala Haat Project at Thiruvananthapuram for Rs.2.52 crores,and a project under Ambedkar Hasthashilpa Vikas Yojana (AHVY) for six artisan/craft clusters in Kerala for Rs.6.00 crores have been sanctioned by the Government of India during 2002-03. The Corporation has initiated activities for organisational restructuring, manpower rationalisation etc for productive efficiency and quality of service improvements with assistance from the Government of India. The Corporation incurred a loss of Rs.87.45 lakhs during 2001-02. Raw material shortage, organisational problems, lack of awareness on overseas markets etc. are among the major problems inhibiting the growth of the Corporation.

6.64 Kerala State Bamboo Corporation set up in the year 1971, is engaged in the extraction of reeds from forest, supply of reeds to traditional workers, procurement of mats, production and sale of bamboo ply etc. The number of employees in the corporation stood at 260 as on 31-3-2002. The total sales turnover of the corporation decreased by Rs.286.05 lakhs in 2001-02 from Rs.1446.97 lakhs during the previous year. The expenditure of the corporation during 2001-02 is Rs.1613.44 lakhs as against the income of Rs.1555.19 lakhs showing a loss of Rs.58.25 lakhs. During the year under report Corporation produced bamboo ply of 39.63 lakh sq.ft. worth Rs.653.51 lakhs registering a decrease of 27% and 13% respectively compared to the previous year.

6.65 Special efforts are being taken to give a new orientation to the handicrafts sector. As a part of revival of the handicrafts sector the Directorate of Industries and Commerce has initiated a study on the handicrafts sector to develop new designs and to identify value added handicraft products which are having high export potential. Considering the vast scope of the development of bamboo in creating income as well as employment, an integrated programme for development of bamboo undertaken on a Mission mode is another initiative started during 2002 .KFRI has identified species suitable for growth in different areas of the state. INBAR has been approached for conducting a study on the potential for its development in Kerala. In the coming years it should be possible to give a boost to bamboo cultivation in selected Panchayat and to promote more bamboo-based industries and handicrafts.

Sericulture

6.66 Sericulture is an agro based Industry and it has great potential for employment generation. Kerala State Sericulture Co-operative Federation (Serifed) is the nodal agency for promoting Sericulture activities in Kerala. It is mostly cultivated as an intercrop in rainfed conditions and practiced as a subsidiary occupation in our state.

Table 6.9
Sericulture activities in Kerala during 2001-02

Activities	Value/Qty
Area newly brought under mulberry cultivation (Acres)	380
No.of additional farmers covered	568
No.of DFLs supplied	113286
Cocoon production(Kgs)	29935
Silk production(Kgs)	2561

6.67 During 2001-02, 380 acres of additional mulberry cultivation was carried out by covering 568 farmers. No.of DFLs supplied also increased to the tune of 113286. A total volume of 29935 kg of cocoon and 2561 kg of silk were produced. Progress of Sericulture sector and its Physical achievements during 2001-02 are given in Appendices 6.39 and 6.40 respectively.

6.68 Now, Kerala is a100% Bivoltine rearing zone, producing 100% international gradable Bivoltine Silk.

6.69 The Central Silk Board has selected two clusters (Chungathara-Malappuram and Chenganoor-Alappuzha) under the National Programme for Rural Industrialisation.

6.70 As a part of efforts for developing the Silk Industry Serifed entered in to commercial production of silk fabrics with the help of weavers at Kallanchira. The products were brand named as **'Keral Silk'** and **'Serisilk'**. In the year 2001-02, a twisting unit with capacity to process 5 kg silk yarn per day was established at the sericulture complex at Uduma, Kasargod.

6.71 Efforts were also taken to make sericulture as a Village Industry, for which the concept of **'Entegramam Pattugramam'** is contemplated. Under this programme, all families in the village will have sericulture either as a major or as a subsidiary source of income. The attempt is supported by Serifed by giving all necessary technical guidance, training etc..

6.72 Central Silk Board has conducted a detailed study on the problems and prospects of Sericulture in Kerala during the year 2002. The study recommended a total restructuring of the activities of Serifed so as to make it serve the purpose for which it was created.

Box 6.11
Recommendations of the study team of Central Silk Board

- *Propagate sericulture only in selected clusters based on suitability and viability of operation*
- *Ensure the participation of Panchayat Raj bodies in the promotion of sericulture*
- *Bring out clear-cut demarcation between developmental and commercial activities with developmental activities taken up only on the basis of MOU with State Government*
- *Deploy the staff based on cluster approach depending on the concentration of the activity and develop a strategy for right sizing the organisation.*
- *Streamline the organisation structure of Serifed as per the proposed organogram*
- *Impart managerial and technical training to the required staff and make them accountable and responsible for executing the task entrusted to them.*
- *Amend the bye-laws of Serifed to make it more flexible and include technical and managerial experts in the Board of Directors of Serifed.*
- *Make the Government Silk Reeling Units (SRUs) economically viable.*
- *Establish a Post Cocoon and Market Facilitating Team in Serifed to establish both backward and forward linkages.*

Industrial Promotion Agencies

6.73 State Government assists the industrial units by providing infrastructure, technical training and financial assistance through various promotional institutions. Important among such promotional institutions are:

- Kerala State Industrial Development Corporation (KSIDC)
- Kerala Financial Corporation (KFC)
- Kerala Industrial Infrastructure Development Corporation (KINFRA)
- Kerala State Electronics Technology Parks (TECHNOPARK)
- Small Industries Development Corporation (SIDCO)
- Kerala Industrial Products Trading Corporation (KIPTC) etc. Small Industries Service Institute (SISI) under the Ministry of Government of India also provides assistance for setting up of small scale industries in the State.

Kerala State Industrial Development Corporation (KSIDC)

6.74 KSIDC provides financial assistance by way of loan and share capital to manufacturing projects of varying categories. The gross financial sanction comprising share capital and loans for various industries during the year 2001-02 amounted to Rs.69 crores as against an amount of Rs.77 crores for the year 2000-01. An amount of Rs.45 crores was disbursed during 2001-02, which is less by Rs.5 crores than in the year 2000-01. The total recovery of the Corporation including interest on loans from assisted units amounted to Rs.59 crores showing an upward trend by 7%. The operating profit of the Corporation during 2001-02 was Rs.12 crores against Rs.15 crores in the year 2000-01. The overdues as on 31.3.2002 was Rs.301.60 crores. During the year 27 projects involving a total cost of Rs.128 crores and with an employment potential of 2097 were completed and commissioned with the assistance of the corporation At the end of March 2002 as many as 46 projects with an aggregate cost of about Rs.932 crores were under various stages of implementation providing employment to 4289 persons. In addition 30 projects at a total cost of Rs.302 crores providing employment to 2035 persons were cleared by KSIDC during the period. During the year the Corporation signed MOUs with private parties for developing and establishing two projects worth Rs.367 crores. Appendix 6.41 throws light on the performance of KSIDC during the period from 1997-98 to 2001-02.

6.75 With the financial and promotional assistance of KSIDC 40 projects have been completed and commissioned in the joint sector in the State.. The total number of units promoted/assisted by the Corporation since inception, as on 21.3.2002, reached to 472 with the total project cost of Rs.3818 crores. Over these years 11 units ceased to be in the joint sector by sale of shares or others acquiring more shares. Another 20 units were closed and are under winding up process. Thus only 9 companies are currently in the joint sector roll of KSIDC with the corporation's share holdings amounting to 26% or more.

6.76 The Corporation successfully organised the Samavayam 2001 in association with NORKA a global conference of the NRKs at Kochi to contribute to the progress of Kerala. KSIDC organised Global Investor Meet (GIM) in January 2003

Kerala Financial Corporation (KFC)

6.77 The State Financial Corporations (SFCs) operating as development banks, are State level financial institutions, playing a crucial role in the development of small and medium enterprises in the State in tandem with the national priorities. There are 18 SFCs in the country including Kerala Financial Corporation. The SFCs provide financial assistance by way of term loans, direct subscription to equity/debentures, guarantees, discounting of bills of exchange and seed/special capital. The SFCs operate a number of schemes of refinance and equity type assistance on behalf

of IDBI/SIDBI in addition to special schemes for artisans and special target groups such as SC/ST, women, ex-service men and physically handicapped.The SFCs continue to be in a bad shape with only 3 out of 18 being able to meet the 9% stipulated capital adequacy ratio (CAR). These 3 states are Delhi, Haryana and Kerala. State wise assistance sanctioned and disbursed by SFCs up to 3/2001 is given in Table 6.10.

Table 6.10
Sanction and Disbursement by State Financial Corporations

(Rs.Million)

Sl.No.	State	Sanctions up to 3/2001	Disbursement up to 3/2001
1	Andra pPradesh	29289	24405
2	Assam	1168	1108
3	Bihar	7842	4234
4	Delhi	8324	4131
5	Gujarat	43697	32667
6	Haryana	16525	13805
7	Himachal Pradesh	2122	1970
8	Jammu & Kashmir	3717	3298
9	Karnataka	54958	49937
10	Kerala	21169	16932
11	Madhya Pradesh	10276	9226
12	Maharastra	36638	26996
13	Orissa	13192	11683
14	Punjab	10373	9807
15	Rajastan	18989	17637
16	Tamil Nadu	42023	28867
17	Uttar Pradesh	29180	28463
18	West Bengal	9406	7683

Source: Report on Development Banking in India (IDBI) 200-01

6.78 Kerala Financial Corporation provides term loan assistance to a maximum of Rs.150 lakhs per unit and in certain cases up to Rs.240 lakhs to promote and develop small and medium scale industry units in the State. Many of the State Financial Corporation are unable to adapt to the new situation in Indian economy due to lack of competitiveness. But KFC is in a better position when compared to other financial coporations.

6.79 The Corporation received 1305 applications for Rs.219.66 crores during the year as against 2281 applications for Rs.374.01 crores during 2000-01. Out of this, the Corporation sanctioned 1130 applications for Rs.163.82 crores during the year under review as against 2077 applications for Rs.292.46 crores during 2000-01. The Corporation has so far sanctioned Rs.1232.64 crores to 22629 SSI units and Rs.1167.10 crores to 16216 non SSI units since inception. Nearly 2 lakh jobs have been created in the process.

6.80 An all-out effort to better the recovery performance was launched. Many new initiatives to induce the defaulters to pay up were introduced. Recovery during 2001-02 was Rs.236.29 crores as against Rs.230.69 crores in the previous year. One time settlement facility was extended up to 31.3.2002 and many availed of the opportunity. The Corporation conducted several recovery adalaths and Default Review Committee meetings in the District Offices during the year. The total recovery worked out to 31% of collectable demand.

6.81 The continued financial support from Government of Kerala in the form of share capital was available this year also. The Government contributed Rs.700 lakhs towards share capital. The share holding pattern as on 31.3.2002 is as follows.

Table 6.11
Share Holding Pattern of KFC

Share Holder	Share in Rs crores	percentage
Government of Kerala	119.68	88.81%
IDBI	.14.83	11.00%
Commercial Banks, Insurance Company etc	.0.23	0.17%
Private individuals	0.02	0.02
Total:	134.76	100

6.82 The Corporation was awarded the IS/ISO 9002 Quality System Certification by the Bureau of Indian Standards, which is valid for three years from 22.6.2001.

6.83 During the year under report the Corporation had a net loss of Rs.2882 lakhs after provision for income tax statutory reserves etc. This was despite the fact that the Corporation earned operating profit of Rs.105 lakhs. The provision for bad and doubtful debts to the extent of Rs.29.24 crores has led to this net loss. An amount of Rs.2.59 crores was paid to State Government towards guarantee commission for the guarantee provided for the bonds issued by the Corporation. During the current year an amount of Rs.10.09 crores was written-off as bad debts. The Corporation has retained its "A" catagorisation from IDBI on its performance. Data relating to KFC is furnished in Appendix 6.42 to 6.45.

Kerala Industrial Infrastructure Development Corporation (KINFRA)

6.84 Kerala Industrial Infrastructure Development Corporation (Kinfra) was formed for the development Industrial Park/Township/Zones etc. which would provide the facilities required for setting up industries. The Industrial Park developed by Kinfra has facilities like developed land, dedicated power, continuous water supply, communication facilities etc. in addition to supporting infrastructure facilities like administrative block, bank, post office round the clock security etc. thus providing ready made manufacturing environment for easy start up of industrial units with minimum time and cost.

Box 6.12
Parks completed

- *Kinfra Export Promotion Industrial Park, Kakkanad*
- *Kinfra International Apparel Park, Menamkulam*
- *Small Industries Park, Menamkulam*
- *Kinfra Food Processing Park, Malappuram*
- *Small Industries Park, Thalassery, Mazhuvannoor and Seethangoli*
- *Marine Infrastructure Development Centre, Aroor*
- *Kinfra IT and Electronic Park, Kakkanad.*

Box 6.13
Parks nearing completion

- *Small Industries Park in 50 acres of land at Kalpetta under IIDC Scheme of Government of India.*
- *Rubber Park in 59.12 acres of land in Ernakulam as a joint venture betweenRubberBoard and Kinfra*
- *Kinfra IT and Electronic Park in Malappuram with a built up area of 86000 sq.ft.*
- *Kinfra Film and Video Park in an area of 75 acres at Kazhakuttom*
- *Kinfra Techno Industrial Park – Water Supply Scheme with* Government of India grant.

Other on going project of Kinfra are:

- Bio-Technology Park, Kochi and Thiruvananthapuram – these parks are to be developed with financial assistance from department of Bio-Technology, Government of India(GOI). The park will provide basic infrastructure facilities like power, water, developed land. built up space and specific infrastructure facilities like bio-tech lab, gene bank, computer. required for setting up units in the field of bio-technogy. The estimated project cost is Rs.43.32 crores of which GOK share is Rs.28.38 crores and GOI share Rs.14.94 crores.

- Approach Road to Kinfra Export Promotion Industrial Park, Kakkanad – the total project cost is Rs.6.94 crores of which GOI contribution is Rs.3.47 crores.

- Specific infrastructure facilities for food processing park Mazhuvannoor – effluent treatment plant, cold storage, warehouse and quality control lab required for food processing industry are being developed at a project cost of Rs.3.13 crores with GOI contribution of Rs.2.00 crores

- Primary Processing Centre Cum-Cold Storage at Kalpetta – It is being developed to preserve and store the perishable and non perishable agricultural and food products being produced in Wayanad before being transported to the end users at various parts of the State or before it is exported, at a project cost of Rs.1.24 crores with a contribution of Rs. 48 lakhs from GOI.

- IIDC, Koratty – It is being developed in an area of 37 acres with a total cost of Rs.8.30 crores.

- IIDC, Pathanamthitta is being developed in a area of 37 acres of prime land with a total estimated project cost of Rs.7.19 crores.

- Herbal Villege, the first environmental friendly industrial park in India is being developed in 500 acres land at Wayanad which has a natural agro climatic condition. The project envisages the development of a model herbal village, where herbal/medicinal plants can be commercially cultivated and semi processed before they are further used downstream in ayurvedic preparation and herbal extracts for other medicinal and cosmetic products. The estimated total project cost is Rs.29.56 crores.

- Food Processing Park at Adoor is being developed in hundered acres of land with financial assistance from GOI. The total project cost is Rs.17.30 crores of which GOI contribution is Rs.4 crores.

Major achievements of KINFRA in industrial development during the period 2001-02 are:

- M/s. Leela International Ltd., commenced production in 3 Standard Design Factories of KINFRA International Apparel Park (KIAP), Thiruvananthapuram with over 50000 sq. ft. of built up area with an employment potential of 1500.

- In KIAP allotment has been given to two parties for garment making and garment washing unit.

- Government of India approved a training centre for garment manufacturing in KIAP.

- In KINFRA Film and Video Park, Kazhakuttom which is India's first infotainment industrial park, production activities began with the state of Art Film Processing Lab with an investment of Rs.5.20 crores. 90% of the Malayalam film processing, which were done in Chennai have been shifted to Kerala. For the setting up of post production facilities in the park 5 other leading investors have invested Rs.15 crores.

- In Kinfra Export Promotional Industrial Park, Kakkanad an investment of Rs.216 crores achieved.

- Kinfra has completed the first phase of infrastructure development of India's first food processing park at Kakkanchery, Malappuram and allotment to 15 units for an investment of Rs.17.46 crores made.

- Kinfra identified suitable land for setting industrial development zone at Thiruvananthapuram, Kochi, Palakkad and Kozhikode with private sector participation.

- Government of India sanctioned two new IIDC projects at Koratty in Thrissur and Kunnamthanam in Pathanamthitta and approved setting up of food processing park at Adoor.
- Government of India agreed to the establishment of two bio-technology parks in Kerala, one at Thiruvananthapuram and another in Kochi.

- Ministry of Commerce, GOI sanctioned two projects under Critical Infrastructure Balance Scheme, one for the IT Habitat, Kochi and another for approach road to Kinfra Export Promotion Industrial Park at Kakkanad.

- Kinfra initiated action for setting up of an Animation zone in the Kinfra Film and Video Park in area of 10 acres with employment potential of 5000.

- GOI sanctioned an amount of Rs.5.50 crores for the assistance to the food based industries in the State under Assistance to State for Infrastructure Development of Export and Allied Activities (ASIDE)

- In the Global Investor Meet held on January 2003 Kinfra signed 27 MOUs for an investment of Rs.588.56 crores with an employment of potential of 7816.

Electronic Technology Parks – Kerala (Technopark)

6.85 Technopark has completed 12 years on July 2002, established for the development of electronic and information technology. The campus at Thiruvananthapuram covers an area of 184.72 acres of which 10 acres is proposed to be transfered to IIITM-K which is currently operating in the park. The park has by now built up space of 866563 sq.ft. of which 522749 sq. ft. area has been allotted to 47 companies. Hence an area of 343814-sq. ft. is still unallotted as detailed in the following Table.

Table 6.12
Built Up Space in Technopark

Year	Total space available (Sq.ft.)	No. of companies	Total area allotted (sq.ft.)	Balance unallotted(sq.ft.)
1994-95	70963	5	12696	58267
1995-96	70963	4	33912	37051
1996-97	70963	3	55860	15103
1997-98	363563	4	75924	287639
1998-99	363563	1	88924	274639
1999-00	363563	10	162156	201407
2000-02	407563	9	310126	97437
2001-02	536563	4	368531	168032
2002-03	866563	7	522749	343814
Total	866563	47	522749	343814

6.86 Five thousand IT professionals are working in the park. During 2001-02 147 professionals obtained employment in Technopark. As on 2001-02 Technopark has earned an amount of Rs.104 lakhs by way of rent/lease Government Kerala has so far released an amount of Rs.86.80 crores to Technopark which has been fully expended. The companies in the Technopark could invest an amount of Rs.177.45 crores as on date with an export potential of Rs.225 crores, the details of which are given below.

Table 6.13
Investment And Export by Companies in Technopark

Year	Total investment by companies (Rs. Lakhs)	Export (Rs. lakhs)
1994-95	380	50
1995-96	980	380
1996-97	1335	800
1997-98	1025	2700
1998-99	600	5400
1999-2000	3865	7000
2000-01	4000	14800
2001-02	1995	22500
2002-03	3565	Not Available
Total	17745	

6.87 Technopark provides world class environment for IT companies in the park. The infrastructure offered includes land and built up space. Technopark has been licensed by the State

Government to distribute power inside the campus. Power is currently received at a 110 kv sub station in the campus from the Electricity Board and distributed by Technopark through 11 kv sub station connected through underground cables. It also provides water through its own sources and treatment plants for the companies in the park. Telecom services provided through a dedicated 1000 lines exchange inside the campus. STP, Thiruvananthapuram, Videsh Sanchar Nigam Ltd., BPL Net, Asianet, Datacom, BSNL etc. provide datacom facilities for the companies in the campus.

Box 6.14
New Developments in Technopark.

- *In Bhavani building additional floor constructed and converted ground floor from parking to office space.*
- *Standardised area definition for the first time based on industries standrards.*
- *Base rent rate increased from Rs.12 to Rs.16 per sq. ft.*
- *Volume based rent and deposit structure adopted for existing and new units.*
- *Central Air-conditioning and building management system for Bhavani*
- *A medical Centre has started operation from the utility building.*
- *E-mail and Internet access at minimal additional investment (Rs.20000) for the staff of the Technopark. Latest web based project management tool-Conductra currently under testing and evaluation at the park. Technopark website is being upgraded to become a portal for employees, the campus community and external interested parties.*
- *Active facilitation and fostering activities of G-tech-the group of Technopark companies*

Kerala State Industrial Enterprises Ltd. (KSIE)

6.88 Kerala State Industrial Enterprises was acting as a holding company of Government of Kerala till 31.3.1999 The subsidiary companies were delinked from KSIE with effect from 1.4.1999. At present the main functions of KSIE are;

- Managing Air Cargo Complex located Thiruvananthapuram and Kozhikode Airport.
- Operating the three sales outlets at Thiruvananthapuram, Kochi and Kozhikode.

6.89 During the year 2001-02 the company earned a total income of Rs.4.93 crores as compared to Rs.4.31 crores earned in the previous year. Major portion of the income was earned from the operation of Air Cargo Complexes followed by income from trading activities.

6.90 The Cargo Complexes achieved a turn over of Rs. 3.58 crores. During the year 8300 MT of import Cargo and 22381 MT of export Cargo were handled by Air Cargo Complexes. The operation of Thiruvananthapuram Air Cargo Terminals (TACT) resulted in an earning of Rs.2.23 crores as against the earning of Rs.1.59 crores during 2000-01. During the year the company created facilities like Weigh Bridge and X-ray for the use of exporters and various Airlines at a total cost of Rs.35 lakhs. They also created a cool room facility for keeping meat and fish products meant for export with the financial assistance of MPEDA. The company also introduced an online Cargo tracking system using its e-com portal Keralarcad.com by which the

importers can find out the details of Cargo arrived at Thiruvananthapuram and Kozhikode Cargo Complexes. The quality of services at TACT is maintained at a high standard justifying its status as ISO 9002 certified cargo terminal.

6.91 The operation of Kozhikode Air Cargo Complex resulted in an earning of Rs.1.35 crores during the year. The three sales emporia at Thiruvananthapuram, Kochi and Kozhikode together achieved a turn over of Rs. 1.10 crores. As a promotional measure a trade fair viz. Akshaya 2001 was conducted at Thiruvananthapuram for exhibition and sale of imported glassware and crockery. During the year the company earned a net profit of Rs.91.49 lakhs and total cash profit generated before depreciation was Rs.143.62 lakhs.

Kerala Small Industries Development Corporation Ltd.(SIDCO)

6.92 A promotional agency of the government of Kerala, established in the year 1975, Kerala Small Industries Development Corporation (SIDCO) is carrying out the activities through five divisions viz; (i) Raw Material division (ii) Marketing division (iii) Construction division (iv) Production Division and (v) Industrial Estate division.

6.93 Raw material division of SIDCO is engaged in the distribution of vartious kinds of raw materials to the SSI sector and public undertakings such as Iron and Steel, Paraffin Wax, Titanium Dioxide, Cement, GI Pipes, Aluminium sheet etc. In 2002 year this Corporation was also appointed as the agency for the distribution of bitumen to local bodies.

6.94 Two hundred and Fifty SSI units were benefited by the activity of this division during 2001-02. The turn over showed a substantial decrease to Rs.22.21 crores from Rs.36.62 crores during the previous year.

6.95 Marketing division of SIDCO provides assistance to SSI units in procuring orders from government and other public sector undertakings to market their products. This division participates in tenders floated by government departments and PSUs on behalf of SSI unit. SIDCO is the sole channelising agent for the procurement and supply of 20 items produced in the SSI sector to various government departments. This division has seven sales Emporia and 7 Marketing centres. The division also supplied lab equipments and chemicals to plus two schools, furniture to hospitals, electrical items such as sodium vapour lamp, tubes, etc. to local bodies and other PSUs. The turnover of the division during 2001-02 was 11.62 crores as against Rs.12.71 crores during the previous year.

6.96 Civil works and electrical works of Industries Department and other government departments/ agencies are done by construction division of SIDCO. During the year 2001-02 SIDCO undertook civil works worth Rs.92.95 lakhs and received Rs.5.71 lakhs. as centage.

6.97 Under the Production division eleven production units were functioning during the year under report. The government departments/agencies can purchase various kinds of furniture and equipment produced in these units without observing tender formalities. The turnover of production division during the year 2001-02 was Rs.3.15 crores as against Rs.3.68 crores during the previous year.

6.98 SIDCO owns 17 conventional Industrial Estates and 36 Mini Industrial Estates located all over the State. There are 752 SSI units in the various Industrial estates and Mini industrial estate. Collection of rent, water charges, electricity bill, other income etc. from industrial estate during the year 2001-02 was Rs.1.03 crores showing a decrease of Rs.31.31 lakhs compared to the previous year.

6.99 Under the scheme for setting up of one Industrial Park in each Assembly constituency the corporation has identified sites for 36 parks in various constituencies and 12 industrial parks are under possession of SIDCO. Development works have been completed in 5 industrial parks and others are in progress. Selected indicators of activities of SIDCO are given in Appendix 6.46.

Small Industries Service Institute (SISI)

6.100 Small Industries Service Institute is a field level agency of Small Industries Development Organisation (SIDO) rendering techno-economic and managerial assistance to existing and prospective entrepreneurs. It is engaged in the promotion and development of small scale industries in the state and renders common facility services to needy entrepreneurs and SSI units. This Institute has 3 common facility workshops viz;(i) Engineering workshop (ii) Footwear service centre and (iii) Fruit and Vegetable Preservation centre.

6.101 During the year 2001-02 SISI conducted 58 training programmes of which the major ones ware product and process oriented entrepreneurship development programme, skill development programme, management development programme, PMRY training scheme, Computer training programme under Information technoloy and export packaging training course. A total number of 832 persons were benefited under various training programme. The other activities carried out by SISI during the year under report include the conduct of a buyer seller meet at Thrissur, one day awareness programmes on ISO 9000, energy conservation and waste minimisation and motivation campaigns. The technical officers of the Institute rendered assistance to a total of 4259 prospective and existing entrepreneurs during 2001-02 as against 4668 in the previous year. The Technology Resource Centre started in October 2001 can be taken as a special service initiated by SISI for providing entrepreneurs technology and other industry related information. Details regarding the activities of SISI during 2001-02 are furnished in Appendix.6.47.

Kerala Industrial and Technical Consultancy Organisation (KITCO)

6.102 KITCO wasestablished with the objective of catering to the consultancy needs of the small and medium industries and new entrepreneurs in the State. During the year 2001-02, KITCO undertook a variety of assignments such as preparation of detailed project reports, asset valuation reports, special studies, turn key assignments, energy audit, engineering works and training programmes. The company rendered consultancy services largely in the fields of detailed engineering and project management for infrastructure development in the State. The major works handled by KITCO during the year under report include the consultancy services to Roads and Bridges Development Corporation of Kerala Ltd. for the construction of Road overbridges, planning, design and preparation of New International Airport at Aurangabad, detailed engineering services for the construction of integrated Infrastructure Development centres for KINFRA, detailed engineering services for the construction of developmental facilities at Cochin Special Economic Zone, consultancy services for the design and construction of retail outlets for Indian oil Corporation, design and construction of Academic & Accomodation blocks for Kerala Institute for Entrepreneurship Development (KIED) at Kalamassery, the setting up of an IT enabled services at Habitat and Training and Facilitation centre in Kochi for the Department of Information Technology, conduct of energy audits in nine industrial units etc. KITCO conducted 96 PMRY training programmes and 4216 persons were trained in business/service/industrial sectors in 2001-02 as against 136 programmes and 7039 persons in the previous year. Under skill development training in embroidery, leather articles etc. 116 persons were covered. KITCO also organised five entrepreneurship development training programmes and a three day skill development programme.

6.103 During the year 2001-02, KITCO had gross earnings of Rs.323.58 lakhs as against Rs.286.76 lakhs in the previous year registering a growth of 12.84 per cent. However, this shows a decrease of 2.83 per cent in growth rate over the previous year. The net profit during the year 2001-02 was Rs.10.43 lakhs as against 10.49 lakhs in 2000-01.

Small Industries Development Bank of India (SIDBI)

6.104 Small Industries Development Bank of India (SIDBI), a wholly owned subsidiary of Industrial Development Bank of India (IDBI), was set up in 1990 with the objective of promoting and financing development of small scale industries and for coordinating the functions of the institutions engaged in the similar activities. Kerala unit of SIDBI is established at Ernakulam. SIDBI extended financial assistance to small scale sector through indirect assistance by way of refinance to primary lending institutions such as KFC, KSIDC and commercial banks, direct assistance to small scale units and development and support services. The thrust areas of developmental activities identified by SIDBI and undertaken in partnership with various agencies and NGOs include entrepreneurship development, management development, mahila vikas nidhi, micro credit system, rural industrialisation, technology upgradation and quality and environment management.

6.105 Since inception the cumulative sanction and disbursement of SIDBI aggregated to Rs.75255 crores and Rs.52312 crores respepctively, of which an amount of Rs.3397 croreswas sanctioned for Kerala, which forms 4.51% of the total. The amount disbursed under various schemes of assistance increased from Rs.389 crores in 2000-01 to Rs.396 crores making the total disbursement to Rs.2595 crores as at the end of March 2002. It may be noted that in the case of disbursement Kerala's share reached at the maximum percentage of 6.69 during 2001-02 since inception. Out of the total of Rs. 396 crores disbursed, an amount of Rs.132 lakhs was spent under micro credit scheme. Besides an assistance of Rs.11 lakh was sanctioned to various agencies for conducting seminars/workshops on topics relevant to SSI sector such as WTO regulations, skill upgradation etc. Grant support was provided to SSI associations for acquiring Internet. Details of sanction and disbursement are furnished in Appendix:6.48.

MINING

6.106 The Directorate of Mining and Geology undertakes its main activities through the two divisions namely Exploratory and prospecting division and Mineral Development and Mineral Leases division. During 2001-02 the exploratory and prospecting division conducted detailed investigation for China Clay at Sitangoli and Morathana Pavoor areas of Kasargod and Pallipuram area of Thiruvananthapuram. Investigation for silica sand was conducted at Thrikaripoor-Alap area in Kasargod.

6.107 At Sitangoli area of the four bore holes proposed for estimation of china clay reserves taken up for detailed investigation, one bore hole was completed. At Morathana Pavoor area six bore hole sites were fixed for conducting drilling for the evaluation of clay resource and estimation of deposits available for mining. A Pallipuram area in Thiruvananthapuram a reconniaissance for identifying potential area for china clay conducted earlier, revealed and demarcated an area of 32 hectors for further prospecting and 8 bore hole sites in 200 grids were fixed for taking up drilling for establishing the reserves. A survey for the preparation of topographic map of the area proposed for drilling was taken up and completed.

6.108 Preliminary survey conducted during the period under review enabled estimation of a reserve of 9.95 million tonnes of china clay in Sitangoli-Bela area. The four blocks of china clay

occurrence have been delineated totaling an extent of 7.50 sq. km. Yellowish white to reddish white clay was found to occur in depths ranging from 6 to 9 meters. The block identified are:

1) Bela-Nirchal-Manya
2) Manya-Kallakkatta-Cheruladukka
3) Kattathadukka-Kolathur
4) Bombrana-Ujarulwar-Kidur-Pukkotte

6.109 In Morathana Kadapady area two potential blocks viz. Hosangadi-Manjeswar and Kadanpady-Thavidugoli area were delineated for china clay. Investigation for silica sand was conducted at Thrikkapoor-Alap in Kasargod. The investigation demarcated 1.24 sq. km. as bearing white sand. A reserve of 3.72 million tonnes of white sand was estimated tentatively.

6.110 Major activities of the mineral development and mining leases division are:

1) recommending to Government for grant/renewal of mining leases and prospecting licenses in respect of major minerals.
2) Grant/renewal of quarrying permit, quarrying leases and dealers licenses in respect of minor minerals.
3) Inspection of mines and quarries and enforcement of relevant rules and regulations by virtue of powers vested in MM (D&R) Act 1957, the Mineral Concession Rules 1960, GCDR 1999 and KMMC Rules 1967.
4) Collection of revenue on major as well as minor minerals.
5) Curbing of illegal mining and movement of major and minor minerals.
6) Attending to court cases in connection with illegal mining, stocking and movement of minerals contravening provision of the Act and Rules made thereunder.
7) Collection of data on production and sale/consumption of major and minor minerals and furnishing information to the Government of India and other agencies.

6.111 There are 80 mining leases for major minerals in force in the State during 2001-02 and 9 quarrying permits were issued for mining limeshell. 4266 quarrying permits for minor minerals were in force during 2001-02. For stocking minor minerals 356 dealer licenses were issued. The revenue collection from the above leases and permit made by the department during 2001-02 was Rs.15.76 crores.

6.112 There are two mineral squads functioning viz. Kerala Minerals Squad (NR) and (SR). The Kerala Mineral Squad NR detected 317 cases of illicit quarry/transportation of major minerals 316 cases were compounded and one case was filed in the court of law during the period. The Minerals Squad SR detected 341 cases and 340 cases were compounded for major and minor minerals. One case was filed in the court of law during the said period. The total revenue collected during 2001-02 by compounding of offences under the provisions of MM (D&R) Act 1957 and KMMC Rules 1967 amounted to Rs.36.81 lakhs.

6.113 Total area covered by mining lease, production and sales of major minerals other than mineral sand in Kerala, production and sale of mineral sand in Kerala and mineral resources of Kerala are given in Appendix-6.49 to 6.52.

INFORMATION TECHNOLOGY

6.114 Rapid Change and transformation is the essence of the IT sector and hence the need for formulating a dynamically evolving policy that caters to the changing environment. With this objective in mind Government announced a new IT policy in 2001 as an evolving system in the context of emerging developmental trends and imperatives that are relevant to the growth

strategy of the state. The growth of Kerala in coming years will be increasingly driven by the knowledge and service based sectors where ease of information transactions will be a key determinant of success. Recent trends in the convergence of technology have thrown up new opportunities and new services for the state, such as IT enabled services, e-commerce and multimedia. IT offers, exciting possibilities for radically enlarging and improving human resource skills, Kerala's core competence is its near universal literacy and awareness levels, and this can be transformed into economically rewarding and employable skills by deploying the tools offered by IT.

Box 6.15
Highlights of IT policy 2001

- *Creating an appropriate pro-business, pro-enterprise, legal, regulatory and commercial frame work to facilitate the rapid growth of the IT industry in the state.*
- *Establishing Kerala as a global centre of excellence in Human Resources through the creation of a large pool of diverse multi-skilled, technically competent manpower in the state.*
- *Establishing an internationally competitive business infrastructure and environment for the IT industry in the state, on par with the best facilities and practices worldwide*

6.115 In line with this broad strategy Government have set immediate objectives for the promotion of the IT industry in the State.

Box 6.16
Immediate objectives

- *To develop Kochi as an international media and ICT club*
- *To consolidate and expand the Technopark, Thiruvananthapuram as a leading software and HR center in the region.*
- *To provide the physical and institutional environment for the growth of SOHO and decentralized IT business*
- *Government have formulated a comprehensive and unique package of incentives for the IT products, software and ITES industry in the state, which seeks to reward value creation, employment generation and enterprise excellence*
- *Provide IT infrastructure in Government Parks and to implement private parks scheme*
- *The State Information Infrastructure shall endeavor to provide robust and seamless connectivity to industry across the state.*
- *Provide ancillary and support infrastructure*
- *Thrust areas in IT are : ITES, Supply chain management operations and establishment of a Global HR centre in Kerala Promotional Initiatives include Business Promotion cell for IT industry, customer facilitation cell for IT industry and incubation facilities*
- *To provide adequately trained manpower to meet the requirements of the IT industry*
- *To upgrade the productivity, skill and acknowledge levels of the popular equipping them with the appropriate level of literacy.*

6.116 The recent years witnessed significant growth in the Information and Communication Technology (ICT) sector in the State. The focus on developing the ICT sector yielded all round progress in terms of investments made, infrastructure created and employment generated through ICT based activities.

Box 6.17
Kerala-key Differentiators

Kerala offers a unique blend of factos that kame it an attractive, yet cost effective destination for IT Industry.

- *Harmonious Serene environs*
- *Low cost of operation- 60 to 70 per cent of other states*
- *High Quality of life*
- *Highly productive talent pool*
- *Low attrition Level-Sub 5 per cent*

6.117 A note-worthy development in the last year was the enhanced visibility of Kerala as one of India's most IT-ready States, and the increased level of investor confidence in the State particularly in IT Enabled Services (ITES). The National Association of Software and Software Companies (NASSCOM), in an nation-wide survey of prospective ITES cities rated Kochi as the second most attractive location in the country for ITES.

Box 6.18
Strategy for rapid growth

- *Private sector investment in infrastructure*
- *Development of domestic market*
- *Statewide IT dissemination institutions*
- *E-governance*
- *High impact IT Skill Development Programme*

6.118 The investments in ICT sector in the State cover five major categories viz.(1) Infocomms (Telecoms), (2) Infrastructure, (3) Industry (Hardware & Software) (4) Training and (5) E-Governance. It is estimated that about 70,000 people are directly employed in ICT related activities in the State. The total investments in the ICT Sector over the last three years is estimated to be around Rs.4000 crores

1. Infocomms

6.119 The Infocomm sector continued to lead growth in the IT sector in the current year with major augmentation in infrastructure, launch of new services and rapid expansion in the cellular/mobile phones segment. The announcement of the Rights of Way Policy and ongoing support extended to build a wired state, major IT infrastructure providers namely Reliance, Bharti and Asianet invested in the State to the tune of nearly Rs.2,500 crores for laying Optic Fibre Cable (OFC)network throughout the State. Reliance has already laid about 2,400 KM of OFC in the State. Bharti Telesonic Ltd., a division of the Bharti Group, is nearing completion of the laying of 950 KM of OFC network along the National and State highways in Kerala. Bharti is also in the process of setting up an international long distance service in Kerala at Kochi. Asianet the local player joined hands with Bharti for laying OFC for a length of 325 KM in the State.

1,120 BSNL exchanges in the State are digital. Kochi now stands as the bandwidth surplus city in the region, with the prospects of setting up bandwidth intensive ITES companies in the State.

Box 6.19
Connectivity

OF Cable laying	Length	Investment
Reliance	*2413 KM*	
Bharti	*917 KM*	
Asianet	*310 KM*	
Bharti + Asianet	*325 KM*	
BSNL	*1111 digital exchanges*	
Sub Total OFC Infrastructure		*2240 crores*
Kochi-SEA-ME-WE 3, FLAG bandwidth availability		*By VSNL – Rs.200 cror*
Total Connectivity		***2,500 crore***

6.121 The annual turnover of this sector was estimated to be approximately Rs.1500 crore in 2000-01. This is expected to significantly increase once the new Optic Fibre infrastructure created in the State is fully commissioned.

2. Infrastructure

6.122 To cater to the growing need for built-up area and land to accommodate companies in ICT/ITES industry, over 600 acres have been earmarked in the state at present. The built-up space available in the State stands at approximately 2 million sq.ft.spread over in the IT Parks at Trivandrum, Kochi and Calicut.

6.123 To augment ICT infrastructure in the State, master plans have been developed for expansion of the Technopark at Trivandrum into a larger knowledge Campus, and to convert the IT park at KEPIP into a full-fledged Technopark. The existing IT facility at the KEPIP park was also upgraded at a cost of Rs.3 crores and work has commenced on construction for a new approach road to the park. Construction of a new 5 lakh sq.ft facility at KEPIP is also underway.

Box 6.20
Advantages of Kerala

- *Most advanced Telephone net work*
- *Highest Rural Telephone Industry-India's 2010 target*
- *Highest Telephone density*
- *70 per cent India's Data traffic flows through Kochi*
- *Kerala's IT Budget spend highest in the country*
- *New BPO/ITES Policy*
- *IPR Measures*
- *Only State to sign E-governance manual*
- *IT curriculum in 2600 High School*
- *Business Friendly State*
- *Trivandrum Knowledge Campus*
- *Kochi-emerging ITES hub*

3.IT Industry (Hardware & Software)

6.124 The current year showed robust growth in IT hardware particularly assembling and components. This sector contributed a domestic turn over of approximately Rs. 500 crores in 2000-01. The total export turn over in hardware as well as software was Rs.364 crores in 2001-2002.

6.125 The export turn over in hardware alone is estimated to be Rs.164 crores. A major part of this earnings was contributed by the 100% EOU units in the Cochin Export Processing Zone (CEPZ)

6.126 The last year also saw, for the first time in the history of this sector, the entry of leading software and ITES companies into Kerala. With the Commissioning of an addition 0.8 million sq.ft. in August 2002, the Technopark at Trivandrum emerged as one of the leading IT parks in the country. The Technopark now hosts about 47 companies, employing nearly 5000 employees with a revenue base of about Rs.250 crores. These companies include 4 CMM Level 5,2 CMM Level 3 and several ISO 9001 companies. 8 new companies started operations from the campus; and 6 existing companies expanded operations during the year under review.

6.127 A significant development was the establishment of call center companies in the State. 13 companies have set up call centres in Kerala so far. A number of leading IT companies have also announced investment decisions to set up call center operations in the State,

6.128 241 companies in the State stand registered with the STPI (including 38 Technopark companies) and it is estimated that these companies posted an export turnover of Rs.150 crores in the last year.

6.129 323 Companies based in Cochin Special Economic Zone contributed to export of over Rs. 125 crores employing over 2,500 people.

6.130 An Investment Promotion and Management Cell (IPMC) was set up in the year to make available to investors, promotional incentives and provide investment guidelines as envisaged in the State's IT Policy. IPMC co-ordinates with the Government for grant of necessary clearances to the investors and completion of technical formalities at different levels. The IT department facilitated the IT industry disbursing incentives to the tune of Rs.60 lakhs in accordance with the IT Policy.

6.131 The IT department has also worked on the pivotal element of 'Human Resources development' for successful BPO service. To fine-tune the HR requirements, a training module was developed in collaboration with leading Training Institutions. This training module would eventually become a part of the curriculum in universities to train and attract graduate aspirants in to the BPO space. Alliances with the British Council for English language training, Kallog Technologies etc. are in progress for delivery of industry specific training, based in the ITES habitat at Jawaharlal Nehru International Stadium complex, Kochi. This center certified by AT & T for Call Center training will provide training for students in the nuances of Amercian culture and accent neutralisation. The 2500 sq.ft.ITES Habitat can train about 60 students at a time. Kerala's major share of IT Industry is comprised of Hardware assemblers and vendors which employs over 15,000 people recording a revenue close to Rs.500 crores. There are about 2,450 units in the state under this category.

6.132 About 300 small and micro Software companies in IT sector generate revenue of about Rs.30 crores employing about 3600 IT professionals statewide.

Table 6.14
IT Industry in Kerala

IT Companies	No.of Industrial units	Employment	Domestic Turnover (Rs.crores)	Export Turnover (Rs.crores)
STPI Companies	241	2000	0.8	150
Technopark	47	5000	240	
CSEZ – Kochi Companies				
EOU (S/W)	2			
SEZ Units (H/W)	9			113.43
SEZ Units(S/W)	12			12.84
SEZ Total	23	2500		126
Hardware Assembly/ Vendors	2450	15000	490	
Software Developers(Small & Micro)	300	3600	30	
Grand Total – IT Industries	**3142**	**28100**	**550**	**400**

Box 6.21
Exports from Kerala

A. Software

(Rs. crores)

Financial Year	STPI Units	Units in CEPZ	Total
999-2000	66.64	1.63	68.27
000-2001	112.37	5.38	117.75
001-2002	150.00	12.84	162.84

B.Hardware (CEPZ Units)

(Rs.crores)

Financial Year	Total
1999-2000	120.81
2000-01	157.84
2001-02	113.43

Box 6.22
Growth of Internet Service Providers in Kerala

Financial Year	Active ISPs
2000-2001	4
2001-02	6
2002-03	7

4.Training and other services

6.133 The state has about 2,000 units of IT training institutes and 2,500 Internet cafes/DTP centres. Training Industry employs 8,000 IT professionals generating a revenue of Rs.40 crores. About 4,000 people find employment in Internet cafes posting a revenue of about Rs. 75 crores. Apart from this, large-scale investments have taken place at the new engineering colleges in IT training.

5. E-governance

6.134 Government have established single window electronic counters called FRIENDS in all the 14 district headquarters. About 650 staff are deployed at these centres. Overall investments in FRIENDS centres comes to Rs.4 crores. In the current year, the transactions through FRIENDS stood at about Rs.127 crores.

6.135 A World Bank study was undertaken about FRIENDS by a team led by Dr.Shirin Madon of the London School of Economics. It was seen that, with FRIENDS, citizens need to spend an average of only 35% of the cost involved in making separate payments at department counters. On an average, citizens save about 42 minutes every month. By saving on travel costs, costs of using agents, and related costs citizens using FRIENDS centres, therefore make an average monthly saving of about Rs.50 per citizen. It was also seen that each center deals with about 400 citizen transactions per day. This, however, ranged between 300 in Wayanad to about 950 in Trivandrum.

6.136 The level of satisfaction could be gauged from the fact that 97.4% of users prefer FRIENDS to department counters according to the study. The increased participation of women customers is also an interesting aspect. The project in itself has been able to convince 80.1% of the user-citizens of the possibilities of ICTs in providing better citizen services.

6.137 Government have adopted an E-governance action plan and a budgetery outlay of Rs.80 crores has been provided for departmental computerisation during 12002-03. To ensure effective implementation and also to sustain the E-governance initiatives a programme to orient the Government Employees to work in a computerised environment is being taken up.

Objectives of E-Governance Action Plan

- To ensure that all the employees in the departmental offices that are proposed to be computerised have the skills to operate the software.
- A strong behavioral component is built into the training programmes so that there is perceptible improvement in public dealings.

4/100/2003—A-13A

- There is a basic familiarity among all employees to operate in a computer-based environment.
- Each department has a resource team of in-house officers who can manage the computerisation efforts (Spear head resource team).
- Linkages are established with institutions to ensure that technical support like system administration etc. is readily forthcoming.

To ensure that the above objectives are achieved a new approach has been evolved.

6.138 E-governance activities in the current year includes Secretariat Wan Project and computerisation of 31 departments. The following E-governance initiatives are particularly important from the point of improved services to the public and uses and increased collections of revenue to the government.

Box 6.23
Approach

- *Scheme for providing a base line awareness*
- *Entry level qualifications*
- *Project implementation spare head resource team in departments undertaking E—Governance Programmes*
- *Application software training*
- *Technical support teams with departments*

Box 6.24
Important E-governance initiatives

- *Wide Area Net work (Secretariat, Public Office, Vikas Bhavan, SPB).*
- *Computerisation of Registration Department*
- *Computerisation of Revenue Department-Land Revenue*
- *Computerisation of Treasuries*
- *Computerisation of Civil Supplies Department*
- *Computerisation of Motor Vehicle Department*
- Computerisaton of Employment Exchanges
- ***IKM-Local Goverments/Blocks***

6.139 The schemes for computerisation have the principal objective of better information and service to the people. They have been under implementation for varying periods and have also been victims of the financial crisis. Each of the programmes has been studied in detail, the loose-ends have been identified, the coordinative items have been identified and sufficient funds also earmarked. The year 2003 has to be used for effective and time-bound implementation of the E-Governance Schemes so that the citizens actually experience the change in the quality of service.

Progress of implementation

6.140 As regards to treasury computerisation procurement of hardware is going on. Training to the employees in the Secretariat already completed. In Registration Department all Certificates to be issued can be computerised and as such software is designed accordingly. In the Civil Supplies Departments Ration Cards have been computerised. Computerisation in Professional and Executive Employment Exchanges are partially completed.

6. Akshaya

6.141 In 2002, the State Government launched an ambitious initiative entitled 'Akshaya' aimed at Bridging the Digital Divide and universalizing computer literacy in the State. Malappuram district was selected for the first phase of the pilot project. A network of 600 ICT kiosks is proposed to be established as part of the project.

6.142 The project envisages a private sector Investment of Rs.30 crores in the first phase giving employment of over 5000 IT professionals/small entrepreneurs. Rs.10 crore turnover is expected in the first phase in Malappuram district.

Box 6.25
Bridging the Digital Divide

The project at bridging the Digital Divide, started as a pilot project in Malappuram District will address key issues on access literacy, content, and Socio economic developments. Major component of the project is content generation through private sector, with focus on Kerala based community and business benefiting large sections of society. This will produce good quality and well-maintained sites with requisite content in relevant areas such as health, agriculture, market information, resources, management e-commerce etc. Other programmes envisaged include (1) awareness and promotional campaign (2) data collection including household/industry survey (3) preparation of course materials and dissemination (4) EDP training and capacity building of entrepreneurs (5) programme audit and evaluation, impact surveys (6) audio-video documentation (7) establishment of Web Portal and (8) establishment of Model Akshaya Kiosks.

7. IT @ School

6.143 The project IT at school aims at providing computer enabled education to all school children of the state in a period of three years. A project achieving excellence and equity of educational opportunities through the use of IT. The project is to be implemented initially in the High Schools in the State-both Government and private aided. The project has three main components namely, computers and infrastructural facilities in schools, software and multi media materials for teaching and learning including IT curriculum and IT trained teachers.

6.144 Of these components, the basic requirement of providing computers and necessary infrastructure is the responsibility of the schools. The software required for teaching and learning will be supplied free of cost by the Government through the project. The IT training of all teachers of the schools handling core subjects and languages like English and Malayalam will also be undertaken by the project absolutely free.IT @ school has four major elements.

- A vision of transformation that is shared by all stake-holders and implemented with full participation from the local community, teachers, parents and students.
- Extensive digital content that meets the demand for information and resources that are beyond the scope of textbooks.

- Teachers who are enthused and empowered by the technology
- Adequate hardware to give the teachers and students smooth access to the Technology.

8. Investment opportunities

New opportunities are opened up for private sector investment in the IT sector.

Box 6.26
Investment opportunities

Area	*Nature of Project*
IT Infrastructure	*IT Corridor and Knowledge Campus*
	Kinfra Hi-Tech Park
ICT Dissemination	*Akshaya Digital Divide Project*
Hardware	*Units at SEZ Kochi*
Education	*IT @ School*
Computerisation of Local Self Government	IT Mission
Training	World Class IT /HR Centre

9. Indian Institute of Information Technology and Management Kerala (IIITM-K)

6.145 Government have set up the IIITM-K as a Center of Excellence in IT education, for imparting training in high and emerging technologies. The Institute is a key resource centre for upgrading the quality of technical education in the State. It is a premier institute with strong postgraduate programmes, R & D in Techno-Management and IT enabled services with emphasis on knowledge management and their application in diverse areas such as Business, Industries, Commerce, E-Governance, Telehealth, Agriculture and Education. It is now established as the first institute in India that is fully equipped for technology enhanced learning facilities.

6.146 The major activities and achievements of IIITM-K for the year 2001-02 are the following.

- the first batch of PGDIT students graduated in November 2002, second batch of PGDIT students was admitted in July 2002 and most of the first batch students are all placed in leading IT Companies
- A demonstration on the use of World space technology based Digital Satellite Radio broadcasting of Web pages and agriculture information in multimedia format was held in over 25 locations across the state. Based on this a Kissan Kerala Project has been prepared
- Kissan Kerala Project is now steered by IIITM-K along with KAU and Directorate of Agriculture, which is reaching the pilot implementation stage.
- IIITM-K is closely working with MHRD to formulate the national Education Grid through a network of state level education grids.
- It has started working on Malayalam font facilitated Education Servers, digital library services and Enterprise knowledge portals
- The technology capabilities jointly built between IIITM-K and TEN addresses most of the requirements for the Education Grid and Kissan Kerala Projects
- IIITM-K and KAU are planning to work together to establish the virtual University for trade related Agriculture Education.

Kerala Education Grid

6.147 Kerala Education Grid Project is a path breaking initiative undertaken by the state Government to provide quality education to all students of higher education in the State. The project takes a holistic view of using the power and potential of ICT and convergence in education to assist the teachers in teaching better, students to learn better and the academic administration to manage better. The Grid is being developed in a systematic manner as also the course content. It will at the first stage be implemented in selected engineering colleges.

Box 6.27
What is Education Grid

Education Grid is much more than linking the colleges and universities of Kerala over the Internet. It aims to establish subject specific collaboration spaces and knowledge networks across the colleges. The Grid helps to put in place such information and course-specific content development and collaboration over the LAN and internet through which the services of experts, and resources relevant for the respective courses from wherever available is made accessible to the colleges, the teacher and the students who are in need of the same. As the project progresses all courses in the universities- theoritical, practical, fieldwork or simulation oriented will be supported by quality assured web-enabled content and processes.

Chapter 7

TOURISM

Tourism has become a powerful engine of economic growth in terms of wealth and employment generation. International Tourist arrival increased from 25 million in 1950 to 697 million in 2000 recording an average annual growth rate of 7 per cent. International tourism receipts at current prices touched U.S.$ 476 billion in 2000 at an average annual growth rate of 11 per cent.

Box 7.1
Tourism – World's largest industry

Share of World	*Percentage of total(Year 2000)*
GDP	*11.0*
Employment	*8.0*
Exports	*7.9*
Capital Investment	*9.4*

Source: Department of Tourism (GIM)

7.2 World Tourism Organisation (WTO) Tourism 2020' vision forecasts international arrivals to touch 1.56 billion in 2020. South Asia is expected to grow at over 5 per cent per year compared to the world average of 4.1 percent. Comparison of estimates and forecasts of tourism industry made by World Travel and Tourism Council is given below:

Table.7.1
World Estimates and Forecasts

Particulars	2002			2012		
	US$ Mn	% of total	Growth	US$ Mn	% of total	Growth
Personal Travel & Tourism	2038950	9.9	-0.9	3,875,230	10.6	3.8
Business Travel	379089	-	-3.5	738068	-	4.1
Govt. Expenditures	203640	3.8	3.2	359998	3.9	4.2
Capital Investment	642196	9.2	-0.4	1264790	9.5	4.2
Visitor Exports	514715	6.5	-4.9	1302600	6.6	6.5
Other Exports	432773	5.4	-0.3	1073210	5.4	6.3
Travel & Tourism Demand8	4211140	-	-1.3	8613790	-	4.5
T&T Industry GDP	1195080	3.6	-1.6	2271410	3.8	3.8
T&T Economy GDP	3282500	10.0	-1.1	6351920	10.6	4.0
T&T Industry Employment	71709.5	2.8.	-2.5	90819.1	3.1	2.4
T&T Economy Employment	198098.0	7.8	-1.6	249486.0	8.6	2.3

Source: Tourism Satellite Accounting Research (TSA) Report, World Travel & Tourism Council

Table 7.2
India Estimates and Forecasts

Particulars	2002			2012		
	US$ Mn	% of Tot	Growth	US$ Mn	% of Tot	Growth
Personal Travel & Tourism	14974.6	4.5	5.2	45351.2	5.2	9.2
Business Travel	1792.6	-	-10.8	6030.6	-	10.5
Govt. Expenditures	645.4	1.0	7.2	1328.1	1.0	5.1
Capital Investment	7353.9	6.5	5.5	19304.4	6.7	7.7
Visitor Exports	3014.7	4.6	-4.8	14377.0	5.8	14.3
Other Exports	1230.7	1.9	1`2.4	5026.8	2.0	12.5
Travel & Tourism Demand	29011.8	-	3.1	91418.1	-	9.7
T&T Industry GDP	10585.8	2.1	1.5	32329.3	2.5	9.3
T&T Economy GDP	24446.8	4.8	3.3	71951.1	5.5	8.9
T&T Industry Employment	11017.6	2.6	-1.6	14802.1	3.1	3.0
T&T Economy Employment	23662.8	5.6	0.1	30636.8	6.4	2.6

Source Tourism Satellite Accounting Research (TSA) Report, World Travel & Tourism Council

Table.7.3
Kerala Estimates and Forecasts

Particulars	2002			2012		
	US$ Mn	% of Tot	Growth	US$ Mn	% of Tot	Growth
Personal Travel & Tourism	659.9	5.3	5.9	2311.2	6.9	10.8
Business Travel	67.4	-	-10.7	233.0	-	10.8
Govt. Expenditures	25.4	1.0	7.3	54.8	1.1	5.6
Capital Investment	327.6	7.8	5.6	907.4	8.2	8.2
Visitor Exports	146.3	9.3	11.8	1491.7	17.3	23.5
Other Exports	102.0	6.5	8.5	367.2	4.3	11.1
Travel & Tourism Demand	1773.1	-	5.3	6645.0	-	11.6
T&T Industry GDP	676.4	3.5	4.7	2549.2	5.1	11.6
T&T Economy GDP	1425.4	7.4	5.2	5014.7	9.9	10.9
T&T Industry Employment	328.8	2.7	20.1	1005.7	6.9	11.8
T&T Economy Employment	693.0	5.7	20.8	1978.3	13.6	11.1

Source: Tourism Satellite Accounting Research (TSA) Report ,World Travel & Tourism Council

7.3 Kerala is popular as ***God's own country*** due to its natural beauty, eco-diversity and cultural heritage and has become a holiday destination for different types of high end tourists. Kerala is considered to be a holistic destination for the mind, body and soul. The state has got a unique combination of winning tourism products.

Box.7.2
Kerala Tourism Potential

. Kerala is expected to register a record growth of 23.5% in the Tourism sector over the next ten years. Kerala travel and tourist demand is expected to grow at a rate of 11.6% per annum over the coming decade registering highest record growth rate in the world tourism sector. The state is all set to eclipse Turkey which has the fastest growth rate (10.2%) in the tourism sector, according to the estimates of the World Travel and Tourism Council. The estimated growth rate for India is 9.7%. The WTTC and Oxford Economic Forecasting (OEF) Group forecasts suggest that Kerala would triple its travel and tourism economy employment from 693000 to 2 million in 2012.

Source: Tourism Satellite Accounting Research (TSA) Report ,World Travel & Tourism Council

Box.7.3
Kerala Tourism Facts

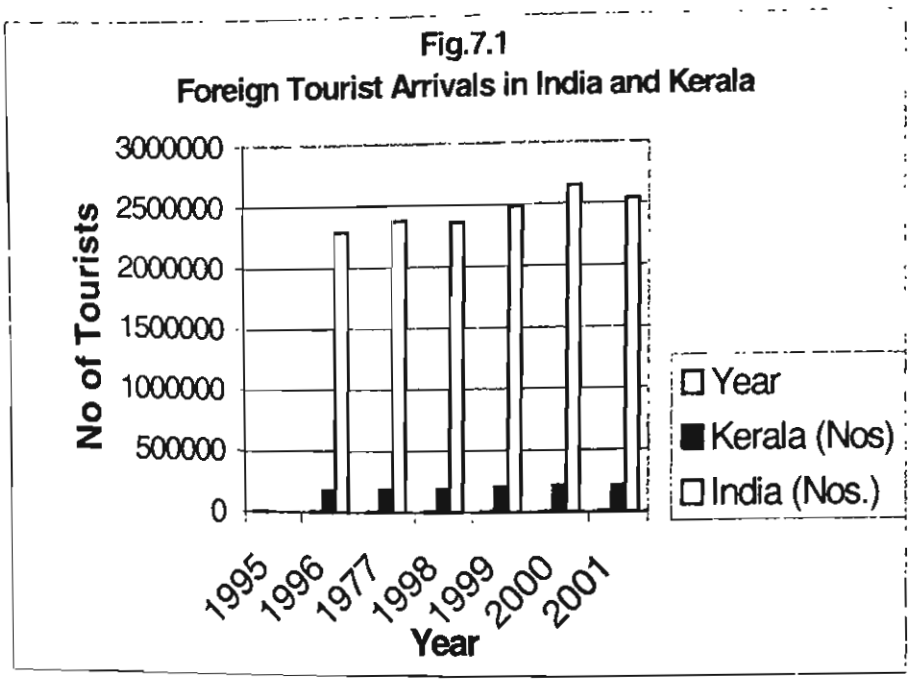
International Tourists arrivals-0.21 million(about 10 per cent annual growth in the last 6 years)
Domestic Tourists – 5.24 million (300 per cent growth in last 6 years)
Investment in Tourism – US$ 110 million(2001-02)
Revenue generated in the economy-US$ 900 million(6.29 per cent of GDP)
Employment – 0.7 million

Source: Department of Tourism

Tourist flow

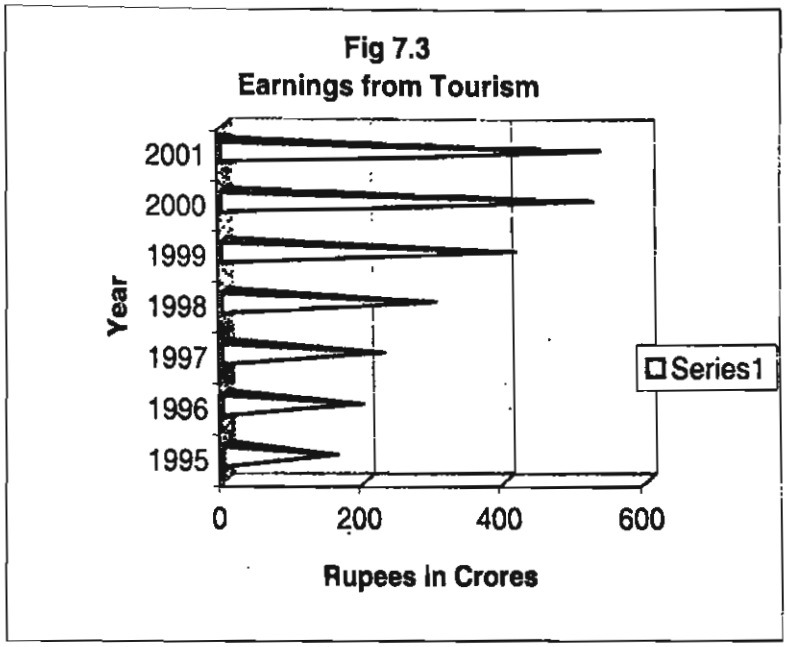
7.4 The number of foreign and domestic tourists to Kerala during 2001 was 208830 and 5239692 respectively. 2001 was a bad year for tourism, nationally and internationally due to the terrorist attack in US and subsequent war on Afghanistan.During this year tourist flow to South Asia was affected badly. Though there was a dip of 6% in the national figure during the last year, Kerala could manage to tide over the crisis with only a meagre 0.51% fall in the international tourist arrivals. More over, the figures in appendix 7.1 illustrate that Kerala is the only State in India , particularly in South India, where the September 11 incident and aftermath have affected least. The foreign tourist arrivals in India and Kerala are shown in Appendix 7.2.

7.5 Kerala could gain 4.52% growth in the domestic tourist arrivals during last year. The boost in the arrival of domestic tourists during this period is largely due to the constant and concerted promotional effort on the part of Kerala tourism to attract more domestic tourists. This shift in the focus of Kerala tourism from the international to domestic tourist market resulted in considerable achievement.The inflow of domestic tourists to the state is shown in Appendix 7.3.



Earnings from Tourism

7.6 Appendix:7.4 shows the earnings in Tourism from foreign tourists for the period 1990 to 2001. The earnings from tourism increased from Rs.530 crores in 2000, to Rs.535 crores in 2001.



Accommodation

7.7 Appendix No.7.5 indicates the accommodation facility in the state in the classified category. As on 2001, Kerala had 5090 classified rooms. There is a sharp increase of 22.12 per cent, 28.93 per cent and 29.56 per cent respectively in the number of hotels, number of rooms and number of beds pertaining to classified hotels from 1999 to 2001, the maximum number of rooms being in the category of 3 star. Apart from the classified rooms, Kerala has more than 20,000 unclassified rooms also.

State Plan

7.8 The State Plan allocation for tourism from the year 1995-96 to 2002-03 is given in Appendix No.7.6. The Tenth Five Year Plan allocation (Rs.826 crores) for tourism is about six times higher than that of the Ninth Plan.(Rs.140 crores). Similarly, the Annual plan allocation for Tourism 2002-03 (Rs.80 crores) is double the figure for 2001-02 (Rs.40 crores). The Central financial assistance for tourism from 1995-2000 is given in the Appendix 7.7.

Plan Performance

The Public Agencies concerned with tourism development in the state are:

7.9 The Department of Tourism, Kerala Tourism Development Corporation, Tourist Resorts Kerala Ltd, Bekal Resorts Development Corporation and Thenmala Eco-Tourism Promotion Society. Though in a limited scale, the Departments of Irrigation and Forests and Kerala State Electricity Board also participate in tourism development in the state.

Department of Tourism

7.10 The important activities undertaken by the Dept of Tourism during the year under report are the following..

Infrastructure Development

Development of Veli as an International Tourist Centre:-

7.11 25 acres of land have been acquired for developing an amusement park of international standard on BOM basis. Action is being taken to fill up the marshy and waterlogged areas.

Face lift to Kovalam Beach Resort:-

7.12 To improve the image of this international Beach Resort, development of roads, path ways, lighting , signages etc. have been undertaken by the department of Tourism. Integrated development and widening of road from Kovalam to ITDC, Installation of ornamental cast iron lamp posts along the road, provision of ornamental lights from Kovalam Hotel Sea Rock to the end of pathway and "Zero Waste Kovalam Project" are the projects taken up this year. Beach cleaning and lifeguards services are also offered here.

Integrated Development of Fort Kochi:-

7.13 Department of Tourism is taking up a major project for the conservation and preservation of Fort Kochi heritage zone. Two boat jetties at Albuquerque and Kamalkadavu have been inaugurated. Tourist amenity centres, food court, beach side development, lighting, signages etc are the other major works being taken up.

Development of Vagamon as an International Hill Resort:-

7.14 Government have transferred 75 hectares of land from Kerala Live Stock Development Board to Department of Tourism for this project. Master Plan for this project is nearing completion. Fencing work of the property is in progress.

Preparation of Master Plans

7.15 Preparation of Master Plans for integrated development of backwaters in Kerala,development of Ponmudi, Thrissur, Alappuzha and development of Wide Life Tourism is progressing. A master plan for development of Varkala has been prepared by NATPAC.

Intensive Backwater Development:-

7.16 Construction of houseboat terminal at Kumarakum is progressing and will be completed by March.2003. The land acquisition for the houseboat terminals at Alappuzha and Thaneermukkam are in the final stage .Government of India have sanctioned the construction of Tourism Resorts at

Pallathuruthy, Nedumudi, Kotharathode and Vattakayal. The construction of the above units is entrusted to Central Public Works Department and is in different stages. The construction of Watersports complex at Ashtamudi is progrrssing. Two houseboats were delivered to District Tourism Promotion Council, Kannur and one delivered to District Tourism Promotion Council, Thrissur. More houseboats are in different stages of construction. Waterside Amenities at Kayamkulam and Alumkadavu have been commissioned. Detailed study has been carried out through NATPAC for the development of Kovalam – Kollam Waterway for houseboat operations. Study on the feasibility of houseboat operation in southern Kerala also has been conducted by NATPAC. The report is under the active consideration of the Department.

Development of Budget Accommodation Facilities at Tourist Pilgrim Centres

7.17 Under this scheme, Yatri Nivas at Calicut, Kondotty and Guruvayoor and Wayside Cafeteria at Adoor have been completed. Yatri Nivas at Nelliyampathy, Thirunelli, Mannarkad etc are in progress. Construction of pilgrim amenity centre at Erumeli and Kulanada are nearing completion. The Tourist amenity centre at Varkala will be completed by March 2003.

Construction of Tourist Reception and Facilitation Centre:-

7.18 Construction of Tourist Reception Centre at Vythiri, Munnar, and Thekkady is in different stages of progress.

Thrust on Development of Tourism Roads:-

7.19 Department of Tourism is giving thrust on the development tourism roads. The development of Thekkedy – Munnar road and roads in Kollam district have been completed. Rs.220.62 lakhs have been released to Public Works Department for the improvement of Mulamattom – Uluppunni- Kottamala road and Fort Kochi – Mattancherry area road.

Integrated Development of Museums:-

7.20 Department has initiated the development of major museums in the State namely Napier Museum at Thiruvananthapuram and Hill Palace at Thripunithura. Both these works are progressing

Illumination of Historic buildings

7.21 Government have sanctioned Illumination of V.J.T Hall , Thiruvananthapuram

Sooryakanthi Exhibition Ground at Kanakakkunnu:-

7.22 Department of Tourism has taken up the construction of Sooryakanthi exhibition ground at Kanakkakunnu Palace premises with an idea of converting Kanakakkunu palace as a world class landscaped garden.

Beautification of Munnar:-

7.23 Government has sanctioned an amount of Rs. 50 lakhs for Solid Waste Management and car parking programme at Munnar. The interior roads at Munnar also got repaired.

Development of Kumarakom:-

7.24 The boat terminal at Kumarakom will be completed by March 2003. Kumarakom Grama Panchayat has also initiated development works at Kumarakom. Department of Tourism has sanctioned Rs. 47 lakhs for internal roads of Kumarakom and this will be completed soon.

Construction and Renovation of Guest Houses:-

7.25 Construction of additional guest house at Ernakulam and Guest House at Palakkad is progressing . Renovation of Guest House at Ernakulam is in the initial stage.

Park View Buildings and Construction of New Office Building:-

7.26 Since the present Park View building is being converted into Heritage Museum under the Government of India scheme, the department has started construction of new office building in the Park View premises. The work has been entrusted to Public Works Department and is in good progress.

Forest Tourism

7.27 Kerala has 12 Wild Life Sanctuaries and two National Parks. A master plan is being prepared for promoting tourism in sanctuaries and National Parks. The destination management will be vested with Forest Department and marketing of the destination with Tourism Department. Forest Tourism is to be practiced in the overall ambit of the following Acts and Policies.

- Wild Life Protection Act
- Forest Conservation Act
- Judicial Directives
- National Forest Policy 1988.

Box 7.4
Concept of Forest Tourism

- *Marketing the serene natural habitats as tourism products with an interest element of nature education.*
- *Aims at making the user aware of the productive , production and regulatory facilities*
- *Aims at creating employment opportunities at local level.*

7.28 Forest Tourism will be supply driven with limited development in the project areas. It is targeted towards specialised nature interest groups and eco-conscious tourists. Natural resources will be utlised without any harm to them.

Box 7.5
Forest Tourism Activities

- *Wild Life Observation*
- *Bird Watching*
- *Trekking/Wilderness train*
- *Mountaineering*
- *Staying in tree top huts*
- *Envlronmental studies*

Thenmala Eco-tourism Project

7.29 The major eco-friendly general tourism activities are related to the implementation of the Thenmala Eco-tourism project . The activities now available are boating on the reservoir which falls within the Shendurney Wildelife Sanctuary, Deer Rehabilitation Centre, Leisure Zone which

is having Sculpture Garden, Board Walk etc. Adventure Zone which provides Elevated Walkway, Mountain Biking, Rock Climbing, River Crossing and Culture Zone which is having musical dancing fountain, amphitheatre, restaurant and office complex.

7.30 During the year 2001, 41161 tourists visited Thenmala and total income has been to the tune of Rs. 11.4 lakhs.

7.31 The balance work related to the Suspension Footbridge is tendered and is expected to get completed within a couple of months. Electric connection to the Leisure Zone and other finishing works such as horticulture are getting completed. The Information center in various zones and signages are ready. Marketing of the project has been started.

Other Eco-tourism Efforts

7.32 The works pertaining to the first phase of Kallar Ecotourism has been completed by the Forest Department and will be opened for tourists shortly. The project report pertaining to the Konni Ecotourism has already been prepared.

7.33 Ten pilot projects have been identified for the development of Ecotourism during this financial year. These are **Agastyarvanam Biological Park, Konni, Thattekad Bird Sanctuary, Mangalavanam (Cochin City), Nelliampathy, Parambikulam, Silent Valley, Nilambur, Muthanga and Aralam.**

7.34 Steps have also been initiated to strengthen the ecotourism activities in the twelve Wildlife Sanctuaries and two National Parks with the co-operation and support of the Forest Department.

New Policy Decision – Tourism Vision 2025:-

7.35 Tourism Department has prepared a vision document for the next 25 years-called "Tourism Vision 2025".

Box.7.6
TOURISM VISION STATEMENT

To develop Kerala, the Gods own country in to an upmarket high quality tourist destination through rational utilisation of resources with focus on Integrated Development of Infrastructure Sector, Conserving and Preserving the Heritage and Environment and Enhancing Productivity, Income, creating employment opportunities, and alleviating poverty thereby making tourism the most important sector for the socio-economic development and environment protection of the state.

Tourism Vision Slogan "Conserve Culture and Promote Tourism"

The Vision targets are:-

1. To increase earnings from Tourism at the rate of 10% annually.
2. To achieve an annual rate of growth of 7% in foreign tourist arrivals and 9% growth in domestic tourists.
3. To create employment opportunities of 10000 every year.
4. To add required hotel rooms in star categories every year.
5. To innovate and promote at least one new Tourism Product/Destination every year.

Investment Opportunities in Tourism

- Investment opportunities are opened up for private sector participation in the tourism sector. The opportunities exist in
- Development of Resorts/Hotel
- Destination Development
- Leisure and Entertainment
- Enabling Infrastructure

Government as a facilitator

7.36 Government acts mainly as a facilitator and catalyst in the field of tourism and encourages private sector investment in the Tourism sector. Accordingly various concessions/incentives have been announced for various tourism projects. Government have announced innovative schemes like Classification Scheme for Ayurveda Centres and Houseboats to ensure standards.

7.37 Ever since tourism was declared an industry in 1986, many incentives available to investors in other industrial sectors, have been extended to the tourism sector. These include investment subsidies, electricity tariff concession, technical guidance, marketing assistance, publicity through Government publications and help in availing loans.

7.38 In Tourism sector, several major projects are now planned with private participation. Amusement park at Veli is one among them. Tourism infrastructure at Bekal, development of Akkulam and Vagamon are the other schemes.

Tourism Conservation, Preservation and Trade Act:-

7.39 The draft of this law has been submitted to Government and is under its active consideration. The proposed Act is meant for ensuring conservation and preservation of the tourist areas and for the approval of Persons/Agencies/Institutions dealing with Travel and Tourism Trade offering quality services for sustainable tourism development in the state and for regulating courses of Institutions in subjects related to hospitality studies etc.

Tourism Promotion and Publicity

7.40 As part of promotional efforts, Kerala Tourism has been participating in various international as well as domestic fairs and festivals. In addition , Road shows are being conducted in various major cities throughout India and abroad. Some of the International fairs where Kerala Tourism has been participating are: World Travel Market, London 2002, Inter National Tourism Bosch 2002, Berlin, Arabian Travel Market, Dubai 2002, PATA Mart 2002, China International Travel Market, Shanghai 2002, Samavayam 2002, Germany. In addition the Department participated in conventions like TAAI, Kochi, IATO, Delhi, FHRAI, Delhi, PATA Conference, Delhi and various Trade Fairs.

7.41 The Department of Tourism has stepped into new marketing strategies like toll free telephone system, net marketing, web advt. etc. Kerala Tourism is the first state tourism department in introducing the toll free telephone system.

Kerala Tourism Development Corporation (KTDC)

7.42 The present activities of the Corporation consist of hoteliering, tours and travels and publicity. The Corporation also offers innovative tourism products and also well researched tourism packages like ayurvedic rejuvenation programmes, houseboat holidays and leave travel concession tours. The authorised share capital of the Corporation is Rs.40 crores and the paid up

capital as on 31.3.02 is Rs.39.07 crores. Other financial resources of the Corporation Comprise of institutional finance, assistance from Government of India, and internal resources of the Corporation. During 2001-02, the Corporation availed of Rs.8.28 crores loans from banks.

7.43 The Corporation has been making continuous profit since 1993-94 onwards. But the recent investments made in 3 new hotels, the renovation work of Mascot Hotel and the ever-increasing salary bill of the employees have rendered the Corporation's financial position very weak.

7.44 A thorough study has been conducted into the affairs of the Corporation and as a follow up new initiatives namely development of new LOGO, categorisation of hotels, creation of regional offices, revamping of Websites, online reservation system, central tender purchase, ISO 9000 certification, strengthening marketing efforts, marketing tie-ups, rail package etc. were undertaken by the Corporation. The performance of KTDC is given in Apendix 7.8:

7.45 The performance of the Corporation for the year 2001-02 shows a net income of Rs.123.55 lakhs before interest and depreciation charges. The total bed availability in the hotel units of the Corporation shows an increase of about 7 per cent from 2001 to 2002. Only one unit registered an occupancy ratio of more than 50 per cent. The number of domestic and foreign tourists who availed of the facilities of KTDC hotels shows fall from the previous year. The total income of the Corporation during 2001-02 is 3151.78 lakhs and expenditure Rs.3028.23 lakhs.

Tourist Resorts (Kerala) Limited

7.46 Tourist Resorts (Kerala) Limited has been declared by Government as the agency for promoting private sector investment in the tourism sector. TRKL has already established two joint sector companies – Taj Kerala Hotels and Resorts Limited and Oberoi Kerala Hotels and Resorts Limited in association with the Taj and Oberoi Groups of Hotels respectively.

7.47 The total investment by TRKL as on 20.1.2003 is Rs.12.50 crores in Taj Kerala Hotels and Resorts Limited and Rs.54.40 lakhs in Oberoi Kerala Hotels & Resorts Limited. OKHRL has taken up resort projects at Thekkady, Pathiramanal and Bekal

7.48 Other development programmes of TRKL include Land Bank Project, Golf course project at Kochi, Airport Hotel at Nedumbasserri, Kochi and Marina Project at Kochi. The required land for the Golf-course has been identified at Kochi and a consultant has been engaged and preliminary study has been started. Initial steps have been already taken for the Air port Hotel at Nedumbasseri and Marina project at Kochi.

7.49 The company has been operating on profit over the years. The net profit earned during the year 2001-02 is Rs. 189.93 lakhs. The company has declared a dividend @ 2 percent for the year 2001-02.

Bekal Resorts Development Corporation Limited (BRDC)

7.50 The Corporation was set up in 1995 to develop an integrated tourism project at Bekal. The total cost of the Project originally envisaged was Rs.130 crores which has later been revised to Rs.65 crores. The Corporation has been confining its activities in three major areas namely,

1. Acquisition and development of suitable land for resorts.
2. Provision of essential infrastructure facilities
3. Development of destination and identification of new possibilities of tourism to popularise the destination at the national and international level.

7.51 The land acquisition activity has been completed for six-resort sites spread over an area of 189 acres with requisite infrastructure. Out of the six sites, two sites have been given for long term lease to Oberoi Kerala Hotels and Resorts Limited and Taj Kerala Hotel and Resorts. The main programmes taken up under infrastructure development include water supply scheme for the project area, Panchayat road development, road improvements by PWD, approach road to resorts sites, junction improvement, peripheral fencing to resort sites, provision of electricity, street lighting, and solid waste disposal. Other tourism facilities include facility centre, Bekal Fort Beach development, seaside pathway around Bekal Fort, Aqua Park at Bekal Hole, speed boat centre at Chandragiri. Signage system, facilities at Anandapuram temple, Valiaparamba houseboat project, public relations and tourism promotion activities, and consultancy service.

7.52 The State Government's equity contribution envisaged was Rs.35 crores, which has already been released to the Corporation.

Kerala Hydel Tourism Centre(KHTC)

7.53 KHTC is a unit of Kerala State Electricity Board and it has developed boating centres at Kundala and Madupetty. Three resort projects have been identified for implementation with private participation. A rope way at Sun -Moon valley at Madupetty is also proposed for implementation.

Chapter 8

TRANSPORT AND COMMUNICATIONS (INFRASTRUCTURE)

TRANSPORT AND COMMUNICATION

A well developed infrastructure is a prerequisite for attracting investment and thereby achieving rapid economic development. Development of infrastructure requires co-ordination among various state departments and agencies. Central Agencies like Railways, National Highways, Ports, Post and Telegraph, Communication and Civil Aviation Authorities also play a significant role in providing infrastructure. Infrastructure projects typically involve very high cost and long gestation period. The inability to develop good quality infrastructure is likely to stunt industrial as well as GDP growth.

8.2 Kerala depends on road transport, Rail transport and Inland Water Transport for movement of passengers and goods traffic. The transport system of the state consists of 137678 kms of roads, 1148 kms of railways, 1687 kms of inland waterways and 111 statute miles of Airways and 17 ports, including the major port of Cochin.

Road Sector

8.3 Kerala has a satisfactory road network as compared to other states in the country. But congestion and poor maintenance have led to increasing road accidents. Now a major challenge is its upkeep, up gradation and expansion to modern standards.

Box 8.1
Strategies of the Tenth Plan under Road Sector

- *Key roads crucial for improving connectivity in the State would be taken up under the World Bank Transport Project.*
- *Private participation would be sought in the form of BOT in those road sectors where it is feasible to do so.*
- *New roads and upgradation of existing roads will be taken up on a project mode subject to budget allocations.*
- *Institutional finance would be harnessed from the NABARD*
- *All roads other than highways and Major District Roads would be transferred to local governments.*
- *Local Governments would be encouraged to take up roads based on rational priorities according to a strategic plan.*
- *Improved road safety.*

8.4 The establishment of a regulatory frame work is also very critical for encouraging private investment in infrastructure.

Box 8.2
Reform Measures envisaged in the Tenth Plan

- *Enactment of legislation to facilitate private participation in creation of infrastructure*
- *Introduction of performance contract and maintenance contract to ensure quality of road maintenance*
- *Effective cost control through fixing of standards and specifications and regular upgradation of schedule of rates.*
- *Introduction of cost reduction technologies and bridging up of the gap between completion of work and payment of bills to the contractors.*
- *Professionalisation of department through capacity building*
- *Introduction of Third Party Quality Assurance in stages*
- *Provision of tender transparency and turnkey EPCM contract.*

Road Transport

8.5 Road Transport is regarded as a major strategic infrastructure in a developing country. The following reform measures are envisaged in the Tenth Plan for development of Transport Sector of the State.

- Introduction of greater transparency in providing services to the people by the M.V. Department
- Modernisation and Computerisation of Motor Transport Department to enable it to render effective service to the people
- Providing linkages for multimodal transport system

- **KSRTC**

- Revamping of KSRTC and its operations in a time bound manner
- Upgradation of infrastructure of KSRTC with private participation
- Improvement of management and rationalisation of staff strength of KSRTC to make them more efficient
- Importance of infrastructure facilities of KSRTC

- Several initiatives have been taken to attract private investment in the transport development of the state during the Tenth Plan period. Schemes identified for private participation include

- Upgradation of KSRTC bus stations on BOT basis
- Restructuring of KSRTC workshops
- Construction of Motor Vehicle Bhavan of Motor Vehicle Department
- Installation of electronic weigh bridges in the Check Posts
- Construction of Driving Test Yard
- Construction of Model Driving Institute
- Setting up of road signs

8.6 The number of Motor vehicles in the State was 2315372 during 2001-02 as against 2111885 in the previous year, registering an increase of 9.64%. The increase in the number of

personalised vehicles has substantially enhanced pressure on the already overloaded network of roads resulting in congestion in most of the cities and towns. The total number of road accidents increased by 2.96% from 37256 in 2000-01 to 38353 in 2001-02.

Box 8.3

Kerala ranks fourth among the most accident prone states in India – Maharashtra, Tamil Nadu, Gujarat, Kerala – in that order.

Other Sectors

8.7 The railways in India provide the principal mode of transportation for freight and passengers. The Indian Railways have an extensive network which spread over 63028 route kms comprising broad gauge (44776 R.Km) meter gauge (14987 Km) and narrow gauge (3265 R Km). Railway route length in the state remained at 1148 Km in 2001-02.

8.8 Number of flights operated from the three airports in Kerala at Thiruvananthapuram, Kochi and Kozhikode increased by 10.38% compared to previous year and there was an increase of 3.33% in passenger traffic.

8.9 The postal services have grown both in terms of the extent of the postal network and its scope and the variety of services it offers. During 2001-02 two post offices were newly opened in the state increasing the number to 5073 against 5071 in 2000-01.

Box 8.4

India possessed the largest postal network in the World with 15500 post offices spread all over the country as on 3/01 of which 89% are in rural area. There are 5073 post offices functioning in Kerala of which 4194 are located in rural area.

8.10 A well spread out telecommunication network provides a great impetus to the economic growth in a country. Telecommunication sector also registered significant growth. The equipped capacity of telephone exchanges in the state was increased to 31.53 lakhs as against 25.84 lakhs lines in the previous year by opening 100 new telephone exchanges and providing 5.33 lakhs new telephone connections.

Box 8.5

India has one of the largest telecom networks in Asia comprising 31952 telephone exchanges with a total equipped capacity of 39.9 million lines and 32.44 million working telephones as on 3/01. Kerala has 1088 Telephone Exchanges with an equipped capacity of 3.2 million lines.

8.11 The major development indicators of Transport and communication sector in the state since 1975 are given in Appendix.8.1

Roads

8.12 Road network in Kerala has the distinction of achieving connectivity to all the villages in Kerala. But unlike the other states, as the villages are large, the development has not ensured connectivity of all the habitats which should be the future direction of road development in the State.

Box 8.6

India has more than 3.1 million Km of road network at present making it one of the largest in the world. Kerala has a road length of 1.38 lakh KM which accounts for 4% of total road length in the country.

8.13 The pressure on the road system in Kerala is extremely heavy. Total road length in Kerala during 2000-01 has increased to 137678 km from 125835 km in the previous year registering an increase of 9.41%. This accounts for about 4% of total road length in the country. But the road length maintained by the PWD decreased by 0.75% where as the length of road maintained by Panchayats increased by 5.75% during 2001-02. The availability of roads in Kerala per Sq.km. is 3.54 km. which is far above the all India average of 0.91 km and is a reflection of the unique settlement pattern in which people live everywhere in individual homesteads making the State a vast "rurban" areas. In relation to population, for every one lakh population in Kerala there are 432 kms of road as against about 299 kms for India as a whole. The length of roads maintained by different agencies is given in Table 8.1.

Table 8.1

Name of Department	Length(KM)	%
Panchayats	92084	67.0
PWD (R & B)	21347	15.5
Municipalities	8805	6. 4
Corporations	5743	4.0
Forest	3982	3.0
Irrigation	3797	2.7
PWD (NH)	1524	1.1
Others (Railway, KSEB)	396	0.3
Total	**137678**	**100**

8.14 Out of the total road length of 92084 kms under Panchayats 57540 km (62.49%) were graveled and earthern roads and 23202 km (25.2%) were black topped. Details of district-wise and category wise length of roads maintained by PWD (R & B) as on 3/02 are given in Appendix 8.2. Of the fourteen districts in the state, Kottayam district accounted for the maximum PWD road length of 2167 km (10%) as on 31-3-02. Wayanad district had the lowest PWD road length of 515 km (2%). District-wise, surface wise and category-wise length of roads maintained by PWD as on 31-3-02 are given in Appendix 8.3. During 2001-02 about 161 km length of PWD roads were reduced due to transfer of roads to ODR & VR to the local government. The details are given in Appendix 8.4. The district-wise and surface-wise length of roads maintained by PWD as on 31-3-02 are shown in Appendix 8.5. As on 31-3-02 there were 2015 bridges and 47578 culverts on PWD roads. Of them,191 bridges need reconstruction/replacement and 1681 culverts are in unsafe condition. Details of bridges and culverts on different categories of roads are given in Appendix 8.6.

National Transportation Planning and Research Centre (NATPAC)

8.15 The NATPAC is undertaking research sponsored projects and extension activities in the fields of traffic engineering public transport system, alternate options for transport system, transport energy, Inland water Transport, Tourism, Planning and rural roads. During 2001-02, the Research and Development Centre has undertaken 22 major studies in the following thrust areas.

Broad areas of study in the year 2001-02

- Road development and rural road connectivity
- Public transport
- Water ways development and tourism
- Accident studies and Road safety
- Policy related Impact Analysis

8.16 There is a Highway Research Institute in the Public Works Department, but it has not been able to grow into a full-fleged research institution. In the context of proposals of major projects and the need for working out inter modal studies it is advisable to develop NATPACK as the Transport Research Centre in the State.

Kerala State Transport Project

8.17 Kerala State Transport Project launched in June 2002 with the assistance of World Bank, is in the process of upgrading and widening of 584 km of existing roads and carrying out heavy maintenance of 993 km of roads and 150 km. of performance linked maintenance. Upgradation of 93 km. of Inland Water Canals also forms part of the project. Commercialisation of road sector has not received attention in the past. However private sector financing in all aspects of the road sector operations has been planned in the last two years. A complete framework for private sector participation has been created.

Box 8.7 **Frame work for Private Sector Participation**
Legislative support *New implementation structures* *Institutional Development*

Legislative Support

8.18 Enactment of Kerala Highway Protection Act 2000 have been made and the legislation has come into force. It provides speedy statutory procedure for removal of encroachments from roads, fixation of building lines and control line on roads, to regulate ribbon development and other measures for protecting road assets.

Institutional Development

8.19 Some basic structural changes in the organisation of PWD have been planned. An Institutional Strengthening Action Plan (ISAP) for PWD has been drawn up and is on the threshold of implementation. Roads and Bridges Development Corporation of Kerala Ltd. has been identified as the project management agency for private financing arrangement. These steps

have increased the State's capability in project identification and efficacious processing of proposals for private participation. A tolling strategy document has been developed.

Box 8.8
Key features of Tolling

- *Toll all roads/bridges that are substantially upgraded*
- *Riding quality roughness Index*
- *Road furniture*
- *Road Markings and signages*
- *Paved shoulders*
- *Improved lighting*
- *Toll on /in vicinity of bridges for the road structures*
- *Ideally at least 50-60 km between two tolling points case to case for BOT Projects*
- *Select packages-Uniform user charge levels*
- *Open Tolling system – move to better technologies*
- *Road Management Programme*
- *User Education and Awareness*

Box 8.9
Projects under Development

- *Hill Road to Sabarimala*
- *Vadakkancheri-Pollachi Road*
- *West Coast Highway*
- *Kottayam-Cherthala Highway*
- *Thiruvananthapuram City Road Development*
- *North- South Express Highway*
- *Rail Overbridges*

Box 8.10
Kerala Expressway System

Kerala , a north-south linear state, 600 km long, on an average 65 km wide and comprised in three geographical regions of Coastal, Midland and Highland looks to a State Express-way System that will consists of North-South express Corridor and East-West Corridors. The Kerala North-South Expressway main corridor will comprise of 507 km length in seven packages with a total estimated cost of Rs.4642 crore.One project is in the proposal stage.

National Highways

There are 8 NHs in the State. Details of NH in Kerala are given in Table.8.2

Table 8.2

Sl.No.	Name	Length (in Km)
1.	NH 47 – Valayar – Kaliyikkavila	416.800
2	NH 17 – Thalappady – Edappalli	420.777
3	NH 49 – Bodimettu-Kundannoor(Kochi-Madura)	167.593
4	NH 212- Kozhikode-Muthanga	117.000
5	NH 213-Palghat-Kozhikode	125.304
6	NH 47(A)-Kundannoor-Vellington Island	5.900
7	NH 208 – Kollam-Aryankavu	81.280
8	NH 220 – Kollam-Theni	189.300
	Total	**1523.954**

8.20 The Central Government is responsible for execution and maintenance of National Highways in the State. The NH network in Kerala was 1523.954 km in 2001-02 as compared to the All India NH network of 58112 km. This is about 2.6 % of the total length of NHs in the country.

Design Research & Investigation and Quality Control Board (DRIQ Board)

8.21 The design wing of the DRIQ Board prepares structural design of bridges and multi storied buildings in the State. During 2001-02 this wing completed the general design and detailed design of 21 bridges and 20 multi-storied buildings.

8.22 The project preparation unit has prepared revised project report for Alappuzha bye-pass. The detailed topographic survey work using total station of Plammood-Kesavadasapuram road (Reach NH 47) has been completed by the unit.

Road Transport

8.23 The transport system recorded a substantial growth over the years both in spread of network and in output of the system. Among the various modes of transport road transport operations are used not only for passenger traffic but also for goods traffic. The Motor Vehicle Department, KSRTC, KTDFC are the departments/agencies which carryout road transport development activities in the state. The Motor vehicle Department is a revenue earning department

Box 8.11

Functions of Motor Vehicle Department

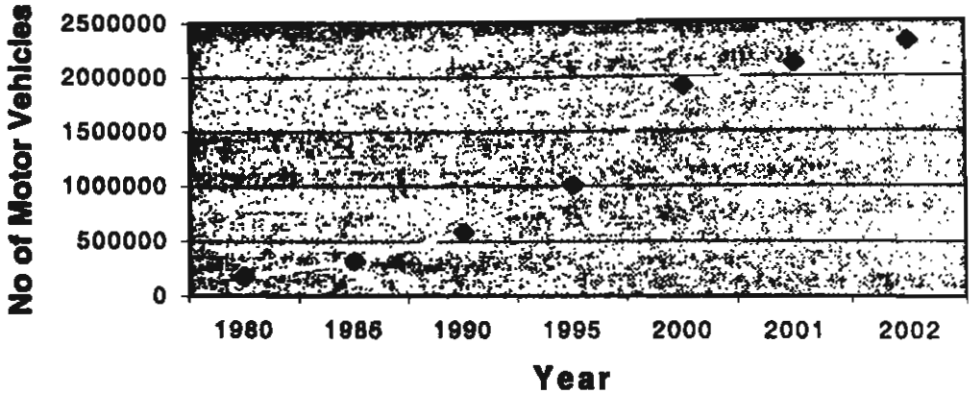
- *Collection of vehicle tax*
- *Issuance of Licenses for the use of various types of motor vehicles.*
- *Registration of vehicles*
- *Enforcement of Motor Vehicle Act and Rules*
- *Licensing to drivers of motor vehicles*
- *Licensing to conductors of stage carriages*
- *Ensuring Road Safety etc.*

Box 8.12
Major achievements in the years 2001-02

- *Computer Aided issue of Learners License at Thiruvananthapuram and Ernakulam*
- *Improved service to public in respect of registration of vehicles issue driving License, Acceptance of tax and fee etc. by computerising office at Thiruvananthapuram. To be extended to other places.*
- *Hosted a website w.w.w.Kerala Motor Vehicles.com. to enable public to get all relevant informations relating to the department*
- *E-mail connectivity to thirty offices*
- *Creating more awareness on road safety as a major activity*
- *Preliminary steps for modernising Motor Vehicle Checkposts- study entrusted with NATPAC.*

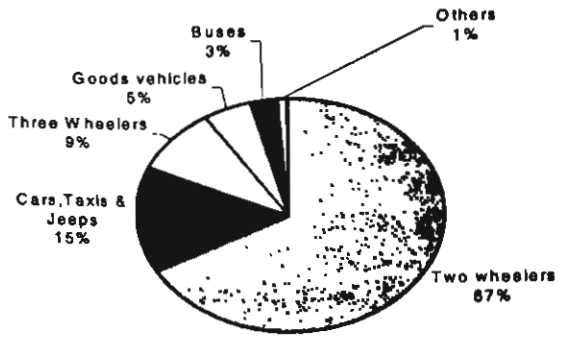
8.24 The vehicle population in Kerala is growing at a rate of 10% per annum. The growth of motor vehicles since 1980 is shown in figure 8.1.

Fig 8.1
Growth of motor vehicles in Kerala since 1980



8.25 The number of motor vehicles having valid registration as on 3/02 stood at 2315372 as against 2111885 vehicles during the previous year. The percentage of category-wise motor vehicles registered during 2001-02 is shown in Fig.8.2

Fig 8.2
Motor vehicles registered in Kerala during 2001-02 (Category -wise)



8.26 The vehicle density in the State is very high compared to many other states in India. Kerala has 5958 vehicles per 100 sq.km. of area and 7272 vehicles per lakh population. The corresponding All India figure is 1673 and 5489. The number of vehicles newly registered during 2001-02 under different categories comes to 203487. The details are given in Appendix.8.7. Out of the total vehicles newly added during 2001-02, 137300 (67%) are two wheelers (scooters and motor cycles) followed by cars/taxis/jeeps with a contribution of 15%, autorikshaws with 9%, goods vehicle with 5% and 3% buses. Kerala has 2315372 motor vehicles on road as on 3/02 with valid registration, details of which are given in Appendix 8.8.

8.27 Personalised vehicles for conveyance grew on a faster rate than that of buses. District-wise growth of motor vehicles in Kerala and their index are given in Appendix 8.9. An analysis of growth of motor vehicles and road development in the state during the last ten years reveals that vehicle population has increased from 7.08 lakh in 1992 to 23.15 lakh in 2002, registering a more than threefold growth. Only a marginal increase of 1.36 percent has been achieved in the case of augmentation of road length during the same period. The growth of vehicles compared with road length during the past ten years is given in Table 8.3.

Table 8.3
Growth of Vehicles and Road Length

Year	No.of vehicles	Index	Road length	Index
1992	708172	100	135828	100
2002	2315372	327	137678	101

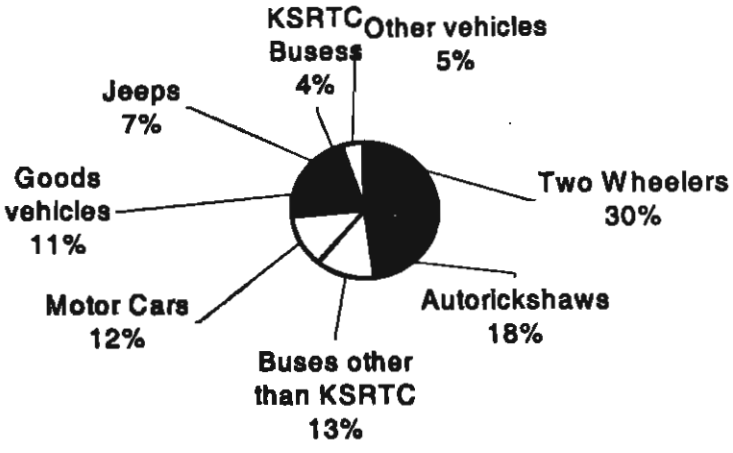
8.28 Nearly 557 vehicles are newly added to the vehicle population every day. Of this 376 are two wheelers. The details of category wise growth of motor vehicles in Kerala since 1990 are given in Appendix.8.10. The highest vehicle population was recorded in Ernakulam District ie. 405661 (17.52%) followed by Thiruvananthapuram district with 320061(13.82%) vehicles. Wayanad has the lowest number of vehicles ie 31553 (1.36%). India has nearly 5.5 crore motor vehicles. The fast growth of road transport has been associated with a steep rise in the number of

accidents. More than 4 lakh accident take place on Indian roads every year resulting in death of over 75000 and injuries to 4.5 lakh persons ie.205 persons die and another 1233 people get injured everyday due to road accident in the country. It is imperative to understand the severity and loss due to road accidents. The Kerala State has nearly 3% of the country's population but it has recorded nearly 12% of the country's road traffic accidents. The State has recorded the highest accident rate of 17 accidents per 1000 vehicles as against the national average of 7.27 accidents per 1000 vehicles.

8.29 The accident rate in Kerala is more than twice that of all India average. Road accidents registered an increase of 3% during 2001-02 over the previous year. The state has recorded a total of 38353 accidents causing death of 2648 persons and injuries to 49744 persons during 2001-02. District-wise number of road accidents in Kerala and number of persons injured/killed during 2001-02 are given in Appendix.8.11 On an average 105 road accidents take place in a day resulting in death of 7 persons and injuries to 136 persons every day in the State. Driver's fault has been identified as the most common cause of accidents in 98% of the traffic mishaps. About 66.77% of the accidents occurred in day time. Other causes such as mechanical defect, poor road conditions, fault of passengers/pedestrians, bad weather etc. contributes to hardly 2% of the accidents. Vehicle-wise details of accidents in Kerala by primary causes of accidents during 2001-02 are given in Appendix.8.12. Heterogeneous mix of traffic, unsafe driving behavior, lack of respect for traffic rules, poor road conditions and ineffetive traffic control are some of the contributing factors to such high accident rates. District-wise and type wise details of motor vehicles involved in road accidents in Kerala during 2001-02 are given in the Appendix 8.13.

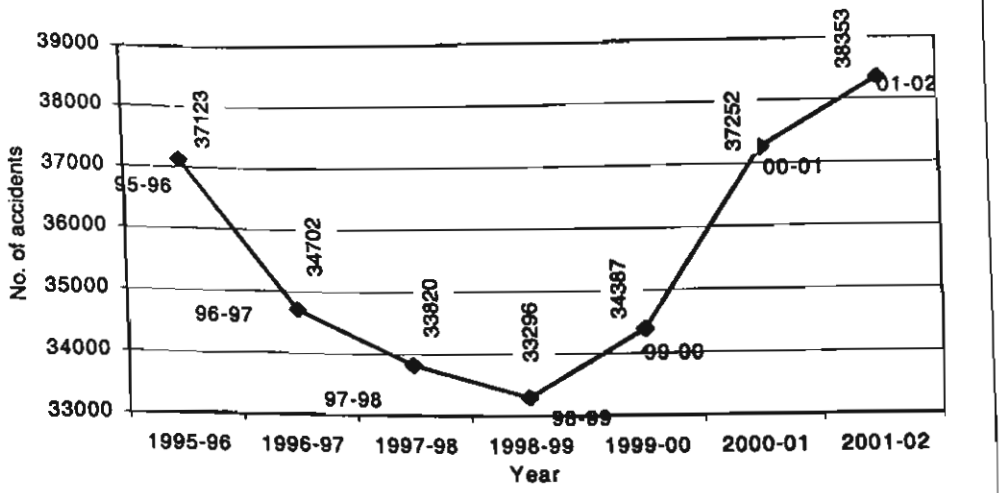
8.30 The number of road accidents was highest in Ernakulam district and lowest in Wayanad District. The percentage of category-wise and vehicle wise accidents in Kerala as on 3/02 is shown in Fig.8.3

Fig-8.3
Vehicle-wise accident in Kerala during 2001-02



8.31 Details of motor vehicle accidents by time of day during 2001-02 are given in Appendix 8.14. The trend of road accidents in Kerala since 1995 is shown in f igure 8.4

Fig-8.4
Trends of motor vehicle accidents in Kerala since 1995-96



8.32 Some facts about everyday occurrence of road accidents in Kerala during 2001-02 are given in box 8.13.

Box 8.13
Everyday accident facts in Kerala/India during 2001-02

Kerala

- *Everyday 105 accidents take place in Kerala*
- *Everyday 144 persons are either killed or injured in road traffic accidents*
- *Everyday about 32 accidents involve two wheelers*
- *Everyday about 19 accidents involve autorickshaw*
- *Daily accident frequency has almost doubled from 57 in 1991 to 105 in 2002*
- *Everyday 557 new vehicles are registered in Kerala of which 376 are two wheelers*

India

- *Every day nearly 205 persons are killed in road accidents in India*
- *Everyday nearly 1233 persons are injured in road accidents in India*

Kerala State Road Transport Corporation (KSRTC)

8.33 The Passenger transport operations in the state are carried out by both public and private operators. The private sector plays a dominant role in the field of transport. KSRTC is the seventh biggest public transport undertakings in India, having a fleet strength of 4421 buses as on 3/02. In the area of bus transport, KSRTC caters to only about 16% of the total passenger demand. There were 26899 buses in the State as on 3/2001 including private buses. The Corporation commissioned 156 new buses during 2001-02 for replacement of old buses. As on 30-11-2002 the Corporation had 4450 buses. Out of this, 652 buses (15%) were aged above ten years. The age-wise details of KSRTC buses are given in Appendix 8.15.

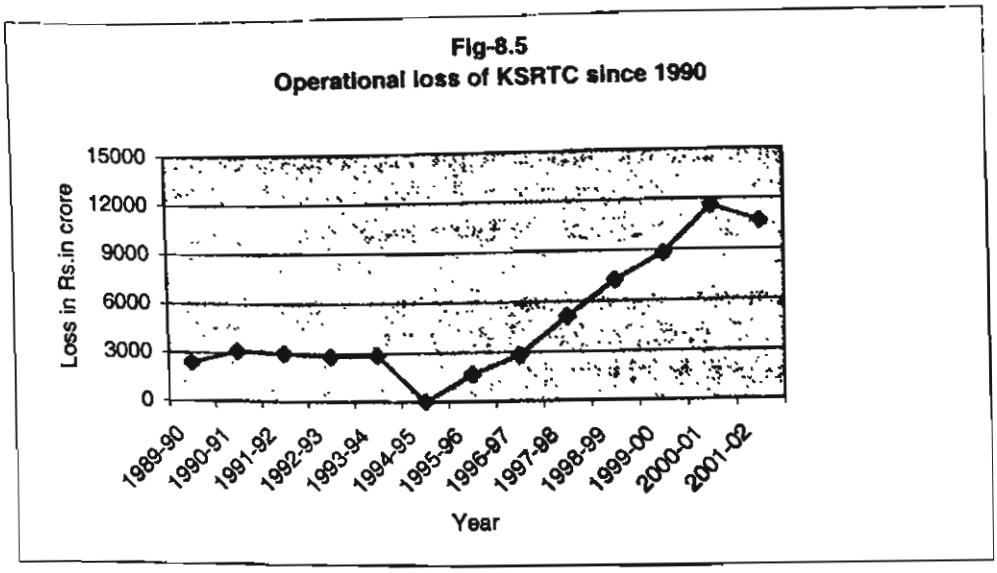
8.34 The number of bus schedules operated as on 3/02 decreased from 4126 in 2000-01 to 3576 in 2001-02. The Corporation buses operated 4148.15 lakh Kms as against 4298.51 lakh Kms in the previous year. The total effective Km operated during 2001-02 was 4107.32 lakh kms. About 11087.16 lakh passengers made use of the services of the KSRTC during 2001-02 as against 10683.40 lakh passengers during the previous year. Average km run by a bus in a day was 257 km per bus during the period under review. The major indicators showing operational efficiency of KSRTC are given in Appendix 8.16. The physical performance of KSRTC compared to the All India average is given in Table 8.4.

Table 8.4
Pysical performance of KSRTC compared to All India Avarage

	Fleet utilisation % of buses on road	Vehicle productivity Revenue earning Km/bus held/day	Bus staff ratio on fleet operated	Staff productivity Revenue earning/km per worker/ day	Fuel efficiency Km/litre
All India	90	290	7.2	45.4	4.61
Kerala	80	273	7.00	45	4.00

8.35 The operational statistics of the Corporation compared with All India figures reveals that the performance of KSRTC in fleet utilisation, vehicle productivity, crew productivity, fuel efficiency etc. are below national average. Inter unit analysis of KSRTC reveals that about 30% of units are performing poorly. The unitwise details of operational statistics are given in Appendix 8.17. KSRTC last revised the fares with effect from 1-10-2001. The fares charged by KSRTC ranged from 35 Ps. per Km in ordinary and city buses to 75 paise per Km in super deluxe services. The fare structure of the KSRTC is given in Appendix 8.18. KSRTC has now added Hightech Luxury /Volvo buses to its fleet. The major performance indicators of KSRTC such as fleet strength, schedules operated, average earning per vehicle, average earning per km, average Kms run per bus, passengers carried etc. were all on the increase during the reporting year. The details are shown in Appendix 8.19. The total number of employees of the Corporation decreased from 27428 in 2000-01 to 25954 (5.37%) in 2001-02. During this period the number of buses decreased only by 3.1%. But the Corporation again reduced its staff strength and there were 24938 staff as on 10/02 of whom 3112 were administrative staff and 21826 were traffic and maintenance personnel. Category-wise staff position of KSRTC is given in Appendix 8.20.

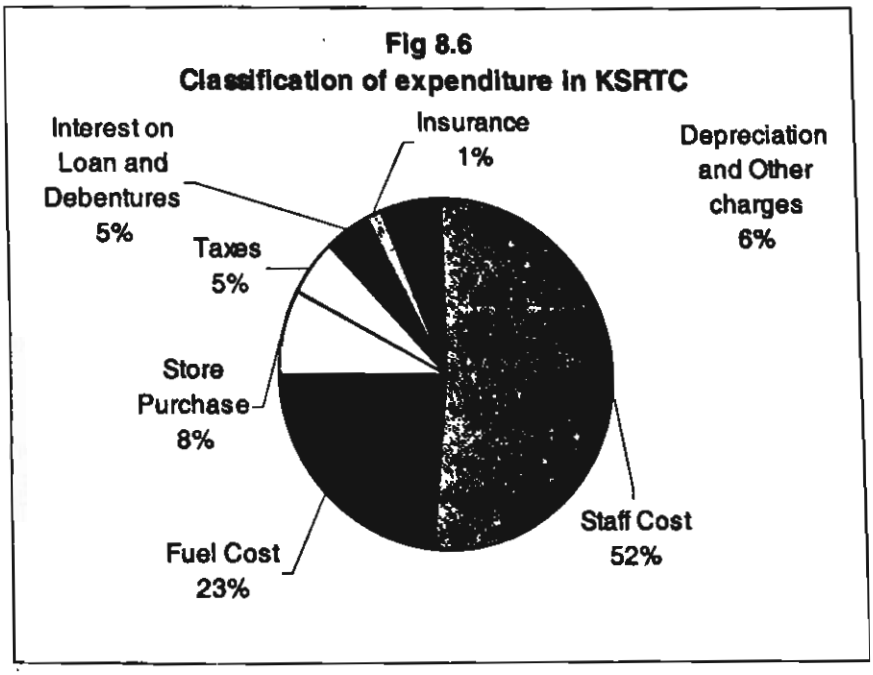
8.36 The gross revenue earnings of the Corporation increased during 2001-02 from Rs.567.25 crore to Rs.605.31 crore. The gross revenue expenditure of the Corporation increased to Rs.712.06 crore as against Rs.683.45 crores in 2000-01. Widening gap between earnings and cost is noticed since the formation of the corporation. The operational loss of the Corporation since 1989-90 is shown in Fig.8.5



8.37 The loss of the Corporation during 2001-02 was Rs.106.75 crores. Against the backdrop of a stringent financial situation facing the KSRTC, it is necessary that the losses on the accounts are to be reduced. The classification of ways and means of KSRTC as on 3/2000 to earn a rupee is given below.

i. Passenger revenue Rs.98.02 %
ii. Non-operating revenue Rs.1.66 %
iii. Other operating revenue Rs.0.32 %

8.38 The classification of spending a rupee by KSRTC approximately for different items is shown in fig.8.6



3.39 One third of the breakdowns are due to tyre defect or puncture. Engine defect is reported in 21.8% of breakdowns. The Corporation continued to meet its social commitment by operating uneconomic routes as well as giving concession to students and handicapped persons etc.

8.40 The efficiency and productivity of the KSRTC mainly would depend on the age and effective utilisation of its fleet and staff productivity. Hightech/Volvo Buses was introduced in the fleet in the year 2001-02. All the units and workshops of the Corporation are connected by website. Computerised reservation facilities are also introduced at major bus stations.

8.41 A study was conducted by the State Planning Board during 2002 to explore the possibilities of improving the performance of the KSRTC. The major issues identified and recommendations are given in Box 8.14.

Box 8.14
Issues to be addressed for improvement of the KSRTC

- *Priority to supply of spare parts, tyres and batteries*
- *Policy for replacement of buses*
- *High cost of operation per bus per day*
- *Inadequate earnings to meet the total cost of operation*
- *Concessional travel*
- *Very poor performance of 30% of operating units of KSRTC*
- *Labour productivity improvements and reductions in personal expenses*
- *Service benefits to the employees under KSR*
- *Accident control*
- *High maintenance cost per vehicle*
- *Maintenance of the vehicle prior to break down*
- *Below optimum revenue receipts due to present mix of services*
- *Below efficient application of computers*
- *Very poor upkeep of bus stations and passengers amenities*

Box 8.15
Remedial measures suggested for improvement of KSRTC

- *Replacement of all the vehicles aged more than seven years or after six lakh Kms of run whichever is earlier*
- *Effective cost reduction measures by improving fleet and vehicle utilisation. All travel concessions are to be stopped and only student concession at 50% of the fare to be continued*
- *Close analysis and monitoring of operations of all the operating 8 units under KSRTC and abandoning of uneconomical operating units*
- *Improvement in manpower utilisation and close monitoring of the schedules operated. The present operating distance for a pair of conductor and driver is as low as 104 Kms and it needs improvement. The present data shows that average speed per steering hour of a pair of drivers and conductor is 16 Kms only. This is to be improved. Deployment of operating crew on working arrangement is to be stopped. This will help to improve labour productivity to a certain extent*
- *Formulation of new service rules for those who are appointed with effect from 1/4/2002.*

Clearing of pending payments by stripping of assets is to be considered. KSRTC can sell out excess and unutilised land, through a systematic and transparent process in two or three years

- *Conduct refresher courses and train operating staff regularly*
- *Attend to maintenance of the buses by making the maintenance staff accountable by entrusting the maintenance of a specific number of buses to specific groups and engaging them round the clock on three-shift basis. An effective fuel consumption monitoring system to be introduced and the vehicles, which show a higher fuel consumption than the prescribed one to be attended immediately. Selected workshops are to be modernised and others can be leased out or privatised. Maintenance of vehicles can also be outsourced in certain locations*
- *Arriving at an economic service mix of different types of services. This is essential if losses are to be reduced significantly*
- *Detailed identification of economical routes from time to time. Operation of the services in economical routes and phasing out operations in uneconomical routes*
- *Extension of computerised system in all financial transactions starting from ticketing, ticket stock/issue register, inventory control, store and purchases, crew scheduling, bus scheduling etc. in 2 to 3 years*
- *By introduction of professional managers/management at the micro level is to be improved for better performance of KSRTC. Professional managers have to be inducted into KSRTC by appointing on contract basis. New recruitment is to be made only on areas of operations that are highly essential and not in the case of ministerial staff. There should be no filling up of the vacancies arising on superannuation except in critical cases of operations. A phased reduction in staff bus ratio within a period of five years is to be brought out*
- *Bus terminals should be improved in all places. BOT system can be attempted in important terminals. Alternatively, Comprehensive commercial complexes can be planned for with bank or financial institutions assistance. Viable project reports have to be prepared through competent consultant(ILFC and ICICI/KINFRA and some other bodies)*

8.42 It is essential to take early decisions on these recommendations which were made several months ago, so as to turn around the Corporation and improve its service to the travelling public. Several reports have been prepared over the last 20 years, but the financial and operational performance of KSRTC has only deteriorated. There is no reason why this should continue to be so.

8.43 The settlement pattern and high density of population along with coastal and midland areas of the state call for efficient mass transport systems in the interests of economy and safety. But the development has been in the opposite direction during the past two decades. Integrated inter-modal mass transport systems have to be studied in details, while planning for traffic and transportation systems in the future. Different levels of government – central and state – and many agencies are involved and, therefore, new institutional arrangements have to be worked out for undertaking such integrated systems.

SKY BUS

8.44 Kochi is a city of peninsulas and islands, and today it is the commercial capital of Kerala. To reduce the traffic congestion and to cater to the increasing traffic demand of commuters, introduction of Sky Bus has been proposed in the Kochi Metropolitan city for implementation with private participation. The Sky Bus Metro is based on the concept of ' Sky Wheels'

presented in 1989 at the World Congress for Railway Research. Private investors have shown interest in this project and the proposal was showcased at the Global Investors Meet

Projects approved in the Global Investor Meet

8.45 It is evident that large finances are essential for infrastructure development. Several initiatives have made to attract private investment in transport sector. The following projects have been identified for implementation with private participation and Memorandum of Undertakings has been signed at the GIM held in January 2003(Table :8.5.

Table.8.5
Name of projects for which MOU has been signed at Global Investor Meet

Sl. No.	Name of project	Agency	Amount (Rs. crores)
1	Modernisation of Thampanoor bus stand and commercial complex at Thiruvananthapuram, Ernakulam Boat Jetty	Reliance Group	50.00
2	Transport Nagars	Reliance Group	20.00
3	Upgradation of KSRTC bus stand at Munnar	M/s. Vellappally Brothers	18.00
4	Passenger Shipping Service from Gulf	IAMAK for Trading and Contracting Est	30.00
5	Bus Station-cum-commercial Complex at Malappuram	Malabar Group of Companies	12.00
6	Bus Station at Kottayam	M/s. Vellapally Brothers	24.00
7	Commercial Complex at Ernakulam	M/s. Vellapally Brothers	20.00
Total			**174.00**

Kerala Transport Development Finance Corporation (KTDFC)

8.46 The KTDFC registered under the Companies Act on 27-2-1991, started commercial business on 16-3-1992. It is a non-banking financial Institution registered with the Reserve Bank of India. The Primary objective of the Corporation is to provide financial assistance to KSRTC, other Government/Quasi Government organisations, and individuals for purchase of new vehicles. It mobilises deposits from the public. The authorised capital of the corporation is Rs.50 crores. In addition to the loan granted to KSRTC and individuals, the Corporation has granted institutional loans to the following agencies during 2001-02.

Name of Institution/Agency		Amount (Rs.lakhs)
1.	Kerala Tourism Development Corporation(KTDC)	85.50
2.	Kerala State Film Development Corporation (KSFDC)	25.00
3.	Kerala State Audiovisual and Reprographic Centre (KSAVTRC)	7.38
4.	Aluva Municipality	18.55
5.	Tropical Botanic Garden and Research Institute (TBGRI)	10.96
6.	Horti Corporation	5.80
	Total:	153.19

8.47 The Corporation mobilised Rs.17.64 crores as fixed deposit during the same period. During 2001-02, the corporation granted Rs.47.50 lakhs as loan to KSRTC for purchase of vehicles. The cumulative loan amount given to KSRTC till 2001-02 was Rs.19012.83 lakhs. An amount of Rs.2830.87 lakhs was also given to the Corporation during 2002-03(till 10/02)

8.48 During the year 2001-02, the Corporation launched SRTO vehicle loan scheme (Small Road Transport Operative Scheme) in association with M/s Sriram Investments Ltd. for which an amount of Rs.3 crores is proposed to be given every month. This scheme was launched in 1.11.2001. An amount of Rs.2170.59 lakhs was granted as loan under the scheme during 2002-03. During 4/02 the Corporation has also launched a. used vehicle loan scheme in association with M/s Shriram Investments Ltd. and an amount of Rs.390.02 lakh was granted as loan under the scheme till 10/02. The Corporation has donated Rs.50.00 lakhs to Medical College, Thiruvananthapuram for setting up of a Medical Intensive Care Unit (MICU). The Corporation has been running on profit since its inception. The net profit during 2001-02 in Rs.322.61 lakhs. The total profit generated by the Corporation is Rs.1072.20 lakhs since its inception.

Railways

8.49 The Indian Railways is among one of the largest railway systems in the world. It has an extensive network which is spread over 63028 route Km. Railways also have an advantage of being less energy intensive and more environment friendly system of transport. The pressure on the road systems in Kerala is extremely heavy and hence the need for development of rail systems and introduction of more services is very essential in the state. The railway operations in the state are controlled by Thiruvananthapuram, Palakkad and Madurai divisions of Southern Railway and jointly carried out railway transport operations in Kerala.

8.50 The entire railway route length in the state spread along 13 railway routes of which highest no.of railway stations (72) is in Thiruvananthapuram - Walayar route. The railway network in the State consists of 1148 KM lines of which 94.14 Km is meter gauge lines. The route length has remained stagnant in the state for a number of years. The railway handled major burden of transporting bulk cargo from and to the state.

8.51 Thiruvananthapuram division carried 1214 lakh passengers during 2001-02 as against 1081 lakh passengers in the previous year registering of an increase of 12.30 %. The total revenue receipts from passengers in 2001-02 amounted to Rs.19312 lakh in Thiruvananthapuram division as against 18621 lakhs in the previous year (3.7 %). The goods traffic has decreased during 2001-02 from 4.87 lakh tonnes to 4.71 lakh tonnes in the division.

Receipts from goods traffic decreased to Rs.20966 lakh in 2001-02 as compared to Rs.25229 lakhs in the previous year. A revenue shortage of 16.9 % is experienced from goods traffic.

8.52 The electrification work between Ernakulam Junction to Thiruvananthapuram Junction both via.Kottayam and Alappuzha and the doubling work between Ernakulam and Mulamthuruthi is in progress. The preliminary work of gauge conversion between Kollam and Punalur has been commenced during 2001-02.

Ports

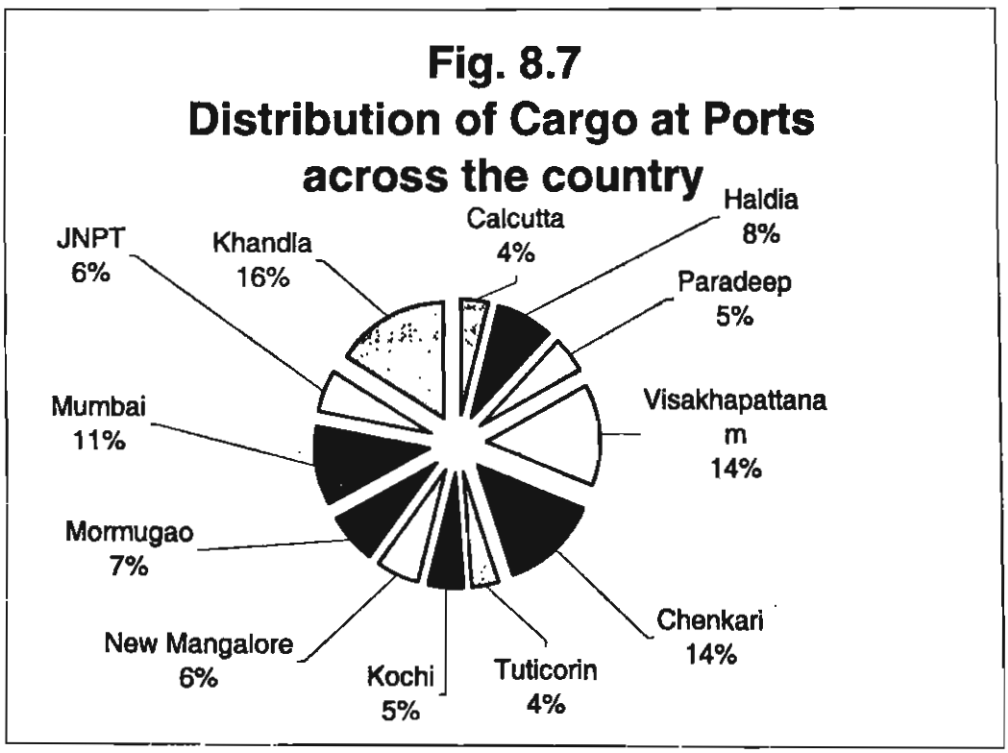
8.53 There are 12 major ports and 148 minor ports along the 5550 kms. of coast line in the country. Kerala has only one major port and 17 minor ports including 3 intermediate ports along its cost line of 585 kms. While major ports are developed and managed by the respective Port Trust under the control of Government of India, the responsibility of minor ports rests with State Government. Indian ports scenario is given in table 8.6.

Table.8.6
Indian Ports Scenario

Particulars	Units	Kerala	India
Major Ports	Nos.	1	12
Minor Ports	Nos.	17	148
Cargo Traffic at Major Ports	Million tonnes	12.06[@]	281.1*

@ for the year 2001-02
** for the year 2000-01*
Source: Economic survey 2001-02, GOI , Department of Ports,GOK. & Kochi Port Trust

Distribution of Cargo across the ports in India is shown in figure 8.7



The distribution of category type of cargo handled at various ports in the country is given in table 8.7.

Table.8.7
Distribution of Category type of Cargo

Cargo	Percentage
POL	44
Iron Ore	13
Fertilizer	4
Coal	12
Container	10
Other Cargo	17

Source: Department of Ports (GIM)

Major Port– Kochi

8.54 Kochi is one of the most prominent ports in the West –Coast .Kochi handled 12.06 million tonnes of traffic in the year 2001-02. The nature of cargo handled at Kochi Port is given in table 8.8.

Table 8.8
Nature of Cargo Handled at Kochi Port

Nature of Cargo	Percentage
Pol crude	56.41
Pol product	16.79
Edible oil	0.86
Other liquids	0.48
Fertilizers	3.67
Food grains	1.97
Coal	1.34
Iron & Steel	0.72
Cement	1.83
Other Cargo	2.38
Container	13.55

Source: Department of Ports (GIM)

8.55 There was only a marginal increase in the container handling, to 151829 TEUs in the year under review from 143115 TEUs in the proceeding year. The number of vessels, which called at the port, increased by 8.18 percentage from 1100 in the previous year to 1190 in the 2001-02. There was only a marginal increase of 0.7 percentage in the net registered tonnage in the year 2001-02 from the previous year (Appendix 8.21).

Vallarpadam International Container Transshipment Terminal

8.56 Feasibility of an International Transshipment Terminal (ICTT) Project was established as far back in 1990 and tenders were invited for the project both in February 1992 and May 1998. But the project could not materialise on account of many uncertainties. Recently the Prime Minister made an announcement that the project would start in May and the Centre would pump in nearly Rs.2000 crores for the project. The clearance from the Ministry of Defence has added momentum for the early start of the long pending project. The project site for ICTT is a green field island with no land connection. Kochi Port Trust in association with State Government has formulated a novel self-supporting scheme which envisages reclamation of 25 ha of land from the

backwaters owned by the port and making use of the sales proceeds of the land for the construction of three bridges from Ernakulam to Vaipeen via Vallarpadam island. Goshree Development Authority (GIDA) has been constituted for this purpose. Kochi Port Trust is executing the construction works connected with the bridges as a deposit work of the State authorities and more than 40 per cent of the work has already been completed. National Highway Authority of India has already prepared project report for providing road connection, for facilitating smooth flow of containers, to the National Highways. Railways have already completed route survey for the rail connection, as there will be substantial movement of containers by rail. Approval in principle for declaring Vallarpadam area as part of Port Based Economic Zone, has been obtained from the Ministry of Commerce.

Box 8.16
Advantages of Vallarpadam Project

- *Majority of the country's containers can be handled through ICTT, Which is presently transshipped through Colombo, Salalah, Singapore and Port Klang.*
- *This could result in saving to the tune of $150 to $200 per container to the Indian exporters*
- *Freight reduction will make Indian produce competitive in the International market.*
- *Savings in terms of foreign exchange to the country*
- *Economic utilisation of the cargo carrying capacity of Indian Railways and Konkan Railways.*

Advantage to Kerala

- *Ensure balanced regional development.*
- *Generation of additional employment opportunities*
- *Investment flow to the tune of 2128 crores.*
- *Development of Port based industries.*
- *Transform Kochi into an Economic Hub.*
- *Save feedering cost of exports from Kerala.*

Intermediate and Minor Ports

The intermediate and minor ports in Kerala are given below.

Box 8.17
Intermediate and Minor Ports in Kerala

1. Neendakara*	2. Alappuzha *	3. Beypore *
4. Vizhijam	5. Valiyathura	6. Kollam
7. Munambam	8. Ponnani	9. Thalasseri
10. Kozhikode	11. Kannur	12. Azheekal
13. Kasargod	14. Neeleswaram	15 Manjeswaram
16. Kayamkulam	17. Manakodam	

8.57 The volume of cargo handled at the minor and intermediate ports declined from 1.58 lakh tonnes in 2000-01 to 0.91 lakh tonnes in the year under review. The cargo handling was mainly confined to Beypore port followed by a very negligible quantity of 82 tonnes in Azheekal (Appendix 8.22). The number of steamers and sailing vessels which reported at the intermediate and minor ports in Kerala decreased from 390 in the previous year to 370 in the year under review and Net Registered Tonnage decreased from 1.18 tonnes to 0.87 tonnes in the corresponding period (Appendix-8.23). Number of Harbour Crafts registered at the intermediate and minor ports of Kerala during 2001-02 and category wise breakup of revenue collected at intermediate and minor ports of Kerala during 2001-02 are given in Appendices 8.24 and 8.25 respectively.

New Initiatives

8.58 Kerala has opened up opportunities for development of ports with private participation.

Box 8.18
Ports identified for private participation

Vizhinjam	- As a Transshipment Hub
Alappuzha	– As a Marina Port
Azheekal	– As a Multi purpose ports with ship repair Complex
Thankassery	– As a Minor Port
Beypore	– As a Minor Port

8.59 Vizhinjam is 20 km.of the International Shipping Route connecting Europe, Persian Gulf and Far East. It has got a natural draft of 24 meters with in one nautical mile. Eighty per cent of Indian containers are transshipped at Singapore Colombo and Dubai. Seventy percent of the containers handled at Colombo are of Indian origin/destination. This results in an annual revenue loss of around $ 125 million. Indian ports have handling capacity of only 1.9 MTEU while Colombo alone handle 1.8 MTEU. More over container throughput of Asia region ports is 80 MTEU, which accounts for 44 per cent of World through put. It is also expected to triple by 2010. Considering the above opportunities and the advantage of Vizhinjam to be developed into an all weather port, action has been initiated for developing Vizhinjam as a transshipment hub with private participation.

8.60 Alappuzha is an important destination in all the tourist circuits operating in Kerala. The beach is well connected to all south Indian towns by road net work and Kochi International Airport is 70 kms away. Back water cruises to Kumarakom Resort is also possible. Hence there is potential for development of Alappuzha as a Marina Beach.

8.61 Azheekal was an attractive port in olden days catering to sea borne trade to Europe and Africa. It is a river line port and has an ideal location with large basin area and rich hinter land. The traffic projection for the year 2005-06 is 5.2 million tonnes and is expected to reach 8 million tonnes by 2010-11.

8.62 Thankassery is having an already built up infrastructure and warehouse which is connected by an approach road to the National Highway . The traffic projection for the port is 4.8 million tonnes by 2005-06 and 6.2 million tonnes by 2010-11.

8.63 Beypore has also got an already built up infrastructure and there is an approach road connecting the wharf to the National Highway. It is the only minor port in Kerala which handles around 1 lakh tonnes of cargo per annum. The traffic projection is 4.5 million tonnes by 2005-06 and 6 million tonnes by 2010-11.

8.64 Preliminary steps have been initiated to private investment for the development of the above ports.

Legislation

8.65 A modern state law to regulate and promote development of intermediate and minor ports is under preparation and the target is effected to be finalised by the Law Reforms Committee in 2003 for further consideration and approval.

INLAND WATER TRANSPORT

8.66 The Inland canals connect the rivers on the banks of which several commercial and industrial centres of Kerala are located .The waterway connecting Hosdurg in North Kerala to Kovalam near Thiruvananthapurm in the South, which covers a distance of 551 kms constitutes the West-Coast Canal system. Developing the canal system to national standards to facilitate smooth movement of larger vessels will result in reduction in road congestion and in making cargo movement cheaper.

8.67 The main agencies engaged in the Water transport operations of the State are State Water Transport Department (SWTD) Coastal Shipping & Inland Navigation Department (CSIND) and Kerala Shipping and Inland Navigation Corporation. (KSINC)

8.6 8 State Water Transport department and Kerala Shipping and Inland Navigation Corporation render services in the water logged areas of Alappuzha, Kollam, Kottayam, Ernakulam, Kasargod and Kannur districts. The Water Resource department is in charge of the maintenance of inland canals and to provide infrastructure facilities such as construction of jetties, footbridges etc. Operational statistics of inland water transport agencies in Kerala are shown in Appendix .8.26

State Water Transport Department

8.69 The main activity of the State Water Transport Department is operation of boat services in the inland canals of the State especially in Kollam, Kottayam, Alappuzha, Ernakulam, and Kannur and Kasaragod districts. During the year under review number of boats owned by the department, number of trips operated, gross route distance operated remained almost at the previous year's level. Number of boats in operation decreased to 54 in 2001-02 from 54 in 2000-01.

8.70 Number of passengers carried increased to 216.06 lakhs in 2001-02 from 214.89 lakhs in 2000-01. During the year under review, receipt of the department has increased to Rs.488.85 lakhs from Rs.464.63 lakhs in the previous year. Revenue expenditure of the department showed a decline of 0.8 per cent. The loss of the department was reduced to Rs.768.89 lakhs in 2001-02 from Rs.803.22 lakhs in 2000-01.

8.71 Though the revenue earning of the department has increased, the operations of the department are still at a loss due to the increase in operating expenditure. The higher operational expenses are due to the operations of a large number of outdated boats, lower fare by the department etc. During 2001-02 the department initiated steps to modernise the fleet strength by introducing boats having passenger capacity of 50 with smaller four-cylinder diesel engines which may reduce the operating cost.

Kerala Shipping and Inland Navigation Corporation (KSINC)

8.72 Kerala Shipping and Inland Corporation is engaged in transportation of passengers and cargo through the inland waterways of Kerala. The Corporation has been making profit for the last ten years. During the year under review the Corporation had a fleet strength of 12 boats and 2 Jhankars. Number of trips on schedule has decreased to 45260 in 2001-02 from 50698 in 2000-01. Gross route distance operated has declined by 10.75 per cent during the year under review. Volume of cargo carried has increased to 684 thousand tonnes on 2001-02 from 560 thousand tonnes in 2000-01 registering an increase of 22.14 per cent. During the period under report the revenue receipt of the Corporation has decreased to Rs.626.06 lakhs from Rs.730.87 lakhs in the previous year. During the year under review the revenue expenditure of the Corporation decreased by 12.04 per cent. Profit of the Corporation has decreased to Rs. 22 lakhs in 2001-02 from Rs.50.19 lakhs in 2000-01. The decrease in profit was due to the stiff competition from private operators. Hence the Corporation was forced to reduce the rates.

8.73 Once Goshree bridges are commissioned, KSINC would lose much of its present operation. This needs to be anticipated and suitable measures initiated. One way is to merge the two operators in the public sector – SWTD and KSINC. This would help to improve and modernise SWTD and would provide KSINC a wider area of operation. The proposal, which has been pending for many years, needs to be considered immediately.

Coastal Shipping and Inland Navigation Department (CSIND)

8.74 Coastal Shipping and Inland Navigation Department provides the basic infrastructure in the State for the promotion of Inland Waterways. Inland Water development schemes operated by the department falls under two categories. Inland canal scheme (Central sector) and Inland Canal scheme (State Sector). For the central sector scheme recently the scheme has been included under the 90% central assistance scheme .The works included under the scheme are modernisation of Jetties and improvement of canals. Construction of foot bridges across existing canals, petty improvement to the existing canal by providing side protection, desilting shallow portions to facilitate easy plying of motor boats and country boats, improvement to cross canal etc. are the works undertaken in the State sector. In addition to this the department undertakes works related to pilot project for modernising inland waterways. Alappuzha – Changanassery, Kottayam – Vaikkom, Alappuzha – Kottayam with World Bank assistance and improvement of Kotti-Valapattanam –Parassinikkadavu boat route with NABARD assistance.

8.75 The Government of India has approved in principle to declare Kovalam- Kollam section as extension of National Waterway 3.

Air Transport

8.76 The Kerala State has three airports at Thiruvananthapuram, Kochi and Kozhikode. Of these, Thiruvananthapuram and Kochi (Nedumbasserry) are international air ports. The Indian Airlines, Air India, Gulf Air, Oman Air, Air Maldives, Kuwait Airways, Air Lanka, Quatar Airways, Jet Airways etc. are the agencies which undertake air traffic operations in the State. Domestic air services are provided by Indian Air Lines Ltd., and private Airlines (Scheduled and non scheduled). Air India Ltd., Indian Airlines Ltd., and other international airlines operating to India handle the international air services. The Airport Authority of India provides infrastructure facilities for civil aviation.

8.77 During 2001-02, 28247 flights (15136 domestic and 13111 international) were operated from all the three airports by various agencies as against 25591 (14708 domestic and 10883 international) in 2000-01. There was an increase in the no. of flights by 10.38%. A total number of 2303817 Passengers (824652 domestic and 1479165 international) was carried during the reporting period from the three airports as against 2229495 (903956 domestic and 1325539 international) passengers in the previous year showing an increase of 3.33 per cent.

8.78 During 2001-02, there is a 9.02 per cent, 11.43 per cent and 10.63 per cent increase in the number of flights operated from Thiruvananthapuram, Kochi and Calicut airports respectively as compared to the previous year. The Cochin Airport accounts for 10.82 per cent increase in the number of passengers. There is 41.53 percent increase in the international passengers during 2001-02 over the previous year. A decrease of 10 per cent of domestic passengers is experienced in this airport during the same period. The passenger traffic at Calicut and Thiruvanathapuram decreased by 6.39 per cent and 3.79 percent respectively during 2001-02 compared to the number of passengers in the previous year. The details of flights operated by various agencies and passengers travelled (domestic and international) from Thiruvananthapuram, Kozhikode and Kochi Air ports are given in Appendix 27 (A),(B) and (C).

Major activities carried out by the Thiruvananthapuram and Kozhikode airports during 2001-02

Kozhikode Airport

- Flight Information display system was installed at a cost of Rs.76 lakhs
- Extension of arrival hall in the international terminal to accommodate more passengers and construction of canopy for visitors at a cost of Rs.52 lakhs
- Calicut Airport was declared as an embarkation point for Haj
- A total of 35 flights were operated with B747 aircraft to facilitate 7000 pilgrims
- B747 started operation as scheduled flight in Dubai-Abudabi route.

Thiruvananthapuram Airport

- Flood lighting at Domestic and International Airport has been provided
- Two coloured X-ray machines have been provided one in each terminal
- Mishandled baggage room in the International Arrival Hall has been provided
- ATM banking service has been introduced at the airport by the S.B.T.

Passport

8.79 The passport offices at Thiruvananthapuram, Kochi and Kozhikode are undertaking the receipt and scrutiny of application for passports in the State. During 2001-02, 415419 applications were received at the three passport offices as against the 344414 applications received in the previous year. There is 20.62 percent increase in the receipt of applications during 2001-02. The total number of passports issued in the State was 402933 in 2001-02, compared to 318979 lakhs in the previous year showing 26.32 per cent of increase. The office-wise details of applications received and number of passports issued are shown in Appendix 8.28.

8.80 The protector of Emigrants, Kochi and Thiruvananthapuram under the Ministry of Labour, Government of India has cleared 104101 number of emigrations during 2001-02 (Kochi 64903

and Thiruvananthapuram 39198) under various categories as against 86362 clearances granted during 2000-01 (20.42%).

Post Offices

8.81 The postal system covers all the villages in the State. The postal network consists of four categories of post offices viz., Head Post Offices, Sub-Post Offices, Extra Departmental Sub Post offices, Extra departmental branch post offices. There were 5073 post offices functioning in Kerala during 2001-02 including 10 situated in Mahe/Lakshadweep which also comes under Kerala Postal Circle. Kerala Postal Circle consists of 51 Head Post Offices, 1989 Sub Post Offices and 3033 Branch offices making an increase of two post offices in 2001-02 compared to those in the previous year. Besides this, there were 90 other postal service offices and 48 (National - 8, State 40) speed posts centers. The details of growth of post offices in Kerala during the last ten years are shown in Appendix 8.29. The category-wise offices in postal services and Division-wise details of postal services in Kerala as on 3/2002 are given in Appendix 8.30 and 8.31 respectively.

8.82 Out of the 5073 post offices, 4194 were located in rural area and 879 are in urban area. The details of Urban/Rural split of Post Offices as on 4/02 are given in Appendix 8.32. On an average one post office served an area of 7.66 sq.km. during the year under review. There is one post office for every 6276 persons in Kerala. The district-wise details of area and population served by one post office during 2001-02 are given in Appendix 8.33

Communication

8.83 Telecommunication is a crucial part of infrastructure and that is getting increasingly important consequent on globalisation and shift to knowledge based modern economy. Bharat Sanchar Nigam Ltd., (BSNL) a Government of India public sector undertaking was formed in 1.10.2000 to take over all the service providing functions of the erstwhile department of telecommunication all over the country. The service providing functions in the country are now the responsibility of the public sector companies viz., BSNL, MTNL. It is one of the largest telecom net works in Asia. It has a capacity of 42.4 million lines and 34.1 million telephone exchanges in the country as on 31.10.2001. The private operators are also now providing telecommunication service facilities to the public. The phenomenal growth realised in the telecommunication sector after 1995 continued and during 2001-02 about 7.8 million new connections were provided in the country. There has been significant importance in the private sector participation in telecom sector and about 45 per cent of the additional phones have been provided by the private operators.

8.84 Kerala Telecom Circles serves the whole of Kerala State, the Union Territory of Lakshadweep and part of Union Territory of Pondicherry (Mahe) with 3890 sq.km. of area. Kerala circle has ten major telecommunication Secondary Switching Areas, one major telecom district and one minor Secondary Switching Area of Lakshadweep as on 2001-02. During the year 2001-02, 110 new telephone exchanges (Urban 28, Rural 82) were opened in the State. The total number of telephone exchanges in Kerala has increased to 1088 in 2002. 5.32 lakh new telephone connections including wireless in local loop (WLL) were provided during the same period, which is the highest in the country. Thus the equipped capacity has increased to 3153418 in the reporting year when compared to previous year's equipped capacity of 2584236 marking an increase of 22.03 percent. The number of working connections in Kerala during 2001-02 rose to 2694156 as against 2161583 marking an increase of 24.64. All the 1088 telephone exchanges in the State are connected to STD/ISD network. The States' telephone density of 8.4 per 100 population as also the rural telephone density of 7.06 as on 10/02 are much above the national average. Every 1000 persons in the circle have 85 telephone connection as against 68 connections

in the preceding year. There were 69 telephone connections per sq.km. in the State during 2001-02, against 56 in the previous year.

8.85 Ernakulam district is having the maximum number of 114 telephone exchanges and Wayanad has the minimum with 29 exchanges as on 3/02. Ernakulam district stood first in having the total number of connections also in relation to population and Wayanad district stood at the last having least number of telephone exchanges and equipped capacity. In Ernakulam District, there are 158 telephones per sq.km and 123 telephones per thousand population. The district wise details of Telephone net work during 2001-02 are given in Appendix 8.34. The major achievements in the telecommunication sector during 2001-02 are given arc given in Box 8.19

Box 8.19
Major achievements in the Telecommunication sector in the State

- *The Kerala Circle has provided internet nodes at all the 14 district head quarters and at Kavaratty in Lekshadweep Island.*
- *Access at local call rates is available to customers from all exchanges*
- *New dialup connections to the general public have been started from 10/02.*
- *Intelligent Network (IN) service have been introduced in all the Secondary Switching Areas which is another major landmark achievement in the field of telecom services.*
- *Free phone service and ITC card service have been introduced in the first phase.*
- *Integrated Digital Service is available from 392 New Technology Switches as on3/02 and has increased to 489 as on 10/02*
- *BSNL'S Cellular Mobile Services have been commenced in the circle on 23-10-2002 covering 2112 KM of Highways and 100 cities.*
- *The BSNL has fixed a target of 9.30 lakh telephone connections during the next year for Kerala Circle (4 lakh lines through wired line, 3.3 lakh through W.L.L. and 2 lakh lines through Cellular Mobile.)*

Chapter 9

SOCIAL SERVICES

Kerala's Social Development is Signal

On the social development front, Kerala has successfully tackled the first generation problems like illiteracy, low girls enrolment in schools, high infant mortality rate, high maternal mortality rate, low expectation of life at birth, high birth rate and related indicators of under development while national planners are still grappling with them.

- Kerala has the highest human development index (HDI) among Indian states despite relatively low percapita income (See Chapter 3)

- Kerala has a history of progressive redistribution measures like land reforms, a wide network of public distribution system, free house sites and house construction support to economically weaker sections. In Kerala about 70 percent of the houses are constructed with state support where as at the all India level it is around 30 per cent. There are as many as 40 social security and welfare schemes mainly directed to attaining reduction in income insecurity and deprivation among weaker sections. The various social security measures benefit over 17 lakh persons. According to National Sample Survey data, Kerala is one of two states- the other being West Bengal-to have recorded an increase in per capita nutritional intake between 1972-73 and 1993-94.

- The state has followed a development path whereby rapid strides have been made in extending education and health care to all. This is clearly reflected from the plan and non-plan expenditure of the state government. Plan expenditure in the state of Kerala on social services touched 24 percent of the total plan from Fifth Five Year Plan through Ninth Five Year Plan. The Plan and non-plan expenditure on social services during 2001-02 amounted to Rs.4,861 crore, which constituted 36 percent of the total government expenditure of the state. It is noteworthy that as can be seen from Table below, despite severe pressures on state government finances, the percentage of expenditure on social services to total expenditure has increased during 2001-02.

Expenditure on Social Services

(Rs.Crore)

Year	Total Expenditure(Revenue and Capital	Expenditure on Social Services (Revenue and Capital)	Percentage of Social Services Expenditure to Total Expenditure
1	2	3	4
1991-92	3502.00	1382.00	39
1992-93	3934.00	1480.00	37
1993-94	4656.00	1825.00	39
1994-95	6103.00	2196.00	36
1995-96	6390	2380.00	37
1996-97	7410.64	2774.06	37
1997-98	8979.99	3162.05	35
1998-99	9897.71	3429.25	35
1999-00	12214.14	4272.31	35
2000-01(RE)	13395.02	4671.65	35
2001-02 (R.BE)	13671.27	4861.36	36

EDUCATION

Literacy

Box 9.1

Kerala achieved the highest literacy rate of 90.92 per cent as compared to the All India average of 65.38 per cent in 2001.

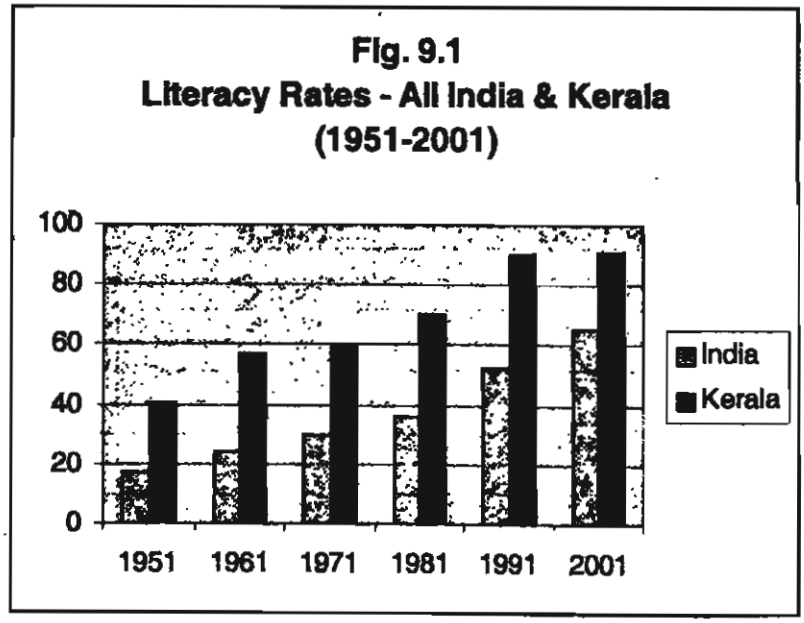
According to 2001 Census, the literacy rate for Kerala is 90.92 percent as against the All India literacy rate of 65.38 percent. Kerala's female literacy rate at 87.86 percent and male literacy rate at 94.20 percent, are unique compared to the corresponding national figures are 54.16 percent and 75.85 percent respectively. Bihar has the lowest women literacy at 33.57 percent. The literacy rates in other major states are way down from 43 percent to 67 percent except in the case of small states and Union Territories. The relevant data are reflected in Appendix –9.1.

9.2 Among the districts in Kerala, Kottayam achieved the highest literacy rate of 95.90 percent and Palakkad had the lowest literacy of 84.31 percent as shown in Appendix-9.2. An analysis would show that regional and gender disparities in literacy are marginal in Kerala. The literacy rates for All India and Kerala at the beginning of the 20th Century and its growth through subsequent decades are given in Table 9.1.

Table – 9.1

Literacy Rates – All India and Kerala (1901-2001)

Year	All India	Kerala
1901	5.35	11.14
1911	5.92	13.31
1921	7.16	19.02
1931	9.50	21.34
1941	16.10	-
1951	16.67	40.47
1961	24.02	56.85
1971	29.45	60.42
1981	36.03	70.42
1991	52.21	89.81
2001	65.38	90.92



School Education Infrastructure and Accessibility

Box – 9.2
The National Policy on Education 1986 modified in 1992 emphasised that focus of elementary education is:

- *universal access and enrolment*
- *universal retention of children upto 14 years of age*
- *a substantial improvement in the quality of education to enable all children to achieve essential levels of learning.*

Box – 9.3
The key strategies of the Kerala's Tenth Plan are:

- *Redeployment of surplus teachers*
- *Closing of schools without minimum students except in remote areas.*
- *Strengthening of monitoring system and thereby making the teachers accountable and inculcation of values.*
- *Enforcing 180 instructional days in government and aided schools.*
- *Avoiding subsidy system particularly in examination and text books.*
- *Rationalising the number of Directorates.*

9.3 In Kerala, there were 12331 schools in 2002 comprising 6754 Lower Primary Schools, 2959 Upper Primary Schools and 2618 High Schools. Besides there were 8 Anglo Indian High Schools, 35 schools for the Physically Handicapped and 37 Kendriya Vidyalayas/Jawahar Navodaya Schools in the state. The stage wise educational infrastructure is given in Table – 9.2.

Table – 9.2
Progress of Educational Institutions 1996-97 - 2001-02

Year	High Schools	U.P. Schools	L.P. Schools	Total
1996-97	2580	2968	6726	12274
1997-98	2592	2964	6717	12273
1998-99	2585	2966	6755	12306
1999-2000	2596	2966	6748	12310
2000-01	2615	2957	6758	12330
2001-02	2618	2959	6754	12331

Box – 9.4

In 2002, School education infrastructure consisted of 6754 L.P. Schools, 2959 U.P. Schools and 2618 High Schools with 2984 L.P sections in high schools/UP schools and 2068 UP sections in high schools. The accessibility is far higher in Kerala.

9.4 As could be seen in Table 9.2 there was marginal growth in school education infrastructure during the last six year period from 12274 in 1997 to 12331 in 2002. During the above period LP Schools increased by 28 and high schools by 38 whereas there was a decrease of 9 upper primary schools. A detailed analysis of school education infrastructure would show that 723 high schools and 2261 U.P. schools had L.P. sections and 2068 high schools had U.P. sections. The relevant facts are presented in Appendices 9.4 to 9.6. Thus the effective L.P. school education infrastructure consisted of 6754 Lower Primary Schools and 2984 Lower Primary sections which bring out the fact that, for every 3270 persons in the state, there is one L.P School/Section. Similarly for every 236 children in the L.P age group, there is one L.P school/section. There are 2959 U.P schools and 2068 U.P sections, which implies that there is one U.P school/section for every 6334 persons in the state. For every 328 U.P school going age group population, there is one U.P school/section on an average.

9.5 The aided school system has a strong presence in Kerala. Of the total 12331 schools, 4511 were government schools (37 percent), 7320 private aided schools (59 percent) and 500 unaided schools (4 percent). Further, of the total L.P schools government sector schools constituted 38 percent, private aided sector 60 percent and the rest 2 percent in unaided sector. Similarly out of 2959 upper primary schools, 32 percent schools were in government sector, 64 percent schools in private aided sector and 4 percent in the private unaided sector. Of the total 2618 high schools, there were 986 government schools (38 percent), 1415 private aided schools (54 percent) and 217 private unaided schools (8 percent). The proportion of high schools in the unaided sector is more as compared to LP/UP schools. The relevant details are given in Appendix – 9.9.

Fig. 9.2
Management wise Distribution of Schools in Kerala - 2002

Spatial Distribution of Schools and Accessibility

9.6 The spatial distribution of schools in 2000 reveals that there were 651 schools in the Corporation areas consisting of 288 L.P schools, 144 U.P schools and 219 high schools. In the Municipal areas there were 932 schools with 457 L.P schools, 207 U.P schools and 268 high schools. The remaining 10727 schools were in panchayat areas.

9.7 The wide spread educational infrastructure facilitated easy access to LP/UP/HS education in Kerala. 94.39 percent of the rural population is served by primary schools/sections within a distance of one km. and 97.96 percent within a distance of 2 kms. With regard to U.P education 96.2 percent of population is served with an upper primary school/section within a distance of 3 kms. The rural population served by secondary schools within a distance of two kms. is 24.71 percent and 97.82 percent has the facility for secondary education within a radius between 6 and 8 kms.

Facilities in Government Schools

9.8 Kerala schools have better physical and basic facilities. The infrastructure created under District Primary Education Programme (DPEP) and the involvement of Local Governments under decentralised

planning have greatly contributed to this improvement. The position in 2001 was that 84 percent of the schools were housed in proper buildings and 16 percent of schools were in thatched sheds. According to available statistics, 438 schools are still functioning in rented buildings. Regarding basic amenities, 88 percent of the government schools have drinking water facilities and 73 percent have latrines/urinals. The relevant details are furnished in Appendices 9.10 and 9.11.

Sharp Decline in Enrolment of students in schools

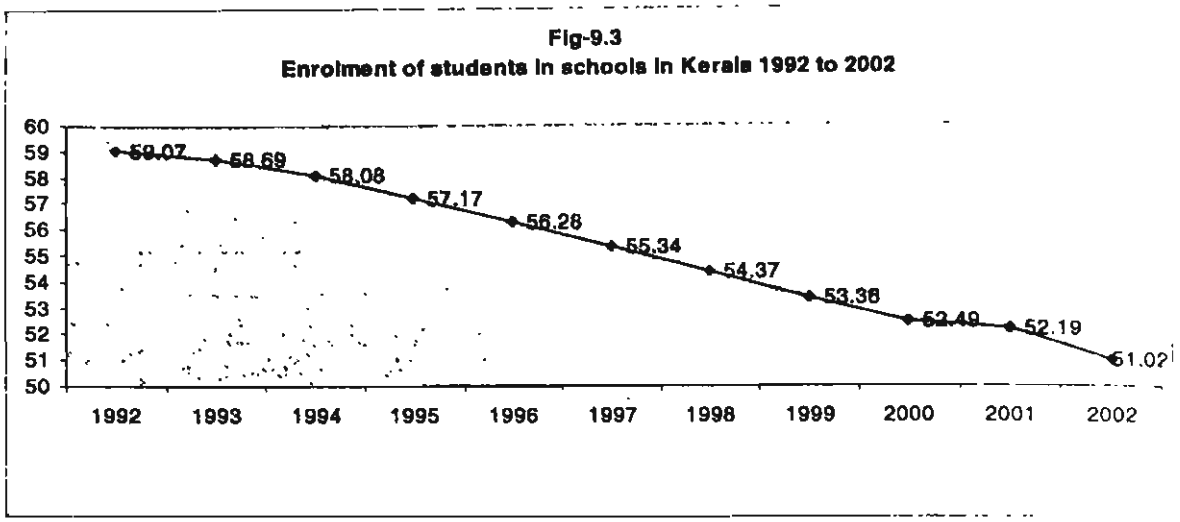
Box – 9.5
There is a sharp fall in total enrolment of students from 52.19 lakhs in 2001 to 51.02 lakhs in 2002 which shows a fall by 1.17 lakh students in the school education sector. The total decline of students during 1992 – 2002 stood at 8.05 lakhs.

9.9 Enrolment of students at school education level has been showing a declining trend for the last 15 years due to the sharp fall in rate of growth of population since late 1970s. Table-9.3 shows the figures for the last ten years. But the decline is sharper during 2001-02. The trend analysis shows that in 1992 the enrolment stood at 59.07 lakh students the highest which sharply declined to 51.02 lakhs in 2002. The major reason is that school going age group population declined. Though the total enrolment shows a declining trend, the enrolment of students in private unaided sector shows a marginal increasing trend as reflected in Table – 9.3. There was a fall of 8.05 lakh students, a decline of 13.6 percent during the period 1992 – 2002. Using the projected school age population, the enrolment ratio at the L.P level is near universalisation, 106% at the U.P level and 99% at the high school level. The all India level and in major states the enrolment ratio is distinctly lower. The relevant facts are given in Appendices 9.12 to 9.16.

Table – 9.3
Management-wise Enrolment of students in schools in Kerala 1992-2002

Year	Enrolment of students			
	Government	Pvt. Aided	Pvt. Unaided	Total
1992	22.83	34.68	1.56	59.07
1993	22.61	34.46	1.62	58.69
1994	22.12	34.21	1.75	58.08
1995	21.60	33.77	1.80	57.17
1996	21.02	33.34	1.92	56.28
1997	20.35	32.93	2.06	55.34
1998	19.74	32.40	2.23	54.37
1999	19.26	31.75	2.35	53.36
2000	18.69	31.39	2.41	52.49
2001	18.42	31.19	2.58	52.19
2002	17.71	30.68	2.63	51.02

4/100/2003—A-16



Enrolment of Girl students.

Box – 9.6
The girl students enrolment in schools in 2002 stood at 25 lakhs out of 51.02 lakhs which represented 49 percent.

9.10 Enrolment of girl students in schools constituted 49 percent of total enrolment. The percentage enrolment of girl students in LP, UP and HS level stood at 49.3, 48.1 and 49.5 respectively in 2002. The relevant details are given in Table- 9.4. It is noteworthy that girls enrolment is near universalisation whereas the all India level it is around 84 percent.

Table – 9.4
Enrolment of students in Schools – Stage wise 2001 & 2002

(Rs in lakhs)

Stage	2001			2002		
	Boys	Girls	Total	Boys	Girls	Total
Lower Primary	9.83	9.5	19.33	9.53	9.27	18.8
Upper Primary	8.72	8.07	16.79	8.37	7.77	16.14
Secondary	8.06	8.01	16.07	8.12	7.96	16.08
Total	**26.61**	**25.58**	**52.19**	**26.02**	**25.00**	**51.02**

SC/ST Enrolment

Box – 9.7
The enrolment of Scheduled Caste students numbered 5.39 lakhs (10.57%) and that of Scheduled Tribe students 0.59 lakhs (1.15%) in 2002.

9.11 The enrolment of SC/ST students in schools in 2002 stood at 5.98 lakhs, which accounted for 11.72 percent of the total school enrolment. The enrolment of SC students numbered 5.39 lakhs and that of ST students 0.59 lakhs. Of the total SC/ST students, 42.59 percent were in government schools, 56.1 percent in private aided schools and 1.31 percent in private unaided schools. The relevant details are given in Appendices 9.18 & 9.19.

Low Drop out rate in Kerala.

9.12 The drop out rate is very low in Kerala. During 1999-2000 the dropout rates were 1.21 at L.P level, 1.14 at U.P level and 2.20 at high school level. District-wise analysis shows that Wayanad had the highest dropout rate as reflected in Table-9.5.

Table – 9.5.

District-wise/stage-wise Dropout ratio in schools – 1999-2000.

Sl. No	Name of District	L.P.Stage			U.P. Stage			High School Stage		
		Enrol-ment	Drop out	% drop out	Enrol-ment	Drop out	% drop out	Enrol-ment	Drop out	% drop out
1	2	3	4	5	6	7	8	9	10	11
1	Thiruvananthapuram	177172	2090	1.18	155766	1802	1.16	147264	2894	1.97
2	Kollam	131205	701	0.53	125822	616	0.49	123811	1432	1.16
3	Pathanamthitta	61487	853	1.39	59553	486	0.82	60944	177	0.29
4	Alappuzha	102254	637	0.53	96333	543	0.56	99107	880	0.89
5	Kottayam	103371	862	0.83	89793	683	0.76	89522	2065	2.31
6	Idukki	56269	950	1.69	51235	830	1.62	46565	2179	4.68
7	Ernakulam	146636	1958	1.34	135410	1199	0.89	136190	2496	1.83
8	Thrissur	182382	1754	0.96	155279	1017	0.65	145402	1334	0.92
9	Palakkad	176129	2373	1.35	155842	1794	1.15	142026	3682	2.59
10	Mlappuram	308987	4463	1.44	262416	4615	1.76	230904	8883	3.85
11	Kozhikode	186063	2107	1.13	162529	1499	0.92	157749	2748	1.74
12	Wayanad	52421	1849	3.63	43225	1298	3.00	37938	2033	5.36
13	Kannur	159094	1667	1.05	139041	1753	1.26	132209	3665	2.77
14	Kasaragod	88856	1265	1.42	72258	1283	1.78	62078	970	1.56
	Total	**1932326**	**23429**	**1.21**	**1705002**	**19418**	**1.14**	**1611719**	**35438**	**2.20**

Source: Directorate of Public Instruction, Thiruvananthapuram.

Teacher-Pupil Ratio

Box – 9.8

Teacher-pupil ratio in Kerala fell from 1:29 in 1997-98 to 1:28 in 2001-02

9.13 There were 182186 school teachers in Kerala in 2001 of whom 64159 (35%) were government school teachers, 110470 (61%) private aided school teachers and 7557 (4%) private unaided school teachers. Of the total school teachers in the state, 42895 were lower primary section teachers, 47710 upper primary section teachers, 90645 high school teachers and 936 TTI teachers. The teacher-pupil ratio in Kerala stood at 1:28 in 2001. The teacher-pupil ratio at LP stage is 1:44, at Upper primary stage 1:34 and 1:18 at High School stage. The relevant details are given in Appendices 9.21 and 9.22.

4/100/2003—A-16A

S.S.L.C. Results.

9.14 An analysis of SSLC results during the last decade shows significant improvement. Greater effort has been made through training of teachers, minimum levels of learning, examination reforms and curriculum development which all contributed to better results. The pass percentage of SSLC examinations in 2002 was 59 as against 54.94 in 2001 and 51 percent in 1993. The results in rural areas and among vulnerable sections also improved. Details of SSLC examination results from 1993 to 2002 is shown Table 9.6.

Table – 9.6

Number of pupils appeared and passed in SSLC Examination from 1993 to 2002

Year	Month	No.of students Appeared	No.of students passed	Percentage of Pass
1993	March	555229	285222	51.36
	September	1978	605	30.59
1994	March	562050	280297	49.87
	September	8314	2100	25.26
1995	March	538707	272366	50.56
	September	1439	344	23.91
1996	March	543817	266081	48.93
	September	1510	584	38.68
1997	March	559435	284554	50.86
	September	1392	193	13.86
1998	March	550322	287418	52.23
	September	1770	141	7.97
1999	March	543478	287692	52.94
2000	March	560541	308484	55.03
2001	March	568081	312095	54.94
2002	March	581520	344967	59.3

Source: Directorate of Public Instruction, Thiruvananthapuram.

Schools which do not have minimum students and "Protected" Teachers

Box – 9.9

Schools which do not have minimum students show an alarming increase in numbers. The number of "uneconomic" schools increased from 1407 in 1996 to 2244 in 2000-01 and further to 2720 in 2002. The number of "protected" teachers has also increased from 2239 in 1996 to 2408 in 2000 and further to 3926 in 2002. These two drain the public exchequer a lot and divert resources that should be used for improving quality and for modernisation.

9.15 As per Kerala Education Rules, a school in which the minimum strength per standard in LP/UP/HS is below 25 is called an "uneconomic school". It means that the school is simply unviable. The minimum required strength per standard in Arabic and Sanskrit schools is 15. In 2002 there were 2720 uneconomic schools in the state of which 1221 were government schools and 1499 were private aided schools. The number of uneconomic schools increased by 476 during 2001-02. Of the total uneconomic

schools, 2283 were LP schools, 369 UP schools and 68 high schools. District wise/management-wise details of uneconomic schools are given in Table 9.7.

Table – 9.7
Uneconomic Schools in Kerala (District wise and stage wise – 2002)

District	Government				Aided				Total			Grand Total
	LPS	UPS	HS	Total	LPS	UPS	HS	Total	LPS	UPS	HS	
TVPM	84	13	5	102	26	6	1	33	110	19	6	135
KLM	85	7	0	92	37	3	0	40	122	10	0	132
PTA	90	30	8	128	201	23	4	228	291	53	12	356
ALP	92	19	3	114	73	11	4	88	165	30	7	202
KTM	105	35	10	150	112	25	6	143	217	60	16	293
IDK	46	17	7	70	33	10	3	46	79	27	10	116
EKM	109	39	9	157	88	27	4	119	197	66	13	276
TSR	47	12	2	61	102	12	0	114	149	24	2	175
PKD	42	1	0	43	55	2	0	57	97	3	0	100
MLPM	20	0	0	20	30	0	0	30	50	0	0	50
KZD	76	7	0	83	186	13	0	199	262	20	0	282
WYD	38	3	0	41	3	0	0	3	41	3	0	44
KNR	74	18	0	92	343	30	0	373	417	48	0	465
KSD	62	4	2	68	24	2	0	26	86	6	2	94
Total	**970**	**205**	**46**	**1221**	**1313**	**164**	**22**	**1499**	**2283**	**369**	**68**	**2720**

9.16 There were 2408 protected teachers in 2000 which increased to 3926 in 2002. Of the 3926 protected teachers, 2487 wee primary division teachers, 816 special teachers and 623 high school teachers. District-wise analysis shows that Kozhikode district had the largest number of protected teachers followed by Kannur, Kottayam and Thrissur districts. The relevant details are given in Table 9.8.

Table – 9.8
Protected Teachers in Kerala, Stage wise/District wise - 2002.

Sl. No.	District	HSA	P.D.Teachers	Special Teachers	Total
1	Thiruvananthapuram	9	76	120	205
2	Kollam	114	201	122	437
3	Pathanamthitta	40	76	34	150
4	Alappuzha	114	112	100	326
5	Kottayam	7	32	39	78
6	Idukki	2	11	13	26
7	Ernakulam	60	126	131	317
8	Thrissur	79	211	92	382
9	Palakkad	26	229	46	301
10	Malappuram	7	219	13	239

11	Kozhikkode	29	651	44	724
12	Wayanad	17	43	2	62
13	Kannur	95	439	58	592
14	Kasaragod	24	61	2	87
TOTAL		**623**	**2487**	**816**	**3926**

9.17 The estimation of student strength and number of teachers necessary has been made on the basis of 'strength' fixed at the beginning of each academic year at different days in different schools even in the same vicinity. There have been several allegations of malpractices in this. A single-day verification in the schools of contiguous areas has been suggested for long to fix the actual student strength. It has been finally decided to do this in 2003. It is expected to result in the need to change enrolment figures and the number of 'uneconomic' schools and 'protected' teachers.

Higher Secondary Education

9.18 Higher Secondary Course was introduced in 84 schools during 1990-91. During the Ninth Plan a total of 842 schools were started and thus at the end of the Ninth Plan period, there were 932 higher secondary schools of which 416 were in government sector, 508 in aided sector and 8 in unaided sector with 3486 batches an annual sanctioned strength of 174300 students. But the actual annual intake was about 1.69 lakhs, which resulted in 5000 vacant seats in 2002. During 2002, 322 higher secondary schools were sanctioned with one batch each in private unaided sector. Thus the total number of higher secondary schools increased to 1254, of which 416 are in government sector, 508 in aided sector and 330 in unaided sector. The relevant facts are given in Table - 9.9. The number of batches rose to 3808 with a sanctioned intake capacity of 190400 students. There are more schools than are necessary and the intake is likely to go down as enrolment in schools declines further. The relevant details on the district-wise distribution of schools and batches are given in Appendix 9.25.

Table – 9.9

Management-wise No. of Higher Secondary Schools started in Kerala during the period 1994 – 2002.

Year	Government	Aided	Unaided	Total
Till 1994	49	33	2	84
1995	--	--	6	6
1996	--	--	--	--
1997	101	1	--	102
1998	106	226	4	336
1999	--	--	--	--
2000	160	246	(-)4	402
2001	--	2	--	2
2002	--	--	322	322
Total	**416**	**508**	**330**	**1254**

9.19 The total enrolment of students in higher secondary schools stood at 3.35 lakhs in 2001-02. Girl students constituted 57.64 percent as shown in Appendix 9.26. During 2001-02, 2.41 lakh students appeared for higher secondary examination and 1.42 lakh students (59.04%) passed. The relevant details are given in Table - 9.10.

Table – 9.10
Number of students appeared and passed in Higher Secondary Education – (1995-96 to 2001-02)

Year	Number of students appeared			Number of students Passed			
	Boys	Girls	Total	Boys	Girls	Total	%
1995-96	3050	3595	6645	1211	2199	3410	51.32
1996-97	3594	3740	7334	1561	2503	4064	55.41
1997-98	3287	3824	7111	--	--	4348	61.14
1998-99	9147	11653	20800	4850	7397	12247	58.88
1999-2000	25434	31316	56750	12844	18708	31552	55.60
2000-01	37591	47700	85291	20290	28901	49191	57.67
2001-02	103357	137520	240877	59847	82363	142210	59.04

The number of teachers in higher secondary schools stood at 16292 in 2002 of whom 10982 were full time teachers and remaining 5310 were on contract basis. The relevant details are given in Table – 9.11.

Table – 9-11
Number of Teachers in Higher Secondary Schools – 2002

Sl. No.	Batches	Number of Teachers			
		Govt. FT	Aided FT	Contract basis	Total
1	Science	594	4210	2127	6931
2	Humanities	471	2004	1217	3692
3	Language	498	2554	1521	4573
4	Commerce	10	641	445	1096
Total		**1573**	**9409**	**5310**	**16292**

Vocational Higher Secondary Education

Box – 9.10

There are 375 Vocational Higher Secondary Schools of which 247 in government sector and 128 in aided sector with a total of 1000 batches in 43 courses. The sanctioned intake of students is 30,000.

9.20 Vocationalisation of Higher Secondary Education was introduced in India during 1976-77. It was introduced in 19 government high schools in Kerala in 1983-84. At present, there are 375 Vocational Higher Secondary Schools (247 in the government sector and 128 in the aided sector) with a total of 1000 batches in 43 courses. District-wise distribution of schools is given in Appendix 9.28. The sanctioned intake of students in 2002 was 30000. The course-wise sanctioned intake of students in VHSE in 2002-03 is given in Appendix 9.29. During 2002, 23374 students appeared for vocational higher secondary examination out of which 17238 students passed. The relevant details are given in Appendix 9.30.
Of the total 43 courses, 12 courses have been approved by the Kerala Public Service Commission as the basic qualification for various posts. There are 42 courses approved as 'Designated subject trades' under the Apprenticeship Amendment Act 1986.

9.21 These schools, to be continued as purposeful institutions, have to be made truly vocational with 'hands on' training for the study. A committee is studying the problems of these schools and basic changes may have to be made.

Higher Education.

Box – 9.11
The Tenth Plan outlined the following major reforms

- *More autonomy to Higher Education Institutions*
- *Introduction of Credit and Semester Systems*
- *Introducing modular/core courses*
- *Encouraging Self-financing Institutions*
- *Raising of resources through NRKs, alumni, local public and philanthropists.*

9.22 Kerala pursued a liberal higher education policy from 1956 through mid eighties in terms of quantitative expansion and access to higher education. Then there was a shift in policy from quantitative expansion to quality education, gender equity, social justice and equalisation of opportunities. Since late 1990s there has been more emphasis on self financing education in higher education with the starting of more professional colleges and courses in emerging areas. At present Kerala has seven universities viz; University of Kerala, University of Calicut, Mahatma Gandhi University, Sree Sankaracharya University of Sanskrit, Cochin University of Science and Technology, Kannur University and Kerala Agricultural University excluding two deemed universities which constituted 2.7 percent of 297 universities in India as per Economic Survey 2001-02.

Box – 9.12

National Policy on Education recognises that higher education provides people with an opportunity to reflect on the critical, social, economic, cultural, moral and spiritual issues facing humanity and contributes to national development through dissemination of specialised knowledge and skills.

9.23 In Kerala, Calicut, Mahatma Gandhi and Kannur Universities, there are 224 arts and science colleges of which 38 are government colleges, 148 private aided colleges and 38 private unaided colleges. The university-wise and management wise arts and science colleges in Kerala is given in Table – 9.12. District-wise distribution of arts and science colleges is given in Appendix 9.31.

Table – 9.12
University-wise and management-wise Arts and Science Colleges in Kerala - 2002.

Name of University	No. of Colleges			Total
	Government	Private Aided	Unaided	
Kerala	9	37	11	57
Calicut	16	44	4	64
Mahatma Gandhi	7	55	23	85
Kannur	6	12	..	18
Total	**38**	**148**	**38**	**224**

Source: Directorate of Collegiate Education.

Enrolment at Higher Education Level

9.24 There were 1.61 lakh students in arts and science colleges (excluding students in unaided colleges) in the state of which 54480 were under Kerala University, 43800 under Calicut University, 47666 under M.G. University and the remaining 14808 were under Kannur University during 2002, as against 1.45 lakhs in 2000 showing an increase of 11.03 per cent. Of the total students, girl students constituted 61.7 percent and SC/ST students accounted for 10.1 percent. Out of the total 1.61 lakh students, 1.46 lakh students (90.8%) were at the degree level and 0.15 lakh (9.2%) at Post Graduate level. Stage-wise enrolment details are furnished in Table-9.13. The University wise/stage-wise enrolment of students in arts and science colleges is given in Appendix 9.32.

Table – 9.13
Enrolment of students in Arts and Science colleges in Kerala 2002

University	Degree			Post Graduate			Total
	Boys	Girls	Total	Boys	Girls	Total	
Kerala	18431	30815	49246	1473	3761	5234	54480
Calicut	15136	23838	38974	1438	3388	4826	43800
Mahatma Gandhi	17334	26733	44067	1274	2325	3599	47666
Kannur	6037	7655	13692	495	621	1116	14808
Total	**56938**	**89041**	**145979**	**4680**	**10095**	**14775**	**160754**

Source: Directorate of Collegiate Education, Thiruvananthapuram.

9.25 Enrolment of students in arts and science colleges at degree and post graduate levels increased from 148749 in 1997 to 160754 in 2002. Of the total 145979 students at the degree level in 2002, 61369 students (42 percent) were in B.A courses of which girl students constituted 38628 (63 percent). In B.Sc. courses there were 61690 students of which girl students constituted 38198 (62 percent) and 22920 students were B.Com students with 12215 girl students (53%). The relevant details are given in Table – 9.14.

9.26 During 1997-2002, 179 courses were introduced. But the courses started were largely in traditional/conventional areas. The range of courses in Kerala is only about 35% as compared to South Indian Universities. This is an extremely disturbing trend and calls for urgent remedial action on the part of the universities.

Table - 9.14
Details of enrolment of students in Arts & Science Colleges at Degree level and Post Graduate level in 2002.

Degree	Boys	Girls	Total
B.A	22741	38628	61369
B.Sc	23492	38198	61690
B.Com	10705	12215	22920
M.A	2177	4588	6765
M.Sc	1554	4281	5835
M.Com	949	1226	2175
Total	**61618**	**99136**	**160754**

9.27 An analysis of B.A degree enrolment in16 subjects shows that Economics constituted 31 percent, English 18 percent and History 16 percent and other subjects 35 percent. The enrolment of girl students

out numbered boys in almost all the B.A degree courses. In the case of B.Sc degree enrolment, Mathematics, Physics, Chemistry, Zoology and Botany showed enrolment levels of 15283, 12422, 12223, 10943 and 8169 respectively. The summary Table is given in Table – 9.14. The details of course-wise/subject-wise enrolment of students at degree level are given Appendices – 9.33, 9.34 & 9.35.

9.28 There were 14775 students for post graduation during 2002 of whom 68 percent were girl students. Of the total 14775 students, 6765 (45.8%) were M.A students, 5835 (39.5%) M.Sc students and 2175 (14.7%) M.Com students. The relevant details are given in Appendices 9.36, 9.37 & 9.38.

9.29 The number of teachers in arts and science colleges stood at 10635 in 2002 as against 11643 in 2000. The university-wise number of teachers in arts and science colleges are given in Appendix 9.39. Over 47 percent of the student strength in colleges was shifted to Higher Secondary Schools during the introduction of Plus Two classes in the High School system. Yet, there was no corresponding reduction in the staff strength (teaching and non-teaching) of colleges, resulting in surplus staff in many of them, especially the aided colleges which are the largest in number. Attempts at redeployment of this staff since 2001, have not been successful. This is yet another source of wasteful drain of financial resources, which should have been used for improvement of quality and starting of much needed new courses.

Financing of Universities

9.30 Government of Kerala have been providing grants to universities under plan and non-plan. Nevertheless there exists a serious gap between income and expenditure consequent on increasing salary bill, pension commitments and conduct of examinations etc. But at the same time the internal resources of the universities which constituted about 70 percent in 1981 sharply declined to about 21 percent now. An analysis of 2001-02 position shows that Kerala University's staff salary commitment amounted to Rs.35.75 crores and conduct of examinations and other activities Rs.18.75 crores. Expenditure of all universities showed a rapid increase consequent on implementation of UGC pay scales and rise in cost in conduct of examinations etc. University-wise receipts and expenditure during 2001-02 is presented in the following Table – 9.15.

Table – 9.15
University-wise details of Receipts and Expenditure during 2001-02

(Rs. in lakhs)

Major Items	Kerala University	Calicut University	Mahatma Gandhi University	Kannur University	Sanskrit University	CUSAT
Details of Receipts						
1. Internal Receipts	1398.28	610.59	634.09	193.18	27.79	630.20
2. Plan	400.00	300.00	600.00	346.50	112.50	300.00
3. Non-Plan	3350.00	2365.00	1400.00	--	975.00	1250.00
Total	**5148.28**	**3275.59**	**2634.09**	**539.68**	**1115.29**	**2180.20**
Details of Expenditure						
1. Expenditure of staff salary including T.A	3575.33	2720.96	1789.00	208.31	686.50	1304.79
2. Conduct of Examinations	252.35	372.15	359.25	44.95	12.00	604.83
3. Others	1624.42	287.48	84.00	259.79	100.38	
Total	**5452.10**	**3380.59**	**2232.25**	**513.05**	**798.88**	**1909.62**

Source: Universities in Kerala.

Evaluation of Universities

9.31 Evaluation of the working of Kerala, Calicut, Mahatma Gandhi and Cochin Universities was made in the year 2000 by appointing independent commissions. Though over two years have elapsed, the recommendations remain largely unimplemented.

Technical Education

9.32 The technical education infrastructure witnessed a remarkable growth during 1997-02 which resulted in to significant increase in enrolment both at degree and diploma levels of engineering education. Till the end of the Eighth Five Year Plan (1997), Kerala had 15 engineering colleges and 38 Polytechnics with an annual intake of 4844 and 6660 students respectively. By the end of the Ninth Plan the number of engineering colleges and polytechnics increased to 44 and 56 with an annual intake of 11314 and 10980 respectively. At present there are 69 engineering colleges (excluding REC, Kozhikode and CUSAT) and 56 polytechnics in the state with a sanctioned annual intake of 17023 and 10980 students respectively.

9.33 The number of engineering colleges rose by more than 56 percent from 44 in 2001-02 to 69 in 2002-03. All the newly started engineering colleges are under the self financing system approved by the government in 2001.

Engineering Colleges and Enrolment.

9.34 Out of 69 engineering colleges (excluding REC, Kozhikode & CUSAT) 9 are government colleges, 3 private aided colleges and 57 self financing engineering colleges. District-wise and management-wise distribution of engineering colleges in Kerala is given in Table – 9.16. The sanctioned annual intake of students in engineering colleges in the state stood at 17023 in 2002 as against 10083 in 2001 (Excluding REC Kozhikode & CUSAT) which showed an increase of 69 percent. University-wise distribution of engineering colleges is given in Appendix 9.40. Besides, part-time B.Tech. Degree courses are being conducted in 3 engineering colleges (Thiruvananthapuram, Kollam and Thrissur) in different disciplines with a total annual intake of 455 students.

9.35 Branch-wise analysis shows that out of 17023 seats 4325 were in Electronics and Communication Engineering, 4100 in Computer Science, 2520 in Information Technology, 2100 in Electrical Engineering, 1531 in Mechanical Engineering, 662 in Civil Engineering and 1785 in other branches. The branch- wise and college-wise distribution of seats in various engineering colleges are given in Appendix 9.41. The annual intake of post-graduate students in Govt. engineering colleges stood at 302, in 2002. The relevant details are given Appendix – 9.43.

9.36 Modernisation of selected engineering colleges under a nation-wide World Bank - aided scheme is on the anvil. The colleges have to be 'autonomous colleges' and it has been decided to start with Trivandrum Engineering College for this purpose and extend the scheme to 11 other colleges.

Table – 9.16

District-wise and Management-wise Number of Engineering Colleges in Kerala – 2002

Sl. No	District	Number of Engineering Colleges			
		Government	Aided	Unaided/Self Financing	Total
1	Thiruvananthapuram	2	-	8	10
2	Kollam	-	1	8	9
3	Pathanamthitta	-	-	5	5
4	Alappuzha	-	-	2	2
5	Kottayam	1	-	8	9
6	Idukki	1	-	3	4

7	Ernakulam	-	1	10	11
8	Thrissur	1	-	4	5
9	Malappuram	-	-	2	2
10	Palakkad	1	1	-	2
11	Wayanad	1	-	-	1
12	Kozhikode	1	-	3	4
13	Kannur	1	-	2	3
14	Kasaragod	-	-	2	2
	Total	**9**	**3**	**57**	**69**

Source: Directorate of Technical Education.

Polytechnics and Technical High Schools.

9.37 There are 56 Polytechnics in the state of which 42 are in government sector including 7 women's polytechnics, 6 private aided polytechnics and 8 self financing institutions (7 under IHRD and 1 private self financing polytechnic). The annual intake of students in polytechnics excluding self financing institutions stood at 9380 in 2002. Out of the 42 government polytechnics 10 were started during Ninth Plan. The relevant details are given in Appendices 9.44 & 9.45. Out of the total 27779 students in polytechnics 9723 were girl students which represented 35 percent. The share of SC/ST students constituted 10 percent. There were 1679 teachers in polytechnics in 2002, of which 409 were female teachers and 1270 male teachers. The details of students and teachers in polytechnics are given in Appendices 9.46 & 9.47.

9.38 In the 39 Technical High Schools, the annual intake of students remained at 2085 in 2002. Out of the total 6255 students in technical high schools, girl students constituted only 10 percent. There were 1015 teachers in technical high schools in 2002 of which 832 were male teachers and 183 women. The relevant details are given in Appendices 9.48 & 9.49.

Cochin University of Science and Technology.

9.39 The University of Cochin established in 1971 was later on upgraded and reorganised as Cochin University of Science and Technology in 1986. The university at present has 26 departments and 6 auxiliary institutes with an annual intake of about 5000 students under different courses. There are 15 colleges affiliated to this university of which 14 are engineering colleges and one medical college. The details of courses offered with sanctioned annual intake with duration of courses are given in Appendix – 9.50.

Regional Engineering College – Kozhikode.

9.40 Regional Engineering College started in 1961, is now developed as a Deemed University - National Institute of Technology. Branch wise details of courses offered with sanctioned intake of students are given in Table – 9.17.

Table – 9.17

Course	Branch	Sanctioned intake
B.Arch:	Optional	10
B.Tech	Architectural Engineering	30
	Civil Engineering	80
	Computer Science & Engineering	45
	Electrical Engineering	60
	Electronics	75
	Mechanical Engineering	30
	Production Engineering Management	45

M.Tech	Energy Management	10
	Material Science & Technology	10
	Structural Engineering	15
	Traffic & Transportation Planning	13
	Offshore Structures	5
	Instrumentation & Control Systems	15
	Energetic	13
	Power Electronics, Digital System & Communication Engineering	10
	Industrial Engineering	13
	Thermal Science	10
	Manufacturing Technology	10
	Computer Science	10
M.C.A		30

Expenditure on Education.

9.41 The total plan and non plan expenditure on education (excluding Art & Culture, Sports and Youth Services) increased from Rs.1747.34 crore in 1997-98 to Rs.2656.82 crores in 2001-02 which showed on increase of 52 percent during the period whereas state domestic product increased by 50.7 percent. Kerala's education expenditure as a proportion to SDP was 3.78 percent during 1997-98 which increased to 3.82 percent in 2001-02. Out of total expenditure of Rs.2656.82 crore in 2001-02 primary education accounted for 46.65 percent, secondary education 33.03 percent, university and higher education 15.14 percent and technical education 4.71 percent and the remaining went to language development. The proportion of education expenditure to total expenditure of the state (Revenue & Capital) was 21 percent during 1999-2000. The relevant details are given in Table 9.18.

Table – 9.18
Expenditure on Education (1992-93 to 2001-02)

(Rs. crores)

Stage	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	2000-01	2001-02 (R.E)
Primary Education	591.12	530.46	660.87	675.10	753.40	817.98	905.30	1247.02	1206.01	1239.38
Secondary Education	273.41	339.10	406.83	451.94	510.70	542.15	602.47	860.45	858.14	877.59
University & Higher Education	156.62	214.82	212.80	227.02	256.60	286.62	310.63	340.55	387.03	402.26
Adult Education	0.43	1.60	1.03	0.60	0.63	0.69	5.68	0.77	10.58	--
Language Develop-ment.	4.13	4.86	5.40	5.38	7.59	9.05	10.06	13.69	12.89	12.34
Technical Education	32.61	59.25	62.23	68.53	78.07	90.85	94.75	110.51	119.95	125.25
Total	**1058.32**	**1150.09**	**1349.16**	**1428.57**	**1606.99**	**1747.34**	**1928.89**	**2572.99**	**2584.60**	**2656.82**

Source: Demand for grants and Detailed Budget Estimates.

9.42 Most of the expenditure is on salaries. Enough resources have not been available for improvement of quality (for example, science laboratories in High and Higher Secondary Schools, libraries, IT connections etc.) or as stated earlier for starting of new courses in colleges or for research in universities. The education system of the state is at the cross-roads and is in need of major reforms if the state is to recapture and retain its once pre-eminent position in this field in the country. The government has decided to introduce a unified law for the universities in the state including several reforms. But the law alone cannot bring about the required change. The state looks to the academic community for lead in this matter.

HEALTH

9.43 Health development indices of Kerala are comparable to high-income countries with high percapita expenditure on health and related support services. In Kerala investment in health services and medical education and growth of the three systems of medicine in public, private and co-operative sectors combined with people's health awareness have facilitated the attainment of these high health standards. Infant mortality rate in Kerala is 15.6 as against 71.6 in India. Child mortality rate is 4.6 but the all India figure is as high as 26.3. Kerala's M.M.R is 1.4 for 1000 deliveries as compared to 4.08 for all India. Average life expectancy is 71.67 years for males and 75 years for females.The basic health development indicators in Kerala and all India are reflected in Table 9.19 In states like Uttar Pradesh, Madhya Pradesh, Bihar etc MMR, IMR and birth rate are distinctly higher and they are grappling with first generation problems which Kerala had successfully tackled in the 1970's. In order to tackle the health problems the Tenth Five Year Plan GOI focuses on

BOX 9.13

1. *Reorganisation and restructuring the existing government health care system including the ISM & H infrastructure at the primary, secondary and tertiary care levels with appropriate referral linkages*
2. *Development of appropriate two-way referral systems utilising information technology(IT) tools to improve communication, consultation and referral right from primary care to tertiary care level.*
3. *Building up an efficient and effective logistics system for the supply of drugs,vaccines and consumables based on need and utilisation*
4. *Horizontal integration of all aspects of the current vertical programmes including supplies, monitoring, information education communication and motivation (IECM), training, administrative arrangements and implementation so that they are integral components of health care.*
5. *Improving the efficiency of the existing health care system in the government, private and voluntary sectors and building up appropriate linkages between them*

Table 9.19
Birth, Death, Infant mortality Rate in Kerala

Year	Birth Rate for 000 population		Death Rate for 000 population		Infant Mortality Rate	
	Kerala	India	Kerala	India	Kerala	India
1	2	3	4	5	6	7
1995	18	28.3	6.0	9.0	15	74
1996	18	27.5	6.2	8.9	14	72
1997	17.9	27.2	6.2	8.9	12	71
1998	18.2	27.2	6.4	9	15.6	71.6
2001	16	27.2	--	--	--	--

9.44 Life expectancy at birth in Kerala is 71.67 for males and 75 for females whereas all India level is 64.11 for males and 65.43 for females. The Kerala and all India position on life expectancy are given in Table 9.20

Table 9.20
Expectation of Life at Birth- Kerala and All India

(years)

Period	Kerala		All India	
	Male	Female	Male	Female
1979-80	64.70	69	54.1	54.7
1989-90	67.50	72.90	59.0	59.7
1991-96	67.23	72.37	60.6	61.7
1996-2000	68.23	73.62	62.3	64.2
2001-2002	71.67	75.00	64.11	65.43

Health Care Infrastructure and services

Government sector

9.45 Kerala's health care system consists of allopathy, ayurveda and homoeopathy. Three systems together had 7831 institutions in 2002, under government sector including sub centres.Under allopathy there are 1310 institutions (including grant in aid institutions) with 46800 beds. The growth of institutions and beds under allopathy are given in Appendies 9.51 and 9.52. Out of total institutions, 941 (71.8%) are primary health centres, 107 (8.2%) community health centres and 143 (10.9%) hospitals. The hospital infrastructure includes 5 General hospitals, 4 Women and Children hospitals, 11 district hospitals, 6 Medical College Hospitals, 41 Taluk hospitals, 3 leprosy hospitals, 3 mental hospitals, 3 T.B. hospitals, One ophthalmology hospital and 66 other intermediary hospitals. There are 54 dispensaries, 21 T.B. Clinics, 15 leprosy clinics and 29 grant-in-aid institutions. Besides, there are 5094 sub centres. Details of rural health infrastructure are given in Appendix 9.53.

9.46 Each sub centre in Kerala serves a population of about 5000 as against 4581 at the all India level. Each primary health centre on an average serves a population of more than 25000 and each community health centre serves a population of about 2.25 lakh in Kerala. For every 6.16 sq.km in the state, there is one sub centre and for every 33.3 sq.km there is one primary health centre. The accessibility to health infrastructure and services is higher as compared to other states and India. Considering the gains achieved and infrastructure created in Kerala, the Tenth Five Year Plan primarily aims at

BOX 9.14
1. *Standardisation of health facilities including health personnel in all the health institutions across the state to be done in a phased manner.* 2. *Modernisation of health service and skill upgradation of health personnel is to be given high priority.* 3. *Improve service delivery.*

Private Sector.

9.47 A study conducted by the Department of Economics and Statistics in 1995 showed that in Kerala there were 4288 private allopathic medical institutions with 67517 beds. Similarly there were 4922 ayurvedic private institutions with 2595 beds and 3118 homeopathic institutions with 394 beds.

Co-operative Sector.

9.48 There are 69 co operative hospitals with 3306 beds and 433 doctors, 1355 nurses and para medical staff. Details of doctors, paramedical personnel and beds in the co-operative sector are shown in Appendix 9.54

Insurance Medical services.

9.49 There are 13 ESI hospitals with 1249 beds and 136 dispensaries in the state. The details of medical and para medical personnel in ESI institutions are given in Appendix 9.55

Beds per lakh of population in Kerala

9.50 There were 46800 beds under allopathic system in 2002, out of which 5166 (11%) were in primary health centres , 4503 (9.6%) in community health centres,31905 (68.2%) in hospitals and 5226(11.2%) in other institutions. There are 8558 beds in medical college hospitals which constitutes 18.3% of total beds. District wise details of medical institutions and beds are given in Appendix 9.56. Over and above the beds in government sector, there are 71506 beds in ESI, Co-operative and private sector. The relevant data are reflected in Table 9.21

Table 9.21
Total beds under Allopathy

Category	No of beds	Percentage to total
Hospitals under DHS	38242	32.2
Medical College Hospitals	8558	7.2
ESI Hospitals	1249	1.1
Regional Cancer Centre	320	0.3
SreeChitra Thirunal Institute of Medical Sciences	217	0.2
Co-operative Sector	2740	2.3
Private Sector *	67517	56.7
Total	**118843**	**100**

**Based on 1995 Study Report of Economics and Statistics Department*

9.51 Out of the total beds 41% are in government sector, 56.7% are in private sector and 2.3% are in co-operative sector. The beds per lakh population stood at 147 in government sector. The combined bed population ratio is 375 beds per lakh population taking in to account of private , co-operative and insurance sectors. The bed per lakh of population is thus very high in Kerala as against 286 beds for all India. The combined bed population ratio under three systems of medicine is given in Appendix 9.57. The three systems together have 50414 beds with 93 per cent in allopathy, 5% in ayurveda and 2% are in homoeopathy. During 2000-2002, there was an increase of 1116 beds in allopathy and 40 beds in ayurveda system. The relevant details are given in Table 9. 22

Table 9.22
Total health Institutions with beds

(Nos.)

Sl No.	Category	Year			
		2000		2002	
		Institutions	Bed	Institutions	Bed
1	Allopathy	1317	45684	1310	46800
2	Ayurveda	792	2604	842	2644
3	Homeopathy	555	970	555	970
Total		**2664**	**49258**	**2707**	**50414**

BOX 9.15

The average bed occupancy rate (BOR) was 88%.. District hospital had a BOR of 93.4%, taluk hospital 103%, general hospital 73.4%, W&C hospital 91.7%, CHC 66% and PHC 61.3%.

Immunisation universal in Kerala

9.52 Kerala has almost attained universalisation of immunisation. The coverage of Polio, BCG, and DPT is 100 percent . The coverage of T.T for pregnant women, children aged 5 years, children aged 10 years and T.T for persons aged 16 years is 89.9%, 93.2% , 97.6% and 96.5% respectively. The comparative coverage of immunisation programme in Kerala and India is given in Table 9.23

Table 9.23
Coverage of immunisation programme –Kerala and India-2000-01

Sl.No	Programme	Coverage(Per cent)	
		Kerala	India
1	BCG	103.8	102.7
2	Measles	86.2	92.1
3	DPT	93.1	100.3
4	Polio	92.8	98.2
5	TT for pregnant women	89.9	83.4
6	TT for 5 years	93.2	90.8
7	TT for 10 years	97.6	88.4
8	TT for 16 years	96.5	81.3

4/100/2003—A-17

Low prevalence rate of major public health diseases.

9.53 A major achievement in health front is the eradication/reduction of major public health diseases, like small pox, malaria, and filaria. Similarly, prevalence rate of leprosy, viral hepatitis, T.B, measles, pneumonia etc. Details are shown in Table 9.24

Table 9.24

Prevalence rate of major public health diseases- Kerala –2002

Sl. No.	Diseases	Prevalence rate per 1000 population.
1	Leprosy	0.71
2	Tuberculosis	1.2
3	Filaria	1.02
4	Acute Diarrhoeal diseases	17.63
5	Enteric Fever	0.23
6	Viral Hepatitis	0.14
7	Measles	0.10
8	Acute respiratory infection	216.62
9	Pneumonia	0.77
10	Malaria	0.07

Institutionalisation of deliveries

9.54 In Kerala the reported deliveries are around 3 lakh per year. Out of these about 97 per cent are institutional deliveries. In medical colleges during 2001 there were 60974 deliveries. This situation is primarily due to greater access to medical services, women's education, high health awareness and commitment to single/two child norms. Kerala's achievement on institutional deliveries is significant. At the all India level it is around 62 percent and even a state like Tamil Nadu could go upto 82 per cent only. This facilitates proper maternal and child health care.

Major principal diseases and declining Death.

9.55 During 2001, 218 lakh persons had attacks from various diseases, which marginally increased to 229 lakhs in 2002. An analysis of attacks would show that 5.6 lakh persons suffered from acute diarrhoeal diseases, 6.8 lakhs from acute respiratory infection and 205 lakhs from other diseases. As against 9238 deaths in 2001, the death reported in 2002 stood at 6247, which showed a decline of about 32 per cent. The relevant data are given in Appendix 9.59

Patients treated under three systems of medicine

9.56 Kerala's health attainments are primarily due to access to facilities and utilisation of health services. During 2001, in government sector 17.6 lakh persons availed medical treatment as IP patients, out of which 12.89 lakh persons received treatment in DHS institutions and 3.98 lakh in medical college hospitals. On an average every beds in the government sector was utilised by 38 persons per year. According to the figures furnished by DHS and DME, 60385650 persons were treated as OP cases. The relevant data giving patients treated in different systems of health are given in Table 9.25

TABLE 9.25

Details of beds, IP and OP treated under three systems of medicine-2001

System	Beds	Patients treated (Repeated cases)	
		IP	OP
Allopathy			
Hospitals under DHS	33430	1289608	33722809
Medical college hospitals	8558	398394	26662841
Ayurveda			
Hospitals under Directorate of Ayurveda	2644	52054	3828245
Ayurveda medical college hospitals	757	7571	190628
Homoeopathy			
Hospitals under Directorate of homoeopathy	970	13398	15113923
Homoeo college hospitals	200	3148	328973
Total	**46559**	**1764173**	**55847419**

Blood units collected in Kerala

9.57 There are 117 blood banks in Kerala registered under Central Drugs and Cosmetic Act. Out of these 29 are in government sector and 88 are in private sector. During 2001, 169355 units of blood were collected and out of it 74826 (44%) units were in government sector and 94529 units (56%) in private sector and autonomous institutions. Within the government sector six medical colleges together collected 51583 units which formed 30% of blood collected in the state. Similarly, Sree Chitra Tirunal Centre collected 6326 units. The demand for blood in the state is about 2.75 lakh units where as at the all India level is estimated at over 40 lakh units. Market price of one unit of blood is around Rs. 700. The value of blood collected amounts to Rs.11.85 crores. Institution wise details of blood units collected from 1995 to 2001 are shown in Appendix 9.60 and Appendix 9.61

Health Personnel

BOX 9.16

Government health care delivery system, staff strength in the state grew at an annual growth rate of 0.9% between 1992-2001. Nurses expanded faster (3.1%) than doctors (1.8%),pharmacists(0.3%) and field staff (0.4%)

9.58 There are 24189 medical and para medical personnel attached to DHS, out of which 3421 are medical officers, 7800 are senior/junior nurses. Taking into account of the allopathic doctors under DHS,DME, private and other sectors there is one doctor for every 1806 population. While analysing the doctor population ratio there exists greater inter district variations. In Thiruvananthapuram district, for every 6588 population there is one medical officer under DHS whereas in Kasaragod district for every 9550 population there is one medical officer. The relevant data are given in Appendix 9.62 and Appendix 9.63

Medical Education and Training

9.59 Three systems of medicine have separate education and training. Medical education, training and research under allopathy in the state are implemented through five government medical colleges, three dental colleges and three nursing colleges. Annual intake of students under different courses is 700 for MBBS, 130 for BDS, 238 for PG Degree and 38 for super speciality courses. There are 2 medical colleges in the co-operative sector and four in the self financing sector with an annual intake capacity of

100 students each for MBBS. The annual intake of students for different courses is shown in Table 9.26 Details of Meical/Paramedical courses conducted in medical colleges are given Appendix 9.64

Table 9.26
Courses conducted in Medical Colleges and annual sanctioned intake of students

Sl. No.	Medical Colleges	Annual Intake of Students (No.)						
		MBBS	BDS	BSc. Nursing	P.G. Course	Super Specialty	Diploma Course	Diploma/ Certificate
Government sector								
1.	Tvpm	200	40	50	116	18	61	303
2	Alappuzha	100	--	--	6	--	5	65
3	Kottayam	100	50	50	34	7	25	95
4	Thrissur	100	--	--	2	--	--	95
5	Kozhikkode	200	40	50	80	13	52	210
Co operative sector								
6	Kannur	100	--	--	--	--	--	--
7	Ernakulam	100	--	--	--	--	--	--
Self financing sector								
8	Pushpagiri Medical college	100						
9	Amritha Institute of Medical sciences	100						
10	Malankara Orthodex syrian church medical mission	100						
11	Dr.Somerwell memorial CSI mission hospital	100						

9.60 Five medical colleges in the government sector together have 7978 beds. During 2001-02, 30.8 lakh patients were treated in the medical colleges and out of them 3.78 lakh were inpatients. In addition to it 60974 delivery cases were attended to. Similarly 1.6 lakh operations were done and out of it 0.67 lakhs were major operations. Details of beds, patients treated, operation done etc.during 2001 are given Appendix 9.65

Nursing Education

9.61 Nursing education is imparted by DHS run institutions, approved private institutions, medical colleges and nursing colleges in private sector. Three Nursing colleges attached to medical colleges, Thiruvananthapuram, Kottayam and Kozhikode have a total annual intake of 150 students for BSc Nursing and 24 seats for MSc Nursing, Thiruvananthapuram and Kozhikode. Also there are 36 nursing colleges for which government have given NOC. Out of these Nursing Council has sanctioned 23 colleges with an annual intake of 50 students each. There are 15 government nursing schools under the department of health services and out of it 11 schools conduct General Nursing (3 year) course and 4 school conduct Junior Public Health Nurse (18 months) course.The relevant details are given in Table 9.27

Table 9.27
Annual intake of Nursing Courses on different categories –2002

Sl.No	Name of Institutions	Number	Total Annual Intake
I	**Integrated General Nurse-cum-Mid-wives (3 Years Course)**		
a)	Government Nursing Schools	11	317
b)	Private Nursing Schools	70	1845
c)	Medical College, Kozhikode	1	30
d)	Medical College, Thiruvananthapuram	1	30
II	**Junior Public Health Nurses(18 months course)**		
a)	Government Nursing Schools	4	180
b)	Private Nursing Schools	18	501
III	**B.Sc. Nursing (4 Years course)**		
a)	Medical College, Thiruvananthapuram	1	50
b)	Medical College, Kottayam	1	50
c)	Medical College, Kozhikode	1	50
IV	**M.Sc. Nursing (2 years course)**		
a)	Medical College, Thiruvananthapuram	1	16
b)	Medical College, Kozhikode	1	8

Improvement of public medical services.

9.62 The public medical services in the state, which were the pride of the state, have declined over the years due to lack of maintenance, inadequate supply of medicines and equipment and want of staff (in certain areas). There is urgent need to improve them since it is mostly for the poor and the elderly who go to there for treatment. Some of the local governments have shown dynamism in utilising the physical infrastructure. A great deal remains to be done. Certain steps are proposed to be taken by government as part of the MGP. A comprehensive project has also been placed to the World Bank for assistance.

Ayurveda

9:63 There are 115 ayurveda hospitals with 2644 beds and 727 ayurveda dispensaries. Out of the dispensaries 4 are Visha chikilsa kendra, 6 are Siddha and one unani. The hospitals include 14 district hospitals, nature cure hospital Varkala, Pancha karma hospital Alappuzha and Ayurveda mental hospital, Kottakkal. In addition to it there are 97 grant in aid institutions. During 2001-02, 38.8 lakh persons were treated in ayurveda institutions and out of them 38.2 lakhs were outpatients and 52054 inpatients. Details are given in Appendix 9.67

Ayurveda Medical Education.

9.64 There are 5 ayurveds colleges in the state, of which 3 are in government sector and 2 in Private sector. These ayurveda colleges have an annual intake of 210 students for BAMs and 58 students for Postgraduate courses as shown in Table.9.28. Besides there are six Ayurveda Medical colleges sanctioned in the self financing sector which are yet to be started.

TABLE 9.28
Annual intake of students and courses in Ayurveda colleges

Sl. No.	Name of colleges	Annual intake of students	
		BAMS	P.G. Degree
1	Govt. Ayurveda College, Thiruvananthapuram	50	42
2	Govt. Ayurveda College, Thripunithura	30	--
3	Govt. Ayurveda College, Kannur	40	10

4	Vaidyaratnam Ayurveda College, Ollur	40	--
5	V.P.S.V Ayurveda Colleges , Kottakkal	50	6
Total		**210**	**58**

9.65 In the Ayurveda College Thiruvananthapuram seats for BAMs has been increased from 50 to 70 during 2001-02 . Moreover seats have been reserved for NRI and foreign students. Departmental system as per CCIM pattern has been implemented in all ayurveda colleges. Medical college hospitals attached to these medical colleges have a bed strength of 962. The details of beds and patients treated are given in Table 9.29

Table 9.29
Distribution of beds and patients treated- 2001

Sl. No.	Ayurveda College Hospital	Beds	Patients treated		
			OP	IP	Total
1	Thiruvananthapuram (including W&C hospital and Panchakarma hospital)	518	115162	6001	121163
2	Thrippunithura	139	53146	774	53920
3	Kannur	100	22320	796	23116
4	Ollur	103	52854	999	53853
5	Kottakkal	102	79485	1477	80962
Total		**962**	**322967**	**10047**	**333014**

Homoeopathy

9.66 There are 524 homoeo dispensaries and out of them 494 are rural and 30 are urban. Similarly there are 31 homoeopathy hospitals, of which 14 district hospitals and 17 Taluk hospitals. District wise details of institutions, beds, and patients treated are given in Appendex 9.68. During 2002, 151 lakh patients sought homoepathy treatment as O.P cases.

9.67 There are 4 homeopathy medical colleges; two in government sector and two in private sector with an annual intake of 200 for BHMS and 24 for PG course. The relevant data are furnished in Table 9. 30. Details of beds and patients treated under homoeopathic medical college hospitals are given in Table 9.31

Table 9.30
Annual intake of students and courses in Hmoeo Medical Colleges

Sl. No.	Name of Colleges	Name of courses	Annual intake of Students
1	Govt. Homoeo Medical College, Thiruvananthapuram	BHMS MD	50 12
2	Govt. Homoeo Medical College, Kozhikode	BHMS MD	50 12
3	Athurasramam N.S.S , Homoeo College, Kurichy	BHMS	50
4	Dr. Padiyar Memorial Homoeo College, Ernakulam	BHMS	50
Total		**BHMS** **MD**	**200** **24**

Table 9.31
Medical college hospital wise distribution of beds and patients treated – 2001

(No.)

Sl.No	Medical college hospital	Beds	Patients treated		
			OP	IP	Total
1	Thiruvananthapuram	100	125915	1606	127521
2	Kozhikode	100	203058	1542	204600
3	Kottayam	30	-	-	-
4	Ernakulam	100	126000	180	126180
Total		**330**	**454973**	**3328**	**458301**

Family Welfare

BOX 9.17

Couple protected by various methods of family planning programmes in Kerala is 65.98% in 2001 as against the all India average of 46.2

9.68 Family Welfare Programe in Kerala is implemented through a wide net work of 941 PHCs. 107 CHCs and 5094 sub centres. Achievements under Family Welfare Programmes are shown in Appendix.9.69

9.69 Kerala has reached couple protection level at 65.98% in 2001 as against the all India average of 46.2%. Couple protection rate was only 15% in 1971. District wise details of couple protection rate and female reproductive age group are given in Table 9.32

Table 9.32
Couple protection rate and female reproductive age group- District wise

Sl.No.	District	Couple Protection Rate as on 30/6/01	Female reproductive age group(18-40) (No)
1	Thiruvananthapuram	86.4	371290
2	Kollam	74.7	337804
3	Alappuzha	61.73	262470
4	Pathanamthitta	80.63	185611
5	Kottayam	71.32	252324
6	Idukki	66.36	160000
7	Ernakulam	61072	355015
8	Thrissur	69.63	419915
9	Palakkad	62.88	348050
10	Malappuram	48.37	539380
11	Kozhikode	59.69	421860
12	Wayanad	68.80	121825
13	Kannur	57.10	368090
14	Kasaragod	54.39	159550
KERALA		**65.98**	**4303184**

Expenditure on Health and Family welfare

BOX 9.18
The per capita expenditure on health including family welfare increased more than three fold between 1990-91 to 2000-01.

9.70 The expenditure on health and family welfare increased considerably during the period from 1995-96 through 2001-02 as reflected in Table 9.33 The health expenditure as proportion to total expenditure of the state increased from 5.3 per cent in 2000-01 to 5.5 per cent in 2001-02. The per capita expenditure on health remained at Rs.221 on 2000-01 where as the private per capita expenditure was Rs.793 in 1997.

Table 9.33

Plan and non plan expenditure on medical and public health including FW

Year	Expenditure on medical and public health(excluding FW)		Expenditure on Family welfare	Total expenditure
	Plan	Non plan		
1995-96	5767.27	29889.88	6130.67	41787.82
1996-97	6008.67	39786.69	6676.01	45442.56
1997-98	6762.09	47445.50	7209.58	53758.36
1998-99	7429.16	42104.52	8083.74	57618.22
1999-2000	9071.83	58822.13	10621.01	73055.51
2000-2001	6793.31	54369.96	9268.29	70431.56
2001-2002 (RE)	5828.39	59964.61	8876.1	74669.10
2002-2003 (BE)	7381.00	60427.21	10000.00	77808.21

9.71 The per capita public expenditure on health including family welfare has more than doubled between 1994-95 to 2002-2003. Appendix 9. 70 shows the per capita expenditure on medical and public health in Kerala 1985- 86 onwards.

Decentralisation and Health

9.72 As part of decentralisation of power 2621 medical institutions have been transferred to LSG. Out of it, 1226 are allopathic medical institutions which include 938 PHCs. 105 CHCs, 11 District hospitals and 172 other government hospitals/ dispensaries. Under Ayurveda 113 hospitals and 727 dispensaries have been transferred. Similarly under homoeopathy 31 hospitals and 524 dispensaries have been transferred to local bodies. Details of medical institution transferred to local bodies under three systems of medicine are given in Appendies 9.72, 9.73, 9.74

Table 9.34

Medical Institutions transferred to LSG.

Sl. No.	Sector	No. of. Institutions
1	Allopathy	1226
2	Ayurveda	840
3	Homoeopathy	555
	Total	**2621**

9.73 With the transfer of these medical institutions to LSG, infrastructure facilities including buildings have to be provided by LSG. During the first three years of the 9th plan (1997-00), LSG have constructed 90021.65 sq. meters of building for medical institutions in the state. In addition LSG conduct medical camps and health awareness programmes at local level. However, the appointment of all categories of personnel and the supply of medicines are still with the Health Department of the state government.

WATER SUPPLY AND SANITATION

9.74 Water Supply and Sanitation is a major area of development concern not only in the State Plan Sector but also in the development agenda of local self-government institutions. With planned development effort Kerala could provide protected drinking water to 62.67% of its total population. The coverage in 1992 stood at 133 lakh population which increased to 169 lakhs in 1997 and further to 190 lakhs in 2002. The urban and rural population covered by piped water supply are furnished in Table.9. 35. During the period 1992-2002 the coverage increased by 43.1 percent. The percentage of urban and rural population covered by piped water supply is around 78.5% and 57% respectively.

Table -9.35
Total Population covered by Water Supply - 1992-2002

Year	Rural	Urban	Total	Percentage increase over previous year
1	2	3	4	5
1992	83,36,000	49,71,390	1,33,07,390	
1993	86,35,000	50,49,000	1,36,84,000	2.83
1994	90,13,331	50,52,866	1,40,66,197	2.79
1995	96,83,846	52,17,821	1,49,01,667	5.94
1996	1,08,68,598	56,91,653	1,65,60,251	11.3
1997	1,11,90,066	57,51,653	1,69,41,719	2.30
1998	1,16,16,257	57,89,453	1,74,05,710	2.74
1999	1,21,96,652	59,64,453	1,81,61,105	4.34
2000	1,24,85,530	60,23,853	1,85,09,383	1.92
2001	1,27,10,557	60,23,853	1,87,34,410	1.22
2002	1,29,74,179	60,68,853	1,90,43,032	1.65

Box. 9.19

In Kerala the overall coverage by piped water supply is 62.67%. The remaining population depend on other unprotected sources like open draw wells, ponds, natural streams etc.

9.75 During the period from 1992 to 2002 , 56.28 lakh population were additionally covered with protected water supply. The additional coverage during the year under review stood at 3.09 lakh as against 2.25 lakh in the previous year. Year-wise details of additional coverage from 1992 are given in Table..9.36.

9.76 The SC/ST population additionally covered during the above period represented 15.36% and 1.66 percent respectively. This shows that more emphasis was given to SC/ST habitations.

Table 9.36
Additional population covered with Protected Water Supply During 1992 to 2002.

Year	Population covered	Scheduled Caste Population	Scheduled Tribe Population
1	2	3	4
1992	598524	87434	8829
1993	499757	101067	11888
1994	378331	70508	6374
1995	543625	106142	11232
1996	1184752	139482	10654
1997	321468	107349	11730
1998	463991	56418	7123
1999	753396	69121	3718
2000	350277	89490	2270
2001	225027	17661	10769
2002	308622	19735	8806
Total	**5627770**	**864407**	**93393**

Source: K.W.A

Service Connections and Street Tap connections.

9.77 As on 31-3-02, there were 8.51 lakh service connections and 1.77 lakh street taps serviced by Kerala Water Authority. Category-wise details of service connections are given in Table..9.37. and district-wise details of service connections and street taps are given in Appendix.9.77

Table 9.37
Service connections and Street Tap connections as on 31-3-02.

Category	Number
a) Service connections	
Domestic	7,92,158
Non-Domestic	57,239
Industrial	1,210
Total	8,50,607
b) Street Taps	
Rural	1,34,027
Urban	43,223
Total	1,77,250

Source: KWA.

9.78 At present Kerala Water Authority (KWA) maintains 1763 water supply schemes comprising of 63 urban, 607 rural multi panchayat and 1093 rural single panchayat water supply schemes, including some already handed over to the local bodies. The district wise number of schemes under each category

is given in Table 9.38. Kerala Water Authority's role as the sole agency for the execution, distribution of drinking water as well as maintenance of water supply schemes changed from a centralized system to decentralisation. The local bodies have constructed 1,09,842 wells and have installed 48,277 street taps since 1997. Kerala Rural Water Supply and Sanitation Agency has completed 67 small water supply schemes in Palakkad, Malappuram, Thrissur and Kozhikode districts benefiting 30,168 people. The Ground Water Department has drilled 1077 wells since 1997, each well benefiting about 20 families.

Table. 9.38

District wise and Category wise number of water supply schemes.

Name of District	Number of Urban water supply schemes	Number of Rural multi panchayat schemes	Number of Rural single panchayat schemes	Total number of water supply schemes
Thiruvananthapuram Kollam Pathanamthitta Alappuzha	25	123	337	485
Kottayam Idukki Ernakulam Thrissur	24	217	230	471
Palakkad Malappuram Kozhikode Wayanad Kannur Kasargode	14	267	526	807
Total	**63**	**607**	**1093**	**1763**

Source: Kerala Water Authority -A Report.- SPB-2002.

Rural Population Covered Under Protected Water Supply and Schemes in operation.

9.79 There were 1793 rural water supply schemes in operation in the state as on 31-3-2001 and 69 schemes including extension schemes were completed during the year under review. Table..9.39 shows district wise distribution of rural water supply schemes completed during 2001-02 and schemes in operation as on 31-3-02 under Kerala Water Authority.

Table - 9.39

Rural Water Supply Schemes in Operation.

Sl. No	Name of District	No. of Schemes in operation as on 31-3-2001	No. of Schemes completed during 2001-02.	Schemes in operation as on 31-3-02.
1	2	3	4	5
1	Thiruvananthapuram	117	2	119
2	Kollam	86	2	88
3	Pathanamthitta	46	2	48
4	Alappuzha	72	1	73
5	Kottayam	148	2	150
6	Idukki	184	3	187
7	Ernakulam	129	5	134
8	Thrissur	241	4	245

9	Palakkad	175	3	178
10	Malappuram	139	13	152
11	Kozhikkode	169	16	185
12	Wayanad	55	3	58
13	Kannur	133	8	141
14	Kasargode	99	5	104
TOTAL		**1793**	**69**	**1862**

Source: K.W.A

9.80 Rural population covered under protected water supply increased from 127.11 lakhs in 2000-01 to 129.74 lakh in 2001-02 registering and increase of 2.1%. During 2001-02, 2.64 lakh rural population were additionally covered. The district-wise rural population covered is shown in Appendix.9. 78

Ongoing Water Supply Schemes.

9.81 There are 224 ongoing water supply schemes under various stages of implementation by Kerala Water Authority as on 31-10-2002. These schemes are being implemented with assistance under various programmes or with loan from financial institutions. District-wise number of schemes under each programme is given in Table. 9..40. On completion of these schemes it is targeted to cover an additional population of about 30 lakhs. During 2001-02 69 rural water supply schemes were completed. Almost all the schemes suffer from time and cost over runs, the excess cost having to be met from scarce state plan funds, which are spread over a large number of schemes.

Table 9.40

District-wise and category-wise number of ongoing water supply schemes.

Name of District	Number of ongoing water supply schemes								
	Rural water supply schemes					Urban water supply schemes			Total
	Accelera-ted Rural WSP	Techno -logy Mission	PMG Y	State Plan	LIC	Acceler ated Urban WSP	State Plan	LIC/ HUDC O	
1	2	3	4	5	6	7	8	9	10
Thiruvananthapuram	11			3	2		3	2	21
Kollam	4		1	1	3				9
Pathanamthitta	4			4				1	9
Alappuzha	4			6	7		1		18
Kottayam	8		1	5	3		1	2	20
Idukki	6			1	3				10
Ernakulam	4			2	10		2	1	19
Thrissur	12	2		2	4	3	3	4	30
Palakkad	8	2		1	6			4	21
Malappuram	11			2	8			3	24
Kozhikkode	5	1		3	1			3	13
Wayanad	2			1					3
Kannur	4			5			1	7	17
Kasargode	2	3			5				10
Total	**85**	**8**	**2**	**36**	**52**	**3**	**11**	**27**	**224**

Source : K.W.A

Production and Supply of Piped Water- Decline in Leakage.

9.82 Production of water under piped water supply increased from 1200 -1300 MLD in 2001 to 1700 -1800 MLD in 2002 showing an increase of 40%. Similarly, the supply of piped water increased from 1000 - 1100 MLD in 2001 to 1400 -1500 MLD in 2002. The leakage of water as reported by KWA has declined to between 17 and 22% of water produced in 2002 as against 25 to 30 percent in 1999. In advanced countries the leakage is around 12 percent of water produced and supplied. Details of production of water under piped water supply from 1999 onwards is given in Table.9.41

Table-9.41

Production of water under piped water supply

Year	Production (in Million Litres per day)	Supply (in Million Litres per day)	Leakage
1999	1030 to 1050 MLD	770 to 800 MLD	25 to 30% of the production
2000	1030 to 1050 MLD	770 to 800 MLD	25 to 30% of the production
2001	1200 to 1300 MLD	1000 to 1100 MLD	20 to 25% of the production
2002	1700 to 1800 MLD	1400 to 1500 MLD	17 to 22% of the Production.

Source: K.W.A

Box. 9.20

In the absense of suitable and regular mechanism for measuring the quantities of water produced, the poor billing mechanism and a large percentage of water meters not working, the quantity of water actually produced, distributed and sold are not known and the above figures are only indicative.

Source: KWA - A Report - SPB-2002.

Habitation-wise coverage of Water Supply Scheme.

9.83 According to a survey conducted by Rajiv Gandhi Drinking Water Mission in 1992, out of the 9776 habitations in the state, 2289 were non-covered, 2074 were partially covered (WS level less than 10 lpcd) and 5348 had coverage with 10-40 lpcd level. 52 habitations were fully covered and 13 in forest areas not covered. Between 1992 and 2002 the number of non-covered habitations declined from 2289 in 1992 to 783 in 2002. Fully covered habitations increased to 2091 from 52 during the above period. The status of water supply coverage habitation - wise is given in Table 9.42

Table -9.42

Status of Water Supply Coverage

Year	Habitates (No)			
	Fully covered	Partially covered	Non-covered	Forest Area
1	2	3	4	5
1997	1474	7141	1148	13
1998	1682	7091	990	13
1999	1962	6921	880	13
2000	1994	6927	842	13
2001	1994	6964	805	13
2002	2091	6889	783	13

Source: K.W.A.

Low Lpcd Supply

9.84 The habitation-wise water supply level in 2002 was that among the partially covered habitations 1240 had below 10 lpcd supply, 2847 between 10 and 20 lpcd, 1763 between 20 and 30 lpcd, 1039 between 30 and 40 lpcd. The coverage in terms of quantity of water supply is given in Table 9.43. The position as reflected in service levels demands a major break through to achieve 40 lpcd accoring to norms.

Table -9.43

Habitation-wise Water Supply level as on 1-4-2002

Quantity of Supply	No. of habitations
Below 10 lpcd	1240
Between 10 lpcd and 20 lpcd	2847
Between 20 lpcd and 30 lpcd	1763
Between 30 lpcd and 40 lpcd	1039
Above 40 lpcd	2091
NC	783
Sub -Total	9763
Non-covered, Forest area	13
Total	9776

Source: K.W.A

Problem Villages and Coverage

9.85 As on 31st October 2002 , 1110 villages were partially covered with protected water supply benefiting 121.57 lakh population. District-wise details of problem villages and partially covered villages are given in Table.9.44.

Table. 9.44

District-wise details of Problem Villages and Partially covered villages.

Sl. No.	District	Number of problem Villages	Partially covered Villages	Population benefited
1	2	3	4	5
1	Thiruvananthapuram	21	72	1284009
2	Kollam	18	74	997258
3	Pathanamthitta	14	50	595013
4	Alappuzha	13	62	814396
5	Kottayam	22	68	712932
6	Idukki	22	43	466504
7	Ernakulam	12	77	1326076
8	Thrissur	16	193	1466654
9	Palakkad	15	84	1035813
10	Malappuram	38	85	1373437
11	Kozhikode	14	73	530403
12	Wayanad	5	43	476249
13	Kannur	3	75	493267
14	Kasaragode	3	111	585039
	TOTAL	**216**	**1110**	**12157050**

Source: K.W.A

Cost of Production of Water.

9.86 As per RITES report, during the year 2000-01, the cost of production of water was Rs. 8.60 per kilo litre (KL) as given in Table 9.45.

Table.9. 45
Summary of Cost of Production of Water

Particulars	For the year 2000-01	
Quantity produced	394,521 mly	1080 mld
Quantity sold	236,785mly	648mld
	Total (Rs. in cores)	**Per KL (Rs)**
Direct variable cost:		
Operators' Salary	36.30	1.53
Power charges	60.19	2.54
Chemicals	7.82	0.33
Total Direct Variable cost	**104.31**	**4.40**
Indirect overhead cost:		
Repairs & maintenance	14.75	0.62
Administrative Overheads	29.07	1.23
Indirect overhead without interest	**43.82**	**1.85**
Interest and depreciation	55.70	2.35
Total indirect overhead cost	**99.52**	**4.20**
Total Cost of Production of Water	**203.83**	**8.60**

Box. 9.21

According to the figures submitted by KWA, the total quantity of water produced is 1835 million litres per day (mld) and the quantity billed is 1101 mld. Hence the Unaccounted For Water (UFW) is 734 mld, which is 40% of quantity produced. However, as per the Cost & Revenue Study conducted by M/s Rites Ltd; the quantity of water produced is 1080 mld and the quantity of water billed is 648 mld. The UFW is 432 MLD, which is again 40% of water produced.

9.87 The cost of production of water has been ascertained taking into account the costs booked under direct variable costs, (ie, power charges, salary to operators, chemicals and consumables) and indirect variable costs (ie, administrative overheads, interest and depreciation). The indirect variable costs include salary to staff (other than salary to operators), office expenses, travelling and conveyance, administrative expenses, interest and depreciation. While the average cost of production of water is estimated at Rs. 8.60 per KL, the average recovery is only Rs. 3.50 per KL. The cost of production as worked out is based on estimates of production and sale, which as stated above vary widely and are not based on any reliable system of measurement.

Box. 9.22

No evaluation has been made to determine the efficiency level of each plant and to improve production levels or to reduce the cost of production by inter unit comparison.

Source- KWA- A Report SPB-2002.

Water Rates

9.88 As a first step to improve revenue collection, a Provisional Invoice Card (PIC) system was introduced in Trivandrum in 1988, with a view to unifying and suitably revising the water tariff, Government orders were issued on 14-10-1991, prescribing a new tariff for the entire state with effect from 1-10-1991. The minimum charge was Rs. 10 per KL up to 10,000 litres per month. The next revision in water tariff was only with effect from 1-4-99. The increase was about 15% for the domestic consumption up to 10 KL per month, 30% for consumption of 10 to 30 KL pm, 45% for consumption of 30 to 50 KL pm and 60% for consumption in excess of 50 KL pm. For Non-domestic and Industrial consumers, increase was around 60%. While revising the water tariff with effect from 1-4-99, the rate for water through street taps was increased to Rs.2.00 per KL which will be equivalent to Rs.1750 per tap per annum for Panchayats and Rs. 2628 per tap per annum for Municipalities.

9.89 The existing water rates for domestic and non domestic connection and income from water charges for the year 2001-02 are given in Tables 9.46 and 9.47. The rates of water charges have not changed since the last revision with effect from 1-4-99.

Table. 9.46.
Existing Water Rates for Domestic and Non-Domestic Connection. (from 1-4-1999 onwards)

Type of Connection	Rate
1	2
Domestic	
Up to 10,000 litres	Rs. 20 per month
10,000 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 litres	Rs. 180 plus @ Rs. 7.35 per 1000 litres in excess of 50000 litres.
Non-Domestic	
Up to 50,000 litres	Rs. 7.35 per 1000 litres with minimum charge of Rs. 100 per month
Above 50000 litres	Rs. 368 plus @ Rs. 10.60 per 1000 litres in excess of 50000 litres.
Industrial Category For entire consumption	@ Rs. 10.60 per 1000 litres with minimum charge of Rs. 200 per month
Stand Posts	
Urban	@ Rs. 2628 per year per tap
Rural	@ Rs. 1750 per year per tap

Table. 9.47
Income from water charges for the year 2001-02

Consumer Category	Income from water charges for the year 2001-02			
	Urban Schemes	Rural Comprehensive Schemes	Rural-single panchayat schemes	Total
1	2	3	4	5
Domestic, Non Domestic and Industrial consumers	51.84	12.96	6.48	71.28
Street taps	10.13	7.49	6.50	24.12
TOTAL	**61.97**	**20.45**	**12.98**	**95.40**

Source: KWA- A Report - SPB

9.90 The dues receivable from the consumers and the local bodies has also gone up. As on 31st March 2002, the amount outstanding towards supply of water is about Rs. 190.34 crores as given below:

(Rs. in crores)

Amount due from Domestic, Non -domestic and Industrial consumers	49.60
Amount due from Government institutions and Medical colleges	51.56
Amount due from local bodies	89.18
TOTAL	**190.34**

Source: KWA- A Report - SPB-2002.

9.91 For the year 2001-02, the average monthly demand from direct consumers was Rs. 8.20 crore and the average monthly collection was Rs. 5.94 crores. The percentage of collection to demand was 72.44%. The revenue collection is showing a gradual increase. However, KWA does not have an accurate consumer database and Consumer Ledgers and not updated from time to time.

Expenditure

9.92 The expenditure of Kerala Water Authority amounted to Rs. 386.54 crores during 2001-2002. Of this Rs. 123.38 crores (32%) was under Plan and 263.16 crores (68%) under non-plan. The expenditure under plan is decreasing continuiously from 1999-2000 onwards. The non-plan expenditure in 2001-2002 was Rs. 263.16 crores as against 247.85 crores in 2000-01, thus registering an increase of 6.2%. Among the various components of non-plan expenditure salary and power charges constituted 40% and 25% respectively. Table..9.48.shows the details of expenditure from 1994-95 to 2001-02.

Table-9.48
Plan and Non-Plan Expenditure of Kerala Water Authority

(Rs. in lakhs)

Item	1994-95	95-96	96-97	97-98	98-99	1999-2000	2000-2001	2001-2002
Plan Expenditure- Plan Schemes other than ARP, LIC/HUDCO	5705	6713	7139	12138	12140	5381	5748	3965
ARP Schemes	1193	1498	2875	3916	3533	4228	4383	4233
LIC/HUDCO	2096	3236	2473	673	2930	6437	3346	4140

Others	389	132	288	171	132	--	--	--
Total Plan Expenditure	**9383**	**11579**	**12775**	**16898**	**18735**	**16046**	**13477**	12338
Non-Plan Expenditure- Salary & Establishment	3057	5490	4742	5153	5950	9520	10069	10433
Power	1729	1940	2101	2900	3664	5451	5491	6600
Operation & Maintenance	1658	1826	2191	2329	2439	3015	3068	3134
Others	269	372	413	542	517	588	558	560
Intereston Loans (Excluding GOK)	1816	2225	2217	2515	2859	3309	3422	3563
Repayment of Loans (Excluding GOK)	772	884	948	1172	1267	1660	2177	2026
Total Non-Plan Expenditure	**9301**	**12737**	**12612**	**14611**	**16696**	**23543**	**24785**	**26316**
Grand Total	**18684**	**24316**	**25387**	**31509**	**35431**	**30589**	**38262**	**38654**

Source: K.W.A.

Financing Water Supply Schemes.

9.93 Kerala Water Authority utilises its own resources raised through water rates, plan and non-plan provision from government of Kerala and funds from government of India as grant for the implementation of water supply schemes. In addition, Kerala Water Authority avails loans from LIC of India and HUDCO for implementation of water supply and sewerage schemes. The total loan received from these institutions during 1992-93 to 2001-2002 stood at Rs. 284.53 crores and accumulated repayment liability is Rs. 248.36 crores. Receipts of Kerala Water Authority from different sources from 1993-94 to 2001-02 is given in Table .9.49 and the details on assistance received from LIC of India and HUDCO, repayment made, balance outstanding etc. from 1992-93 to 2001-02 are furnished in Table.9.50

Table -9.49
Receipts of Kerala Water Authority from different sources from 1993-94 to 2001-2002.

(Rs. in lakhs)

Year	Revenue from Water rates	State Govt.		Govt. of India	Loan from LIC/ HUDCO	Others	Total
		Plan	Non-plan				
1	2	3	4	5	6	7	8
1993-94	3891	9128	3440	--	2404	226	19089
1994-95	4387	9123	3440	--	3600	372	20922
1995-96	4836	10635	3440	2469	3088	498	24966
1996-97	5814	11097	3440	2414	2560	500	25825
1997-98	6706	16816	3440	4071	4055	516	35604
1998-99	6954	13275	4513	4942	3953	710	34347
1999-00	9180	15181	5513	3668	3621	1297	38460
2000-01	11679	11460	4780	3846	2777	1970	36512
2001-02	12150	9699	6186	5565 ..	--	.. 2100	35700

Source: K.W.A.

Table-9.50
Year-wise Details of Loan Assistance received from LIC and HUDCO

(Rs. in lakhs)

Year	LIC			HUDCO		
	Received	Repayed	Balance	Received	Repayed	Balance
1	2	3	4	5	6	7
Up to 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	--	661	15843	3953	606	8458
1999-00	3000	702	18141	621	958	8121
2000-01	2591	811	19921	186	1366	6941
2001-02	--	944	18977	--	1082	5859

Source: K.W.A.

STRENGTHS, WEAKNESSES,OPPORTUNITIES AND THREATS OF K.W.A.

9.94 The State Planning Board study - Kerala Water Authority A-Review identified the following.

1. Strengths:

- Autonomous body
- Availability of qualified and trained staff
- Accessibility to excellent infrastructure
- Advanced set up for water quality control and quality monitoring
- Geographical presence throughout the State
- Existence of training facility for technical and ministerial staff.
- Monopoly in underground sewerage services.

2. Weaknesses:

- No real autonomy
- Several unviable schemes have to be maintained
- Ad hoc and insufficient Govt. grants
- Outdated internal structure and organisation set up
- Outdated rules, regulations codes etc.
- Low level of commitment from employees
- No reward and punishment policy
- Poor service delivery
- Lack of consumer orientation
- Inadequate delegation of powers
- Inefficient set up for revenue collection
- Default in payments to financing agencies, State Government and others.
- Diversion of capital funds to revenue expenditure
- Lack of quality consciousness

- High incidence of unaccounted for water
- Heavy maintenance costs
- Lack of proper Management Information System.
- Usage of low quality materials
- Poor project management resulting in time and cost overruns
- Unsatisfactory maintenance of schemes
- Delays in material procurement
- Excessive dependence on borrowed funds
- Failure to recognize the changing role

3. Opportunities.

- Providing drinking water to all is on top of the agenda of the State and Central Governments.
- Increasing demand for water supply and sewerage in urban areas.
- Growing demand for expertise for training and consultancy in water supply sector
- Willingness of financial agencies including external agencies to finance viable schemes.
- Emerging technologies for rainwater harvesting, desalination of seawater etc.
- Scope for Diversification

4. Threats.

- Continuance of micro-management by the Government
- Ad hoc decisions by the Government on employees, water tariff, sanction for schemes and financial assistance
- Unaffordable power tariff and soaring energy charges
- Reluctance of financing agencies to finance KWA
- Continuance of old mind set among all concerned- Government, public and KWA- despite changing roles.
- Increasing public dissatisfaction
- Depletion in the availability of water.

Source: KWA - A Report- SPB-2002

LSG's and Water Supply

9.95 The Status of implementation is that at present KWA maintains 1763 water supply schemes comprising of 63 urban, 607 rural multi panchayats and 1893 rural single panchayats water supply schemes. According to CWRDM there are about 20 lakh private wells in Kerrala which represents one well on an average for about 3 house holds. The Local Self-Governments have constructed 190848 wells and installed 4827 street taps since 1997. Kerala Rural Water Supply and Sanitation agency has completed 67 small water supply schemes in Palakkad, Malappuram, Thrissur and Kozhikode districts benefiting 30168 people. The Ground Water Department has drilled 1077 wells since 1997 each well benefiting about 20 families. In addition community weells in schools and other institutions also serve a section of people. There are alsso a few community water supply systems built owned and operated by NGO's. The role of KWA as a sole agency for the execution of water supply schemes distribution of drinking water as well as maintenance of water supply schemes from a centralised system to de-centralisation after the 73rd and 74th constitutional amendments. As a major step government decided that KWA should hand over 1050 rural water supply schemes which fall within the boundary of one Panchayat. The Local Self- Governments have accorded highest priority in drinking water and formulated over 21712 projects during the period 1997-2000.

Sanitation

9.96 Of late, there is a growing realisation that the much talked about Kerala model of health carries a high morbidity load. It can be argued that when life expectancy increases there can be a corresponding increase in morbidity. However, water and sanitation related diseases still feature prominently in the morbidity syndrome prevalent in the state. One of the factors that has contributed to this is Kerala's high density of population. Lack of basic amenities compel people to resort to practices such as open-air defecation. The matter has been further aggravated by acute poverty, poor hygiene and inadequate garbage disposal and drainage. The high population density, consumerism and increased demands on civic facilities tell upon the bearing capacity of Kerala's already fragile environment. This is particularly true of the coastal area, which is characterized by high water table and high population density. It is relevant here to note that the IMR among the fishing community is 32 per 1000 whereas the state average is as low as 14.

9.97 The relatively slow pace of industrialization has kept most parts of Kerala out of the negative fall out of industrial pollution. However, most of the canals and rivers flowing through the urban areas have become dysfunctional dumping space of the leftovers of hotels and slaughterhouses, carcass and heaps of plastic wastes which make them very unhygienic. The State is also becoming more and more vulnerable to biomedical waste. This is all the more serious, as bacteria originating out of hospital environment are highly resistant to most antibiotics. Waste disposal system is desperately inadequate or non-existent in most hospitals. The indiscriminate use of chemical fertilizers and pesticides has become a matter of serious concern. The prevailing state of affairs calls for a comprehensive approach to tackle the drinking water and environmental sanitation problems.

9.98 Latrine coverage is lower in households below poverty line and other sanitation conditions such as solid and liquid waste disposal, drainage, school sanitation and community sanitation are dismal. This situation is a burden particularly to the women and plays havoc in the pockets of poverty where conditions are worst. Figures for coverage with sanitary latrines vary a lot among the different assessments. The percentage of households with access to sanitation facilities according to different estimate is given in the Table 9.51.

Table - 9.51

Household sanitary latrines: Access to Sanitation facilities

	Achievements		
	1991*	1995**	1999***
Rural households with toilet(%)	44	73.4	84.7
Urban households with toilet (%)	73	90.0	94.4

Source:-

* *Census of India, 1991*

** *NSSO 1995*

*** *MISC - 11, 2000*

9.99 However asper 1991 census 26.66 lakhs house holds were without latrines as shown in Table 9.52. The position according to 1999 data would reflect that much headway has been made in this between 1991 and 1999 as shown in Table.9..53

Table- 9.52
Household Sanitary Latrines: Status 1991

(Lakhs)

Sl. No.	Description	Urban	%	Rural	%	Total
1	No. of House holds	7.91	14.38	47.09	85.62	55.00
2	House holds with latrine	4.20	14.61	24.54	85.39	28.74
3	House holds without latrine	3.71	14.13	22.55	85.87	26.66

Projected Households with and without sanitary latrines

9.100 The estimate of "The Task Force on Rural Sanitation in Kerala" is that new families without latrine grows at the rate of 1.5 percent per year which is slightly higher than the rate of 1.4 percent at which new sanitary latrines are constructed. It was estimated that there will be a gap of 30.30 lakh latrines out of projected households of 62.58 lakhs. Including the latrines constructed by LSGS and private sector the gap is estimated at 18.90 households without latrines in 2001.

Table. 9.53
Projected Households with and without Sanitary Latrines.

(in Lakhs)

Year	Households without Latrines			Households with Sanitary Latrine			Total Households in lakhs
	Rural	Urban	Total	Rural	Urban	Total	
1991	22.55	3.71	26.26	24.54	4.20	28.74	55.00
1992	22.89	3.77	26.66	24.88	4.26	29.14	55.80
1993	23.23	3.83	27.06	25.23	4.32	29.55	56.61
1994	23.58	3.89	27.47	25.58	4.38	29.96	57.43
1995	23.93	3.95	27.88	25.94	4.44	30.38	58.26
1996	24.29	4.01	28.30	26.30	4.50	30.80	59.10
1997	24.65	4.07	28.72	26.67	4.56	31.23	59.95
1998	25.02	4.13	29.15	27.04	4.62	31.66	60.81
1999	25.40	4.19	29.59	27.42	4.68	32.10	61.69
2000	25.78	4.25	30.03	27.80	4.75	32.55	62.58
LSG 1997-2001					5.13		
Private sector					6.00		
TOTAL (With Sanitaty Latrines)					**43.68**		

Community Perceptions

9.101 The baseline survey for the formulation of Netherlands Assisted Programme (NAP ii) established that the priority service need of the people is for improved water supply with household sanitation coming next.

Table -9.54
Community Service Preferences

Sl. No.	Services	Malappuram	Palakkad	Thiruvananthapuram
01.	Water	1	1	1
02.	Latrine	2	2	3
03.	Health	3	4	2
04.	Transport	4	5	4
05.	Electricity	5	3	5
06.	Education	6	6	6
07.	Others	7	7	7

Source: NAP Formulation Report June 1997

9.102 For household sanitation, latrines are the priority preference with bathing places and household wastewater drainage following. More than 80 percent of the panchayats had identified a pressing need for market place, solid waste and wastewater drainage improvements. The Development Reports of the Grama Panchayats, which they prepared for the People's Campaign for the Ninth Plan, reveal that inadequacy of sanitation coverage is an acute problem for women in particular, especially for those living in the coastal areas where settlement is high and public space scarce and in colonies inhabited by the poor. There is a perceived need among womenfolk for sanitary latrines, mostly in the interests of privacy though they are aware of the health linkages of sanitary practices.

9.103 Kerala has the highest coverage of individual household latrines in India. In the Ninth Plan about 300 Grama Panchayats gave top priority to sanitation and 50 of them achieved the goal of more than 95% coverage of the household sanitary latrines. During the Ninth Plan about 4.32 lakh sanitary latrines were constructed under decentralised plan campaign which is much more than what was achieved in the past 15 years through different governmental programmes .

Total Sanitation Campaign

9.104 Centrally sponsored Total Sanitation Campaign was introduced in Kollam and Kasaragod districts in 2001 and expanded to four more districts in 2002. In T.S.C. rural school sanitation is also a major component and an entry point for wider acceptance of sanitation by the rural people. The details of TSC projects are given below. It is expected that Total Sanitation Campaign (TSC) will be sanctioned in the rest of the districts during 2003.

Table - 9..55

Name of District	Household latrine (No.)	Sanitary Complex (No.)	Latrines for school (No.)	RSM No.	IEC (Rs. in lakhs)	Total project cost (Rs. in lakhs)
Kollam	85000	400	225	10	19.13	894.40
Kasaragod	82200	100	281	4	34.525	1111.86
Thiruvananthapuram	67320	60	350	10	2.71	749.61
Alappuzha	161871	125	377	10	4.72	1656.13
Malappuram	69217	80	380	10	4.654	759.86
Wayanad	54927	40	78	3	2.95	535.19
Total	520535	805	1691	47	68.689	5707.05

Source : Rural Development Department

Clean Kerala

9.105 Unhygienic environment mainly caused by Solid Waste accumulation resulting in ground water pollution and uncontrolled breeding of mosquitoes, flies and rodents is increasingly becoming a cause of grave concern. In order to find a last solution to the problem Government have taken "Clean Kerala" initiative early in 2003. It is aimed at capacity building of local governemnts for the preparation and implementation of solid waste management plan based on the principle that bio-degradable, non-bio-degradable and hazardous domestic waste should be segregated and stored at source and waste should not reach ground at any level of storage, collection and transport. The organic fraction of waste should be composted by aerobic and vermi composting methods; glass, paper, plastic etc. in the non-bio-degradable fraction should be re-used or recycled; sanitary land fill site should be developed for final disposal of inert waste and compost rejects and awareness building for community participation.

Future Challenges

- In Kerala a significant percentage of people depend on ground water (mostly open draw wells) for drinking purpose. It is a matter of concern that there has been no perceptible abatement of drinking water related diseases in the last decade. This situation demands fresh, critical examination of the total sanitation campaign from the point of view of its potential for water source pollution. The Kerala scenario is peculiar because of the high density of population and habitat pattern. This makes it very difficult to insulate drinking water sources from sources of pathogens.
- Having reached individual sanitation coverage of >85%, it is the problem areas with space and water avilability constraints that remains the unreached. Invariably these include slums, coastal and tribal areas and population on encroached land where illegitimacy stands in the way of service delivery. Also, space constraint for construction of individual toilets has emerged as a major issue. In urban areas families live in squatter settlements with very little living space for construction of any toilet. The limited space of home plots means that special consideration has to be given to the design of latrine suitable for the area. There are also technological problems in waterlogged areas like Kuttanad where no system works when the site is under water.
- In the past sanitation programmes have concentrated almost exclusively on the provision of low cost latrines. Now the focus has shifted from household latrine to household sanitation ("Veettuvalappu Santiation") which is package of health education, safe latrine, disposal of household sullage and solid waste.
- Illegal slaughter houses pose a major sanitation problem calling for immediate intervention. Popularisation of decentralised low cost slaughter houses (Rs. 3,00,000/-) has emerged as a possible solution.
- The existing approach to Information, Education and Communication (IEC) in sanitation sector is training oriented, supply driven, in-put based and not scalable. The alterate approach evolved for the Tenth Plan is based on capacity building, flexible and demand driven IEC, and result oriented.
- The parallel implementation of separate projects by different agencies with substantial variation in approaches slowly, but steadily leads to problems of compartmentalisation, overlapping, duplication and wastage of effort and resources.
- Instead of viewing water sanitation and hygiene as separate entities, it is necessary to treat them as integratal elements needing overall strategies.

Alappad Total Sanitation Program

Box. 9. 23

Introduction

Alappad is a Coastal Panchayat having an area of 7.38 square kilometres. As per 1991 census, it has a population of 24,567 living in 6555 houses. The Grama Panchayat has got 13 wards[1]. More than 70% of the people belong to fishing communities. When the program commenced in 1998 the household latrine coverage in Alappad Panchayat was very low (<25%) which included all the toilets with outlets into the canals. Overhung latrines (built over rivers, canals, and ponds) were very common.

Alappad Total Sanitation Programme

The Government of Kerala had selected 20 Grama Panchayats as Total Sanitation Panchayats. Alappad was selected for this program mainly due to its backwardness and the enthusiasm and initiative of the Local Self Government. Alappad Sanitation Programme was the first programme initiated by the local level with inter-agency collaboration, managed by the Panchayat, facilitated by an expert agency.

Box 9.23 Contd...

Objectives of the Programme

- *To establish community structures for a total sanitation program.*
- *To mobilise local resources and financial management by neighbourhood groups.*
- *To ensure inter-departmental coordination.*
- *Women empowerment.*
- *School sanitation as a strategy.*
- *To construct household and institutional latrines*

Community Organisation

Community structures were formed for the successful implementation of the programme. Which include Neighbourhood Committees (NHGs), Ward Sanitation Committees (WSCs), Health Promotion Team (HPT) and The Panchayat Sanitation committee (PSC).

160 NHGs were formed in one day itself on a campaign mode. Three people from each WSC, including women, were selected to form a Health Promotion Team (HPT) of the Grama Panchayat, and these teams took the leadership of hygiene promotion activities.

Key features of the Program

Local Resource Mobilisation

This was the first initiative in Kerala in terms of local resource mobilisation and financial management by the Neighbourhood Health Groups (NHGs). Beneficiary contribution was collected by NHGs and deposited, in a joint bank account operated by NHG conveners. More than 1.5 million rupees were collected by NHGs.

Inter-Departmental Co-ordination

The funds of almost all the departments that handle sectoral issues were pooled for this programme. The departments acted in a coordinated manner and their staff became Charge Officers[1] of each ward for Total Sanitation activities. The major Departments involved were Health, Rural Development, Fisheries, Local Self-Government, Social Welfare, and Education.

Woman Masons

83 women were trained as masons who were responsible for the construction of 2192 latrines and acted as health promoters.

School Sanitation Programme

This programme considered school children as target groups and school sanitation as a strategy for achieving Total Sanitation.

Facilitation by NGOs

Alappad was an example of success in coordination of NGOs and LSGIs in the development sector. SEUF by deputing one of its project associates facilitated the program.

Construction of Household Sanitation Facilities

A total number of 2,192 double-pit pour-flush latrines were constructed within a period of two years. There were various technical options like plinth-level latrines, bath-attached latrines, latrines alone etc., according to the needs of the beneficiary. The user paid a contribution, which varied according to their option.

Health Education Activities

Health education classes were carried out on the topics (1) sanitation components and the need for latrines, (2) technical aspects, and (3) use and maintenance by trained Health Promotion Team in the entire Panchayat.

Institutional sanitation facilities

In the 21 institutions in the Panchayat including schools and government offices, latrine facilities are now available. Separate campaigns were carried out for this target group.

Impact of the program

A survey conducted by the Socio Economic Unit Foundation as part of a multi-country study financed by European Commission (EC) and DGIS throws light into the impacts of the Alappad programme. The study results show that the latrine use among women and girls is as high as 90%. Among men and boys however, it is around 60%.

As a result of the project the number of latrine coverage increased by five folds and the hygiene behaviour of the community showed positive trends.

Chart 1: Latrine Cleanliness

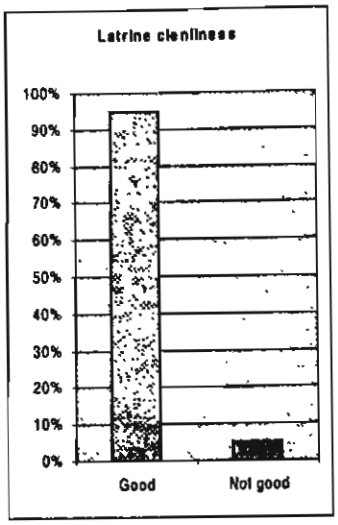


Chart 2: Hand Washing Behaviour – Women and Girls

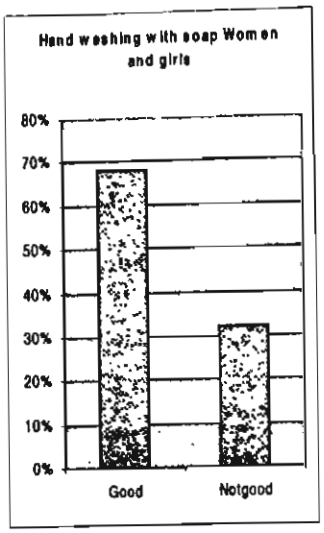


Chart 3: Hand Washing Behaviour – Men and Boys

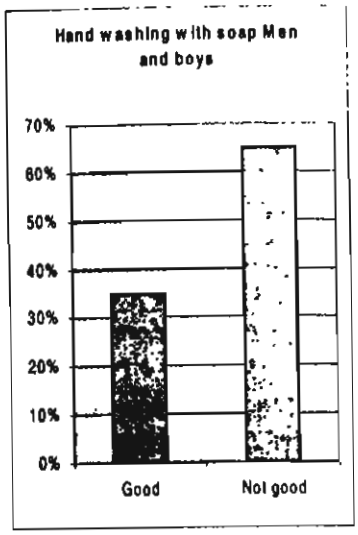


Chart 4: Environment of Household

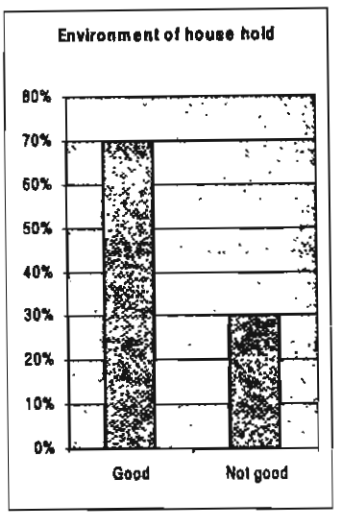


Chart 5: Latrine Use – Women and Girls

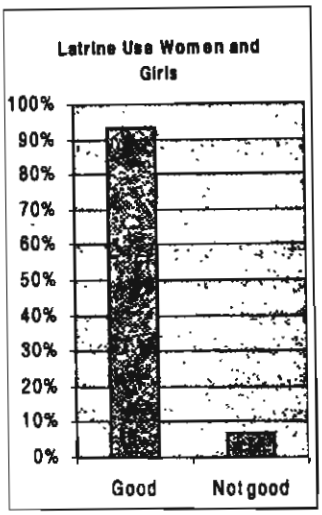
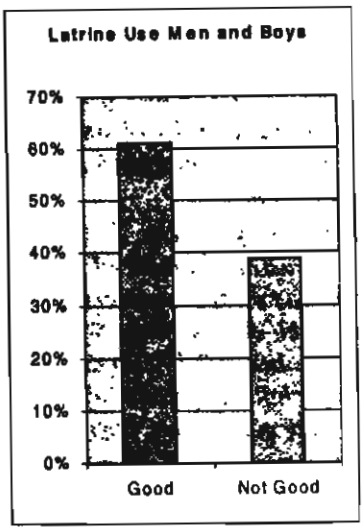


Chart 6: Latrine Use – Men and Boys



HOUSING

Introduction

9.106 The estimate of housing shortage in India was pegged at 22.9 million units according to 1991 Census. More than 90% of this shortage was for the poor and low income groups. The housing need in 2001 was estimated at 54.6 million units including shortage as existed in 1991. The National Housing and Habitat Policy 1998 estimated the need for an investment of Rs. 1,58,000 crore during the IXth Five Year Plan. Further, it projected that not more than 25% of this would be available from Banks, financial institutions, Central and State governments. More than 75% of the investment on housing/growth of housing was estimated to come from the informal and household sectors.

NATIONAL HOUSING POLICY-HIGHLIGHTS

BOX 9.24

The National Housing & Habitat Policy 1998 outlined the following major aims.

- *Creation of Surpluses in housing stock.*
- *Providing quality and cost effective housing and shelter options to thecitizens, especially the vulnerable groups and the poor.*
- *Ensuring that housing, along with the supporting services, is treated as a priority sector and at par with the infrastructure sector.*
- *Using the housing sector to generate more employment and achieve skill upgradation in housing and building activity.*
- *Ensuring that all dwelling units have easy accessibility to basic sanitation*
- *facilities and water.*
- *Progressive shift from a subsidy based housing scheme to cost sharing or*
- *cost recovery-cum-subsidy schemes for rural housing.*
- *Progressive shift of rural housing strategies from target orientation to a*
- *demand driven approach.*
- *Empowering the Panchayati Raj Institutions and Village Co-operatives to*
- *mobilise credit for adding to the housing stock and also basic amenities in the rural areas.*

Demand for Housing in 2001- Kerala

9.107 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 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 for 2001 is worked out as follows:-

	(lakhs)
Numerical shortage of houses in 1991	0.54
Substandard houses which are to be reconstructed	5.50
Houses which required major repair/construction	2.70
Additional demand during 1991-2001.	5.7
Total	**14.44**

9.108 The household size in Kerala was 5.3 as per 1991 Census. It was projected that population would increase to 328 lakhs in 2001. But actually population, increased from 290 lakhs in 1991 to to 318 lakhs in 2001. Consequent on the growth of population from 290 lakhs to 318 lakhs, the new houses

needed to be constructed stood at 5.7 lakhs in Kerala. Thus the total demand for housing in 2001 has been worked out at 14.44 lakhs.

Shift in Approach towards EWS Housing

9.109 State government, through its policy and approach has accorded highest priority in providing housing to economically weaker sections. This is reflected from the fact that of the housing support provided by the state, around 80 percent was for economically weaker sections. The subsidy provided for houses to EWS was increased from Rs. 9000 in 1996 to Rs. 35000 per house in 1998. During the Ninth Five Year Plan period about Rs. 1063 crores was mobilised from financial institutions for housing. The LSGIs assisted construction of 282281 houses during 1997-01. District Panchayats of Thiruvananthapuram, Kollam and Thrissur have formulated Total Housing Programmes with focuss on EWS.

Houses constructed by various Agencies.

9.110 There are as many as 20 agencies implementing housing schemes. A review of performance of various agencies shows that during the 9th Five Year Plan, (1997-02) assistance was provided to construct 574217 houses.

BOX 9.25

At the all India level only about 30 percent of the houses are constructed with state sector support where as in Kerala more than 70 percent are constructed with state sector/LSGs support.

9.111 The houses constructed by different agencies during the period from 1997-98 to 2001-02 are shown in Table 9.56

TABLE . 9.56
Houses constructed by various agencies- 1997-98 to 2001-02

Year	Houses Constructed (Nos)
1997-98	99545
1998-99	106383
1999-2000	139768
2000-01	146439
2001-02	82082
Total	**574217**

9.112 In Kerala, different agencies have assisted to construct 82082 houses in 2001-02 excluding Local Self Governments. Out of total houses constructed, Housing Board assisted 40%, Rural Development Department 24% and 15 % by Nationalized Scheduled Banks and the rest by other agencies. The spurt in housing activity since 1997-98 is very evident from the fact that all agencies together up to 1986 constructed 2.74 lakh houses. During the ten year period from 1986-87 through 1995-96, 577199 houses were constructed/assisted in Kerala. But during 1997-98 to 2001 more than 5 lakh houses were assisted. The relevant facts are presented in Appendix 9.80.

Local Self Government and Housing.

9.113 Since 1997-98, Local Self Governments actively involved in house construction for economically weaker sections. Increase of subsidy per house from Rs. 9000 to Rs. 35,000 in 1998 increased the demand for housing assistance more and more. During 1997-2001 (four years) LSGs have assisted to construct 2.82 lakh houses and repaired 1.54 lakh houses. Table 9..57. shows houses constructed and repaired by LSG during 1997-98 - 2001.

TABLE. 9.57
Houses constructed and Repaired by LSG (1997-2001)

(Nos)

Year	Houses Constructed	Houses Repaired
1997-98	45521	46655
1998-99	50000	32513
1999-00	28478	40851
2000-01	158282	33965
TOTAL	**282281**	**153984**

Total Housing

9.114 Thiruvananthapuram, Kollam, Thrichur and Ernakulam districts have formulated a massive housing programme to construct houses to all houseless families in a phased manner with institutional finance. Alappuzha also has a similar scheme. The Total Housing programme in Thiruvananthapuram district started in 1999-2000 targeted to construct 29872 homes in the first phase. Unit cost of a house was Rs. 35000 of which loan assistance was Rs. 30,000. Total estimated cost of the project was Rs. 8961.6 lakhs in Thiruvananthapuram which was financed by Kerala State Co-operative Bank. Already 25011 houses have been completed and transferred and 4861 are under construction. In Kollam district, the target was to construct 25,000 houses with HUDCO's assistance and the total project cost was Rs. 8750 lakhs. Project started in 2000-01 is completed and all the 25,000 houses have been constructed and transferred to beneficiaries. Thus in two years, above 0.50 lakh houses have been constructed in Kollam and Thiruvananthapuram districts. The target in Thrichur is 12,000 houses and that in Ernakulam and Alappuzha are 9330 and 13000 respectively.

Kerala State Housing Board

9.115 The Kerala State Housing Board formulates and implements housing schemes as well as housing loan schemes for catering to EWS, LIGs, MIGs, HIGS and other public housing schemes. The Board has completed 17950 units under 146 public housing schemes as on 30-9-2002. Under rental housing it completed 1933 units. During the period from 1996-97 through 2001, KSHB assisted construction of 282024 Maithri houses out of which 253339 units were fully completed. It disbursed Rs. 741 crores during the above period under Maithri. The achievements under major housing schemes implemented by the Board are reflected in Table9.58. Table 9.59 gives the achievements under Maithri.

9.116 The Board had started aggressive measures in 2002 to sell units lying vacant and unsold,, but the progress has been slow due to poor demand for such high cost housing. With the increasing role of local governments and corporation and of banks and financial institutions in financing individual housing, the new role to be played by KSHB has to be urgently defined.

TABLE. 9.58

Housing Schemes Implemented by Kerala State Housing Board Other than Maithri Scheme.(Houses Constructed)

Sl. No.	Scheme	Upto 31-3-2000	2000-01	2001-02	2002-03	Total as on 31-10-2002.
1	LIG Cash Loan Scheme	17042	1520	683	146	19391
2	MIG Cash Loan Scheme	11327	1084	391	60	12862
3	HIG Cash Loan Scheme	2960	27	2	0	2989
4	MLA/MP Housing Scheme	98	1	1	1	101
5	Repair and Renewal of LIG	1443	358	103	4	1908
6	Repair and Renewal of MIG	1041	281	58	1	1381
7	Repair and Renewal of HIG	225	33	1	0	259
8	Flood Loan Schemes (1992)	15235	0	0	0	15235
9	WJHS (Subsidy)	407	20	0	8	435
10	Jubilee Housing Scheme	237	0	0	0	237
11	Central Govt. Employee HS.	7	0	0	0	7
Total		**50022**	**3324**	**1239**	**220**	**54805**

TABLE 9.59

Maithri Housing Scheme of Kerala State Housing Board

Sl.No	Name of District	Houses selected under Mythri HS	Houses constructed and handed over to beneficiaries	Houses partially completed	Capital subsidy disbursed for completed houses (Rs. In lakhs)
1	2	3	4	5	6
1.	Thiruvananthapuram	11670	11315	355	1018.4
2	Kollam	14133	14102	31	1269.2
3	Alappuzha	29994	22256	7738	2003.04
4	Pathanamthitta	16044	14428	1616	1298.5
5	Kottayam	29932	29593	339	2663.4
6	Idukki	26041	24829	1212	2234.6
7	Ernakulam	36522	31665	4857	2849.9
8	Thrissur	16749	15727	1022	1415.4
9	Palakkad	16934	16460	474	1484.4
10	Malappuram	17898	13558	4340	1220.2
11	Kozhikode	19866	16878	2988	1519.02
12	Wayanad	9218	8615	603	775.35
13	Kannur	22521	21182	1339	1906.4
14	Kasargode	14502	12731	1771	1145.8
State Total		**282024**	**253339**	**28685**	**22804**

Kerala State Co-operative Housing Federation

9.117 The Kerala State Co-operative Housing Federation provides assistance for house construction through 207 member societies. During 2001-02 the Federation provided assistance for house construction to 12311 families against 11038 in 2000-01. During 2002-03 (up to October) 4603families were assisted. Out of total assistance in 2001-02, 32% was for EWS and 36% for LIG. Further in 2001-02 assistance was provided to repair 2531 houses against 2185 in 2000-01. Table 9.60 shows the amount disbursed and houses assisted by the Federation.

TABLE. 9..60
Amount Distributed and Houses Assisted by KSCHF.

(Rs. Lakhs)

Sl. No.	Income Group	Amount disbursed			Houses Assisted (Nos)		
		2000-01	2001-02	2002-03	2000-01	2001-02	2002-03
1	EWS	1671.29	1046.88	424.75	3810	3958	1704
2	LIG	3576.42	2544.60	863.43	3621	4407	1718
3	MIG	1933.84	1820.33	580.21	1522	1415	490
4	Repair	2041.96	1648.82	385.26	2085	2531	691
Total		**9223.51**	**7060.63**	**2253.65**	**11038**	**12311**	**4603**

Kerala State Development Corporation for SC/ST .

9.118 Kerala State Development Corporation for SC/STs provides assistance, both loan and subsidy, for house construction to SC/ST families. Corporation has so far assisted 39712 families for house construction under different schemes up to 31-3-2000. The Corporation assisted to construct 311 houses in 2000-01 and 139 houses during 2001-02.

HUDCO and Housing

9.119 HUDCO provides assistance for house construction to institutions as well as individuals. During 2000-01, HUDCO sanctioned Rs. 296.8 crores to different institutions for house construction as against Rs. 350.04 crore during 1999-2000. The deficiencies and diversion of funds in the implementation of the Maithri Scheme, brought the scheme to a halt the end 2001 and HUDCO suspended its assistance. The entire scheme and repayment to HUDCO had to be renegotiated in 2001-02, before HUDCO financing for Housing in the state could be restarted. During 2001-02 Rs. 25.04 crore was sanctioned to institutions for house construction. With regard to individuals, Rs. 16.64 crore was sanctioned for house construction during 2001-02, an increase of 4.31 crores over the previous year. Similarly the beneficiaries assisted also increased from 562 in 1999-2000 to 686 in 2001-2002. The relevant data are given in Table. 9.61 The institution wise assistance provided by HUDCO during 1999-00 to 2001-02 is given in Appendix 9..82.

TABLE. 9.61
HUDCO Housing Scheme

Year	Housing Finance (Rs.lakhs)		Beneficiaries (Nos)
	Institutions	Individuals	
1999-2000	35004.91	1206.81	562
2000-01	29688.26	1233.86	487
2001-02	2504.55	1664.34	686

Housing Finance.

9.120 One of the hardships experienced in early 1990's was that housing finance was available at interest rates ranging from 13 to 18 percent per annum that too in a limited way. With more funds flow and flexibility to the institutional sector, emergence of more competitive financial institutions and liberal policies persured by banks, housing finance has become more cheaper and also available on easy terms. This has contributed to accelerate the housing activity by individuals and by government institutions. The interest rates as in 2002 in the case of 20 institutions are given in Appendix 9.83

URBAN DEVELOPMENT

9.121 According to the Census of India, the urban population in the country as on 1st March 2001 was 285 million accounting for 27.8% of the total population of 1027 million. 68 million was added to the urban population during the decade 1991-2001, an increase of 31.3%.

9.122 During the same period, the urban population in Kerala constituted 25.97 % of its total population recording a decennial growth of 7.64% from 76,80,294 to 82,67,135. From 1901 to 1991, the percentage of urban population in the State has steadily increased from 7.11% to 26.39%. 2001 Census shows a reversal of this trend bringing down the percentage of urban population to 25.97%. While the decadal variation was 60.97% between 1981 and 1991, the increase was only 7.64% during the period 1991 to 2001. However it has to be noted that because of the socio-economic and population spread peculiarities, several village panchayats are classified as urban areas. In fact the Municipalities and Corporation cover only 16.29% of the population.

Box 9.26
Trends in Urbanization

The total number of UAs/ Towns in the State steadily increased from 21 in 1901 to 94 in 1951. Thereafter a declining trend was witnessed up to 1981 census. The number of UAs/ Towns increased to 109 in 1991 recording the highest percentage of urban to total population. (26.39%). The percentage of urban population to total population increased from 7.11 % in 1901 to 1991, 26.39% in but witnessed a decline to 25.7% in 2001. The decennial growth of urban population was the highest (60.97%) during 1981-91 and the lowest (7.64%) during 1991-2001.

9.123 The Kerala society by and large depicts a picture of urban -rural continuum excepting a few panchayats in hilly and forest areas.

9.124 Similarly, quite different from the other parts of the country where increase in the urban population growth rate is the result of migration to the cities, especially metropolitan cities, the main reason for urban population growth in Kerala is the increase in the number of urban areas and also urbanisation of the peripheral areas of the existing major urban centres.

9.125 The problems of urban poverty, deficiencies in the urban infrastructure like water supply and sanitation, issues relating to environmental hygiene, disposal of solid waste, proper sewerage and drainage facilities, urban transport and housing, degradation in quality of life through congestion, pollution, accidents, rehabilitation of slum dwellers etc. are the major areas of concern of urban development. Most of these concerns are being addressed by urban local governments.

9.126 Government of Kerala have formulated an "Urban Policy and Action Plan". The key elements include :

1. Evolving a local vision of development
2. Involving the private sector in urban development based on transparent criteria
3. Identifying Growth Centres and enabling economic development
4. Preparation of an urban land database and assist land consolidation
5. Conservation of heritage structures and open space
6. Insist on environment impact assessment for major projects
7. Prepare an urban roads plan
8. Give priority to solid waste management and sewerage
9. Switch over to plinth area based property tax
10. Restructure Kerala Urban Development Finance Corporation
11. Introduce double entry accounting system
12. Introduce I.T enabled services

INDUSTRIAL TRAINING

9.127 There are 74 Industrial Training Institute in Government Sector and 394 Industrial Training Centres in the Private Sector. Out of 74 ITI's in government sector 41 are under SC Development department one under ST Development department and the remaining 32 under the Training Department. The ITI's and ITC's together have a sanctioned annual intake of 55576 in 2002. Out of the total seat strength, 12580 seats which constitute 23 percent are in Government ITI's and 42996 seats in private ITC's which accounts for 77 percent. The sanctioned annual intake and admissions made during 2002-are furnished in Table.9.62

Sharp Fall in Admission

9.128 There is a sharp fall in admission in ITI's and ITC"s in recent years. The actual admission during 2002 stood at 22657 which was 41 percent of the sanctioned seat strength. Out of actual admission 8480 were in Govt. ITI's and 14177 in private ITC's which stood at 61 percent and 34 percent in proportion to sanctioned seat strength. The demand for admissions in ITI's come down as new trades in emerging areas were not introduced and existing trades could not revamped and modernised to meet the demands. In the government sector ITI admissions, 45 percent were in one year courses 54percent in two year courses and one percent in three year courses.

TABLE.9.62
SANCTIONED ANNUAL INTAKE AND TRAINEES ADMITTED DURING 2002 IN ITI's and ITC's.

(Nos.)

Institute	Sanctioned Strength	Trainees admitted	Percentage to sanctioned strength
1. ITI's			
a) One year course	4264	3852	90
b) Two year course	9400	4590	49
c) Three year course	144	38	26
Total	13808	8480	61
2. ITC's			
a) One year course	10444	4305	41
b) Two year course	31260	9854	32
c) Three year course	64	18	28
Total	41768	14177	34
Grand Total	**55576**	**22657**	**41**

Source: Industrial Training Department.

9.129 In Govt. ITI's training is imparted in 17 trades under one year course and 18 trades in two year course and one trade in three year course. But in private ITC's one year course training is imparted in 20 trades and two year course in 15 trades.

Girls and SC/ST Admissions.

9.130 In government ITI's out of 3852 students admitted in one year course girls constitute 9 percent and SC students 3 percent. But in ITC's out of 4305 students admitted 23 percent (985) are girls, 3 percent (134) are SC students. In two year course in ITC's out of 9854 students 2 percent(169) are girls and one percent (77) SC students. Out of 4590 students under 2 year course in ITI's girls constitute 2 percent (100) and scheduled castes 2 percent . The relevant facts are given in Table 9.63.

TABLE.9.63

Girls and SC/ST Trainees admitted in Govt. ITI's and Private ITC's during 2002.

Item	Govt. ITI's				Private ITC's			
	Total	Girls	SC	ST	Total	Girls	SC	ST
One Year Course	3852	365	125	23	4305	985	134	12
Two year course	4590	100	96	16	9854	169	77	..
Three year course	38	..	3	..	18	..	2	2

9.131 An analysis of trade wise intake in 2002 (two year course) would indicate that 14 percent were in Fitter trade in ITI's followed by 11 percent in Electronic Mechanic. Details are given in Appendix 9.88 Apprenticeship training has been implemented through 9 Related Instruction Centres and 5 ITI's.

Chapter 10

POVERTY AND SPECIAL PROGRAMMES FOR WEAKER SECTIONS

Introduction

Of all the States in the country Kerala has had the sharpest reduction in poverty in the last 30 years. Land Reforms, an egalitarian approach to Government, good basic minimum services and universal PDS providing reasonable food security, a wide net of social security programmes benefitting nearly 15 lakhs of people, - assisted by large remittances from emigants – has helped the State to achieve high levels of human development and low levels of human poverty.

10.2 With decentralisation there has been greater flow of funds to the poorer sections of society. The participatory systems of local governance like Grama Sabhas and Ward Sabhas have given not only "voice" but also the power of "choice" to the people. In spite of these empowerment and achievements, unemployment levels are unacceptably high. Now careful micro level planning focussing on the patterns of poverty at the ground level is called for. Since people below poverty line as per the official estimates of the State Government constitute nearly 35 to 40% of the population, all the poor have not benefitted equally from the anti-poverty programmes. Certain sections of society like tribals, agricultural labourers, traditional artisans including fishermen and disadvantaged groups like women-headed families and the disabled still suffer from vulnerability. Tackling the problems of these excluded groups is a priority under the Anti-poverty Sub Plan which has been initiated as part of the Tenth Five Year Plan.

People below poverty line

10.3 For the purpose of national statistics and for devolution of funds from Government of India, figures of people below poverty line are arrived at based on National Sample Survey data. As per the NSSO 55th round (1999-2000) Kerala has poverty figures of 9.38% in rural areas and 20.27% in urban areas. (See Table 10.1)

Table 10.1
Poverty Figures of States

Sl. No.	States	1973-74			1999-2000		
		Rural	Urban	Combined	Rural	Urban	Combined
1	Jammu & Kashmir	45.51	21.32	40.83	3.97	1.98	3.48
2	Goa	46.85	37.69	44.26	1.35	7.52	4.40
3	Chandigarh	27.96	27.96	27.96	5.75	5.75	5.75
4	Punjab	28.21	27.96	28.15	6.35	5.75	6.16
5	Himachal Pradesh	27.42	13.17	26.39	7.94	4.63	7.63
6	Delhi	24.44	52.23	49.61	0.40	9.42	8.23
7	Haryana	34.23	40.18	35.36	8.27	9.99	8.74
8	Kerala	59.19	62.74	59.79	9.38	20.27	12.72
9	Gujarat	46.35	52.57	48.15	13.17	15.59	14.07
10	Rajasthan	44.76	52.13	46.14	13.74	19.85	15.28
11	Lakshadweep	59.19	62.74	59.68	9.38	20.27	15.6
12	Andhra Pradesh	48.41	50.61	48.86	11.05	26.63	15.77

4/100/2003—A-19A

13	Dadra & Nagar Haveli	46.85	37.69	46.55	17.57	13.52	17.14
14	Mizoram	52.67	36.92	50.32	40.04	7.47	19.47
15	Karnataka	55.14	52.53	54.47	17.38	25.25	20.04
16	Andaman & Nicobar Islands	57.43	49.40	55.56	20.55	22.11	20.99
17	Tamil Nadu	57.43	49.40	54.94	20.55	22.11	21.12
18	Pondicherry	57.43	49.40	53.82	20.55	22.11	21.67
19	Maharashtra	57.71	43.87	53.27	23.72	26.81	25.02
20	All India	56.44	49.01	54.88	27.09	23.62	26.10
21	West Bengal	73.16	34.67	63.43	31.85	14.86	27.02
22	Manipur	52.67	36.92	49.96	40.04	7.47	28.54
23	Uttar Pradesh	56.53	60.09	57.07	31.22	30.89	31.15
24	Nagaland	52.67	36.92	50.81	40.04	7.47	32.67
25	Arunachal Pradesh	52.67	36.92	51.93	40.04	7.47	33.47
26	Meghalaya	52.67	36.92	50.20	40.04	7.47	33.47
27	Tripura	52.67	36.92	51.00	40.04	7.47	34.44
28	Assam	52.67	36.92	51.21	40.04	7.47	36.09
29	Sikkim	52.67	36.92	50.86	40.04	7.47	36.55
30	Madhya Pradesh	62.66	52.65	61.78	37.06	38.44	37.43
31	Bihar	62.99	52.96	61.91	44.30	32.91	42.6
32	Orissa	67.28	55.62	66.18	48.01	42.83	47.15

Source: Tenth Five Year Plan (2002-07) Volume III-State Plans- Trends Concerns and Strategies, Planning Commission, Govt. of India

10.4 These figures for rural poverty vary very sharply from the figures arrived at after conducting the census of families below poverty line which was last done by the State Government in 1998. The State survey indicates a rural poverty percentage of 36.56. Details are given in Table 10.2.

Table 10.2
Number of Families Below Poverty Line-1998-99 (Provisional)

District	Total BPL Families	Families with				
		SC	ST	OBC	Others	Invalid
1	2	3	4	5	6	7
Thiruvananthapuram	188310	38816	2629	102658	44169	38
Kollam	175617	41166	1532	77588	55293	38
Alappuzha	156151	23415	1235	91854	39630	17
Pathanamthitta	74856	21364	1401	22767	29300	24
Kottayam	59182	8139	1149	24619	25256	19
Idukki	34435	5810	3856	9643	15106	20
Ernakulam	99521	20306	805	46271	32094	45
Thrissur	158961	42957	1516	71350	43115	23
Palakkad	204605	51595	2812	117491	32668	39
Malappuram	180375	32738	2128	123765	21679	65
Kozhikode	131781	22882	1215	83305	24259	120
Wayanad	64794	4068	19502	23268	17950	6
Kannur	122067	10201	3174	74468	34166	58
Kasaragode	72901	11823	3893	39577	17578	30
Total	**1723556**	**335280**	**46847**	**908624**	**432263**	**542**

Source: Commissionerate of Rural Development

10.5 However, in urban areas a survey carried out by Kudumbashree in 2001 shows the poverty figure at 17.04 %. This figure is likely to go up by about 5% after the validation which is now going on, is completed. This is close to the figure arrived at based on the NSSO survey.

10.6 Since the methodologies followed for identifying BPL families was more or less the same in urban and rural areas, it is clear that the NSSO figures for rural areas reflect an under assessment.

10.7 Now a new census is being undertaken in rural areas. In fact Kerala is collecting more data of objectively verifiable facts. These data are to be verified and validated by the community after which an index of poverty is to be developed. This would facilitate preparation of a rational Anti-poverty Sub Plan based upon severity of poverty.

Urban Poverty

10.8 The details of prevalence of poverty in the urban local governments of Kerala may be seen in Table. 10.3

10.9 In spite of the fact that Kerala does not have many slums it is seen that more than 1/3rd of the urban poor live in slums. The data shows that slum population is highest in the following urban local governments.

	Nos		
1. Kozhikode	" 76892	-	17.61 %
2. Kochi	" 63324	-	10.62 %
3. Ponnani"	" 20334	-	23.28 %
4. Thiruvananthapuram	" 29681	-	3.99 %
5. Alappuzha	" 19723	-	11.14 %
6. Punalur	" 17208	-	19.84 %

It is zero in Payyannur, Mattannur and Koothuparamba.

10.10 The percentage of poverty among urban local governments is highest in the following:

1. Manjeri	-	43.20 %
2. Ponnani	-	42.32 %
3. Quilandy	-	41.26 %
4.Nedumangad	-	37.47 %
5. Neyyattinkara	-	35.67 %

Least poverty is seen in Kochi Corporation (6.19%)

10.11 In order to understand the characteristics of urban poverty the disaggregated details related to urban poverty in Kollam Corporation are given in Box 10. 1. Details are given in Appendix 10.1

Box 10.1

Analysis of BPL data of Kollam Corporation

Total No. families	75504
Total Population	3,61,441
No. Of BPL families	15407 (20.40%)
BPL Population	73754 (20.40%)

Risk score-wise classification :

	Score	No.of families	% to total families	% to BPL families
A	9/9	51	0.07	0.33
B	8/9	220	0.29	1.42
C	7/9	748	0.99	4.85
D	6/9	2289	3.03	14.85
E	5/9	4718	6.24	30.62
F	4/9	7367	9.75	47.81

Table 10.3

Poverty in Urban Areas

Sl.	Municipality/	Male	Female	Total (2001	SC Population	ST Population	Slum Population	Estimated Poor	SC	ST	Slum	Poor
1	2	3	4	5	4	5	6	7	8	9	10	11
1	Trivandrum	365899	378840	744739	64053	637	29681	163800	8.60	0.09	3.99	21.99
2	Neyyattinkara	34049	35386	69435	2514	8	3369	24767	3.62	0.01	4.85	35.67
3	Nedumangad	27246	28892	56138	5143	60	6727	21034	9.16	0.11	11.98	37.47
4	Attingal	16684	18964	35648	3560	9	1798	6588	9.99	0.03	5.04	18.48
5	Varkala	20784	21489	42273	6143	7	3425	14679	14.53	0.02	8.10	34.72
6	South Paravur	15325	23324	38649	4371	0	693	6577	11.31	0.00	1.79	17.02
7	Kollam	177586	183855	361441	29045	119	13711	76701	8.04	0.03	3.79	21.22
8	Punalur	22936	24290	47226	4150	318	9371	16715	8.79	0.67	19.84	35 39
9	Adoor	13965	14978	28943	3138	17	1786	5903	10.84	0.06	6.10	20.40
10	Pathanamthitta	18510	19292	37802	3473	17	2821	6485	9.19	0.04	7.46	17.15
11	Thiruvalla	27091	29737	56828	4892	285	2679	11741	8.61	0.50	4.71	20 66
12	Kayamkulam	31701	33598	65299	4491	75	1224	7066	6.88	0.11	1.87	10.82
13	Mavelikkara	13499	14941	28440	3851	14	915	3125	13.54	0.05	3.22	10.99
14	Chengannur	12087	13304	25391	2690	5	1139	2987	10.59	0.02	4.49	11.76
15	Alappuzha	85708	91371	177079	3978	281	19723	30385	2.25	0.16	11.14	17.16
16	Cherthala	21917	23185	45102	1526	54	793	7142	3.38	0.12	1.76	15.83
17	Changanassery	25156	26804	51960	4063	15	3836	13109	7.82	0.03	7.38	25.23
18	Kottayam	29883	30842	60725	4710	176	3713	8113	7.76	0.29	6.11	13.36
19	Pala	10988	11652	22640	558	33	334	5130	2.46	0.15	1.48	22.66
20	Vaikom	10955	11682	22637	1732	25	2095	4986	7.65	0.11	9.25	22.03
21	Thodupuzha	22826	23400	46226	1787	182	1516	6156	3.87	0.39	3.28	13.32
22	Muvattupuzha	14462	14768	29230	1542	37	4157	3959	5.28	0.13	14.22	13.54
23	Thirupunithura	29508	30373	59881	5628	33	1800	5362	9.40	0.06	3.01	8.95
24	Kochi	295351	301122	596473	19621	943	63324	36929	3.29	0.16	10.62	6.19
25	Kalamassery	31953	31223	63176	4632	269	4056	8261	7.33	0.43	6.42	13.08
26	Kothamangalam	18407	18762	37169	2159	34	1798	7440	5.81	0.09	4.84	20.02
27	Perumpavoor	13146	13404	26550	2295	34	1155	2895	8.64	0.13	4.35	10.91
28	Angamali	16448	16976	33424	1327	12	1902	7685	3.97	0.04	5.69	22.99
29	Aiwaye	11756	12352	24108	1013	5	1112	1525	4.20	0.02	4.61	6.33
30	North Paravur	14482	15574	30056	1328	118	1790	4081	4.42	0.39	5.96	13.58
31	Kodungalloor	15881	17662	33543	2729	0	1801	4747	8.14	0.00	5.37	14 15
32	Chalakudy	23621	24750	48371	3371	15	2297	5721	6.97	0.03	4.75	11.83
33	Irinjalakuda	13850	15023	28873	2757	2	3268	2332	9.55	0.01	11.32	8.08
34	Thrissur	154188	163286	317474	69166	27	2307	28332	21.79	0.01	0.73	8.92
35	Chavakkad	17702	20436	38138	2510	15	1568	6731	6.58	0.04	4.11	17 65
36	Guruvayoor	9851	11336	21187	2254	3	543	4011	10.64	0.01	2.56	18.93
37	Kunnamkulam	24396	27189	51585	7582	5	148	11908	14.70	0.01	0.29	23.08
38	Chittoor	15528	16356	31884	3785	38	4157	4144	11.87	0.12	13.04	13 00
39	Palakkad	64293	66443	130736	9757	97	11161	32042	7.46	0.07	8.54	24 51
40	Ottapalam	23189	26041	49230	4163	12	5234	5553	8.46	0.02	10.63	11.28
41	Shornur	19995	22027	42022	8595	13	3241	8202	20.45	0.03	7.71	19 52
42	Ponnani	41619	45737	87356	6326	15	20334	36967	7.24	0.02	23.28	42 32
43	Tirur	25903	27747	53650	2686	12	881	7876	5.01	0.02	1.64	14.68
44	Perinthalmanna	21497	23116	44613	4084	10	1693	9157	9.15	0.02	3.79	20.52
45	Malappuram	28649	29841	58490	2626	9	2060	8585	4.49	0.02	3.52	14.68
46	Manjeri	41383	42321	83704	6621	3	4771	36159	7.91	0.00	5.70	43.20
47	Kozhikkode	211785	224742	436527	18014	301	76892	39263	4.13	0.07	17.61	8 99
48	Quilandy	32923	36047	68970	5368	4	931	28455	7.78	0.01	1.35	41 26
49	Vadakara	36457	39283	75740	1539	48	2710	11043	2.03	0.06	3.58	14 58
50	Kalpetta	14850	14752	29602	1493	2726	3127	6551	5.04	9.21	10 55	22 13
51	Thalassery	46767	52619	99386	2104	62	5211	8169	2.12	0.06	5 24	8 22
52	Kannur	30522	33273	63795	4698	23	6307	6400	7.36	0 04	9 89	10 03
53	Koothuparamba	13898	15634	29532	353	41	0	3649	1.20	0.14	0.00	22 36
54	Mattannoor	21659	22658	44317	963	21	0	7404	2.17	0.05	0.00	16 71
55	Taliparamba	32511	34930	67441	2654	200	788	8411	3.94	0.30	1.17	12 47
56	Payyannur	32678	36033	68711	3616	1	0	11047	5.26	0.00	0 00	16 08
57	Kanhangad	31599	33900	65499	1953	97	199	9071	2 98	0 15	0.30	13 85
58	Kasaragode	25606	26983	52683	1812	131	1494	10549	3 45	0 25	2 84	20 02

		% to total families	% to BPL families
No. Of landless families	13148	17.41	85.34
" with no habitable house	13076	17.3	84.87
No. of widowns	3905	5.17	25.34
" without access to safe drinking water	6297	8.34	40.87
" without toilets	11184	14.8	72.59
" having persons with mental illness/mental disability	2100	2.78	13.63

10.12 Analysis of the data shows the following facts:

- 17.3 percentage of people do not have a house
- 14.81 percentage of people do not have sanitary latrines
- 8.33 percentage of people do not have access to drinking water
- 17.41 percentage of people below poverty line do not have land of their own.
- Severe poverty akin to destitution is prevalent only among 1019 families.
- Out of the 15,407 BPL families, widows are there in as many as 3905 families.

New Initiatives.

10.13 As part of preparation of the Tenth Plan all local governments have prepared Anti-poverty Sub Plans. These sub plans are to be consolidated at the district level and then at the state level. Based on the analysis of these sub-plans, many state level anti poverty programmes are to be suitably modified and refined.

10.14 In keeping with the policy of reaching the unreached, a pilot project has been initiated through Kudumbashree to identify destitutes and prepare development plans for them (See Box 10.2 and Box 10.3). This is a major Social Security initiative launched by Government to get to the excluded, understand their special problems and tailor programmes exactly suited to their differing needs and implement them in a converged manner through the community itself.

Box-10.2
The Destitutes

The destitutes are the poorest of the poor. They are the outliers of the development scenario in the negative extreme. They live at the margins of the economy, society and polity. They do not have a "voice' or the power of "choice". They are not a constituency or vote bank. They face the worst forms of deprivation and lack of access to the basic minimum services. They are exposed to all forms of vulnerability and do not have any safety net against risks. Their income is below subsistence and they are dependent.

These faceless powerless people lack capabilities and are not aware of their entitlements nor can they access them. They cannot compete nor can they bargain. They drift pushed by circumstances. Severity of destitution is by unfavourable physical, gender or caste status. That is, disability being a women, being a widow, belonging to a Scheduled Caste or Tribe can singly or in combination aggravate the suffering.

The collapse of the traditional social support systems has orphaned the destitutes. They are sometimes objects of charity. But they are never subjects of development. They have to be invested with identity, personality and empowered to stand on their own. Only an Antyodaya approach can reach them. Only care and handholding can lift them. They can develop only after a period of well targetted well designed welfare.

Box-10.3
How the Destitute Families can be identified?

It is difficult to define a destitute but normally within a community, people would be able to identify the most marginalised families. Yet a large number of destitute families are invisible and may not be in a position to come forward for identification. It is possible that they may not have even a Ration Card or figure in the Voters' list.

However the nine point index evolved by Kudumbashree is useful to start with. The nine points are:

1. *Kutcha House*
2. *No access to safe drinking water*
3. *No access to sanitary latrine*
4. *Illiterate adult in the family*
5. *Family having not more than one earning member*
6. *Family getting barely two meals a day or less*
7. *Presence of children below 5 years in the family*
8. *Alcoholic or drug addict in the family*
9. *Scheduled Caste or Scheduled Tribe family*

Any family which satisfies eight out of the nine points can be classified as destitute. In addition the following factors could be added on after zeroing in on the probable population.

(i) Those family who have no landed property to create their dwelling place (living in poromboke land, forest land, side bunds of canal and paddy fields etc)
(ii) Those who are spending the nighttime in public places, streets or in the verandas of shops for sleeping.
(iii) Families led by unwed mothers, single parent or those separated women living in distress
(iv) Families led by young widows whom are economically poor or having women who had passed the age of marriage and remains unmarried.
(v) Families having members who are subjected to severe, chronic and incurable diseases or physically and mentally challenged.
(vi) Families having no healthy member to win bread for the family
(vii) Beggars who resort beggary as a vocation.

The Neighbor Groups can be entrusted with the task of identification.

Implementation of Anti-poverty programmes

Kudumbashree –

Introduction

10.15 Kudumbashree the innovative poverty reduction experiment launched in the State has universalised in 2002-03. The participatory poverty reduction approach initiated in 7 wards of Alappuzha Municipality during 1992 and subsequently scaled up to the entire municipal area during 1993, tried out in the rural area of Malappuram District during 1994, expanded to all urban local governments in 1995 has covered the entire State by 2002. Kudumbashree has been

Implementation of Anti-poverty programmes

1) Kudumbashree

10.16 Kudumbashree the innovative poverty reduction experiment launched in the State has been universalised in 2002-03. The participatory poverty reduction approach initiated in 7 wards of Alappuzha Municipality during 1992 and subsequently scaled up to the entire municipal area during 1993, tried out the model in the rural area of Malappuram District during 1994, has covered the entire State by 2002. Kudumbashree has been identified as one of the twenty best practices in governance identified by the Planning Commission and UNDP. The detailed case analysis of this successful programme is given as Annexure to this Chapter.

2) Urban Poverty Reduction Programmes.

State Urban Development Agency (SUDA)

10.17 In Kerala the role of SUDA is taken up by Kudumbashree. Implementation of SJSRY and NSDP is co-ordinated by urban local governments and monitored by Kudumbashree. Training programmes are also undertaken by Kudumbashree for improving the functional skill of poor women and equipping them for taking up of micro enterprises.

- SJSRY

10.18 Swarna Jayanthi Shahari Rozgar Yojana (SJSRY) is an anti poverty programme launched by the Government of India for eradicating absolute poverty from urban areas. The community development structure is providing the delivery system for the scheme. Identification of beneficiaries, selection of micro projects, preparation of application, monitoring of recovery, actual implementation, social audit etc. is done through Community Development Society (CDS) structure.

Status of Implementation of SJSRY (Amount in Rs. lakhs)

As on 31.01.2003

	Fund Release	**Expenditure**
Unspent Balance of old UPA Programmes	846.82	
1997-98	270.652	1070.932
1998-99	502.79	549.330
1999-2000	597.757	472.736
2000-2001	386.320	459.360
2001-2002	354.973	239.122
2002-2003	358.790	225.73
Total	***3318.102***	***3017.21***

10.19 SJSRY has two sub schemes, the 'Urban Self Employment Programme' (USEP) and 'Development of Women and Children in Urban Areas' (DWCUA).

- USEP

10.20 This component helps individual urban poor beneficiaries for setting up of self employment ventures. Ordinarily the project cost is Rs.50,000/- per individual, but if two or more eligible persons join together in a partnership higher project cost could also be allowed, provided individual share does not exceed fifty thousand. Subsidy is provided at the rate of 15% of the project cost subject to a ceiling of Rs.7,500/- per beneficiary. Beneficiary share is calculated as 5% of the project cost. This can be brought in either as cash or in kind or as both. 80% of the project

cost is sanctioned as loan by various financial institutions including Banks and Thrift and Credit Societies.

- DWCUA

10.21 This component helps the urban poor women for setting up gainful employment through group activity. This scheme is distinguished by the special incentive extended to the poor women of urban areas who decide to setup self-employment enterprise as a group as opposed to individual efforts. Groups of urban poor women identify an economic activity suited to their skill, training, aptitude and local condition. Besides generating income, the synergy of the group helps the women to empower themselves for combating poverty. Minimum number for a group is fixed as 10. Ordinarily the project cost is Rs. 2.5 lakhs or below, but varies from project to project. The DWCUA group is given a subsidy of 1.25 lakhs or 50% of the cost of project which ever is less. To ensure the contribution of members, 5% of the project cost is brought in as their share, either in cash or in kind or as both. The banks normally sanction 95% of the project cost as loan amount. When the thrift of the poor population reaches a sizeable limit, the Thrift and Credit Societies also sanction loan.

Physical Achievements

As on 31.01.2003

Programme	Achievements
USEP	13,150 Units
DWCUA	1048 Groups

- National Slum Development Programme (NSDP) :

10.22 NSDP gives prime importance to infrastructural development. The scheme is implemented through the CDS in Urban Local Bodies with the assistance of State and Central Governments. The ULBs are prepare the action plans of NSDP in convergence with SJSRY plan through the CDS. Construction of new houses, repair of houses, water connection, construction of latrines, assistance for wiring etc are undertaken through the NSDP. An amount of Rs.48.08 crores have been distributed to 58 ULBs in the State. 3000 new houses have already been completed with loan-linked scheme (One lakh housing scheme) with KUDFC. 4300 houses are under construction.

- Valmiki Ambedkar Awas Yojana (VAMBAY):

10.23 Valmiki Ambedkar Awas Yojana (VAMBAY) is a newly formulated centrally sponsored scheme for the benefit of the Slum dwellers. The scheme mainly aims at ameliorating the housing problems of the slum dwellers living below poverty line in different towns. The scheme is shared on 50:50 basis by the central government and the state and is being implemented with support from HUDCO. There is option to obtain resources from any other source (ie other than HUDCO) such as budgetary support, own resources of local governments, loan from other agencies.

10.24 Kudumbashree, the State Poverty Eradication Mission is the nodal agency for the implementation of VAMBAY in the State. The upper financial limit for construction of VAMBAY units for our state is Rs.40000/- with provision for sanitary toilets.

(Rs. in lakhs)

Year	State Release	Central Release	Total	No. of Houses Targeted
2001-02	266	266	532	1330
2002-03	1333	1333	2666	6665
Total	*1599*	*1599*	*3198*	*7995*

CUPRP

10.25 The Cochin Urban Poverty Reduction Project is being implemented by Kochi Corporation with the assistance of Department for International Development (DFID) of UK. This participatory project is under implementation since April 1998 and is expected to benefit the 1.95 lakh poor in the city. The performance of the project in the last three years is summed up in Table. 10.4

3) Rural Anti- Poverty Programmes

1 Swaranjayanti Gram Swarozgar Yojana (SGSY)

10.26 Swaranjayati Gram Swarozgar Yojana (SGSY) is a Centrally Sponsored Scheme launched with effect from 1-4-1999. SGSY aims at establishing a large number of micro-enterprises in the rural areas building upon the potential of the rural poor. Emphasis is be given to group approach in this programme. The objective of SGSY is to bring every assisted family above the poverty line within three years time. SGSY is conceived as a holistic programme of micro enterprises covering all aspects of self employment viz. formation of self help groups, capacity building, planning activity clusters, infrastructure buildup, technology, credit and marketing. This programme adopts a project approach in each key activity. The effort is to cover 30% of the rural poor in each Block in the Tenth Plan Period.

10.27 SGSY is a credit cum subsidy programme where credit forms the critical component. SGSY seeks to promote multiple credit rather than one time credit injection. This programme lays emphasis on skill development through training courses. It also proposes to ensure technology up-gradation in identified activity clusters. Market intelligence, development of market, consultancy services etc. are the market promotion activities envisaged under this new programme. Subsidy under SGSY is uniform at 30% of the project cost subject to a maximum of Rs. 7500/- In respect of SC/STs it is 50% and Rs. 10,000/- respectively. For group Swarozgaris the subsidy is 50% of the project cost subject to a maximum of Rs. 1.25 lakh. There is no limit on subsidy for irrigation projects. Subsidy is backended. The programme expects at least 50% of the Swarozgaris to be SC/STs, 40% to be women and 3% to be disabled.

10.28 The achievement under the scheme upto October 2002 is as follows:

Achievement of SGSY upto the month of October 2002

A. Physical:	*(No.)*
1. Self- Help Groups formed	4573
2. Self- Help Groups taken up eco-activities	379
3. Members covered	
General	3455
SC	748
ST	98
4. Individual Swarozgaris assisted	3617

B. Financial:	*(Rs. in Lakh)*
1. Total Fund Available	938.41
2. Subsidy for groups	348.60
3. Subsidy for Individual Swarozgaris	298.34
4. Total Expenditure	830.92
5. Percentage of Expenditure	88.55%

Table 10.4
COCHIN URBAN POVERTY REDUCTION PROJECT
PHYSICAL TARGET AND ACHIEVEMENTS FROM APRIL 2000 TO DECEMBER 2002

Sl. No.	Activity	2000-01		2001-02		2002-03	
		Target	Achievement	Target	Achievement	Target	Achievement
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
I. Inslum Engineering							
1.	Roads, Drains & Retaining wall (No. of works)	300	145	300	115	300	122
2.	Community Hall	13	2	11	1	10	1
3.	Toilet construction	500	200	700	0	7000	0
4.	Street lights	200	80	250	120	250	65
II.	Community Economic Development						
1.	Support to NHGs (No. of NHG)	1236	1236	0	0	0	0
2.	Support to school going children in NHGs	1236	1236	1236	1236	0	0
3.	Vocational training	2000	1345	1500	800	250	115
4.	Assistance to Self Employment Programme (No. of beneficiaries)	1000	383	500	0	500	0
III.	Health						
1.	CHV Kit (No. of Kit)	1200	1000	1200	1200	1200	1200
2.	Support to physically and mentally handicapped	100	78	150	115	200	170
3.	Superspeciality Surgery	50	15	50	25	50	16
4.	Vulnerable Assistance	500	318	500	210	200	60
5.	Support to TB patients	500	415	500	380	200	88
6.	Support to chronic mental patients	200	60	200	95	200	121
7.	Emergency Relief	50	20	50	55	100	32
8.	Rehabilitation of Vulnerable families who recovered from their critical stage	50	12	50	18	200	104
9.	Supply of medicines to MCW centres	13	13	13	13	13	13
IV.	Land Tenure						
1.	Issuance of Patta/Possession Centificate	600	351	250	0	250	0

Box 10.4
Swarna Jayanthi Gram Swarozgar Yojana

Mythry Self -Help –Group:
Ten women in Thariode Panchayat in Wayanad district of Kerala were organised by the DRDA in to a Self –Help-Group under SGSY. The group decided to undertake ginger cultivation by acquiring land on lease basis. The group was given a bank loan and subsidy of Rs 2.50 lakh for ginger cultivation. In March 2001,the group harvested the first crop and was able to sell ginger worth Rs 3.57 lakh in the first year itself.

Source: Annual Report 2001-02 Govt. of India, Ministry of Rural Development

2 Indira Awaz Yojana (IAY)

10.29 The objective of the scheme is to provide dwelling units to the houseless Scheduled Castes and Scheduled Tribes, freed bonded labourers and other rural poor below poverty line by providing grant at the rate of Rs.22000 per house. Indira Awaz Yojana is a centrally sponsored scheme, with the Centre and State sharing the cost in the ratio of 75:25. A maximum of 40 per cent of the fund can be utilized for construction of houses for rural poor below the poverty line other than SC/ST and freed bounded labourers. Out of this, 3 per cent is earmarked for physically handicapped persons. The unit cost of a house is taken as Rs. 35,000/- and the balance Rs. 13.000/- is provided to the beneficiaries by the State Government or Local Self Government. Upgradation of existing Kutcha houses is also possible under the scheme for which the limit is Rs.10,000/- per unit.

10.30 The achievement under the scheme is as follows:-

Achievement of IAY during 2002-03

A. Physical (No)	**Total**	**Scheduled Castes**	**Scheduled Tribes**
1. New houses constructed	9841	4710	551
2. Houses upgraded	6291	3226	270
B. Financial(Rs.lakh)			
3. Fund for new construction	2731.28		
4. Expenditure for new construction	1892.60 (69.29%)		
5. Fund for upgradation	681.00		
6. Expenditure for upgradation	474.72 (69.71%)		

3 Sampoorna Gramin Rozgar Yojana (SGRY)

10.31 Sampoorna Gramin Rozgar Yojana (SGRY) is a centrally sponsored scheme introduced in August 2001, by merging Employment Assurance Scheme (EAS) and Jawahar Gram Samridhi Yojana (JGSY). The objective of the scheme is to provide additional wage employment as well as food security through creation of durable community, social and economic assets and infrastructure development in the rural areas. The expenditure sharing between the centre and the state is in the ratio of 75:25. Central Government also provides food grains of value equivalent to the cash component free of cost, as an additionality under the scheme. 5 Kg. of food grains is made available per manday @ Rs. 6.20/Kg. The balance wage is paid in cash as per the notified minimum wages. The cost of transportation of food grains from FCI godowns to the workplace/PDS and its distribution is the responsibility of the State Government.

10.32 The programme is implemented in two streams namely, (I) district and block panchayat level & (II) Grama Panchayat level. Out of the total fund available under SGRY 50% is earmarked to district and block panchayats in the ratio of 40:60 per cent. In this stream 22.5% of the funds is earmarked for individual beneficiary schemes for Scheduled Castes and Scheduled Tribes for providing economic and social assets and for development works in the individual lands of below poverty line families of these groups. The balance 50% of the funds is earmarked to grama panchayats. The grama panchayat is to set apart 50% of the funds allotted to them for taking up infrastructure development works in Scheduled Castes and Scheduled Tribes settlements.

10.33 The spillover works of the erstwhile Employment Assurance Scheme and Jawahar Gram Samridhi Yojana continued during the year under report.

The achievement under stream I & II are shown below:-

		Stream I	***Stream II***
1.	Works undertaken	4652	19073
2.	Works completed	1460	2652
3.	Employment generated (LMD)	14.31	10.59
4.	Roads constructed		502
5.	Irrigation well constructed		98
6.	School building constructed		30
7.	Sanitary latrines constructed		464
8.	Drinking water well constructed		129
9.	Houses constructed		963

10.34 The physical achievement under Centrally Sponsored Poverty Alleviation Programme is given in Appendix 10.2.

10.35 The financial achievement under Centrally Sponsored Poverty Alleviation Programmes is shown in Table 10.5

Table 10.5
Financial Achievements under SGSY, IAY, JGSY, EAS/SGRY

(Rs.in Lakh)

Year	IRDP	SGSY	IAY	JGSY	EAS	SGRY
1997-98	2531.96		2975.78	3851.76	4371.43	
1998-99	2769.01		3632.01	4239.95	5425.26	
1999-2000		2506.81	3990.7	3703.75	4688.09	
2000-01		3489.56	3525.02	3404.06	3458.67	
2001-02		1998.68	4618.14			9896.17
2002-03 (Upto 31-10-02)		830.92	2367.32			3234.67

4. Land Reforms

10.36 Re-survey in the State is continuing since 1996-97. Out of 38863 Sq. Km to be resurveyed in the state, resurvey works of 23480 Sq. Km have been completed. Out of 1604 villages (survey villages) the survey records of 703 villages have been handed over to the Revenue Department for revenue administration. The resurvey in 87 villages is in progress. To dispose of complaints

against survey records, adalath/s have been organised since 01-08-1995. About 11,71,925 cases were disposed so far in 676 villages. About 2659 staff were given training in computer and other modern survey equipments. Statement showing details of funds received and utilised for computerisation of Land Records is given in Appendix 10.3

10.37 Distribution of surplus land is another important activity under Land Reforms. An extent of 48 acres of land was distributed to 406 families during 2002-03(up to 31-10-2002). The beneficiaries of land reforms include 236 Scheduled Castes and 170 others. The extent of land distributed is 25 acres to Scheduled Castes and 23 acres to others.

10.38 Since the beginning, the total extent of land declared surplus land in Kerala is 1.39 lakh acres, till September 2001 (Appendix 10.4). Out of this, about 0.96 lakh acres have been distributed to 1.57 lakh beneficiaries of whom 17% belong to Scheduled Tribes. An area of 0.30 lakh acres is involved in litigation. Apart from surplus land, an area of 4.57 lakh acres of government wastelands has been distributed among landless rural poor. (Appendix 10.5)

5. Attappady Environmental Conservation & wasteland Development Project

10.39 This is an eco-restoration project for reclamation of 507-sq. km degraded wasteland of Attappady and to provide sustainable livelihood for the local people particularly Tribal population. The project is assisted by Japan Bank for International Co operation (JBIC). Total project cost is Rs. 219 crore, of which the external assistance is to the tune of Rs.177 crore. The project period is from 1996-97 to 2004-05. Attappady Hills Area Development Society (AHADS) is the agency for implementing the Project.

10.40 AHADS has started works in forestry, soil conservation, hydrology, civil engineering, agronomy etc.About 5.45 lakh mandays of employment were created till 31st December 2002. The Comprehensive Development Programme for ST's and SC's a new component of the project was launched on 17th November 2002..

10.41 The project is being implemented in 146 micro watersheds divided in to 15 Development Units.User Associations are constituted for every micro watershed for implementing the project activities. 160 Ooru vikasana samithies have been formed for implementation of various activities in Tribal hamlets.

10.42 The works so far completed consist of afforestration (900 ha), Planting (116575 plants, 1000ha) , Fencing of forest land (1500ha), Structural conservation in forest land (3500ha), Agronomic conservation measures (315ha), Homestead activities (613ha), Construction of pits and trenches (9.34 lakh pits, 81593 staggered trenches), Check dams (375),Contour bunds (8686mtrs), Drainage canals(1742mtrs), Retaining walls (7381mtrs) etc. Socio economic surveys for Tribes were conducted in 183 hamlets of Attappady.

10.43 The cumulative expenditure up to 31-12-2002 is Rs. 28.02 crore.

Social Security & Welfare

10.44 Kerala has several achievements in introducing social security measures for vulnerable segments of the society. Social security has been given more thrust than welfare and relief measures. Reduction of income insecurity has been the primary objective of social security measures as over 87 per cent of the people are in the informal sector of the economy.

Successive Government's in Kerala have introduced as many as 35 social security schemes and over 3% of the state budget is spent on social security measures. In states like Tamil Nadu and Karnataka, social security expenditure as proportion of the state budget ranges between 2.2 and 2.5% respectively.

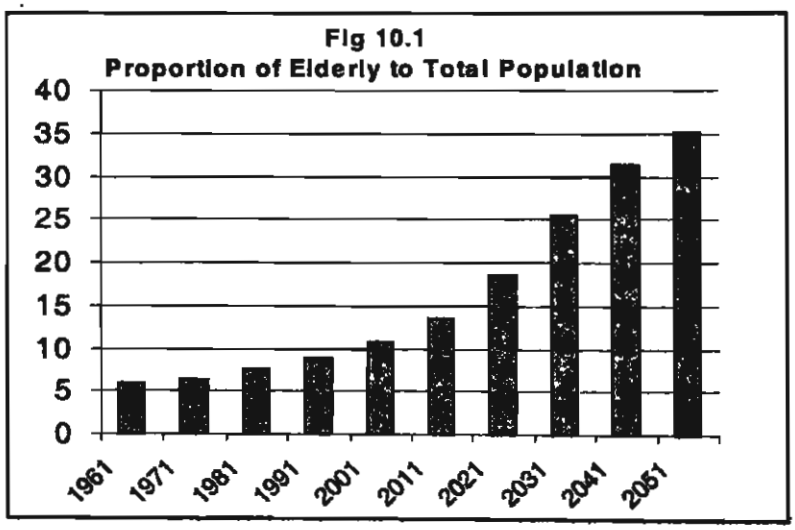
10.45 The social security measures in the state can be broadly catogorised into institutional care and pension schemes.The social security and pension schemes are implemented by government departments, statutory and non-statutory boards.

A. Institutional care and protection

10.46 There are 48 welfare institutions in the state under the Social Welfare Department with a sanctioned strength of over 5000. But at present care and protection is provided only to about 2500 inmates. Whereas through a net work of 420 orphanages in the state more than 44428 inmates are given care. An analysis of the sanctioned strength and actual beneficiaries in 17 categories of homes has been made and relevant data are presented in Appendix-10.1. A revamping and restructuring of the working of different institutions is urgently called for in order to avoid wastage.

a. The Elderly

10.47 There is more demand on social security measures with the ageing of population. On the basis of population figures of the various censuses, the proportion of the population aged 60 and above has slowly and steadily increased from 1961 to 1991. According to the 1961 census figures, the proportion of elderly stood at 5.8 per cent; it increased to 6.2 per cent in 1971; to 7.5 per cent in 1981 and to 8.76 per cent in 1991. According to projections, the number of elderly is expected to exceed 6.6 million (18.59%) in 2021 which will have far reaching implications in the economy. The diagrammatic representation ids given in figure 10.1.



The number of elderly is expected to increase to 4.1 million in 2011 and to 5.8 million in 2021, ie. 2.6 million more elderly in 20 years than at present. The number of children is expected to be 7.2 million in 2011 and 6.6 million in 2021.

10.48 The age composition of the population of the State has undergone and is thus undergoing significant changes as reflected in the table below.

Table-10.1

Year	Population (in million	Age Composition (percentage)		
		0-14	15-59	60+
1961	16.9	42.4	41.6	6.0
2001	31.8	24.0	66.2	9.8
2021	36.0	18.7	65.7	15.6
2031	35.9	14.1	60.9	25.0
2041	35.3	15.3	53.7	31.0
2051	33.4	14.6	51.4	35.0

(Source:--State Planning Board)

b. The Disabled in Kerala

10.49 The Economic and Social Commission for Asia and Pacific(ESCAP) at its 48th Session in 1992 declared the period 1993-2002 as the Decade of Disabled Persons in order to achieve the decade goal of "Full participation and equality of people with disabilities. The Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act was enacted in 1995. Chapter 4, part II of the Act deals with prevention and Early Detection of Disabilities. It states that, within the limits of their economic capacity and development, the appropriate governments and local authorities, with a view to preventing the occurrence of disabilities shall under take surveys investigation and research regarding the cause of disabilities, promote various methods of prevention, screening of all the children once in a year for identifying' at risk 'cases, provide facilities for staff training in primary health centres sponsoring awareness campaigns and take measures for pre natal, peri-natal and post natal care of mother and child etc.The Xth plan approach towards empowering the persons with disabilities is for making as many disabled as possible active, self-reliant and productive contributors to the national economy through;

- Effective enforcement of the PWD Act, 1995 with a multi-sectoral collaborative approach through delineation of responsibilities to the concerned governmental and non-governmental organizations .
- Reaching the Un-reached through the specially launched "National Programme for the Rehabilitation of persons with Disabilities"
- Introduction of a Component Plan for the Disabled to promote the flow of funds/benefits to the disabled from all the concerned Ministries/Departments.
- Motivate the Disabled to organise themselves into Self-Help Groups through the special strategy of Community-Based Rehabilitation and encourage family members, especially the women, to be the primary care-givers to the disabled.
- Strengthen the National Institutes, Indian Spinal Injuries Centre and other Regional/Composite Rehabilitation Centres and extend their services to the needy groups and areas.
- Prevent disabilities through early detection, timely immunisation, dietary corrections, supplement both macro and micro nutrients to children and expectant and nursing mothers, and ensure safety on both roads and at work places with a special watch on the increasing and emerging variants of disabilities.
- Integrate disabled children into mainstream education through universalisation of education with a barrier-free environment.
- Provide various options of schooling systems to disabled children like Inclusive Education, Integrated Schools, Special Schools, Non-Formal Education etc. to suit their specific needs/requirements.
- Expand Special Schools and Vocational Training opportunities in the up-coming trades for the disabled, especially for the disabled women and adolescent girls.
- Equip the disabled with suitable, simple, durable inexpensive Aids and Appliances, including specially designed gender-specific assistive devices.

- Earmark not less than 3 per cent reservation of benefits in all the Poverty Alleviation Programmes in action both in rural and urban areas.
- Expand the existing and launch new programmes for generating more and more of employment opportunities, both wage and self-employment with 'forward" and "backward" linkages to keep the disabled gainfully employed.
- Increase employment opportunities for the disabled in the service sector through effective identification and filling up of reserved posts up to 3 per cent of the vacancies in the Government and Public Sector Undertakings through Special Employment Exchanges/Special Cells in the Regular Employment Exchanges.
- Provide special thrust to the welfare and rehabilitation of mentally disabled through specific services like special, education sheltered workshops, day care centres and long term stay institutions etc. under the aegis of the National Trust for the Welfare of Persons with Autism, Cerebral Palsy, Mental Retardation and Multiple Disabilities.

10.50 Based on 1991 Census population the estimated number of disabled persons in India stood at 3.87 crores which is 4.6%of the total population out of which 58.6%were males. According to estimates made by National Sample Survey Report-1991, the disabled persons in India stood at 16.15 million which constituted 1.9 per cent of the population and about 70% of the disabled lived in rural areas. While 16.2 million people are physically disabled 2 million suffered from speech disability. Detailed furnished in Table –10.2.

Table-10.2
Disability in India-1991

Type of Disability	Rural		Urban		Total	
	Male	Female	Male	Female	Male	Female
Locomotor	4.4	2.4	1.4	0.8	5.8	3.2
Visual	1.5	1.8	0.3	0.4	1.8	2.2
Hearing	1.4	1.2	0.3	0.3	1.7	1.5
Speech	0.9	0.6	0.3	0.2	1.2	0.8
Physical	7.4	5.2	2.1	1.4	9.6	6.6

Source:- National Sample Survey Report-1991.

Out of the total of 432 lakh disabled in India 20.37 were in the age group 70+ and 9.86 in the age group 0-9.- UNFPA 1995 report

Out of 25163 persons surveyed in Thrissur District 308 are disabled which consists of 1.2%.—Survey of The All India Rehabilitation Council of India.

Projections of disabled population in Kerala are given in Table-10.3.

Table-10.3
Projected Total Disabled in Kerala- disability-wise.

Sl.No	Disability	Males	Females	Total
1	Visually impaired	28960	33997	62957
2	Hearing and speech impaired	25183	23923	49106
3	Physically Handicapped	103249	75548	178797
4	Mental Retardation	28985	22640	51625
5	Mental illness	28960	7555	36515
	Total	**215337**	**163663**	**379000**

Source:-SPB Committee Report on Disabled-2000

10.51 Major Intervention measures for the disabled in Kerala are summarised below

Programmes	Implementing Department
I. Educational and Support facilities	
1. Special Schools	Directorate of Public Instruction
2. Educational assistance for mentally retarded	Non Governmental Organisations
3. Scholarships to students from Std I to plus two	Social Welfare Department
4. Integrated Education of Handicapped	Education Dept
5. Higher education for hearing impaired	NISH
II. Health Promotion facilities	
1. Distribution of aids and appliances	KSPHPEW/Health Dept/Local Governments
2. Physical medicine and rehabilitation centres	Health Department
3. Welfare activities to the locomotor disable	Wlelfare society for locomotor disabled
4. Early detection and intervention in hearing and speech impaired children	NISH
5. Early intervention and therapy services for prevention of neurological disability in children	CDC
6. Rehabilitation and training to children and adults with cognitive and communicative disorder	ICCN
7. Special training for the mentally retarded children	SIMH
III. Social Security measures	
1. Institutional care	Social Welfare Dept
2. Pension and allowances	Local Government
IV. Employment assistance and cells	
1. Special employment exchanges for disabled	Directorate of employment
2. Vocational training centres	Govt: and private
3. Self employment assistance	KSPHPWC
V. Implementation of Persons with disability act-1996	Commissionerate for disability
VI. Reservation and concerns to the disabled	Various Departments.

4/100/2003—A-20A

Out of the estimated 379 lakh disabled in Kerala 47% constitute Physically Handicapped of which 58% are men.

Out of 37.8 lakhs registrants in employment exchanges 0.33 lakhs are Physically handicapped as per 1998 data.

33 special schools in Kerala benefiting about 3800 disabled children

Source:- SPB Committee Report on disabled-2000

Welfare of Prisoners

10.52 The Jail infrastructure in the state consists of 3 central prisons, an open prison, one prison for the women three district jail, five special sub-jail, one Borstal schools and 26 sub-jails. In 2002, there were 5696 prisoners out of which 157 are women. The details of district-wise jail infrastructure with inmates are furnished in Table -10.4.

Table - 10.4

Jail infrastructure in Kerala and District-wise Beneficiaries-2002

		Central Jail		District Jail		Sub-Jail		Open Jail		Women Jail		Spl.Sub Jail		Grand Total	
Sl.No	District	Total	Female	Total	Female	Total	Female	Total	Female	Total	Female	Total	Female	Total	Female
1	Trivandrum	1057	24	254	0	107	6	120	0	42	42	0	0	1580	72
2	Kollam	0	0	201	11	125	0	0	0	0	0	0	0	326	11
3	Pathanamthitta	0	0	0	0	125	0	0	0	0	0	0	0	125	0
4	Alappuzha	0	0	0		59	0	0	0	0	0	70	4	129	4
5	Kottayam	0	0	0	0	44	0	0	0	0	0	121	0	165	0
6	Idukki	0	0	0	0	96	1	0	0	0	0	0	0	96	1
7	Ernakulam	0	0	0	0	232	0	0	0	0	0	0	0	232	0
8	Thrissur	513	0	0	0	131	14	0	0	0	0	0	0	644	14
9	Palakkad	0	0	0	0	69	0	0	0	0	0	82	4	151	4
10	Malappuram	0	0	0	0	169	0	0	0	0	0	0	0	169	0
11	Kozhikode	0	0	475	14	43	0	0	0	0	0	0	0	518	14
12	Wayanad	0	0	0	0	62	0	0	0	0	0	0	0	62	0
13	Kannur	1231	31	0	0	63	0	0	0	0	0	52	0	1346	31
14	Kasaragod	0	0	0	0	153	6	0	0	0	0	0	0	153	6
	Total	**2801**	**55**	**930**	**25**	**1478**	**27**	**120**	**0**	**42**	**42**	**325**	**8**	**5696**	**157**

Source: Jail Department

B. Pension Schemes

10.53 Social security coverage is provided through more than 40 schemes of which 16 are entirely financed by the state. The other schemes are implemented by statutory and non-statutory boards. remaining outside budget but through registered welfare boards. as reflected in the Appendix – 10.3. more than 17 lakh persons are benefited through the pension schemes alone and the highest coverage is in agricultural pension which is about 30% of the total coverage. Unemployment assistance is provided to about 4 lakh persons, the highest being Thiruvananthapuram district and the lowest Kasaragod with

5874 beneficiaries. In Appendix-10.4 the details of social security /pension schemes in the state are presented with qualifying conditions and rate of assistance provided with subsequent revision. It is revealed that the actual rate of assistance provided at present is not up to the required level compared to the rate of most of the schemes/ For eg: for the widows Rs.55 was the rate of assistance in 1973 and after several revisions it is now at Rs.110 only.

Nutrition

10.54 The National Policy for Children was adopted in 1974 with a view to providing adequate services to children both before and after birth to ensure their physical, mental and social development. Article 47: of Indian Constitution guarantees that the state shall endeavor to raise the level of nutrition and standard of living and to improve the public health. The National Nutrition Policy was adopted in 1993

There are 350 million children below the age of 14 years, constituting nearly 30% of India's population, Nearly 46% of them-158 million-belong to 0-6 years age group

10.55 In Kerala according to 2001census there are 36.53 lakh children in the age group 0-6 years which is 2.31% of India's of that age going children.

Lakshadweep has only 8860 children between 0-6 years where as U.P has more than 300 lakhs-which is larger than the population of Canada

10.56 The National Sample Survey in its study based on 17 most populous states reports that nutrition intake per person in India has fallen since the early 1970's. But in Kerala and West Bengal, however, despite low intake levels, the trend is one of progress.

10.57 In rural India, average calorie intake fell from 2,266 Kcals in 1972-73 to 2,221 in 1983 and to 2153 in 1993-94. In urban India, the average intake is lower than in rural India. At the same time the reduction in intake is smaller in urban India than in rural India.

10.58 Between 1972-73 and 1983, the only States in which the average calorie intake per person in rural, areas rose were Karnataka, Kerala, Maharasshtra, Orissa and West Bengal. In the next decade, 1983 to 1993-94, the average calorie intake in rural areas increased in only three States Kerala, West Bengal and Orissa increased. If the entire period (that is 1972-73 to 1993-94) is considered, calorie intake per person rose in the rural areas of four states. viz Kerala, West Bengal, Orissa and Maharashtra. The largest absolute increase in calorie consumption per person per day was in Kerala (406 Kcal), followed by West Bengal (290 Kcal), Orissa (204kscal) and Maharashtra (44 kcal). In West Bengal and Orissa, the average intake per person moved from below the all India average in 1972-73 and 1983 to a level above the all India average in 1993-94. The average intake in Kerala and Maharashtra were, however, below the national average in all years.

Malnutrition and Under Nutrition

10.59 Malnutrition among children is highly prevalent in Indian states with 47% of children under 3 years being moderately or severely undernourished. Consequent on malnutrition there is high level of low weight babies. About 20-30% of all babies are born low weight in India.

. The proportion of low birth weight babies in Kerala was 16% in 2000 and 30% in Rajasthan. The percentage of children affected by mal nutrition has declined from 48 in 1992-93 to 37 in 1998-99 showing 11.5% difference

II. Integrated Child Development Services

10.60 As per 2001 Census in Kerala out of the total population of 318.38 lakhs women constituted 163.79 lakhs which is 51%. The number of children in the age group 0-6 is 36.53 lakhs of which 49% are girls. For the balanced development of preschool children and to improve the nutritional and health status of pregnant women and nursing mothers Integrated Child Development Services was introduced in Kerala in 1975. The scheme targets the most vulnerable groups of children and women of poor families. The principal beneficiaries under the scheme are preschool children below 6 years, expectant and nursing mother and women between 15-45 years. The services include immunization, health check ups, referral services, supplementary nutrition, health and nutrition education etc: In addition there is coverage of other important supportive services such as safe drinking water, environmental sanitation, women's development and education programmes.

10.61 ICDS has supplementary nutrition component for children up to 6 years with 300 calories and 8-10gs of protein and 500 calories and ,20-25 grams of protein for adolescent girls and nursing mothers. During 1998 there were 120, ICDS projects in the state with 17146 anganwadi centres. As part of universalisation of ICDS in the country 43 new ICDS projects were started and 37 existing projects were strengthened under the World Bank assisted programme of ICDS Phase III. Thus in the state at present there are 163 ICDS projects with 25845 anganwadi centres sanctioned of which 23868 centres are functioning. At the all India level there are 5652 sanctioned ICDS projects of which 4587 are in operation. The district-wise project details of anganwadi centres in Kerala are furnished in Appendix I0.6. According to departmental figures, ICDS projects benefited 9.64 lakhs, beneficiaries of which 8.4 lakhs are children in the age group 0-6 and1.24 nursing and lactating mothers. The details of beneficiaries district-wise in ICDS projects are given in Table.10.5.

In India during 1975 there were 33 ICDS projects, in 1990 the number increased to 2426 and in 2002 it is 5652- Source- Annual Report DWCD

Table - 10.5

ICDS Nutrition Beneficiaries-District wise - 2002

Name of District	0-3 years			3-6 years			Pregnant and lactating women			Grand Total		
	WB	General	Total	WB	General	Total	WB	General	Total	WB	General	Total
1	2	3	4	5	6	7	8	9	10	11	12	13
TVPM	4697	26446	31143	7613	31504	39117	1726	10278	12004	14026	68228	82264
KLM	9319	24623	33942	11323	28654	39977	4124	8863	12987	24766	62140	86906
PTA	1936	6341	8277	4167	14799	18966	702	2843	3545	6805	23983	30788
ALPY	4073	26658	30731	4241	30194	34435	1367	8677	10044	9681	65529	75210
KTM	12842	10686	23528	18397	14093	32490	5100	3624	8724	36339	28403	64742
IDKY	0	28628	28628	0	26641	26641	0	9451	9451	0	64720	64720
EKM	19671	13656	33327	26340	18406	44746	6843	4857	11700	52854	36919	89773
TCR	7501	16680	24181	10951	27048	37999	4054	6647	10701	22506	50375	72881
PLGT	3517	41581	45098	3113	36647	39760	1137	10813	11950	7767	89041	96808
MLPM	419	38067	38486	1491	49973	51464	168	9826	9994	2078	97866	99944
KZKD	13996	11788	25784	20773	20123	40896	5300	6045	11345	40069	37956	78025
WYND	0	8193	8193	0	10500	10500	0	703	703	0	19396	19396

KNR	0	22178	22178	0	35470	35470	0	6506	6506	0	64154	64154
KSKD	2557	10851	13408	4967	17567	22534	486	1613	2099	8010	30031	38041
Total	**80528**	**286376**	**366904**	**113376**	**361619**	**474995**	**31007**	**90746**	**121753**	**224901**	**738741**	**963652**

Source:- Social Welfare Department

School Meals programme

10.62 The education department is implementing the midday meal programme in government and private aided schools. During 2001 27.02 lakhs children benefited through 11568 centres. The details from 1992 to 2001 are furnished in **Table-10.6.** The beneficiaries constitute 82 per cent of LP/UP school children in Kerala during 2001-02.

10.63 A new initiative in the form of Pradhn Mandris Gramodaya Yojan was introduced in the state from 2000-01 in order to achieve the objective of providing nutritional requirements to all BPL children below six years and pregnant and lactating mother with body weight< 40 kg. The scheme envisages supply of 200 ml of double toned/raw milk to these categories for 200 days in a year which is implemented through LSGIs

Table- 10.6
Nutrition Programme Implemented by School Education Dept

Year	No. of centres	No. of children benefited	Expenditure. incurred (Rs.)	Per-pupil cost as per Govt. rate
1	2	3	4	5
1992	9789	2407113	193087205	80,22
1993	9475	2341758	183419473	78,33
1994	9548	2301204	183508471	79,74
1995	10954	2101675	204995023	97,54
1996	10586	2084570	205174739	98,43
1997	11260	2401144	223196000	92,95
1998	11268	27944992	211864000	75,80
1999	11568	2808368	183246974	65,25
2000	11568	2825564	295000000	104,40
2001	11568	2702434	291498357	107,87

Development of Scheduled Castes and Scheduled Tribes

Development Indicators

10.64 A comparative picture of select indicators pertaining to general population and Scheduled Castes for India and Kerala is given in Table 10.12. It can be seen that whereas the population of Scheduled Castes in the whole country was 1382 lakh, as per 1991 Census, constituting 16.32 per cent of the total population in the country, in Kerala, Scheduled Caste population was 28.87 lakh constituting only 9.94 per cent of the total population in the State. The all India sex ratio among Scheduled Castes was 922 and in Kerala it was 1029. The literacy rate of Scheduled Castes was 37.40 per cent and 79.70 per cent in India and Kerala respectively.

10.65 The gross enrolment ratio of Scheduled Caste students in classes I – V shows only marginal difference between India and Kerala. However, the enrolment ratio of Scheduled Caste students in classes VI- VIII for India is 62.10 whereas it is 97.80 for Kerala. While the school dropout rate of 10.66 Scheduled Castes in classes 1-VIII in India is 66.60%, it is only 3.10% in Kerala. The work participation rate of Scheduled Castes in Kerala is higher compared to all India level. The percentage of rural Scheduled Caste Population below poverty line in the State was 36.43 as compared to 48.10 for India as per 1993-94 figures.

. The proportion of low birth weight babies in Kerala was 16% in 2000 and 30% in Rajasthan. The percentage of children affected by mal nutrition has declined from 48 in 1992-93 to 37 in 1998-99 showing 11.5% difference

II. Integrated Child Development Services

10.60 As per 2001 Census in Kerala out of the total population of 318.38 lakhs women constituted 163.79 lakhs which is 51%. The number of children in the age group 0-6 is 36.53 lakhs of which 49% are girls. For the balanced development of preschool children and to improve the nutritional and health status of pregnant women and nursing mothers Integrated Child Development Services was introduced in Kerala in 1975. The scheme targets the most vulnerable groups of children and women of poor families. The principal beneficiaries under the scheme are preschool children below 6 years, expectant and nursing mother and women between 15-45 years. The services include immunization, health check ups, referral services, supplementary nutrition, health and nutrition education etc: In addition there is coverage of other important supportive services such as safe drinking water, environmental sanitation, women's development and education programmes.

10.61 ICDS has supplementary nutrition component for children up to 6 years with 300 calories and 8-10gs of protein and 500 calories and ,20-25 grams of protein for adolescent girls and nursing mothers. During 1998 there were 120, ICDS projects in the state with 17146 anganwadi centres. As part of universalisation of ICDS in the country 43 new ICDS projects were started and 37 existing projects were strengthened under the World Bank assisted programme of ICDS Phase III. Thus in the state at present there are 163 ICDS projects with 25845 anganwadi centres sanctioned of which 23868 centres are functioning. At the all India level there are 5652 sanctioned ICDS projects of which 4587 are in operation. The district-wise project details of anganwadi centres in Kerala are furnished in Appendix I0.6. According to departmental figures, ICDS projects benefited 9.64 lakhs, beneficiaries of which 8.4 lakhs are children in the age group 0-6 and1.24 nursing and lactating mothers. The details of beneficiaries district-wise in ICDS projects are given in Table.10.5.

In India during 1975 there were 33 ICDS projects, in 1990 the number increased to 2426 and in 2002 it is 5652- Source- Annual Report DWCD

Table - 10.5

ICDS Nutrition Beneficiaries-District wise - 2002

Name of District	0-3 years			3-6 years			Pregnant and lactating women			Grand Total		
	WB	General	Total	WB	General	Total	WB	General	Total	WB	General	Total
1	2	3	4	5	6	7	8	9	10	11	12	13
TVPM	4697	26446	31143	7613	31504	39117	1726	10278	12004	14026	68228	82264
KLM	9319	24623	33942	11323	28654	39977	4124	8863	12987	24766	62140	86906
PTA	1936	6341	8277	4167	14799	18966	702	2843	3545	6805	23983	30788
ALPY	4073	26658	30731	4241	30194	34435	1367	8677	10044	9681	65529	75210
KTM	12842	10686	23528	18397	14093	32490	5100	3624	8724	36339	28403	64742
IDKY	0	28628	28628	0	26641	26641	0	9451	9451	0	64720	64720
EKM	19671	13656	33327	26340	18406	44746	6843	4857	11700	52854	36919	89773
TCR	7501	16680	24181	10951	27048	37999	4054	6647	10701	22506	50375	72881
PLGT	3517	41581	45098	3113	36647	39760	1137	10813	11950	7767	89041	96808
MLPM	419	38067	38486	1491	49973	51464	168	9826	9994	2078	97866	99944
KZKD	13996	11788	25784	20773	20123	40896	5300	6045	11345	40069	37956	78025
WYND	0	8193	8193	0	10500	10500	0	703	703	0	19396	19396

KNR	0	22178	22178	0	35470	35470	0	6506	6506	0	64154	64154
KSKD	2557	10851	13408	4967	17567	22534	486	1613	2099	8010	30031	38041
Total	**80528**	**286376**	**366904**	**113376**	**361619**	**474995**	**31007**	**90746**	**121753**	**224901**	**738741**	**963652**

Source:- Social Welfare Department

School Meals programme

10.62 The education department is implementing the midday meal programme in government and private aided schools. During 2001 27.02 lakhs children benefited through 11568 centres. The details from 1992 to 2001 are furnished in **Table-10.6.** The beneficiaries constitute 82 per cent of LP/UP school children in Kerala during 2001-02.

10.63 A new initiative in the form of Pradhn Mandris Gramodaya Yojan was introduced in the state from 2000-01 in order to achieve the objective of providing nutritional requirements to all BPL children below six years and pregnant and lactating mother with body weight< 40 kg. The scheme envisages supply of 200 ml of double toned/raw milk to these categories for 200 days in a year which is implemented through LSGIs

Table- 10.6
Nutrition Programme Implemented by School Education Dept

Year	No. of centres	No. of children benefited	Expenditure. incurred (Rs.)	Per-pupil cost as per Govt. rate
1	2	3	4	5
1992	9789	2407113	193087205	80,22
1993	9475	2341758	183419473	78,33
1994	9548	2301204	183508471	79,74
1995	10954	2101675	204995023	97,54
1996	10586	2084570	205174739	98,43
1997	11260	2401144	223196000	92,95
1998	11268	27944992	211864000	75,80
1999	11568	2808368	183246974	65,25
2000	11568	2825564	295000000	104,40
2001	11568	2702434	291498357	107,87

Development of Scheduled Castes and Scheduled Tribes

Development Indicators

10.64 A comparative picture of select indicators pertaining to general population and Scheduled Castes for India and Kerala is given in Table 10.12. It can be seen that whereas the population of Scheduled Castes in the whole country was 1382 lakh, as per 1991 Census, constituting 16.32 per cent of the total population in the country, in Kerala, Scheduled Caste population was 28.87 lakh constituting only 9.94 per cent of the total population in the State. The all India sex ratio among Scheduled Castes was 922 and in Kerala it was 1029. The literacy rate of Scheduled Castes was 37.40 per cent and 79.70 per cent in India and Kerala respectively.

10.65 The gross enrolment ratio of Scheduled Caste students in classes I – V shows only marginal difference between India and Kerala. However, the enrolment ratio of Scheduled Caste students in classes VI- VIII for India is 62.10 whereas it is 97.80 for Kerala. While the school dropout rate of 10.66 Scheduled Castes in classes 1-VIII in India is 66.60%, it is only 3.10% in Kerala. The work participation rate of Scheduled Castes in Kerala is higher compared to all India level. The percentage of rural Scheduled Caste Population below poverty line in the State was 36.43 as compared to 48.10 for India as per 1993-94 figures.

Table 10.12

Select Indicators of General Population and Scheduled Castes in India and Kerala

Sl. No	Indicators	Period	India		Kerala	
			Total	*SC*	*Total*	*SC*
1	2	3	4	5	6	7
1	Population (Million)	1991	846.30	138.20	29.10	2.89
2	Sex Ratio	1991	927	922	1036	1029
3	Literacy Rate (per cent)	1991	52.20	37.40	89.80	79.70
4	Gross Enrolment Ratio (a) I- V Classes (b) VI- VIII Classes	1998-'99	 92.10 57.60	 87.60 62.10	 87.90 95.20	 88.20 97.80
5	School Dropout Rates (I-VIII Classes)	1993- '94	52.80	66.60	0.90	3.10
6	Work Participation Rate (per cent)	1991	37.50	39.30	31.40	41.20
7	Below Poverty Line (Rural - per cent)	1993-'94	37.27	48.10	25.76	36.43
8	Members of Parliament (Lok Sabha)	1991	543	79	20	2
9	Members of Legislative Assembly	2000	4072	562	140	13
10	Members in PRI's (No)	1995-2000	2647257	365479	17086*	1848*

*Note: * as on 01-10-2000.*

Source: " Scheduled Castes in India" – (A Data Sheet) Planning Commission, 2000

10.66 The sex ratio of Scheduled Castes in Kerala is the highest compared to other states in India. The literacy rates of total population of Scheduled Castes particularly female literacy are also high in Kerala. The dropout rates of Scheduled Caste children in Standard I-VIII is the least in Kerala when compared to other States and Union Territories in India.

10.67 Even though work participation rate of Scheduled Castes in the State is higher than the all India level, majority of the main workers are engaged in primary sector. The percentage of cultivators among Scheduled Castes is the lowest in Kerala while the percentage of agricultural laborers is high. State-wise details of development indicators of Scheduled Castes in respect of demographic features, literacy and education, work participation and economic status and elected representatives are given in Appendices 10.12 to 10.15.

10.68 Select indicators of development of Scheduled Tribes in India and Kerala are given in Table 10. 12(a). The population of Scheduled Tribes in India was 67.76 lakh in 1991, representing 8.01 per cent of the total population in the country. In Kerala, the Scheduled Tribe population was 3.20 lakh constituting 1.10 per cent of the total population in the State. The sex ratio of Scheduled Tribes in the State was 996, while it was 972 at the all India level. The literacy rate of Scheduled Tribes was 57.20 per cent when compared to 29.60 per cent among Scheduled Tribes in the country. The enrolment ratios of Scheduled Tribe students in Kerala in classes I-V and VI – VIII are higher than the all India levels. The dropout rate of Scheduled Tribe students in the State is 31.40 per cent while the rate for India is 77.70 per cent.

10.69 The work participation rate of Scheduled Tribes in Kerala, is lower when compared to the Scheduled Tribes in other parts of the country. A higher proportion of the Scheduled Tribe workforce consists of agricultural laborers as compared to the general population. The proportion of Scheduled Tribes below poverty line in rural areas was 37.34 per cent in Kerala during 1993-94 while the corresponding figure for India was 51.94 per cent.

10.70 Among the major States of India (defined as those with a population exceeding 10 million as per 1991 Census), Kerala reports the highest literacy rate for Scheduled Tribe population. Its sex ratio for Scheduled Tribes at 998 is exceeded only by Orissa (1002) among major States. It also has the highest gross enrolment ratio and the lowest drop out ratio for Scheduled Tribes among all major States. The proportion of Health Sub Centres and Primary Health Centres serving Scheduled Tribes in Kerala is greater than the proportion of Scheduled Tribes in the State's population.

Table 10.12(a)
Select Indicators of General Population and Scheduled Tribes in India and Kerala

Sl. No	Indicators	Period	India		Kerala	
			Total	ST	Total	ST
1	2	3	4	5	6	7
1	Population (Million)	1991	846.30	67.76	29.10	0.32
2	Sex Ratio	1991	927	972	1036	996
3	Literacy Rate (percent)	1991	52.20	29.60	89.80	57.20
4	Enrolment Ratio (a) I- V Classes (b) VI- VIII Classes	1997-'98	 89.70 58.50	 90.70 43.20	 90.00 95.40	 107.50 84.50
5	School dropout Rates (I-VIII Classes)	1993-'94	52.80	77.70	0.90	31.40
	(a) Primary Health Centres (No.)	1996	21853	3258	959	62
	(b) Health Sub Centres (No.)	1996	132778	20355	5094	268
	(c) ICDS Projects	1998-'99	4200	750	120	1
7	Work Participation Rate (per cent)	1991	37.50	49.30	31.40	46.00
8	Below Poverty line (Rural – per cent)	1993-'94	37.27	51.94	25.76	37.34
9	Members of Parliament (Lok Sabha)	1999	543	41	20	--
10	Members of Legislative Assembly	1999	4072	530	140	1
11	Members in PRI's (No.)	1991-'97	1792332	225096	17086 *	193 *

*Note: *as on 1.10.2000*
Source: "Tribes in India" (A Data Sheet) Planning Commission, 2000

10.71 State-wise details of development indicators of Scheduled Tribes with respect to demographic features, literacy and education, health and child care, work participation and economic status and the elected representatives are given in Appendices 10.16 to 10.20 respectively.

District-Wise Distribution of Scheduled Castes and Scheduled Tribes

10.72 The Scheduled Castes and Tribes population is not evenly distributed across the State. The Scheduled Caste population is highest in Palakkad District and the lowest in Wayanad District. The four districts of Palakkad, Thiruvananthapuram, Thrissur and Kollam together account for nearly 50 percent of the State's Scheduled Caste Population.

10.73 The Scheduled Tribe population is even more unevenly distributed. Among the districts Wayanad alone accounts for nearly 36 per cent of the tribal population. Idukki and Palakkad account for

Table 10.16
Selected Characteristics of Scheduled Castes and Scheduled Tribes Population (1991)

Sl. No.	Description	Units	Scheduled Castes	Scheduled Tribes	Total Population
1	2	3	4	5	6
1	Households	No	593676	69441	5513200
2	Population	"	2886522	320967	29098518
3	Literates	"	2002786	156061	22686461
4	Main Workers	"	1062922	129297	8301087
5	Marginal Workers	"	126488	18474	855031
6	Non Workers	"	1697112	173196	19952400
7	Size of Households	%	4.90	4.60	5.30
8	Decadal Growth Rate	"	13.22	22.75	14.32
9	Sex Ratio	No	1029	996	1036
10	Total Literacy Rate	%	79.66	57.22	89.81
11	Male Literacy	"	85.22	63.38	93.62
12	Female Literacy	"	74.31	51.07	86.17
13	Work Participation Rate (i) Total	%	41.21	46.04	31.43
	(ii) Male	"	50.96	55.14	47.58
	(iii) Female	"	31.73	36.90	15.85
14	Cultivators	"	3.10	16.66	12.24
15	Agricultural Laborers	"	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

Source: Census 1991

10.79 Despite the high work participation rate of Scheduled Castes and Scheduled Tribes the incidence of poverty is relatively higher among them indicating their low earnings and lack of assets.

10.80 However, due to the reservation policy there has been significant improvement in employment in Government. There were 39520 SC/ST people in Government employment as on 1-01-1997. Out of them 35514 are Scheduled Castes and 4006 are Scheduled Tribes. Out of rhe total SC/ST people in Government employment 3310(8.38%) are Gazetted officers. Table 10.17 shows the number of SC/ST staff in Government as on 1-01-1997.

Table 10.17
Details of SC/ST employees in Government service as on (1-1-1997)

Category	Total	SC	ST
Gazetted	27839	2904	406
Non-Gazetted (Excluding Last Grade)	274901	26692	2929
Last Grade	43666	5918	671
Total	346406	35514	4006

Source: Employment Cell, Government Secretariat, Thiruvananthapuram

Social Indicators

10.81 The literacy rate among Scheduled Castes has shown significant improvement from 24.4 percent in 1961 to 79.66 per cent in 1991. Yet it is 10 percentage below the general literacy rate. Among the tribals, the literacy rate is even lower at 57.22 per cent.

10.82 The proportion of Scheduled Caste and Scheduled Tribe students in schools as on 1.7.2002 constitute 12.04 percent and 1.33 per cent respectively, i.e. relatively higher than the population share. It can be seen that drop out ratio beyond class VIII is relatively high in the case of Scheduled Tribes. Among college students, 9.38 per cent belong to Scheduled Castes and 0.71 per cent belong to Scheduled Tribes. Details of Scheduled Caste and Scheduled Tribe students in schools and Arts and Science Colleges are given in Table 10.18 and 10.19 respectively.

Table 10.18
Scheduled Caste and Scheduled Tribe Students at School Level
(As on 1.7.2002)

Section	*Total*	*Scheduled Castes*	*Percentage to Total*	*Scheduled Tribes*	*Percentage to Total*
1	2	3	4	5	6
Lower Primary Section	1629837	208774	12.81	27784	1.70
Upper Primary Section	1381358	163916	11.87	18231	1.32
High School Section	1416612	160502	11.33	13060	0.92
Total	**4427807**	**533192**	**12.04**	**59075**	**1.33**

Source: Directorate of Public Instruction

Table 10.19
Scheduled Caste and Scheduled Tribe Students in
Arts and Science Colleges (2001-02)

Course	Total Strength	Scheduled Castes	Percentage to Total	Scheduled Tribes	Percentage to Total
1	*2*	*3*	*4*	*5*	*6*
Degree	145979	13547	9.28	999	.68
Post-Graduation	14775	1530	10.35	135	.91
Total	**160754**	**15077**	**9.38**	**1134**	**0.71**

Source: Directorate of Collegiate Education

10.83 The enrolment of Scheduled Castes and Scheduled Tribes in technical institutions as on 1-07-2002 was2486 and 406 respectively. Details are given in Table 10.20.

Table 10.20
Scheduled Caste and Scheduled Tribe Students in Technical Institutions (as on 1-07-2002)

Institutions	Total	Scheduled Castes	Scheduled Tribes
1	2	3	4
Engineering Colleges	8986	718	180
Polytechnics	18600	1488	186
Technical High Schools	3510	280	40
Total	**31096**	**2486**	**406**

Source: Directorate of Technical Education

10.84 During 2001-02 altogether253 students including 203 Scheduled Castes and 48 Scheduled Tribes have been enrolled for various medical and paramedical courses. Of them, 57 Scheduled Caste and 14 Scheduled Tribe students were admitted to MBBS course. Further details are given in Appendix 10.21 and 10.22.

10.85 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 a survey conducted by the ST Department in2000-01 there were 9374 houseless ST families in the State. As per the report of the socio-economic survey of primitive tribes, 1996-97, 19.33% of the PTG families have no own houses. The housing need of primitive tribal groups in 1996-97 is shown in Appendix 10.23

Special Component Plan

10.86 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 Harijan Welfare Department. Detailed guidelines for the preparation of a Special Component Plan for Scheduled Castes were issued as part of Fifth Five-Year Plan.

10.87 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 reveals that the funds earmarked were significantly lower than the population share and the schemes were often not relevant to the local needs. There was a high degree of leakage. It was in this background that in Kerala it was decided to decentralise the Special Component Plan to the district from 1983-84 onwards.

10.88 District Level Working Groups for Scheduled Castes and Scheduled Tribes Development were formally constituted with the District Collector as Chairman and District Planning Officer as Convenor. The Working Group was responsible to ensure that each scheme was properly coordinated with the rest of the plan and that the habitat level and family level integration were properly ensured.

10.89 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.

10.90 The practice followed for providing Special Component Plan outlay till 1996-97 was to set apart certain percentage of plan provision under the respective head of account of the department concerned. Despite repeated guidelines issued regarding the formulation and implementation of schemes. the needs of the Scheduled Caste/Scheduled Tribe population did not get translated into feasible projects. 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 But the system has not worked effectively due to the absence of a project based approach and inability to reallocate resources to the sectors requiring more assistance with the result the Departments have continued implementing traditional schemes in a routine manner.

10.91 A project based approach has been adopted for implementation of schemes from the corpus fund from 2002-03 onwards. This new approach is expected to ensure human resources development of Scheduled castes including their education and training, provision of minimum needs like housing, drinking water, electricity, health care and economic development. A state level working group has been constituted for scrutiny, appraisal and approval of the project proposals under corpus fund.

Tribal Sub Plan

10.92 Special programmes are being formulated under Tribal Sub Plan for the benefit of the tribal people in the State. The main objective of the plan is to promote the socio-economic conditions of the Scheduled Tribes and free them from exploitation. To achieve this objective, Integrated Tribal Development Projects were started in the State during the Fifth Five-Year Plan. Group as well as family oriented programmes were implemented under this approach. Special projects like Sungandhagiri Cardamom Project, Pookot Dairy Project, Priyadarshni Tea Estate, Attappady Co-operative Farming Society, Vattachira Tribal Collective Farm etc. have been started to rehabilitate bonded tribals in the State. Various economic and infrastructural development programmes are under implementation in these projects. In addition to plan funds, financial assistance from other sources are also mobilised for implementing the schemes in these projects. These five projects could rehabilitate 1089 tribal families in 3295 hectare of land. These families have been given houses with other facilities and employment opportunities in the plantations raised in the project area.

10.93 As part of the Tribal Sub Plan strategy, five Integrated Tribal Development Projects were started in the State between 1975 and 1980. In 1989, the number of these projects was raised from five to seven to bring 75 per cent of the tribal population within these project areas.

10.94 The Tribal Sub Plan concept could never be fully operationalised within the State, because in an administrative area, non-tribals constitute majority of the population. Opening up of the tribal settlements through development schemes and their integration without sufficient protective safeguards has led to many undesirable results. District level decentralisation of Tribal Sub Plan was introduced from 1983-84 onwards. From 1997-98, as in the case of Special Component Plan, major portion of Tribal Sub Plan funds has been devolved to the Local Self-Governments.

Decentralisation

10.95 In the Ninth Five-Year Plan (1997-2002), an important step was taken towards democratic decentralisation by devolving the planning of Special Component Plan and Tribal Sub Plan to the Local Self-Governments. The greater direct participation of the people facilitated by this was expected to bring about a significant improvement in the effectiveness of the programme.

10.96 In the Ninth Five Year Plan, the plan funds for Special Component Plan and Tribal Sub Plan were earmarked proportionate to the Scheduled Caste and Scheduled Tribe population and the system of

providing notional flow was discontinued. Re-appropriation of funds from Special Component Plan and Tribal Sub Plan was totally disallowed. District Level Committees consisting of officials and non-officials were constituted for formulation, implementation and monitoring of projects at district level by abolishing the system of District Level Working Groups. About 65-70 per cent of plan funds under Special Component Plan and Tribal Sub plan were earmarked to Local Self Governments for implementation of projects under decentralised planning. Accordingly, separate task forces were constituted in all the Local Governments for preparation of projects under Special Component Plan and Tribal Sub Plan. Special training were given to the elected representatives, Scheduled Castes and Scheduled Tribes representatives on formulation and implementation of projects. Instead of Grama Sabhas, "Oorukuttams" were convened in Tribal Settlements for identification of projects under Tribal Sub Plan, selection of beneficiaries etc. Social animators, from among Scheduled Tribes and Scheduled Castes were selected and deployed in SC/ST settlements, Grama Panchayats and Municipalities for coordinating development activities at field level. The administrative machinery of the Scheduled Caste Development Department was re-structured by re-deployment of staff to Block Panchayats and Municipalities for monitoring the implementation of Special Component Plan at lower levels.

10.97 During the five Annual Plans of the Ninth Five Year Plan, a total amount of Rs. 1149 crore has been earmarked to Local Self Governments as plan grant under Special Component Plan and Tribal Sub Plan. Details are given in Table 10.21

10.98 The Tribal Sub Plan component of the Annual Plan for the Year 2001-02 was resumed from Local Governments and placed at the disposal of the Director, Scheduled Tribe Development Department under the Tribal Sub Plan pooled funds for the formulation and implementation of Tribal sub Plan programmes with Tribal Oorukoottams as basic units. But, based on experience, this division has been resumed from 1.4.2003.

Table 10.21
Plan Grant to Local Self Governments for Special Component Plan and Tribal Sub Plan (1997-98 to 2001-2002)

Annual Plans	Plan Grant to Local Self Governments (Rs. Crore)		
	Special Component Plan	Tribal Sub Plan	Total
1	2	3	4
1997-98	194.00	39.00	233.00
1998-99	195.00	39.00	234.00
1999-2000	200.00	40.00	240.00
2000-2001	217.00	43.00	260.00
2001-02	182.00	0	182.00
Total	**988.00**	**161.00**	**1149.00**

10.99 The physical achievements of Local Governments under Special Component Plan during the five Annual Plans and under Tribal Sub Plan during the four Annual Plans are quite good. The number of Scheduled Caste and Scheduled Tribes beneficiaries of Agricultural Development Projects is estimated at 4.94 lakh. Approximately 44334 acres of land belonging to them was brought under cultivation. Altogether 9297 pumpsets and 1177 tillers were distributed to these communities. Besides, 107790 milch animals and 3.65 lakh poultry were distributed to Scheduled Castes and Scheduled Tribes. More than 1.97

lakh houses were constructed for Scheduled Caste and Scheduled Tribe beneficiaries during the period. Total housing scheme was taken up by 520 Grama Panchayats for Scheduled Castes and 111 Grama Panchayats for Scheduled Tribes. The scheme is under implementation in another 157 Grama Panchayats for Scheduled Castes and Scheduled Tribes.

10.100 The physical achievements under other sectors include construction of 121613 latrines, 31067 wells, renovation of 1250 ponds, installation of 16778 water taps, improvement of roads to the extent of 20889 km. and construction of school, hospital and marketing complexes to the extent of 22201 sq. m. More details of physical achievements for Scheduled Castes and Scheduled Tribes are given in Table 10.22 and 10.23 respectively.

Table 10.22
Select Physical Achievements of Local Self Governments under Special Component Plan (1997-2002)

SL No.	Items	Units	Achievements					Total (1997-2002)
			1997-98	1998-99	1999-2000	2000-01	2001-02	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	Additional area under cultivation	Acre	8051	6914	5618	5764	3994	30341
2	Beneficiaries of seeds/ fertiliser/ pesticides	No.	136802	70769	53983	71771	105823	439148
3	Tillers supplied	"	320	107	16	100	408	951
4	Cattle distributed	"	55563	23930	7299	3641	5870	96303
5	Chicken distributed	"	237831	50179	22643	8068	21105	339826
6	Cattle-sheds	"	3939	5051	2580	4168	1677	17415
7	Sewing machines	"	12750	2545	469	453	1422	17639
8	Persons trained	"	5888	6962	6953	11229	12546	43578
9	Houses constructed	"	24633	28355	50052	43294	29201	175535
10	Plots allotted	"	3291	2675	4113	5450	4906	20435
11	Houses repaired	"	24318	11424	15769	16004	16711	84226
12	Toilets constructed	"	35598	26231	19112	11708	16986	109635
13	House wiring	"	19892	13427	7819	8816	9162	59116
14	Wells	"	6407	7069	6161	4358	4645	28640
15	Water taps installed	"	1691	2153	2588	3494	4938	14864
16	Ponds desilted	"	163	254	186	181	163	947
17	Pumpsets	"	2086	2718	1496	923	756	7979
18	Roads constructed	"	1084	1315	1267	932	2081	6679
19	Length of roads	KM	873	881	786	1245	13459	17244
20	Culverts	No.	75	109	130	116	110	540
21	Bridges	"	109	45	46	33	36	269
22	Cooperatives formed	"	50	156	134	693	0	1033
23	New schools built (area)	M. Sq.	862	414	390	321	221	2208
24	Hospital Building (area)	"	1063	157	147	1500	26	2893
25	Offices built (area)	"	357	1605	1109	385	658	4114
26	Marketing complexes (area)	"	0	5880	111	1501	825	8317

Table 10.23
Select Physical Achievements of Local Self Governments under Tribal Sub Plan (1997-2002)

Sl. No.	Items	Units	Achievements					
			1997-98	1998-99	1999-2000	2000-01	2001-02*	Total 1997-02
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	Additional area under cultivation	Acre	5510	3076	2673	2152	582	13993
2	Beneficiaries of seeds/ fertiliser/ pesticides	No	12835	13991	15913	7279	3705	53723
3	Tillers supplied	"	161	62	0	2	1	226
4	Cattle distributed	"	4015	5088	1417	465	502	11487
5	Chicken distributed	"	14414	7844	2047	402	225	24932
6	Cattle-sheds	"	254	560	233	188	159	1394
7	Sewing machines	"	344	333	55	100	83	915
8	Persons trained	"	404	590	359	1420	527	3300
9	Houses constructed	"	3324	4707	6102	4954	2805	21892
10	Plots allotted	"	197	175	343	527	342	1584
11	Houses repaired	"	1867	2577	2190	1530	956	9120
12	Toilets constructed	"	3497	3356	2714	1304	1107	11978
13	House wiring	"	1637	1967	973	1883	1135	7595
14	Wells	"	344	793	511	429	350	2427
15	Water taps installed	"	251	437	443	368	415	1914
16	Ponds desilted	"	80	89	46	73	15	303
17	Pumpsets	"	178	351	338	174	277	1318
18	Roads constructed	"	209	203	253	241	256	1162
19	Length of roads	KM	230	931	253	899	1332	3645
20	Culverts	No.	34	38	58	55	44	229
21	Bridges	"	31	17	13	11	12	84
22	Cooperatives formed	"	14	15	14	425	0	468
23	New schools built (area)	M. Sq.	3112	629	421	90	297	4549
24	Hospital Building (area)	"	550	1282	310	0	2061	4203
25	Offices built (area)	"	130	951	613	2	63	1759
26	Marketing complexes (area)	"	7	0	1	1	22	31

** Achievements under spill over works*

State Schemes and State Sponsored Schemes

(a) Development of Scheduled Castes

10.101 The Scheduled Castes Development Department is implementing various schemes for development of scheduled castes. The State Schemes are implemented by the Department direct and the State Sponsored schemes are implemented through local governments. Major schemes implemented by the Department during the period under report can be grouped into three, viz. (1) schemes for educational development,

(2) employment oriented programmes (3) other social development and welfare programmes.

10.102 Programmes for education encompass a wide spectrum of activities like free boarding and lodging facilities at pre-matric and post-matric levels, incentives and awards to talented students and good performers, stipends, lumpsum grant, pocket money etc. to students, special coaching and tutorial facilities to improve results, supply of books and equipments etc.

10.103 97 pre-matric hostels and 18 post-matric hostels functioning under the Department continued to provide accommodation to SC students. Establishment of Model Residential Schools is a major break-through.. Five Model Residential Schools – one each at Palakkad and Alappuzha for girls, one each at Thrissur and Ernakulam for boys and one mixed at Idukki in Tamil medium provided residential school facilities.

10.104 The rate of educational concessions for pre-matric, post-matric and professional and other technical courses have been revised during 2001.

10.105 For employment generation, main thrust was given to training and skill development especially in modern trades like Electronics, Information Technology and other Hi-tech branches which have high employment potential. Encouragement was given to para-medical courses also. Steps were taken to improve the facilities and to introduce new courses in the three production cum training centres and 41 Industrial Training Centres functioning under the Department.

10.106 Information-cum-guidance Centres, pre-examination Training Centres and Civil Service Examination Society etc. are also run by the Department for Scheduled Castes candidates to equip them to appear for various competitive examinations for jobs in State/Central Governments and elsewhere. Apprenticeship to ITC/ITI trained candidates and to those trained as Advocate clerks/programmers etc. were given hands-on-training to get practical experience, giving honorarium for the period of apprenticeship.

10.107 Under Social development schemes, housing was a major programme. Implementation of prevention of Atrocities Act, distress relief to undergo costly treatment, and to those who lost properties in natural calamities, protection of civil rights, grant to inter caste married couple, rehabilitation of puramboke dwellers etc. were the other schemes intended for social upliftment of Scheduled Caste during the period under report.

10.108 The details on physical achievements of major schemes implemented for Scheduled Castes are given in Appendix 10.24. The details on the institutions managed by the Scheduled Castes Development Department are given in Appendix 10.25.

(b)Development of Scheduled Tribes

10.109 The scheme implemented by Scheduled Tribes Development Department for the development of Scheduled Tribes during the period under report focussed mainly on education, health and housing.

10.110 The Department provided educational concessions, scholarships, incentives and other kinds of assistance including free boarding and lodging facilities in hostels, lumpsum grant for books, stationery, dress etc. and monthly stipend at varying rates benefiting 62622 ST students.

10.111 Model Residential Schools started to provide better educational facilities and high standards of education have achieved impressive results in the SSLC examination 2002. 14 Model Residential Schools, 3 Ashramam Schools (Primary), 104 pre-matric hostels etc. are functioning under the Tribal development department to facilitate education of tribal children. Apart from 58 nursery schools

functioning under Local Governments, there are 28 Industrial Training Centres under the Department to provide job-oriented technical training to Scheduled Tribes.

10.112 To tackle the housing problem, Scheduled Tribe Development Department, Departments of Rural Development and Forests, KSDC for SC/ST, Housing Board and Local Governments have implemented various housing schemes during the period under report. About 3110 houses were constructed by ST Department by utilising the TSP fund resumed from Local Governments during 2001-02.

10.113 Schemes have been implemented for providing better medical facilities to Scheduled Tribes. The Health service department runs 63 primary health centres in Tribal areas. Besides the ST Department has 4 midwifery centres, 17 Ayurveda dispensaries, 5 Allopathy dispensaries, 1 Ayurveda hospital and 2 mobile medical units and Allopathy hospital at Manathavady. The health Department conducts medical camps every year in Tribal areas to diagnose diseases. Serious diseases detected are referred to the District hospitals and financial assistance is given for their treatment. In order to tackle the genetic problems among Tribal facilities viz. Sickle cell anemia, a separate unit has been set up in the Kozhikode Medical College.

10.114 The details of institutions managed by Scheduled Tribes Development Department are given in Appendix 10.26.

10.115 Under food support programme, employment for the tribals during the rainy season is ensured with a view to ameliorating poverty among them. Soil conservation and flood control works, etc are items of work taken up under the programme. The programme is in operation in Wayanad, Idukki, Malappuram, Kasaragod, Palakkad, Thrissur, Kozhikode and Pathanamthitta districts. During 2001-02 about 16764 tribal families benefited from the programme. Major physical achievements of the ST Development Department is given in Appendix 10.27

10.116 Poverty alleviation and employment generation programmes and development activities under other sectors for the benefit of Scheduled Castes and Scheduled Tribes are also being implemented under pooled funds. The major physical achievements are given in Appendix 10.28.

Kerala Institute For Research, Training and Development Studies

10.117 The institute is an agency mandated to conduct research and studies on Scheduled Castes and Scheduled Tribes in Kerala The Institute has conducted "A study on Decentralsed Planning and developmental activities among Scheduled Tribes of Wayanad District" and a study on "Unemployment problem among the educated Scheduled Castes and Scheduled Tribes in Kerala". Major findings of the study are given in Box 10. Training programmes are being conducted for the Wardens of Tribal hostel, Taluk level Revenue officers, workshop for Tribal extension officers and other officers of Scheduled Tribe Development Department. The institute imparted conscientisation training programmes for SC/ST youth of remote and isolated areas during 2002-03. The vigilance cell of the institute has submitted 10 detailed reports relating to false SC/ST claims to the Scrutiny Committee. Detailed anthropological investigation have also been undertaken for examining whether the Adiyan and Paniyan Communities of Wayanad can be classified as PTG in Kerala. The Institute has submitted a proposal to the Government of India to conduct a baseline survey of all the five PTG communities in Kerala during the Tenth plan.

BOX 10.1
Unemployment problem among educated Scheduled Castes/Scheduled Tribes

Work participation of Scheduled Castes and Scheduled Tribes shows that among Scheduled Castes agricultural labourers constitute 53.78% and among Scheduled Tribes it is 55.47%. Literacy rate of Scheduled Castes is 79.70% and that of Scheduled Tribes 57.2%. Enrolment ratio among Scheduled Caste and Scheduled Tribes is 97.8% and 46% respectively. There were 37652 educated unemployed among Scheduled Castes and 28969 among Scheduled Tribes in Kerala during 2001.

Source: Study Report by KIRTADS

Kerala State Development Corporation for Scheduled Castes and Scheduled Tribes

10.118 This Corporation is implementing about 60 types of schemes under various sectors of development for asset creation and employment generation for Scheduled Castes and Scheduled Tribes such as Agricultural Land Purchase, Margin Money, Automobile workshop, TV/CVR workshop, Income generation linked Housing, Ambedkar rural housing, Professional Service Centres, Micro finance credit scheme, Autorikshaw , Tailoring unit,Concrete building materials etc.

10.119 Under various self employment schemes (Autorikshaw and Transport) 137 persons were benefited during 2001-02. 152 persons were benefited by the margin money deposit scheme during 2001-02. Micro finance credit scheme benefited 304 persons and housing schemes (Ambedkar Rural Housing, Income Generation Linked Housing) benefited 139 persons during 2001-02. The corporation is implementing schemes for the welfare of Safai Karmacharies with the financial assistance of National Safai Karmachari Finance Development Corporation (NSKFDC) and 8 persons received assistance during 2001-02. Under Agricultural Land Purchase Scheme financial assistance were given to 16 beneficiaries. The Corporation has imparted various training programmes for the skill upgradation for undertaking self employment ventures. The areas of training given are mainly related to computer, entrepreneurship development, autorikshaw driving, desktop printing etc. The Corporation extended financial assistance to 871 beneficiaries during 2001-02. The scheme-wise details of physical and financial achievements of the corporation are given in Appendix in 10.29.

Development of Other Backward Classes

a. Kerala State Development Corporation for Christian Converts from Scheduled Castes and the Recommended Communities.

10.120 The Corporation was registered in 1980 with the objective of uplifting the targeted group of Christian converts from Scheduled Castes and the eleven recommended communities in the State. The Corporation provides assistance for foreign employment, agricultural land purchase, house construction, house repair and incentive grant to students. The Corporation is implementing the schemes with the financial assistance of National Backward Classes Finance and Development Corporation. During 2001-02, the Corporation has disbursed an amount of Rs. 9.6 lakh to various schemes and 368 persons benefited during the period under review.

b. Kerala State Backward Classes Development Corporation

10.121 The objective of the Corporation, registered in 1995, is to promote the socio-economic upliftment of the backward classes and minorities in the State. The Corporation provides assistance to individuals or groups belonging to backward classes by way of loan and advance for viable schemes and projects and extends financial assistance by way of loan to backward classes for pursuing general, professional,

technical education or training at graduate and higher levels. The Corporation mobilises funds from the National Backward Classes Finance and Development Corporation (NBCFDC), National Minorities Development and Finance Corporation (NMDFC),) and from Government. The Corporation give loan for starting self employment ventures, marriage assistance, purchase of computer for students and schools, foreign employment etc. During 2001-02, the Corporation disbursed an amount of Rs. 3417.55 lakh to 9772 beneficiaries as against Rs.3364.63 lakh to 9714 beneficiaries during the previous year. The source-wise expenditure and physical achievements of the Corporation are given in Table 10.24.

Table 10.24
Source-wise Expenditure and Physical Achievements of Kerala State Backward Classes Development Corporation

Source	*Expenditure (Rs. Lakh)*		*Physical Achievements (No. of Beneficiaries)*	
	2000-01	*2001-02*	*2000-01*	*2001-02*
1	2	3	4	5
NBCFDC	2041.18	1673.97	5352	4357
NMDFC	930.37	1212.30	2482	3158
HUDCO	0.00	0.00	0	0
Own Fund	393.08	531.28	1880	2257
Total	**3364.63**	**3417.55**	**9714**	**9772**

Scheme-wise details of financial and physical achievements of the Corporations through different sources of funding assistance are given in Appendix 10.30.

Annexure

KUDUMBASHREE - EMPOWERING WOMEN TO FIGHT POVERTY

Kudumbashree the innovative poverty reduction experiment launched in the State has been universalised in 2002-03. The participatory poverty reduction approach initiated in 7 wards of Alappuzha Municipality during 1992 and subsequently scaled up to the entire municipal area during 1993, tried out the model in the rural area of Malappuram District during 1994, has covered the entire State by 2002. Kudumbashree has been identified as one of the twenty best practices in governance identified by the Planning Commission and UNDP.

Mission Statement

The Mission Statement of Kudumbashree is :

"To eradicate absolute poverty in ten years through concerted community action under the leadership of Local Self Governments, by facilitating organisation of the poor combining self-help with demand led convergence of available services and resources to tackle the multiple dimensions and manifestations of poverty, holistically."

The Innovative Poverty Reduction Strategy

The strategy and methodology adopted by the Mission to achieve the objective is identify the poor transparently and to organize them into a Community Based Organizations (CBOs) under the leadership of Local Governments. Micro Finance through thrift and credit operation, micro enterprises for additional income generation, involvement of CBOs of poor in planning process etc are conceived as tools for poverty reduction.

Structure of CBOs in Kudumbashree

Neighbourhood Group (NHG)

For effective convergence of the programme, a three tier Community Based Organisation (CBO) is the Key institution in every Village Panchayat, Municipality and Corporation. The lowest tier constitutes the Neighbourhood Group consisting of 20-40 women members representing the families below poverty line at the local level. Meetings are convened on a weekly basis in the houses of NHG members. In the meetings the various problems faced by the Group Members are discussed along with suggestions for improving the situation. Government officials are also invited to the meeting for explaining the schemes implemented by them. In the weekly meetings all members bring their thrift, which is collected and recycled, in the system by way of sanctioning loans. Micro plans are also prepared after

taking stock of the situation. In each Neighbourhood Group from among the poor women, **five Volunteers** are selected for undertaking various functional responsibilities.

- ***Community Health Volunteer*** - She is to look after the various health related aspects of the group members including children, women and the aged. Convergence of various programmes undertaken by Health and Social Welfare Departments are also facilitated under the leadership of the Community Health Volunteer.

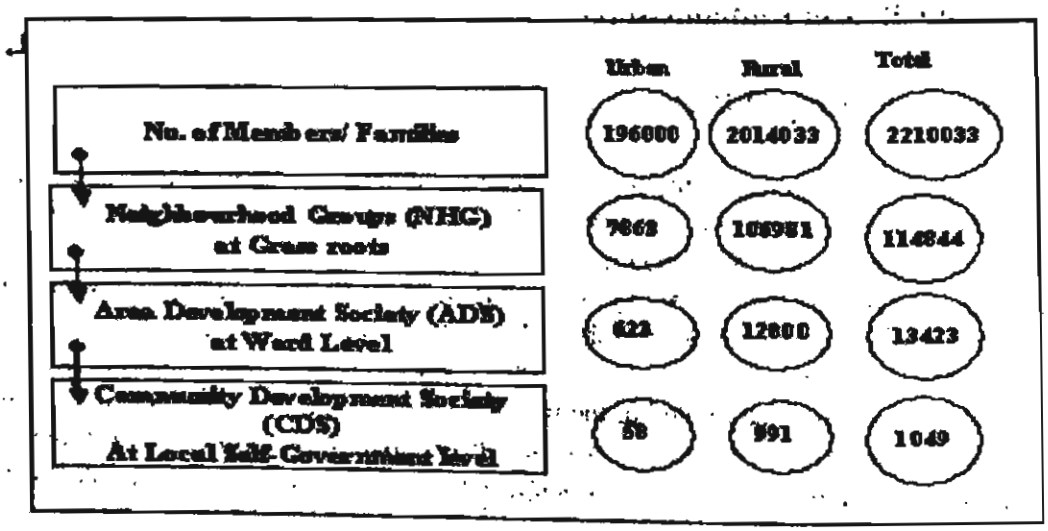
- ***Income generation activities volunteer*** - The collection, consolidation and maintenance of books of accounts and registers in connection with thrift mobilisation is looked after by this volunteer. Necessary training is imparted by NABARD for increasing their capability.

- ***Infrastructure Volunteer*** - Infrastructural backwardness of the group is tackled with the help of various ongoing governmental programmes under the leadership of this volunteer. It is proposed to take micro contracting as an income generating activity by the group after sharpening their functional skills through a series of training programmes. She liaises with the local bodies and acts as a catalyst for local development.

- ***Secretary*** - The proceedings of the meeting are recorded by the Secretary and necessary follow up including motivation and team building are the responsibilities of the Secretary.

- ***President*** - She presides over the weekly meetings and imparts necessary leadership and guidelines to the group members.

The largest Women based organization in the World



Area Development Society (ADS)

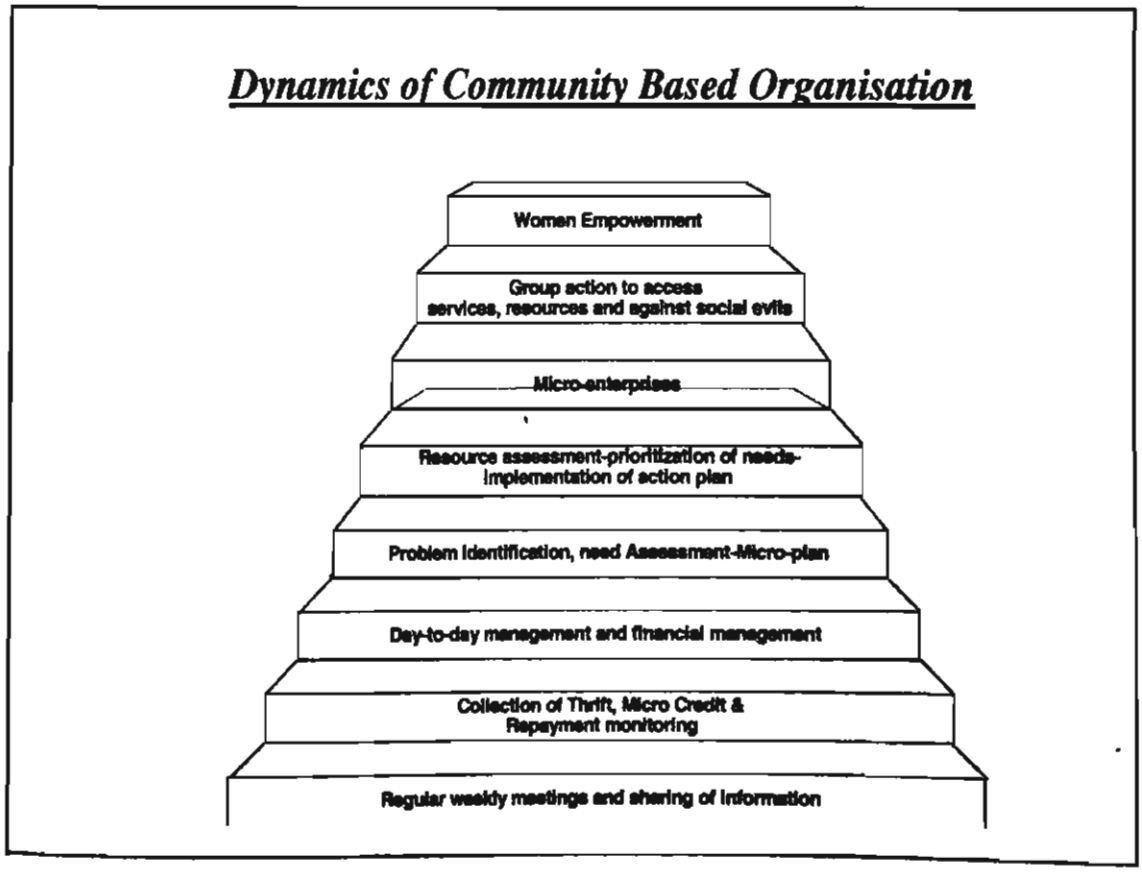
The second tier is Area Development Society, which is formed at the local government ward level by federating 8-10 NHGs. The activities of the ADS are decided by the representatives of the poor elected from various federated NHGs.

Community Development Society (CDS)

At the Local Government level Community Development Society (CDS), a registered body under the Charitable Societies Act is formed by federating various ADSs. The advantage of this system is that it is managed wholly by the representatives of the poor and has the flexibility of a non governmental organisation which helps in channeling additional resources from various sources both internal and external. The CDS at local body level facilitates effective linkage with Local Governments.

Functions of CBOs

The aspirations of the poor as per their demands voiced and prioritised in the NHG meetings form the "micro-plans", which are scrutinized, and prioritised and integrated to form a mini-plan at the level of ADS. After consolidating the mini-plans at the level of CDS, the "CDS Plan" is formed which is also the "anti-poverty sub-plan" of the Local Government. Thus the poor participate in the planning process as the major stakeholder. The local government monitors the implementation of the plan.



Micro Finance

Kudumbashree promotes thrift mobilization by setting up Thrift & Credit Societies at NHG level to encourage and facilitate the poor to save and to provide them cost effective and easy credit. Thrift and Credit Societies ensure easy and timely credit to the un-reached. A member can avail loan up to a maximum of four times of her savings. The amount of loan and the priority of disbursement are decided by the NHG. The repayment is collected weekly during the routine NHG meetings. The income towards interest from thrift is generally used for re-loaning. The most important aspect of the Thrift and Credit Societies is the prompt repayment of loans.

Informal Banks at the Doorsteps of the Poor

Thrift and Credit Societies organised by the Kudumbashree are fast growing as Informal Banks of the poor women at their doorsteps. Most of the thrift societies are now capable of providing assistance even to income generating activities.

Thrift & Credit Societies – Specialties

- Easy to avail
- Facilitate timely credit
- Low transaction cost
- Weekly repayment
- Transparency in operation
- Loan disbursement – Need based
- Loans at the convenience of the poor
- No collateral security
- Time saving
- Credit at the doorstep
- Prompt repayment due to peer pressure

Present Status

The district wise details of thrift and credit operations in the NHGs are given in Table below.

Sl. No	District	No. of NHG formed	Amount of Thrift	Amount of Loan	Velocity of Lending
1	Trivandrum	11091	152080008	155059424	1.02
2	Kollam	7150	123622489	103582126	0.84
3	Pathanamthitta	4587	51069920	41701161	0.82
4	Alappuzha	9325	120243475	121103151	1.01
5	Kottayam	7986	99708858	72880131	0.73
6	Idukki	6929	109044000	130205000	1.19
7	Ernakulam	7113	81271761	74040629	0.91
8	Thrissur	10243	133278289	228540040	1.71
9	Palakkad	7270	66846395	20489989	0.31
10	Malappuram	6086	85083388	70610698	0.83
11	Kozhikkode	9944	140651159	157749235	1.12
12	Wayanad	5465	67950433	73307274	1.08
13	Kannur	7230	133892869	135749665	1.01
14	Kasargode	4203	66729290	91907574	1.38
Total		**104622**	**1431472334**	**1476926097**	1.03
15	**Urban (58 ULBs)**	**7863**	**194776769**	**214078648**	1.10
16	**Tribal (5 Districts)**	**1190**	**8626455**	**4939333**	0.57
Grand Total		***113675***	***1634875558***	***1695944078***	***1.04***

Velocity of lending

The thrift and credit operation of the Neighbourhood Groups is monitored regularly on the basis of the velocity of lending. The velocity of lending is arrived by dividing the credit by thrift mobilized. The sustainable thrift and credit operation of the NHG shows a lending rate of more than one. The average rate of velocity of lending is measured as 1.04. The district wise details are given in the Table shown above. .

Micro Enterprises

Concept

Kudumbashree views Micro Enterprise Development as an opportunity for providing gainful employment to the people below poverty line and thereby improving their income and living standard. Now micro enterprise is considered as a growth engine that triggers developmental process. Micro enterprises need to be supported by better access to institutional finance through rural banking. This is not an automatic process. A clear strategy is to be worked out for increasing flow of funds and also for ensuring market for their products. In the context of Urban Poverty, micro enterprises are defined based on the following criteria:

- Investment ranging from Rs 5,000 to Rs 2.5 lakhs
- Enterprise should have a potential to generate at least Rs 1,500 per member per month either by way of wage or profit or both together.
- Enterprise fully owned, managed and operated by members themselves, preferably, women below poverty line families as entrepreneurs.
- Minimums turn over of Rs 1 lakh to Rs 5 lakhs. (ie 2-10 times of the capital investment).

Through the operation of micro enterprise, the asset management capability of the poor people is expected to increase along with their profit margin and income.

Micro enterprise as an effective tool for Poverty Reduction

- Identification of innovative and creative activities suited to the specific environment in which the poor people are living, which try to solve the problem faced by the community by using the technological know how already available. For example, the DWCUA Information Technology activity is identified in this manner. This sunrise sector is being effectively used so as IT units could catch up more and more opportunities to earn better income to the poor members belonging to BPL families.

- In the absence of entrepreneurial traits, continued supports by means of 'hand holding' and 'support services' are required for ensuring sustainability of micro enterprises. Kudumbashree tries to learn much from the experiences of others.

- Training in the functional areas of management like production, inventory, finance, marketing, personal and project are to be imparted to the selected entrepreneurs. With this objective a series of training programmes have been conducted and also a specific module for training potential Micro Entrepreneurs has been developed.

- Kudumbashree plans to utilise the existing potential of resource persons available in and around the State for prompting entrepreneurship. The concept of Rural Consultancy was tried out at Malappuram for testing this idea.

- Experimenting the possibility of networking of Micro Enterprises, which in future may help realize concept of syndication.

- Identifying entrepreneurial activities that could help to solve a common problem.

- Micro enterprise can be utilised as an opportunity for reviving the local food traditions prevalent in the State.

- Micro enterprise development as a means for empowering women, especially economic empowerment.

The Emerging Process

Kudumbashree views micro enterprise development as an emerging process which normally starts with low capital low risk and low profit at the initial stage gaining momentum and later switching on from low to medium capital and then from low to medium risk. In an advanced stage it may even reach medium capital medium risk and medium profit with appropriate technology, emerging technology or even with low technology.

Capital Employed	Risk Involved	Profit Generation	Technology Used
Low	Low	Low	Low
Low-Medium	Low	Low +	Low
Low-Medium	Low-Medium	Low-Medium	Low
Medium	Medium	Medium	Low, Appropriate Emerging

For example catering units work with low capital, low risk, low profit and low technology where as an IT unit works with low to medium capital, low risk, low to medium profit and by using emerging technology. Analysis of DWCUA Units reveals a slow process of development of the Micro Enterprise through these stages. But in individual enterprises the sudden jump from one stage to the next higher stage is not easily possible. Group activity provides synergy for growth. Hence they can grow from one level to next higher level even by cutting across stages. Ploughing back of capital is also possible which helps to improve the capital requirement without any additional burden of interest. As the exposure increases the chance of gaining confidence also improves. At this stage when more capital is employed it may help the person to use it in a better manner. Collective wisdom seldom fails; collective sharing of responsibilities yields rich dividends!

List of Micro enterprises in Urban Area (District wise List)

Sl. No	Name of District	Urban		Rural Micro Enterprise
		DWCUA units	USEP beneficiaries	
1	Trivandrum	163	1650	432
2	Kollam	44	1530	534
3	Pathanamthitta	23	437	21
4	Alappuzha	114	1566	678
5	Kottayam	33	475	195
6	Idukky	8	105	987
7	Ernakulam	248	1348	96
8	Thrissur	115	936	1081
9	Palakkad	42	1327	764
10	Malappuram	57	719	1098
11	Kozhikkode	105	1248	974
12	Wayanad	13	94	548
13	Kannur	56	1421	674
14	Kasargode	27	294	747
	Total	**1048**	**13150**	**8829**

Chapter – 11

GENDER AND DEVELOPMENT

Introduction

Since the UN Declaration of 1980-90 as the International Decade for Women greater interest has been evinced to look at' women and development 'not as a separate development stream but as part of the main stream development process. The approach on women development changed from viewing women as beneficiaries of social services to contributors of social and economic development process in nation building. This is evident from the national policies and approaches pursued. India formulated a comprehensive National Policy for the Empowerment of Women in 2001, which primarily outlined the following:

Box 11.1
• Creating an environment through positive economic and social policies for full development of women to enable them to realise their full potential • The de-jure and de-facto enjoyment of all human rights and fundamental freedoms by women on equal basis with men in all spheres- political, economic, social, cultural and civil. • Equal access to participation and decision making of women in social, political and economic life of the nation. • * Equal access to women to health care, quality education, career and vocational guidance, employment, equal remuneration, occupational health and safety, social security, public office etc(National Policy for the Empowerment of women 2001.)

11.2 According to UNDP Report 2001, India ranks 105th place in Gender Related Development Index India's position is far below the level attained by countries like even Srilanka. But it is marginally higher than Pakistan. The indicators giving country wise situation is presented in Appendix-11.1 In view of the need for a big push, the Tenth Plan lays more emphasis on empowerment of women as agents of social change and development. The three fold strategy adopted are:-

Box – 11.2
• Social Empowerment- to create an enabling environment through various affirmative developmental policies and programmes for development of women besides providing them easy and equal access to all the basic minimum services so as to enable them to realise their full potentials. • Economic Empowerment- to ensure provision of training employment

For example catering units work with low capital, low risk, low profit and low technology where as an IT unit works with low to medium capital, low risk, low to medium profit and by using emerging technology. Analysis of DWCUA Units reveals a slow process of development of the Micro Enterprise through these stages. But in individual enterprises the sudden jump from one stage to the next higher stage is not easily possible. Group activity provides synergy for growth. Hence they can grow from one level to next higher level even by cutting across stages. Ploughing back of capital is also possible which helps to improve the capital requirement without any additional burden of interest. As the exposure increases the chance of gaining confidence also improves. At this stage when more capital is employed it may help the person to use it in a better manner. Collective wisdom seldom fails; collective sharing of responsibilities yields rich dividends!

List of Micro enterprises in Urban Area (District wise List)

Sl. No	Name of District	Urban		Rural Micro Enterprise
		DWCUA units	USEP beneficiaries	
1	Trivandrum	163	1650	432
2	Kollam	44	1530	534
3	Pathanamthitta	23	437	21
4	Alappuzha	114	1566	678
5	Kottayam	33	475	195
6	Idukky	8	105	987
7	Ernakulam	248	1348	96
8	Thrissur	115	936	1081
9	Palakkad	42	1327	764
10	Malappuram	57	719	1098
11	Kozhikkode	105	1248	974
12	Wayanad	13	94	548
13	Kannur	56	1421	674
14	Kasargode	27	294	747
	Total	**1048**	**13150**	**8829**

Chapter – 11

GENDER AND DEVELOPMENT

Introduction

Since the UN Declaration of 1980-90 as the International Decade for Women greater interest has been evinced to look at' women and development 'not as a separate development stream but as part of the main stream development process. The approach on women development changed from viewing women as beneficiaries of social services to contributors of social and economic development process in nation building. This is evident from the national policies and approaches pursued. India formulated a comprehensive National Policy for the Empowerment of Women in 2001, which primarily outlined the following:

Box 11.1
• Creating an environment through positive economic and social policies for full development of women to enable them to realise their full potential • The de-jure and de-facto enjoyment of all human rights and fundamental freedoms by women on equal basis with men in all spheres- political, economic, social, cultural and civil. • Equal access to participation and decision making of women in social, political and economic life of the nation. • * Equal access to women to health care, quality education, career and vocational guidance, employment, equal remuneration, occupational health and safety, social security, public office etc(National Policy for the Empowerment of women 2001.)

11.2 According to UNDP Report 2001, India ranks 105th place in Gender Related Development Index India's position is far below the level attained by countries like even Srilanka. But it is marginally higher than Pakistan. The indicators giving country wise situation is presented in Appendix-11.1 In view of the need for a big push, the Tenth Plan lays more emphasis on empowerment of women as agents of social change and development. The three fold strategy adopted are:-

Box – 11.2
• Social Empowerment- to create an enabling environment through various affirmative developmental policies and programmes for development of women besides providing them easy and equal access to all the basic minimum services so as to enable them to realise their full potentials. • Economic Empowerment- to ensure provision of training employment

and income-generation activities with both 'forward' and 'backward' linkages with the ultimate objective of making all potential women economically independent and self-reliant.

- Gender Justice- to eliminate all forms of gender discrimination and thus, allow women to enjoy no only the de-jure but also the de-facto rights and fundamental freedoms on par with men in all spheres, viz political, economic, social, civil, cultural etc.

11.3 Kerala presents a position picture as far as women's development is concerned - women awareness, women movements at the grass root level, greater mobility, education, women and child health interventions have all led to developments significantly different from the rest of the country. Kerala has made strenuous efforts in extending two major public goods viz; education and health to women and these efforts have contributed much to the achievement on women development indicators. More than the general development focus on services, the state has formulated several women and child development specific schemes so as to strengthen the social and economic dimensions of life. The major high lights on women development in Kerala are briefly summarised below:

- Among the Indian states Kerala has the highest Human Development Index and Gender Related Development Index.
- According to Census 2001 Kerala has 1058 women for every 1000 men. Consistently Kerala has a favourable sex ratio for women.
- The literacy of Kerala women is 87.86 per cent as against 54 percent at the all India level
- Kerala is in the fore front in life expectancy for females at 74 years (as against 68 years for males) as compared to 64 years for women and 62 years for men in India.
- In Kerala IMR is 15.6 and MMR 1.4 as against 71.6 and 4.08 respectively for India
- The mean age at marriage is 22 years in Kerala as against 20.54 for all India.

Box – 11.3

65% of women in India married before 18 years, In Kerala it is 7% and in Rajasthan 82%-(Annual Report 2001-02 DWCD)

- Girls enrolment rate at school and college levels is near total. Though the enrolment of girls is near equality at LP level and UP level, it is greater than equality at High School levels. Also the enrolment rate at higher secondary and college levels are 58 per cent and 61 per cent respectively. At degree level girls enrolment is 64 per cent and at PG level it is 73 per cent.
- The proportion of women teachers is 68 percent at school level and 53 per cent at college level.
- Employment status of women is that the private sector is the largest employer of women in Kerala. Among the 42.38 lakh work seekers, women constitute more than 55 per cent.
- Work participation rate of women in Kerala is 15.8 per cent as against 22.3 per cent for India.
- In Kerala 97 percent of the deliveries are institutionalized as against the average of about 60 per cent in India. This has reduced the maternal mortality rate considerably.
- The immunization coverage is universal and the health check up programme launched for adolescent girls is yet another land mark.

- Kerala has experienced the sharpest fertility decline in India in the last two decades. During the course of past 30 years, the fertility rate in Kerala declined from an average level of six children for couple to less than 2 children. The total fertility rate estimate for 1991 is 1.8 in Kerala while it is 3.6 for India.
- The registration of marriage, births and deaths is almost universal in Kerala. This is due to the high level of literacy and wide spread women education and social awakening.
- Another indicator of women development is the large number of movements in which women are active participants. The Mahilasamajams, the neighbour hood groups of women, women wings of residential association self-help groups etc. are examples. Such movements have strengthened women's power in the state. Out of 50411 voluntary agencies in Kerala about 20000 are Mahilasamajams.

Women & Population

11.4 Kerala ranks 12th among the states of India sharing 3.1per cent of India's population of 102 crores in 2001. The women population in Kerala constituted 16.4 lakhs which is 51.4% of the state total of 318 lakhs as per 2001 census with a sex ratio (1058 females for 1000 males) while the all India female sex ratio is 933. The details showing sex ratio for Kerala and India from 1901 through 2001 are shown in Table-11.1 The position as obtained in Kerala is that through out the 100 year period Kerala had a consistently favourable female sex ratio. The district wise position of female population and sex ratio in Kerala are shown in Appendix-11.2 The diagram represents the female population growth rate in Kerala district-wise 1991-2001.

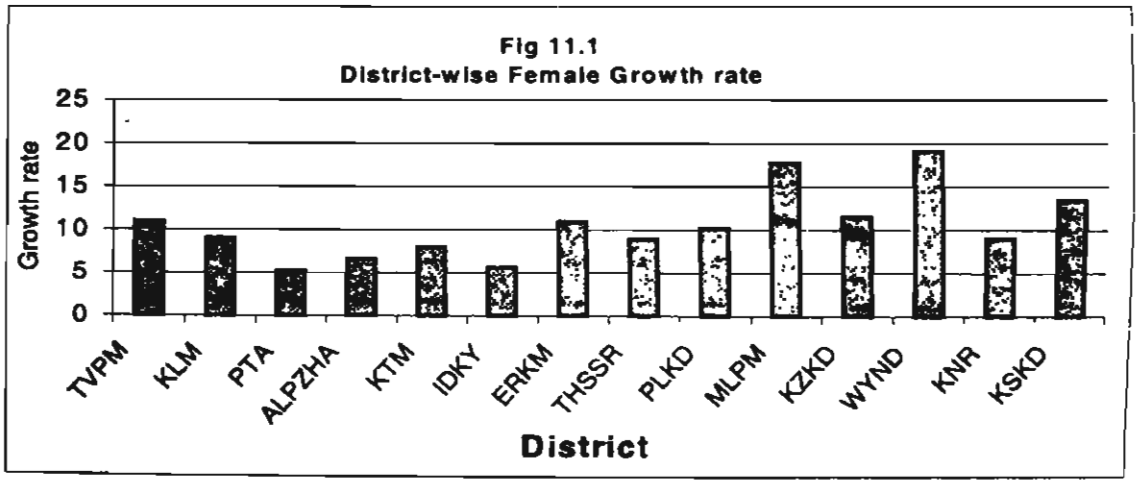


Table-11.1

Sex Ratio in Kerala & India –1901 to 2001 (number of women/1000 men)

Year	Kerala	India
1901	1004	972
1911	1008	964
1921	1011	955
1931	1022	950
1941	1028	945
1951	1927	946
1961	1022	941
1971	1016	930
1981	1032	935
1991	1036	927
2001	1058	933

Elderly Women

11.5 The life expectancy indicator high lights that the number of old women will be on the rise in India. As per 1991 Census there were 551 lakh elderly in India representing 6.8% of the country's population. The proportion of aged is highest in Kerala compared to other states. In Kerala there were 14.8 lakh women in 1991 of which 7.32 percent were 60 plus ,3.71 percent, 70 plus; and 1.08 percent, 80plus The female elderly outnumber the males except in Idukki District according to 1991 Census. Moreover there are more widows; for every 1000 widowers there are 7628 widows in Kerala among 60 plus,5949 among 70 plus and 4303 among 80 plus as per 1991 census. Details are given in Appendix.11.3.

Women & Literacy

11.6 Literacy is one of the three combined indicators apart from income used for preparing Human Development Index. The literacy status of women is unique that Kerala attained 87.86 percent female literacy. The all India women literacy rate is still 54. An analysis of the position during last five decades would show that some of the states in India today could not achieve even the level attained by Kerala in 1951. District-wise female literacy rate in Kerala is given in Table-11.2. Female literacy rate in kerala during the last five decades are given in the diagram.

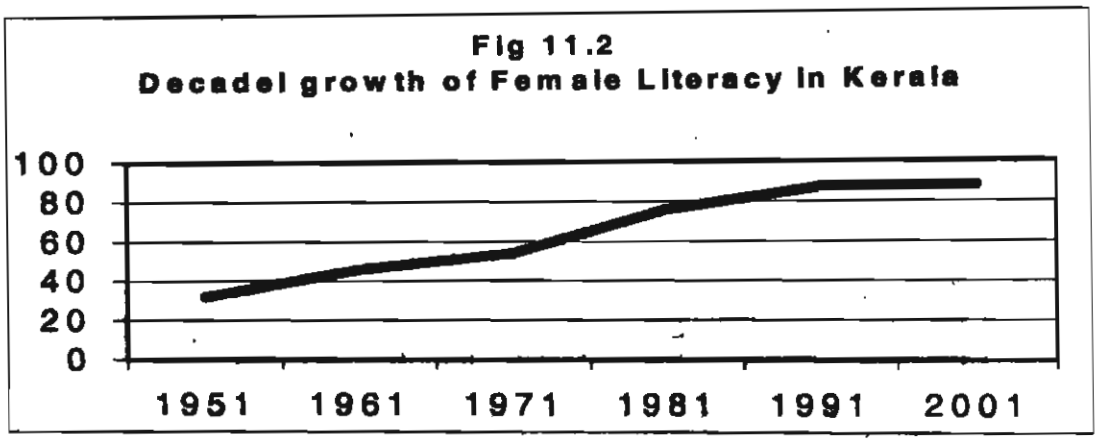


Table-11.2.
Districwise Female Literacy Rate 2001

District	1991	2001
Kasaragod	76.29	79.80
Kannur	87.65	89.57
Wayanad	77.69	80.80
Kozhikode	86.79	88.86
Malappuram	84.09	85.96
Palakkad	75.72	79.31
Thrissur	86.94	89.94
Ernakulam	89.27	90.96
Idukki	82.96	85.04
Kottayam	94.00	94.45
Alappuzha	91.12	91.14
Pathanamthitta	93.29	93.71
Kollam	87.00	88.60
Thiruvananthapuram	85.76	86.26
All Kerala	**86.17**	**87.86**

Source:-Census of India

Box 11.4
Female rate of literacy in Kerala increased from 32 per cent in 1951 to 87.86 percent in 2001. In UP it increased from 4 per cent to 43 percent and 9 percent to 54 percent the All India Level during the corresponding period—Census.

Girls Enrolment / Drop out rates.

11.7 In India 85% girls between 6-11 years old got enrolled into primary schools, but 42% dropped out in 1999-2000. Kerala is position is that it has only 5% drop out rate for girls while Rajasthan has 63%. Enrolment of girl students in schools constituted 49% of the total enrolment. Out of 51.02 lakh students in 2002, girls enrolment represented 25 lakhs. The percentage of enrolment in LP, UP and HS level stood at 49.3, 48.1 and 49.5 percent respectively in 2002. It is unique that girls enrolment is near universalisation where us the All India level is around 84 percent. Details of enrolment of girl students at various stages of education in Kerala are furnished in Appendix -11.4

Women & Health

11.8 In the changing society women are playing multiple roles ranging from child bearing, rearing and to income earning and active partnership in development and governance.

Box 11.5
ILO in eighties estimated that women worked for 16 to 18 hours per day and contributed to about 61 per cent of national income.

11.9 Good health contributes to productivity and happiness to maintain the family. In India mortality among females is greater than males at all stages especially in the age group 15-35 years. But in Kerala the situation is different. The expectation of life at birth is 68.23 for men and 73.62 for women in 2000 as shown in Table-11.3 The female life expectancy which stood at 50 in 1960 increased to 74 in 2000 as against 46.17 and 68 for men for the corresponding period. The female infant mortality rate was 15.3 in Kerala with a gender gap of 1.6 during 1999 where the all India level was 70.8 with a difference of 1 point gender gap In many states the number of deaths among infant girls exceed that of boys. Female Infant Mortality Rate and gender gap in Indian states are furnished in Appendix-11.5

Table:11.3
Expectation of life at birth from 1951-2000- India & Kerala)

Year	Kerala		India	
	Male	Female	Male	Female
1960	46.17	50	42	41
1970	60.62	62.08	46	45
1980	64.70	69	51	50
1989-90	67.50	72.90	59.7	60.90
2000	68.23	73.62	62.3	64.2

Source: DHS

11.10 India has high MMR which has further worsened in recent years. As per the NFHS-2, the MMR has gone up from 424 in 1992-93 to 540 in 1998 for 1 lakh live births. In Kerala the latest MMR is around 140per lakh deliveries.

Box 11.6

"Maternal Mortality Rate for 100000 live birth-is the highest in India among countries- More than 80,000 women die in India every year during child birth"--- National Family Health Survey-2

11.11 The position in India is that most deliveries take place at home under unhygienic practices without professional assistance. During 1998-99 while 42% deliveries were assisted by health professionals, 34% birth took place in medical institutions. The situation in Kerala is that over 97% deliveries are institutional deliveries. There are about 3 lakh deliveries in Kerala on an average per year.

Women & Employment

11.12 In the case of work seekers, there is always an upward trend among women in Kerala/ The live register of employment exchange 2002 reveals that more than 51% of the registrants are women while it was 47% in 1990. The district wise details of work seekers in Kerala in shown in Appendix -11.6

11.13 According to 2001 Census, there are 102.91 lakh total workers's in Kerala. Of these 17.57 lakh are female main workers and 7.43 lakhs are female marginal workers which represents 21.33 and 36.15 percent respectively. Table below shows category-wise female workers in Kerala.

Table-11.4
Category-wise Female workers in Kerala -- 2001

(lakhs)

Sl.No.	Category	Total	Female
1	Total Workers	102.91	25.01
2	Main workers	82.37	17.57
3	Marginal Workers	20.55	7.43
4	Non-workers	215.47	138.69

11.14 As per the latest report of CSO,(2001), in Kerala the Female Labour Force Participation rate is only 27% in the rural and 25% in the urban having 14th and 31st positions respectively among Indian states The gender difference in work participation at the All India level is 26 as per 2001 Census. State wise details are reflected in Appendix - 11.7. Number of women employees in the public and private sector in Kerala is given in Appendix 11.8

Women & Decision Making

11.15 Women empowerment in society and family are closely linked to decision making influence.The National Family Health Survey 1998-99 brings out interesting facts. In India only 9.4 percent women are not involved in decision making where as it is 7.2 percent in Kerala.More than 85 percent involved in decision making have autonomy on what to cook, 51.6 percent on health care, 52.6 percent on purchase of jewelry etc. More than 59 percent has access to money in India while the figure is 66 percent for Kerala. The detailed analysis of autonomy enjoyed by women is presented in Appendix-11.9

Women and Governance

11.16 Women's role in governance is more pronounced in India after the enactment of Panchayat Raj Act and Nagarapalika Act consequent on 73rd and 74th constitutional amendments. There are 6184 seats reserved for women in Kerala. The number of seats reserved for women in LSGs is given in Table-11.5. The district-wise details are furnished in Appendix 11.10.A. Women's representation in Panchayath Raj institutions in India is reflected in Appendix 11.10.

Table-11.5
No. seats reserved for Women in LSGIs in Kerala

Sl.N.	LSGs	Total No.	No. of wards	No. of seats reserved for women			
				SC	ST	General	Total
1	Grama Panchayat	991	13255	422	48	4330	4800
2	Block Panchayat	152	1638	39	5	585	629
3	District Panchayat	14	307	13	1	91	105
4	Municipality	53	1597	45	1	504	550
5	Corporation	5	298	11	0	89	100
	Total	**1215**	**17095**	**530**	**55**	**5599**	**6184**

Source;State Election Commission

11.17 The percentage of women voters in general elections has been ranging from 51 to 59 but among the contestants women constitute only a small number even though the winning rate of women has been generally very high as reflected in the Table-11.7.

Table-11.6

Contestants and Winners in General Election in India

General Election	Male contestants	Female contestants	% Male Winners	% Female winners
Sixth	2369	70	22.1	27.1
Seventh	4478	142	11.5	19.7
Eighth	5406	164	9.2	25.6
Ninth	5962	198	8.4	13.6
Tenth	8374	325	5.8	11.1
Eleventh	13353	599	3.8	6.7
Twelth	4476	274	11.2	15.7
Thirteenth	4364	284	11.3	17.2

Source:- Election Commission of India 2001

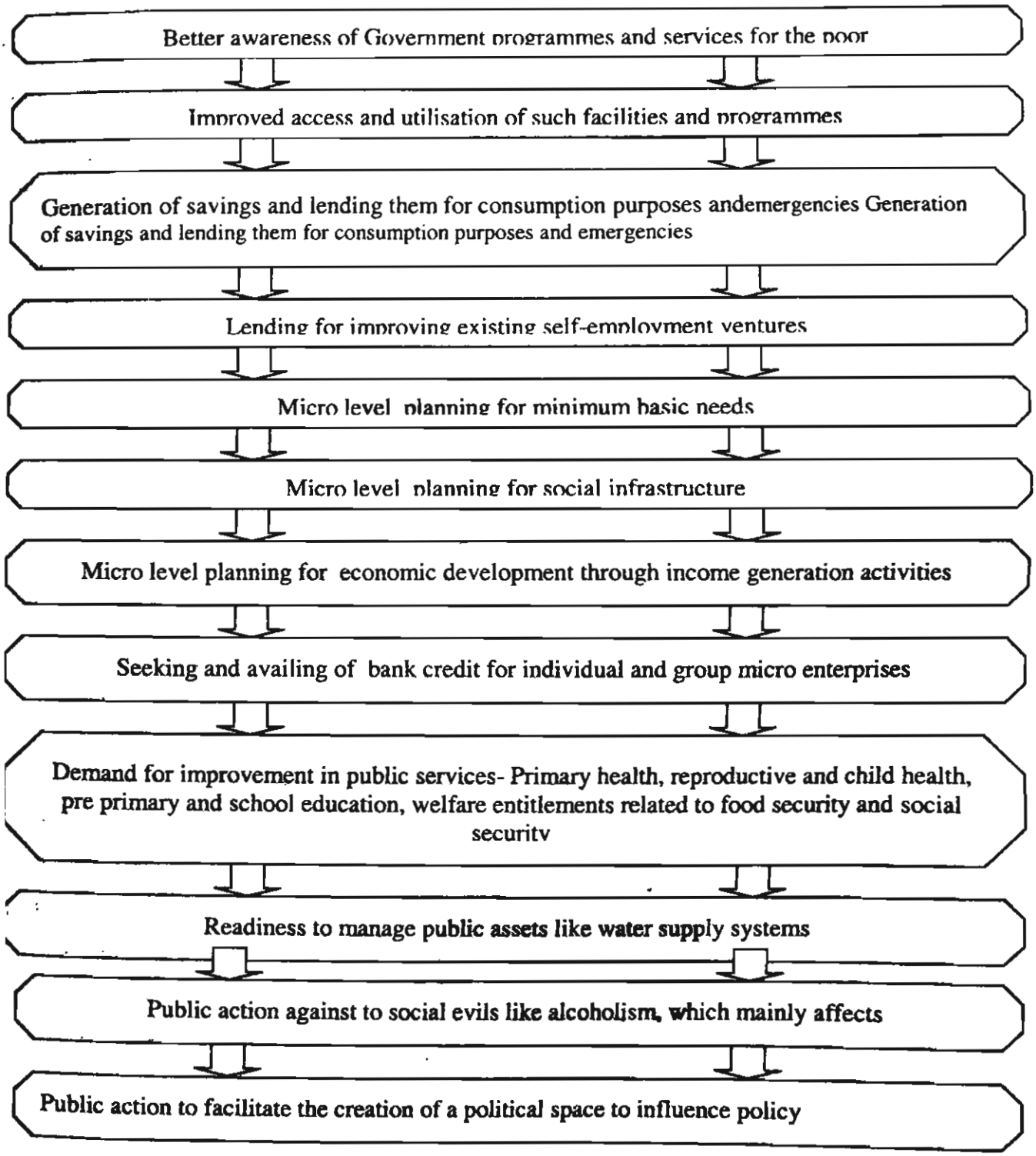
Women Development Specialised Agencies in Kerala

11.18 In the state several agencies/ -government institutions and non government institutions are involved in implementing women specific schemes in the state. The major governmental institutions are Kerala State Women Development Corporation, Kudumbasree and Women's Commission. The activities and achievements of these institutions are detailed below.

Name of Institution	Activities	Achievements
1. Kerala State Women Development Ccorporation	Started in 1988 with the objective of social and economic empowerment of poor women providing self employment, training in modern trades. It is the nodal agency for implementing STEP and NORAD schemes through mobilising fund from NBCFDC and NMDFC and GOI	During 2001-002 it mobilised Rs.63 lakhs from NBCFDC and Rs.50 lakhs from NMDFC, provided self employment assistance and training to 1722 women. It is also running 5 women hostel benefiting 250 inmates
2. Kudumbasree	Comprehensive net work approach of State Poverty Eradication Mission started in 1999 as a partnership of GOK, GOI, LSGI's and NABARD. The objective is eradication of poverty from the state with in a decade. The core activities include women empowerment initiatives, micro finance operation,. micro enterprice promotion and convergent community action carried out through BPL women. It has three tier structure – Neighbour Hood Group at the grass root level, Area Development Societies at the local ward level and CDS at the local government level	At present 73333 NHG's, 5306 ADS's and 758 CDS's are functioning in the urban areas covering 14.28 lakh families. In the Rural Areas 108450 NHG's, 12957 ADS's and 1049 CDS's are functioning covering 2224847 BPL families . About 4500 NGHS's were linked with the NABARD during2002.
3. Kerala Women's Commission	Established in 1996 with the objective of improving the status of women in Kerala and to enquire into unfair practices against women	During 2002 the commission received 3935 complaints which include 559 related to violence, 710 on harassment by husband and 165 dowry cases. The district-wise details of complaints received by causes during 2002 as reflected in Appendix -11.11

11.19 Kudumbasree has been identified by the Planing Commission and UNDP as one of the timely best practices in governance in the country. The process of empowerment of poor women by Kudumbasree is captioned in the following flow diagram

STAGES IN THE EMPOWERMENT PROCESS



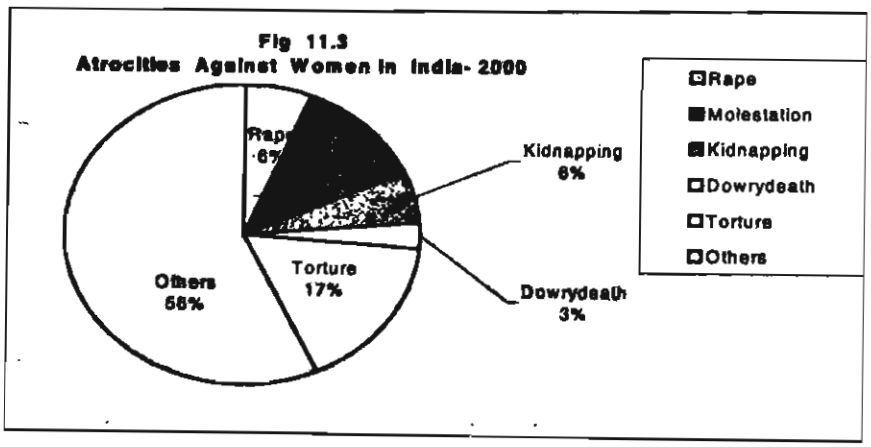
Crimes against Women and suicides.

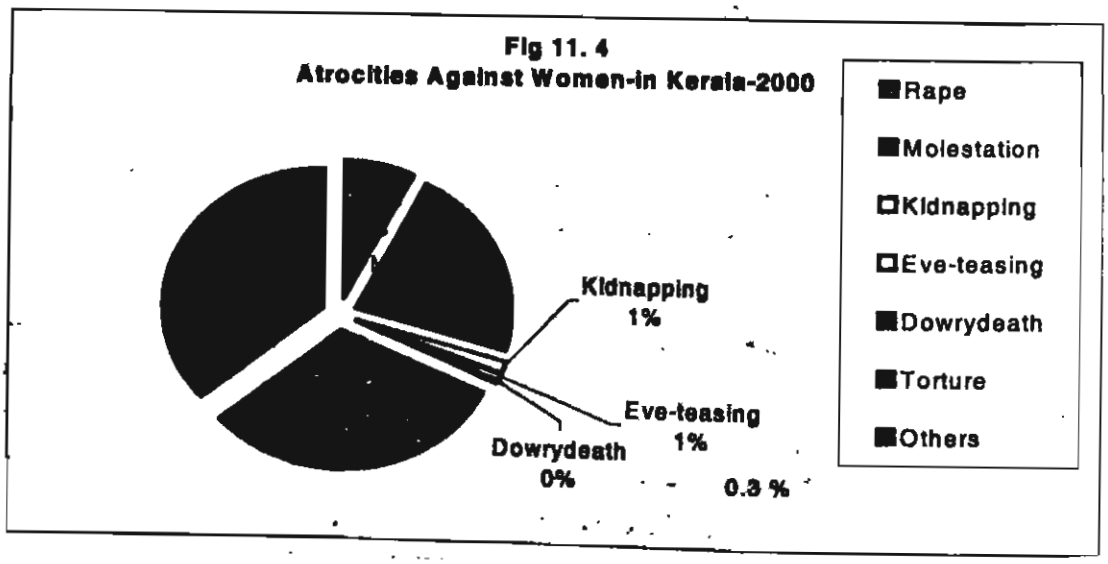
11.20 Even though Kerala is the frontrunner in several social and demographic development indicators there a number ,of crimes against women and suicides cases During 2001, there were 9572 suicide cases registered of which 2785 were women, which constituted 29 percent. The details of suicide cases by cause from 1997 to 2001 are given in Appendix -11.12

11.21 At the all India level 6995 dowry deaths were reported in 2000, as against 25 in Kerala. Moreover against 552 rape cases reported in Kerala, 16496 was the all India level during 2000. The details of crimes with causes in Kerala and India during the period 1997 2000 are given in Appendix -11.13

11.22 The diagramatic picture of components of crime against women in India and Kerala is given below

.11.23 District-wise details of crimes against women in Kerala in 2001 is given in Appendix11.14. Crime rates against women in India by states and rank in 1998 are given in Appendix –11.15





Gender Budgeting

Box 11.7
Australia was the first country to develop a gender sensitive budget in 1984- Annual Report 2001-02 DWCD

11.24 The gender budgeting initiatives in India started in July 2000. In Kerala inaddition to general development, gender specific schemes have been formulated and implemented. In the 2001-02 budget there were as many as 30 schemes specifically drawn up and implemented for women. Nearly 5 per cent of the plan outlay is spent on women specific schemes including grant in aid allocation to LSGIs. It is a land mark revision that Kerala allocated 10 percent of the grant in aid to LSGIs, which amounts to about Rs.130 crores per year for women development.

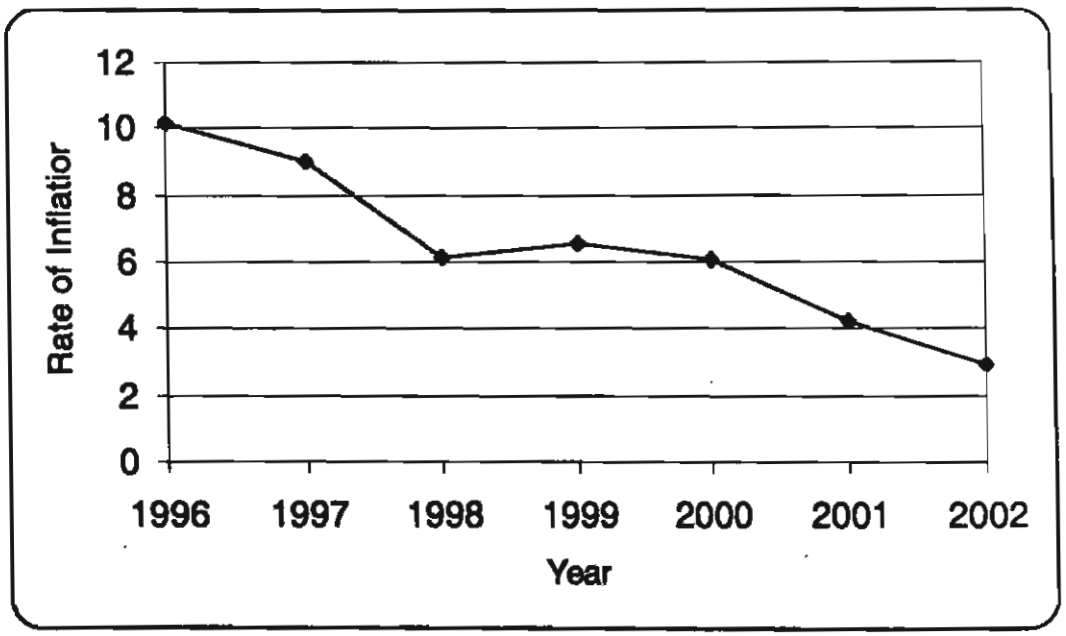
Chapter 12

PRICES, COST OF LIVING AND WAGES

Consumer Price Index

During 2002 (up to October), the Consumer Price Index, which is a broad indicator of inflationary trend, rose by 33 points, from 1134 points in 2001 to 1167 points in 2002, as against 48 points in 2001, from 1092 points in 2000 to 1140 points in 2001. The annual average growth rates reckoned from January to October are 2.9 per cent in 2002 and 4.2 per cent in 2001. The growth rate, which was 6.52 per cent in 1999, came down to 6.09 per cent in 2000 and to 4.20 per cent in 2001 and further to as low as 2.96 per cent in 2002. Another notable point is that the rate of inflation in the State, based on Consumer Price Index, which was a double digit figure (10.14 per cent) in 1996 gradually declined and touched at an all time low of 2.96 per cent in the year under review. See Table 12.1 and Fig.. 12.1

Fig. 12.1
Annual Growth of Inflation (Per cent): Kerala



12.2. On comparing the Consumer Price Index of selected 15 centres in the state, it is seen that indices of as many as seven centres fall below the State average of 1167 points in 2002. Meppady recorded the highest index of 1220 points, followed by Thiruvananthapuram (1198 points) and Kollam (1196 points). The Index was the lowest at Punalur (1122 points), followed by Ernakulam (1135 points). Regarding the annual rate of growth of indices, when Thiruvananthapuram recorded the highest annual growth of 4.53 per cent, Kozhikode recorded the lowest growth of 1.70 per cent. On analysing the centre-wise inflation, based on Consumer Price Index, it was observed that the indices are comparatively lower in the central region of the State, particularly at Mundakkayam (1139 points), Munnar (1151 points) and Ernakulam (1135 points). Movement of monthly index from January to October witnessed an erratic trend. The index, which was 1172 points in January

4/100/2003—A-22A

Table 12.1
Annual Average Consumer Price Index Numbers in Selected Centres of Kerala 1996-2000*

(Base: 1970=100)

Centres	1997	1998	1999	2000*	2000	2001*	2001	2002*	1998	1999	2000	2001*	2002*
1. Thiruvananthapuram	919	990	1046	1104	1108	1146	1152	1198	7.73	5.7	5.93	3.83	4.53
2. Kollam	942	995	1044	1101	1105	1146	1152	1196	5.63	4.93	5.84	4.11	4.33
3. Punalur	868	939	995	1056	1060	1094	1100	1122	8.18	5.96	6.53	3.59	2.57
4. Alappuzha	916	975	1043	1105	1109	1149	1156	1181	6.44	6.97	6.33	4.02	2.74
5. Kottayam	909	964	1034	1099	1105	1153	1160	1190	6.05	7.26	6.87	4.85	3.22
6. Mundakayam	890	940	1007	1072	1075	1111	1116	1139	5.61	7.13	6.75	3.62	2.52
7. Munnar	871	926	999	1066	1071	1117	1123	1151	6.31	7.88	7.21	4.76	3.09
8. Ernakulam	892	947	1003	1055	1060	1102	1109	1135	6.17	5.91	5.68	4.47	2.96
9. Chalakudy	928	988	1063	1119	1124	1168	1175	1198	6.47	7.59	5.74	4.39	2.53
10. Thrissur	908	958	1024	1079	1082	1122	1127	1146	5.51	6.89	5.66	3.98	2.17
11. Palakkad	918	973	1034	1088	1093	1135	1142	1177	5.99	6.27	5.71	4.33	3.68
12. Malappuram	927	974	1031	1080	1084	1123	1130	1167	5.07	5.85	5.14	4.04	3.88
13. Kozhikode	902	954	1018	1077	1081	1122	1128	1141	5.77	6.71	6.19	4.19	1.70
14. Meppady	946	1009	1080	1145	1150	1192	1198	1220	6.66	7.04	6.48	4.13	2.36
15. Kannur	923	975	1023	1073	1078	1124	1129	1148	5.63	4.92	5.38	4.70	2.16
State Average	911	967	1030	1088	1092	1134	1140	1167	6.15	6.52	6.09	4.20	2.96

Source:- Department of Economics and Statistics

* Average from January to October

gradually came down to 1156 points in April and then went up touching an all time high of 1176 points. During September and October the index was steady at 1173 points. Between October 2001 and October 2002, the index moved up by 13 points (1 per cent) from 1160 points in October 2001 to 1173 points in October 2002. The month-wise Consumer Price Index of Industrial and agricultural workers in 2002 is given in Appendix 12.1 Variation of indices from October 2001 to October 2002 shows that variation is highest in Thiruvananthapuram and Kollam (3.5 per cent), followed by Palakkad (2.8 per cent). Chalakkudy, Thrissur and Kannur recorded no variations in their indices.

Box. 1

**Rate of inflation, measured in terms of CPI, has been on decline in the State. From a double digit figure of 10.14 percent in 1996, the inflation rate came down to as low as 2.96 per cent in 2002.*

** The Consumer price index is the highest in Meppady and the lowest in Punalur.*

Retail Prices

12.3 Retail prices of essential commodities witnessed a mixed trend during the year under review (See Table 12.2). When the prices of eighteen important items of essential commodities were subjected to review, as many as six items recorded negative growth ranging from -2.00 per cent to -19.94 per cent as against seven items in the previous year ranging from -0.31 per cent to -16.69 per cent. When rice (red) -open market, greengram, redgram, dhal, coconut oil, groundnut oil, refined oil (postman), tapioca, milk (Cow), chillies (dry) and onion (small) recorded upward trend in their prices, black gram split (without husk), banana (green), egg (hen nadan), potato, corriander and sugar recorded downward trend. Price of redgram shot up unprecedently by 47.2 per cent from Rs. 19.98 per kg in 2001 to Rs. 29.41 per kg in 2002 as against only a marginal increase of 0.5 per cent in 2001 from Rs. 19.88 per kg in 2000 to Rs. 19.98 per kg in 2001. Price of coconut moved up by 24.53 per cent from Rs. 461.96 for 100 nos. in 2001 to Rs. 575.27 for 100 nos. in 2002 and that of coconut oil shot up by 30.93 per cent from Rs. 46.23 per kg in 2001 to Rs. 60.53 per kg in 2002 giving some relief to the agrarian economy. Refined oil and tapioca also recorded heavy increases in their prices. Price of refined oil (postman) increased by 26.1 per cent from Rs. 60.32 per kg in 2001 to Rs. 76.06 per kg in 2002 and that of tapioca by 24.3 per cent from Rs. 4.79 per kg in 2001 to Rs. 5.96 per kg in 2002. Where the price of chillies (dry) moved up by Rs. 6.87 per kg from 44.68 per kg in 2001 to Rs. 51.55 per kg in 2002, showing an increase of 15.38 per cent, that of onion moved up by Rs. 3.07 per kg from Rs.15.82 per kg in 2001 to Rs.18.89 per kg in 2002, showing an increase of 19.41 per cent. The price of rice which was Rs.12.20 per kg in 2001 increased by Rs. 1.20 per kg to Rs. 13.40 per kg in 2002 registering an increase of 9.8 per cent. Greengram and milk (cow) witnessed moderate increases of 0.10 per cent and 0.62 per cent respectively in their prices. Price of ground nut oil went up by Rs. 9.29 per kg (18.5 per cent) from Rs. 50.14 per kg in 2001 to Rs. 59.43 per kg in 2002. The prices of potato came down by Rs. 2.56 per kg (19.9 per cent) from Rs. 12.84 per kg in 2001 to Rs. 10.28 per kg in 2002 and that of sugar came down by Rs. 1.86 per kg (12.26 per cent) from Rs. 15.17 per kg to Rs. 13.31 per kg. Redgram and blackgram witnessed opposite trend in their prices. When the price of redgram shot up by 47.2 per cent, that of blackgram split (without husk) dipped by Rs. 5.79 per kg (16.4 per cent) from Rs. 35.38 per kg in 2001 to Rs. 29.59 per kg in 2002. Price of corriander dipped by 4.2 per cent, from Rs. 39.3 per kg in 2001 to Rs. 37.64 per kg in 2002 and that of egg (hen nadan) by 4.2 per cent, from Rs. 27.70 per kg in 2001 to Rs. 26.55 per kg in 2002.

12.4. Month-wise price of essential commodities witnessed an erratic trend in 2002 (Appendix 12.2). At the end of December 2002, the prices of as many as twelve items such as greengram and

Table 12.2
Average Retail Prices of Essential Commodities 1996-2002

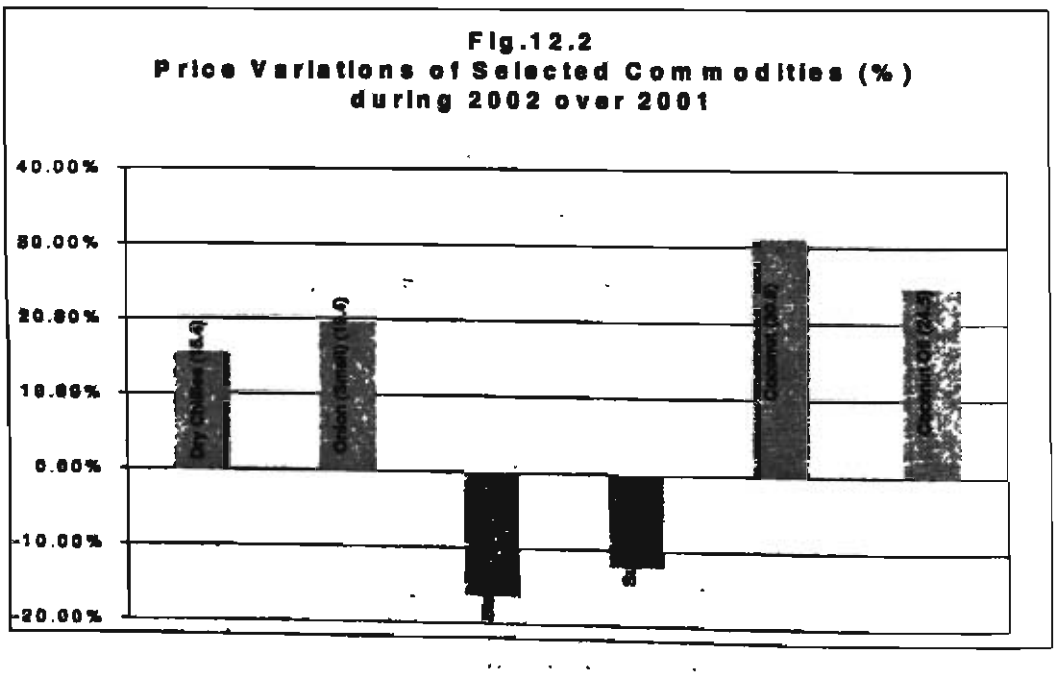
(Rupees)

Commodities	Unit	Prices at the end of December						Percentage Change over Previous Year						
		1996	1997	1998	1999	2000	2001	2002	1997	1998	1999	2000	2001	2002
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Rice(red) OM Matta	Kg	11.72	11.02	12.58	13.90	13.34	12.20	13.40	-0.97	14.16	10.49	-4.03	-8.55	9.84
2. Green Gram	Kg	22.96	24.42	26.96	26.70	26.11	30.29	30.32	6.35	10.40	-0.96	-2.21	16.01	0.10
3. Black gram spilt (without Husk)	Kg	27.43	23.15	31.96	34.71	42.57	35.38	29.59	-15.60	38.06	8.60	22.64	-16.89	-16.37
4. Red gram	Kg	18.17	17.07	22.75	21.05	19.88	19.98	29.41	-6.05	33.27	6.15	-5.56	0.50	47.20
5. Dhall	Kg	33.32	25.32	41.50	33.63	29.35	29.7	31.03	-23.55	63.90	-18.96	-12.73	1.19	4.48
6. Coconut Oil	Kg	67.91	56.81	59.21	61.13	35.04	46.23	60.53	-16.35	4.22	3.24	-42.68	31.93	30.93
7. Ground Nut Oil	Kg	45.48	44.60	51.50	49.70	48.05	50.14	59.43	-1.93	15.47	-3.50	-3.32	4.35	18.53
8. Refined Oil (Postman)	Kg	65.23	62.14	75.11	64.34	61.34	60.32	76.06	-4.74	20.87	-14.34	-4.66	-1.66	26.09
9. Topioca	Kg	4.05	4.35	4.43	5.43	5.68	4.79	5.96	7.40	1.84	22.57	4.60	-15.67	24.43
10.Banana (Green)	Kg	12.32	11.12	10.68	11.36	13.21	11.01	10.78	-9.74	-3.96	6.36	16.29	-16.65	-2.09
11.Milk (cow)	Litre	11.00	11.85	12.00	13.04	12.93	12.96	13.04	7.72	1.27	8.67	-0.84	0.23	0.62
12.Egg (Hen Nadan)	Dozen	23.15	25.68	25.37	26.70	29.14	27.70	26.55	10.93	-1.21	5.24	9.14	-4.94	-4.15
13.Potato	Kg	9.14	7.50	13.54	9.16	8.91	12.84	10.28	-17.94	80.53	-32.35	-2.73	44.11	-19.94
14.Corriander	Kg	49.21	36.38	27.07	26.32	36.68	39.3	37.64	-26.07	-25.59	-2.77	39.36	7.14	-4.22
15.Chillies (Dry)	Kg	48.43	35.31	69.17	50.29	41.01	44.68	51.55	-27.09	95.89	-27.30	-14.75	8.95	15.38
16.Onion (small)	Kg	9.29	17.62	16.70	9.95	13.00	15.82	18.89	89.67	-5.22	-40.42	30.65	21.69	19.41
17.Sugar	Kg	13.48	15.71	15.12	14.99	15.19	15.17	13.31	16.54	-3.76	-0.86	1.33	-0.13	-12.26
18.Coconut(without Husk)	100 Nos	620.00	571.92	548.93	616.79	357.14	461.96	575.27	-7.75	-4.02	12.36	-42.10	29.35	24.53

Source:- Department of Economics and Statistics

blackgram under pulses group, egg (nadan) and egg (white legon) under food items, potato among tubers and brinjal, pumpkin, cucumber, cabbage, ashgourd and snakegourd under fruits and vegetable group rolled back to a level lower than that in January 2002. Prices of coconut shot up heavily by Rs. 119.73 for 100 nos. from Rs. 455.54 in January to Rs. 575.27 in December. Similar was the case with the price of coconut oil, which moved up by Rs. 17.36 per kg, from Rs. 43.17 per kg in January to Rs. 60.53 per kg in December. Price of coconut oil which was Rs. 455.54 for 100 nos. in January moved in an erratic manner and after attaining a level of Rs. 481.52 in October moved up by Rs. 60.41, to Rs. 541.93 in November and further to Rs. 575.27 in December. Coconut oil recorded 40.2 per cent increase in its price, from Rs. 43.17 per kg in January to Rs. 60.53 per kg in December. Price of rice (matta) which was Rs. 12.23 per kg in January declined to a low of Rs. 11.86 per kg in May and thereafter moved up steadily and attained the level of Rs. 13.40 per kg in December. Among spices and condiments group, while tamarind and corriander witnessed only marginal increases in their prices, those of chillies (dry) and onion (small) recorded sudden spurt (see fig.3.2). Price of chillies (dry) moved up by Rs. 8.59 per kg, from Rs. 42.96 per kg in January to Rs. 51.55 per kg in December and that of onion (small) moved up by Rs. 6.99 per kg from Rs. 11.9 per kg in January to Rs. 18.90 per kg in December. Regarding the price of tubers, when the price of potato declined by 9 per cent, that of chenai increased by 26.1 per cent, price of tapioca increased by 23.9 per cent. Among pulses group, when the price of greengram moved within a narrow range of Rs. 30.72 per kg to Rs. 31.31 per kg, that of red gram moved with in comparatively a wider range of Rs. 19.36 per kg to Rs. 30.42 per kg. Price of egg moved in a very erratic manner varying its level every month and fluactuating with in a narrow range between Rs. 24.05 and Rs. 26.75 for a dozen nadan eggs and between Rs. 14.77 and Rs. 17.06 for a dozen white lagon eggs. Price of refined oil picked up gradually from Rs. 60.2 per kg in January to Rs. 67.36 per kg in August and thereafter came down to Rs. 64.72 per kg in September and then went up again to an all time high of Rs. 76.06 per kg in December. Price of gingelly oil also behaved almost in the similar manner. Fruits and vegetables recorded mixed trend in their prices. During the period from March to May, prices were comparatively low with respect to several vegetable items. At the end of December, prices of brinjal, pumpkin, cucumber, cabbage, ashgourd and snakegourd rolled back to a level lower than that in January. Prices of bittergourd increased by Rs. 1.59, from Rs. 11.70 per kg in January to Rs. 13.29 per kg in December and that of chillies (green) increased by Rs. 2.40 per kg from Rs. 13.14 per kg in January toRs. 15.54 per kg in December.

Fig.12.2
Price Variations of Selected Commodities (%) during 2002 over 2001



Wholesale Price Index (WPI)

12.5 The wholesale price Index of agricultural commodities declined by 124 points (5.6 per cent) in 2002 (upto June, the latest month for which data are available) from 2236 point in 2001 (upto June) to 2112 point in 2002, as against a decline of 494 points (20.5 per cent) in 2001, from 2412 points in 2000 to 1918 point in 2001, which indicates that the rate of decline is lower in 2002 compared to that in 2001(Table 12.3). The negative trend in growth is attributable by the indices of food crops. When the index of non food crops increased by 25.58 per cent, that of food crops, which has a weight of 63.50 per cent in WPI computation, declined by 18 per cent in 2002 over previous year. Within the food crops category, when the indices of condiments & spices, fruits & vegetables and molasses went up by 8.18 per cent, 3.9 per cent and 5.5 per cent respectively and that of rice declined drastically by 33 per cent. In non-food crops category, when oil seeds witnessed a heavy hike of 33.7 per cent in its index, that of plantation crops showed a negative growth of 1.3 per cent.. Whole sale price index of agricultural commodities from 1990 to 2002 is shown in appendix 12.3.

12.6 Like in the previous year, during the year under review, month- wise wholesale price indices recorded a mixed and erratic trend (Appendix 12.4). Index of rice, keeping steady at 1693.60 points from July 2001 to March 2002, dipped by 144.61 points to 1548.99 points in April and remained static during April-June. Index of molasses, after a spurt of 65.48 points from 2017.98 points in July to 2083.46 points in August, dipped by 78.84 points to 2004.62 points in September and after that went up and attained a peak level of 2467.62 points in November and then gradually declined to an all time low of 1817.23 points in June. Index of condiments & spices moved erratically in a wide range between 1601.42 points and 3539.5 points touching the lowest at 1601.42 points in November 2001 and the highest index at 3539.5 points in May 2002. A significant fact is that at the end of June 2002, the prices of rice and molasses rolled back to a level lower than that in July 2001. During the period from July 2001 to June 2002 when the WPI of food crops grew by an annual average growth rate of 0.5 per cent, that of non-food crops grew by an annual average growth rate of 3.1 per cent, that is, six time faster . Under non-food crops, when the WPI of oil seeds fluctuated within the range of 1935.22 and 2821.02 touching the lowest in July 2001 and the highest in June 2002 that of plantation crops fluctuated within a rather narrow range of 1195.16 and 1458.17 touching the lowest in February 2002 and the highest in August 2001. The indices of fruits and vegetables which was 2875.17 point in July 2001 gradually picked up, though erratically, and attained a peak level of 3251.96 point in June, showing an increase of 13.1 per cent during the period from July 2001 to June 2002.

Parity Index

12.7 Parity index is constructed to assess how the State's consumer price situation affects the farming community. It is a relative measure of prices received and prices paid by farmers. Prices paid by farmers depends on farm cultivation cost and domestic expenditure. In 2002 (upto April), the Parity Index witnessed an increase of one point from 48 points in 2001 to 49 points in 2002, as against a decrease of 12 points in 2001, from 66 points in 2000 to 48 points in 2001(Table 12.4). When the index of prices received by the farmers increased by 3.7 per cent in 2002 over the previous year, prices paid by farmers increased only by 1.8 per cent, showing a favourable condition to the farming community in the state in 2002, compared to that in 2001. However, this trend cannot be taken as an indicator to the future trend as it could be seen from the table that the parity index has been on decline in the State since 1987.

Table12.3

Wholesale Price Index of Agricultural Commodities - 1997-2002*

	Crops	Weight	Whole Sale Price Index								% change over previous year					
			1997	1998	1999	2000*	2000	2001*	2001	2002*	1998	1999	2000	2001*	2001	2002*
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
A	Food Crops	63.50	1814.70	1839.54	2598.90	2631.10	2610.04	2514.87	2060.97	2061.97	1.37	41.28	0.43	-4.42	-21.04	-18.01
	Rice	40.40	1161.90	1161.90	1887.60	2238.40	2329.93	2421.50	1899.43	1621.30	0.00	62.46	23.43	8.18	-18.48	-33.05
	Condiments & Spices	10.40	2818.30	2872.38	4768.40	3733.00	3161.12	2459.59	1960.19	2660.76	1.92	66.00	-33.71	-34.11	-37.99	8.18
	Fruits and Vegetables	10.70	3182.40	3336.34	3325.70	3208.50	3293.44	3052.04	2807.39	3170.66	4.84	-0.32	-0.97	-4.88	-14.76	3.89
	Molasses	2.00	2453.70	2130.01	1846.90	1774.20	1762.61	1815.33	1835.20	1914.97	-13.20	-13.29	-4.56	2.32	4.12	5.49
B	Non Food Crops	36.50	2426.30	2452.75	2849.10	2374.10	2068.22	1751.18	1668.74	2199.21	1.09	16.16	-27.41	-26.24	-19.32	25.58
	Oil Seeds	25.50	3069.00	2713.20	3294.70	2702.40	2330.98	1925.28	1843.33	2574.59	-11.60	21.43	-29.25	-28.76	-20.92	33.73
	Plantation Crops	11.00	1630.90	1851.35	1819.00	1615.20	1460.96	1348.79	1264.79	1331.63	13.52	-1.75	-19.68	-16.49	-13.43	-1.27
C	All Crops	100.00	2114.00	2063.52	2690.00	2537.30	2412.25	2236.12	1918.03	2112.06	-2.39	30.36	-10.33	-11.87	-20.49	-5.55

Source:- Department of Economics and Statistics

* Average from January to June (6 months)

Table 12.4

Index Number of Prices Received and Price Paid by Farmers

Year	Prices received by Farmers	Farm Culti vation Cost	Domestic Expenditure	Price paid by farmers	Parity as col. 2 to 5
1	2	3	4	5	6
1986	921	1299	745	984	93
1987	1063	1413	804	1066	100
1988	1044	1520	860	1143	91
1989	1017	1604	897	1200	85
1990	1072	1728	945	1277	84
1991	1315	1910	1078	1435	92
1992	1486	2255	1202	1646	90
1993	1496	2579	1303	1834	82
1994	1582	2891	1464	2057	77
1995	1802	3312	1641	2331	77
1996	2079	3928	1810	2666	78
1997	2486	4571	1979	3007	83
1998	2447	4895	2117	3212	76
1999	2907	2246	5556	3532	82
2000	2492	2384	6173	3836	66
2001	1927	6584	2489	4048	48
2002*	1999	6684	2542	4122	49
Source: Department of Economics and Statistics					
**- up to April 2002*					

Box.2

** Parity index has been unfavourable to the farming community in the State over the years. Prices paid by farmers exceeded prices received by farmers. When the prices paid by farmers grew by an annual average growth of 11.65 per cent, prices received by farmers grew by 9.39 per cent only.*

Farm Commodity Price

12.8. After a brief upsurge in late 1990s, prices of most of the agricultural commodities declined during 2001-02. Data on average farm prices of principal crops grown in Kerala are shown in Table 12.5. The table indicates of the pervasiveness, extent and prolonged nature of the price fall of the most important commodities. The table shows decline in prices in 2001-02 compared to previous year in respect of six commodities, namely paddy (-9.5%), tapioca (-8.2%), pepper (-44.3%), ginger (-37%), arecanut (-21.8%) and banana (-8.4%). However, global agricultural prices have indicated a recovery path during the later half of 2002.

12.9. There is clear indication that domestic prices are less volatile than the international prices. This implies that unregulated and free trade would bring instability to domestic prices. The variability in domestic prices of major export commodities like pepper (62%) and cashewnut (31%) were relatively high over a period of eleven years from 1991-92. As a consequence with removal of quantitative restrictions, producers are facing the threat of imports. Large scale import of edible oils was facilitated by sharply falling world prices coupled with the relatively low level of tariff rates. The international price of coconut oil was US $658 per tonne in 1998 which declined to US

Table 12.5
Average Farm Prices of Principal Crops

(Rupees)

Commodity	Unit	1995-96	1999-00	2000-01	2001-02	% change in 2001-02 over 2000-01
1	2	3	4	5	6	7
Paddy	Qtl	547	684.43	647.16	585.75	-9.5
Tapioca	Qtl	253	368.09	349.06	320.41	-8.2
Coconut	100 Nos.	331	476.12	281.19	340.64	21.1
Pepper	Qtl	7320	20505.35	12467.97	6942.22	-44.3
Ginger (Dry)	Qtl	5871	6393.68	4881.31	3070.64	-37.1
Cashewnut	Qtl	2700	3638.5	2336.7	2519.85	7.8
Arecanut	100 Nos.	43	75.25	41.93	32.81	-21.8
Banana	100 Nos.	130	160.39	189.5	173.66	-8.4

Source Department of Economics and Statistics

$318 in 2001 and later recovered to US $ 421 in 2002. The price of palm oil also showed a similar pattern and declined from US $ 671/tonne in 1998 to US $ 286 in 2001 which increased to US $ 390 in 2002. The annual average import of edible oil during 1995-96 was about 10.62 lakh tonnes which increased to 42.68 lakh tonnes during 2000-01. During 2000-01, palm oil accounted for 72 per cent of the imported edible oil. The large scale import of edible oil acted as a deterrent on domestic price of coconut oil which in turn got reflected in lower farm price of coconuts. The magnitude of price fall for pepper was to the extent of 44 per cent in 2001-02 compared to the previous year. Being an export commodity, movement in international prices determines the level of domestic prices of pepper. World prices of pepper doubled during 1996 to 1997 from US $ 1.14 to US $ 2.02 per lb and then steadily declined.

12.10 Data on month-wise prices of the commodities during 2000-01 show that there is sharp decline in later half of the year for paddy, pepper and tapioca. (Appendix 12.5).

Wages

12.11 The details of average daily wage rates of skilled and unskilled workers in agriculture sector are presented in Table 12.6 and 12.7. In 2001-02, the average daily wage of carpenter increased by Rs. 5.77, from Rs. 176.65 in 2000-01 to Rs. 182.42 in 2001-02 and that of mason increased by Rs. 5.33, from Rs. 174.73 in 2000-01 to Rs. 180.06 in 2001-02. Corresponding increases in 2000-01 were Rs. 11.30 and Rs. 10.33 respectively, which showed, compared to 2000-01, increases in 2001-02 were down by Rs. 5.33 in the case of carpenter and Rs. 4.70 in the case of mason. Trends were almost same in the case of paddy workers also. Compared to the wage increases in 2000-01, the increases in 2001-02 were down by Rs. 5.41 in the case of male workers and Rs. 3.27 in the case of female workers.

Table 12.6
Average Daily Wage Rates of Skilled Workers in Agricultural Sector
(Rupees.)

Year	Average Daily Wage Rates		Percentage changes over Previous year	
	Carpenter	Mason	Carpenter	Mason
1980-81	19.82	19.78	_	_
1981-82	22.42	22.50	13.12	13.75
1982-83	23.40	23.52	4.37	4.53
1983-84	26.17	26.22	11.84	11.48
1984-85	38.74	38.69	48.03	47.56
1985-86	42.84	42.80	10.58	20.62
1986-87	45.93	45.53	7.21	7.31
1987-88	47.50	47.21	3.42	2.79
1988-89	49.80	49.55	4.84	4.96
1989-90	51.82	51.45	4.06	3.83
1990-91	54.47	53.98	5.11	4.92
1991-92	59.00	58.55	8.32	8.47
1992-93	68.28	67.63	15.73	15.51
1993-94	76.49	76.57	12.02	13.22
1994-95	87.44	87.04	14.32	13.62
1995-96	107.20	105.96	22.60	21.74
1996-97	128.54	127.81	19.91	20.62

1997-98	145.94	144.04	13.54	12.70
1998-99	155.42	154.80	6.50	7.47
1999-2000	165.35	164.70	6.34	6.40
2000-01	176.65	174.73	6.3	6.09
2001-02	182.42	180.06	3.27	3.05

Source: *Department of Economics and Statistics*

Table 12. 7
Average Daily Wage Rates of Unskilled Workers in the Agricultural Sector

(Rupees.)

Year	Average Daily Wage rates of paddy field workers		% of change over previous year	
	Male	Female	Male	Female
1980-81	11.13	7.91	_	_
1981-82	12.74	8.83	14.47	11.63
1982-83	13.29	9.55	4.32	8.15
1983-84	15.86	11.02	19.34	15.93
1984-85	23.60	11.89	48.80	7.90
1985-86	26.08	15.10	10.51	27.00
1986-87	28.36	16.39	8.74	8.54
1987-88	30.36	16.39	7.05	7.87
1988-89	31.95	18.59	5.24	5.15
1989-90	33.31	19.63	4.26	5.59
1990-91	35.77	21.11	7.39	7.54
1991-92	41.38	26.12	15.16	23.73
1992-93	48.40	32.31	16.97	23.70
1993-94	54.26	35.49	12.11	9.84
1994-95	63.53	41.92	17.08	18.12
1995-96	77.17	51.17	21.47	22.10
1996-97	92.18	60.52	19.45	18.27
1997-98	103.72	69.35	12.52	14.59
1998-99	111.76	71.42	7.75	2.98
1999-00	118.90	78.80	6.39	10.33
2000-01	125.76	85.41	5.77	8.39
2001-02	127.21	88.75	1.15	3.91

Source: *Department of Economics and Statistics*

12.12 The average daily wages of skilled and unskilled workers in construction sector in Kerala are presented in Table-12.8 and 12.9. While the wage of carpenter in rural area increased by Rs. 4, from Rs 181 in 2000-01 to Rs. 185 in 2001-02 that in urban area increased by Rs. 6, from Rs. 184 in 2000-01 to Rs. 190 in 2001-02. The trend is almost same in the case of wages of mason also. When the wage of mason in rural area increased by Rs. 4, from Rs. 181 to Rs. 185, that is urban are increased by Rs. 7, from Rs. 183 to Rs. 190. In 2001-02 the wages of carpenter and mason are equal in both rural and urban area. In the case of unskilled workers in the construction sector, wage of male worker increased by Rs.1 in rural area and by Rs. 6 in urban area. The corresponding increases in the wages of female worker were Rs.4 in rural area and Rs. 7 in urban area.

Table - 12.8
Average Daily Wage Rates of Skilled Workers in the Construction Sector

(Rupees)

Year	*Carpenter*		*Mason*	
	Rural	*Urban*	*Rural*	*Urban*
1980-81	18.66	19.33	18.75	19.36
1985-86	40.91	40.67	41.10	42.01
1990-91	56.55	56.67	56.18	55.93
1991-92	59.79	61.25	59.38	60.77
1992-93	68.89	70.92	68.07	70.23
1993-94	73.57	76.50	72.75	75.98
1994-95	87.03	91.47	86.49	90.55
1995-96	109.45	113.65	107.59	112.83
1996-97	129.57	134.87	129.20	134.00
1997-98	146.30	150.07	145.78	148.78
1998-99	158.09	159.17	156.71	157.88
1999-2000	171.09	172.21	168.77	171.94
00-01	181	184	181	183
01-02	185	190	185	190

Source: *Department of Economics and Statistics*

Table 12.9
Average Daily Wage Rates of Unskilled Workers in the Construction Sector

(Rupees)

Year	**Men**		**Women**	
	Rural	**Urban**	**Rural**	**Urban**
1980-81	12.30	13.07	9.62	10.22
1985-86	25.31	25.70	19.08	19.42
1990-91	37.34	36.78	29.23	30.84
1991-92	39.71	41.63	31.64	34.32
1992-93	46.34	48.66	37.23	39.32
1993-94	50.36	52.85	40.89	42.80
1994-95	60.08	63.63	49.94	52.00
1995-96	76.59	79.15	62.80	65.34
1994-95	88.47	90.76	73.73	75.76
1997-98	101.42	104.07	85.00	87.28
1998-99	111.18	112.43	93.44	94.06
1999-2000	125.45	126.54	102.59	105.27
2000-01	129	131	106	108
01-02	130	137	110	115

Source: *Department of Economics and Statistics*

Public Distribution System (PDS)

12.13 Public Distribution System in Kerala plays an important role in providing food security and ensuring availability of essential commodities at fair prices in the State.

12.14 Kerala Public Distribution System prevailed even before the formation of Kerala State and the statutory rationing system was introduced on 24.10.1965.

12.15 The Public Distribution System, till recently, has been the same to all consumers without any differential planning. But in view of the mounting food subsidy in recent years, coupled with the fact that the PDS did not reach the poor, the Government of India introduced Targeted Public Distribution System in which allocation of foodgrains out of the Central Pool to the States is at two sets of prices, namely, a highly subsidized price for the allocations meant for the poor and near open market prices for the non-poor. At present Kerala is also following the National pattern of Targeted Public Distribution System (TPDS).

12.16 In Kerala the coverage of ration is nearly hundred percent. In 2002, the total number of ration cards in use was 63.83 lakhs as against 62.62 lakhs in 2000. Ration articles were supplied through 16769 PDS shops during 2002. As on 1st April 02 there were 14173 PDS outlets Shops in the State including 953 shops under co-operative sector. Table 12.10 gives the details of Public Distribution System in Kerala.

Table 12.10
Public Distribution System in Kerala - A Profile (1997-2002)

Sl.No	*Items*	*1997*	*1998*	*1999*	*2000*	*2001*	*2002*
1	No. of Ration Cards	5944701	6110822	6162484	6262074	6344119	6383322
2	No. of Ration Permits	15015	17250	17663	17528	171217	16769
3	No. of FCI sub depots as on 1st April 2000	20	20	20	23	22	23
4	No.of wholesale shops as on 1st April 2000 under Cooperative sector	42	41	41	42	39	35
	Others	317	315	329	303	305	286
	Total	359	356	370	345	344	321
5	No.of Retail Shops	14255	14263	14290	14232	14170	14173
6	Sugar (in M.T)	158290	15183	153821	152437	72766	45465
7	Kerosene Oil (K.L)	371898	383816	387511	361610	259437	314663

Source: Department of Civil Supplies

12.17 After introduction of TPDS the Govt. of India supplies subsidized rice only to 25% of the Kerala population who are considered as people living below poverty line by the Government of India. But the State Government has extended this percentage of population from 25 to 42 and the subsidized rice is supplied to the additional families by meeting the subsidy portion from the State exchequer. Retail prices of commodities issued through ration shops are shown in Table 12.11.

Table 12.11

Retail Price of Commodities issued through Ration Shops during April 2002

(Rs./Kg)

Sl.No.	Items	Revised Price
1	Common rice issued to APL	7.90
2	Common rice issued to people BPL	6.20
3	Wheat	5.70
4	Sugar	13.50
5	Kerosene per litre	9.50

After introduction of TPDS it is seen that APL families are not purchasing rice from PDS shops. This is evident from Table 12.12 to Table 12.15

Table 12.12

Food grain Distribution under PDS

(Qty. in M.T.s)

Sl. No.	Name of District	BPL Scheme				APL Scheme			
		Wheat		Rice		Wheat		Rice	
		Off take	As % of allocation	Lifting	As % of allocation	Lifting	As % of allocation	Lifting	As % of allocation
1	2	3	4	5	6	7	8	9	10
1	Thiruvananthapuram	No BPL WHEAT distribution		1200	30	2450	65.42	48	0.36
2	Kollam			794	22	1220	40.94	0	0
3	Pathanamthitta			666	39	286	19.32	5	0.1
4	Alappuzha			922	25	90	3.69	7	0.09
5	Kottayam			2208	62	570	25.91	0	0
6	Idukki			654	35	70	5	0	0
7	Ernakulam			1288	49	430	12.39	5	0.03
8	Thrissur			3463	71	1220	35.06	35	0.33
9	Palakkad			3375	92	730	24.83	0	0
10	Malappuram			2941	51	0	0	0	0
11	Kozhikode			4002	91	750	24.75	10	0.1
12	Wayanad			1442	96	80	10.26	9	0.34
13	Kannur			4018	100	820	30.6	50	0.64
14	Kasaragod			1927	93	115	9.27	10	0.29

Table 12.13

Food grain Distribution through ration shops

(Qty. in M.T.s)

Sl. No.	Name of District	BPL Scheme				APL Scheme			
		Wheat		Rice		Wheat		Rice	
		Off take	As % of Lifting	Off-take	As % of Lifting	Off take	As % of Lifting	Lifting	As % of Lifting
1	2	3	4	5	6	7	8	9	10
1	Trivandrum	No BPL WHEAT distribution		1131.16	94	2889.9	118	80.49	168
2	Kollam			231.89	29	1323.5	109	32.33	-
3	Pathanamthitta			475.79	71	212.43	74	2.95	59
4	Alappuzha			1426.67	155	922.94	1026	14.47	207
5	Kottayam			2456.46	111	1221.5	214	2.94	-

6	Idukki	925.99	142	586.19	837	1.67	-
7	Ernakulam	738.99	57	1570.6	365	8.77	175
8	Thrissur	3665.49	106	1972	162	38.3	109
9	Palakkad	2460.70	73	1016.6	139	11.74	-
10	Malappuram	2817.60	96	433	-	11.04	-
11	Kozhikode	3282.30	82	1022.5	136	36.73	357
12	Wayanad	803.60	56	92.94	116	8.71	97
13	Kannur	3274.04	81	903.79	110	42.53	85
14	Kasaragod	1967.19	102	141.64	123	32.2	322

Appendix 12.14

Food grain Distribution under PDS:

Month & Year	*BPL Scheme*				*APL Scheme*			
	Wheat		*Rice*		*Wheat*		*Rice*	
	Lifting	*As % of allocation*	*Lifting*	*As % of allocation*	*Lifting*	*As % of allocation*	*Lifting*	*As % of allocation*
1	2	3	4	5	6	7	8	9
Jan-02	No BPL WHEAT distribution		34987	90.07	6163	16.34	765	0.7
Feb-02			27365	70.44	8647	22.92	768	0.7
Mar-02			26305	67.72	5698	15.11	468	0.4
April-02			41929	77.1	25802	69.13	1101	1
May-02			32402	59.58	19983	53.54	461	0.4
Jun-02			24713	45.44	8047	21.56	256	0.2
Jul-02			38107	70.07	8445	22.63	1118	1
Aug-02			30460	56.01	4005	10.73	2918	2.6
Sep-02			38569	70.92	15004	40.2	294	0.3
Oct-02			29192	53.68	7668	20.54	164	0.1
Nov-02			40350	74.19	19051	51.04	251	0.2
Dec-02			32640	60.02	9131	24.46	178	0.2

Table 12.15

Food grains sold through ration shops

Month & Year	*BPL Scheme*				*APL Scheme*			
	Wheat		*Rice*		*Wheat*		*Rice*	
	Off-take	*As % of Lifting*	*Off-take*	*As % of Lifting*	*Off-take*	*As % of Lifting*	*Off-take*	*As % of Lifting*
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*
Jan-02	No BPL WHEAT distribution		35351	101	8481	137.62	1204	157.51
Feb-02			31722	116	8530	98.64	996	129.71
Mar-02			32143	122	9447	165.8	841	179.77
Apr-02			33511	80	14551	56.39	981	89.15
May-02			32098	99	21670	108.44	708	153.73
Jun-02			32379	131	14560	180.94	508	198.61
Jul-02			32663	86	5638	66.76	842	75.38
Aug-02			37741	124	7404	184.88	598	20.48
Sep-02			36328	94	10311	68.72	304	103.47
Oct-02			34845	119	12094	157.72	396	241.17
Nov-02			37925	94	12670	66.51	375	149.37
Dec-02			34656	106	14309	156.71	324	181.95

Central Allotment of Sugar, Kerosene, Rice & Wheat

12.18 Central allotment of Sugar and Kerosene has come down since 2000. Total allotment of Sugar to Kerala was 152437 tonnes in 2000. It was reduced to 72766 tonnes in 2001 and to 45465 tonnes in 2002 .Central allotment of Kerosene was 3.62 lakh kilo litres in 2001 and 3.15 lakh kilo litres in 2002. Moreover from February 2001 onwards Government of India has stopped distribution of levy Sugar to APL families. In Kerala the supply of ration sugar was stopped to income tax payers. Central allotment of rice during 2001 was 17.87 lakh tonnes which was increased to 19.75 lakh tonnes in 2002. Central allotment of wheat was enhanced from 4.37 lakh tonnes in 2001 to 4.47 lakh tonnes in 2002.

Distribution of Rice and wheat

12.19 The distribution of Rice and Wheat through Public Distribution System in Kerala shows a decline since 1998. It came down sharply to 4.61 lakh tonnes of Rice and 0.79 lakh tonnes of Wheat during 2001 compared to 16.39 lakh tonnes and 4.58 lakh tonnes of Rice & Wheat respectively during 1998. During 2002 it further went down to 3.28 lakh tonnes of Rice and 1.25 lakh tonnes of wheat. Even so there are reports that a part of the food grains actually find their way to flour mills. The distribution of sugar has also come down considerably during this period. Details are shown in Table 12.16.

Table 12.16

Quantity of Rice & Wheat Distributed through Public Distribution System in Kerala

(In Lakh tonnes)

Year	Rice	Wheat	Sugar
1995	11.32	4.23	
1996	14.04	4.92	14.21
1997	16.17	3.52	12.63
1998	16.39	4.58	1.63
1999	13.58	2.71	5.46
2000	6.57	0.64	3.21
2001	4.61	0.79	2.75
2002	3.28	1.25	0.22

12.20 The 'Antyodaya Annayojana' and 'Anna Poorna' schemes introduced by Government of India were implemented in the State during 2001-02. Under Antyodaya Annayojana scheme 273800 poorest families selected from BPL households are provided 35 Kgs of rice per month at highly subsidized price of Rs.3/- per kg. & 38766 destitute persons selected under Anna Poorna scheme are provided 10 Kgs of rice per month free of cost.

Kerala State Civil Supplies Corporation

12.21 The main functions of Civil Supplies Corporation are to regulate the price of essential commodities in the open market through market intervention, wholesale distribution of ration articles in six Districts of Kerala, distribution of levy sugar in the entire State and supply of essential commodities. The essential commodities supplied by the Civil Supplies Corporation at reduced prices are Greengram, Toor Dhall, Peas Dhall, Lobia, Black Gram Washed, Black gram split, Chillies, Coriander, Mustard, Meth, Cum...seed, Rose rice, Raw and boiled rice, Tea etc. This has helped to control open market prices.

12.22 The Corporation has an authorised Share Capital of Rs. 15 crores of which Rs. 8.56 crores is paid up. The entire share capital is held by the Govt. of Kerala. The Corporation operates 838 Maveli Stores and 21 Mobile Stores. In addition to this the Corporation has 15 Super markets, 33

Maveli Medical stores, 9 Petrol bunks, 4 LPG outlets, 48 Labham stores, 1 Maveli cafeteria, 1 Kerosene wholesale Depot, 9 ration wholesale depots and Festival markets during festival seasons. The Corporation has undertaken the distribution of pulses and Spices and other branded products of the Corporation at subsidized price through the network of 2000 selected ration shops.

12.23 Taking into account the changing consumer behaviours Civil Supplies Corporation has launched a new scheme in 2002 viz. Labham stores which ensures quality products at fair price. The consumers can fetch the packed essential commodities at a price in par with Maveli stores with an extra charge of packing. Corporation intends to open 100 Maveli Labham stores by converting Maveli stores during 2002-03.

12.24 Kerala State Civil Supplies Corporation is the sole distributor of the levy sugar to the authorised ration dealers in the State. Under the mid-day meal programme of the Government, the Corporation is distributing food materials to 234 million school children in 11265 schools in the State. The present turn over of the Corporation comes around Rs. 400 crores. But the out-standing loans and interest to Government of Kerala as on 31.3.02 is Rs. 460.73 crore.

12.25 The Corporation has also brought out a number of its own branded products like Sabari Tea/Coffee, Atta, Sabari Curry Powder, Iodised salt, Matta rice and Washing soap.

12.26 The sales turn over of the Corporation has come down since 1999-2000. The sales turn over during 1999-2000 was Rs. 630 crores, which decreased to Rs. 548 crores in 2000-01 and again to Rs. 406 crores during 2001-02. The main reason for the decline in the turn over is the heavy drop in sales of PDS items.

Box. 3

1. *At present Kerala is following the National pattern of targeted public distribution system.*
2. *In Kerala the formal coverage of ration population is nearly hundred per cent.*
3. *After introduction of targeted public distribution system, the Government of India supplied subsidized rice only to 25 per cent of the Kerala population who are considered as people living below poverty line by the Government of India. But the State Government has expanded coverage of population from 25 to 42.*
4. *Central allotment of sugar and Kerosene has been drastically reduced since 2000.*
5. *The distribution of rice and wheat through public distribution system in Kerala reveals declining trend since 1998. Even so, there are reports that part of the food grains actually find their way to flour mills. A survey needs to be conducted of this.*
6. *The sale turn over of the Civil Supplies Corporation has been coming down since 1999-2000.*

Chapter 13

EXPORT AND IMPORT

Introduction

After 23 years, the current account of India's balance of payments recorded a surplus - equivalent to 0.3% of GDP - in 2001-02. Stagnant exports and falling imports brought down the trade deficit by 0.5% points in 2001-02. The current account showed a surplus mainly because of buoyant net invisible inflows equivalent to 2.9% of GDP, which, at US $ 14.05 billion, were the highest in the last decade. Invisibles are doing well in the current year too, primarily on account of heavy inflow of remittance. According to DGCI & S data, exports in dollar terms are currently (April, December 2002) growing at 20.4%.

13.2 While 'merchandise exports' have grown well in 2002-03, services exports have also been an important area of success reflected in net invisible inflows of US $ 14 billion in 2001-02. India's share in world commercial services trade is larger than India's share in world merchandise trade. While software exports is a success story, India is now an important venue for many tasks in services such as financial accounting, call centres, processing insurance claims and medical transcription. The following table depicts a true picture of India's trade.

(Rs Crores)

	2000-01	2001-02	2002-03
Imports at current prices	2,30,873	2,45,200	2,13,225
Exports at current prices	2,03,571	2,09,018	1,85,211
Foreign currency assets	1,84,482	2,49,118	3,34,065

13.3 However, even now India's exports account for less than one percent of world exports. During 1966 India's share was 1.04 percent of world export. Now it is around 0.6 percent only.

Commodity Composition of India's Exports

13.4 During 2001-02 the commodities which contributed to the high growth rate are ores and minerals, engineering goods, gems and jewellery, ready made garments of cotton including accessories, handicrafts, chemicals and related products, rubber manufactured products, glass/glassware and non-basmati rice.

India's Imports

13.5 Like exports, Indian Imports has also been steadily growing after 1990-91. India's total imports during 1990-91 was worth Rs. 43,193 crores. It has grown to Rs. 1,22,676 crores during 1995-96, Rs. 2,30,873 crores during 2000-01 and to Rs. 2.45,200 crores during 2001-02. The result is that the trade balance of India has worsened from Rs. -27,302 crores during 2000-01 to Rs. -36,182 crores during 2001-02.

Commodity Composition of India's Imports

13.6 In October 2002, Imports grew by 33 % as against 1.4% drop in October 2001. POL imports increased by 18.5%, mainly as a result of rising international prices during 2002. Imports of Capital goods picked up in the current fiscal year mostly due to higher imports of transport equipment. Import of pearls, precious and semi- precious stones increased @ 35% against a fall of 19% during the first 5 months of 2001. Owing to rising prices in the international market gold imports recorded a sharp fall of 35% during April-August 2002 against a 39% increase during April-August 2001.

Foreign Exchange Reserves

13.7 A quantum jump is seen in India's foreign exchange reserves after 1990-91. India's total foreign exchange reserves which include Foreign Currency, gold and SDRs during 1990-91 was only 5834 million U.S. dollars. During 1996-97 it grew to 26423 million U.S. dollars. During 2000-01 it reached 42281 million U.S. dollars. Last year, 2001-02 India's total foreign exchange reserve was 54106 million U.S. dollars. In January 2003, the reserves have crossed 75,000 million US dollars.

Cargo handled by Kochi Port

13.8 Total export of Cargo through Kochi Port started declining since 1997-98. Total export (both coastal and foreign) from Kochi Port was 25.43 lakhs M.T. during 1997-98. It came down to 20.83 lakh M.T. during 2000-01 and again to 19.68 lakh tonnes in 2001-02. At the same time foreign export from Kochi shows an increasing trend. The foreign export from Kochi Port during 1999-2000 was 8.93 lakh tonnes. It increased to 10.72 lakh tonnes in 2000-01 and 12.17 lakh tonnes during 2001-02. On the contrary the total coastal export from Kochi Port declined during the last a few years. Total coastal export from Kochi Port during 1999-2000 was 13.12 lakh tonnes. It decreased to 10.11 lakh tonnes in 2000-01 and to 7.51 lakh tonnes in 2001-02.

13.9 The trend of total import through Kochi Port was just the opposite of export till 2000-01. But during 2001-02 the total import declined to 100.91 lakh tonnes as against 110.61 lakh tonnes in 2000-01 and 106.36 lakh tonnes in 1999-2000. Coastal Import through Kochi Port also declined from 71.46 lakh tonnes in 1999-2000 to 47.83 lakh tonnes during 2000-01 and to 42.79 lakh tonnes in 2001-02. Foreign Import through Kochi Port was 34.9 lakh tonnes during 1999-2000. It came down to 62.78 lakh tonnes in 2000-01 and to 58.12 lakh tonnes during 2001-02. (see Table 13.1)

Table - 13.1

Cargo handled at Kochi Port during 1996-97 to 2001-02 (In lakh M.T.)

Traffic	Export						Import					
	1996-97	1997-98	1998-99	1999-2000	2000-01	2001-02	1996-97	1997-98	1998-99	1999-2000	2000-01	2001-02
Coastal	10.65	15.04	14.78	13.12	10.11	7.51	49.9	43.34	40.82	71.46	47.83	42.79
Foreign	11.9	10.39	9.52	8.93	10.72	12.17	44.97	54.48	61.69	34.9	62.78	58.12
Total	22.55	25.43	24.3	22.05	20.83	19.68	94.87	97.82	102.51	106.36	110.61	100.91

Source: Kochi Port Trust

Commodity Composition of Kerala's Exports

13.10 Commodity composition of exports from Kerala is presented in Appendix 13.1. Out of the total exports, miscellaneous items represent the major chunk of export through Kochi Port. The percentage of miscellaneous items to total export was 75.1 during 2000-01. It decreased to 73.8 during 2001-02. Export of Tea, Cashew kernels, Sea foods, Coir products and Spices through Kochi Port witnessed a steady growth in 2001-02 compared with 2000-01. Export of Coffee steeply declined from 169482 tonnes in 2000-01 to 146166 tonnes in 2001-02 representing a decrease of 13.7%.

13.11 Export of tea accounted for 4.9% followed by cashew kernels (3.3%), Seafoods (5.6%), Coir products (3.1%), Spices (1.7%) and Coffee (7.4%).

13.12 Total value of foreign export through Kochi Port increased from Rs. 5689.05 crores in 2000-01 to Rs. 6251.20 crores in 2001-02. Out of the total value of export in 2001-02 cashew kernels accounted for Rs.1466.66 crores followed by sea foods (Rs. 1233.33 crores), Coffee (Rs.973.33 crores), Pepper (Rs. 565.21 crores), Coir products (Rs. 394.73 crores), Tea (Rs. 205.48 crores), Cardamom (Rs.27.80 crores) and ginger (Rs. 15.80crores).

Commodity Composition of Kerala's Imports

13.13 Appendix 13.2 gives commodity wise imports through Kochi Port. The category "Miscellaneous" mostly consisting of petroleum products accounted for 89.6% of the total Imports through Kochi Port during 2001-02. Growth rate of import of Cashew nuts grew by 242% compared to last year. Import of cashew nuts through Kochi Port which was only 63540 tonnes in 2001-01 became 217249 tonnes during 2001-02.

13.14 Import of food grains was 9218 tonnes in 2001-02 as against 7128 tonnes during 2000-01 registering an annual growth rate of 29.3% Iron, steel and Machinery registered a growth rate of 17.7% followed by fertilizers and raw materials 3.8%. Import of Newsprint declined from 20413 tonnes in 2000-01 to 18312 tonnes during 2001-02.

Marine Products

13.15 The Indian Marine Products export which started at modest level in the early fifties with a turnover of Rs. 2.46 crores had grown significantly during the last five decades and reached the level of Rs. 6444 crores during 2000-01. The export of marine products was on an increasing trend during the years 1999-2000 and 2000-01. The growth in 1999-2000 was 13.24% in quantity, 10.59% in value (7.42% in dollar terms). It has increased further in the year 2000-01 by 28.41% in volume and 25.94% in value (19.11% in dollar terms). However, during 2001-02 the exports decreased by 3.63% in quantity, 7.56% in value (11.51% in dollar terms) compared to the previous year. The main reasons for the decline were economic recession in Japan and the September 11th incident in U.S.A.

13.16 Kerala continues to be one of the major players in the marine products export from India. Though the share of Kerala is coming down, export from Kerala was also generally on an upward trend except during 1997-98, 1998-99, 2000-01 and 2001-02.

13.17 During 2001-02 the share of Kerala in the overall export of marine products from India was 17.14% in quantity and 15.97% in value, whereas it was 20.17% and 16.24% respectively during the previous year. During 2001-02 Kerala exported 72756 M.T. of seafood items valued at Rs. 950.55 crores. This was 18.12% and 9.16% less in quantity and value respectively compared to the previous year 2000-01.

13.18 India with a fishery production of 5.36 million M.T. from both capture and culture sources, though ranked 4th among the fish producing countries, occupies only the 17th position among the fish

exporting countries of the world. Frozen shrimp is the major item contributing 69.36% in value and 30.07% in volume of the total export of marine products from India during 2001-02.

13.19 Eventhough share of frozen fish in India continued to be the largest item in terms of volume it declined from 48.33% to 41.22% in volume and from 13.58% to 11.97% in value during 2001-02 compared to the previous year. The export of live items like Aquarium fish, live lobster and live shrimp showed a growth. New items like live Baigai (whelk) were exported from Thiruvananthapuram airport for the first time. Export of Chilled items also showed a declining trend. Details of item wise exports of marine products during the last two years are furnished in Appendix.13.6.

13.20 Indian marine products are exported to about 60 countries across the globe. Even though Japan is the major market of Indian marine products, in terms of quantity China stands first. During 2001-02, in terms of quantity 31.75% of India's total export of marine products was to China followed by Japan (15.29%) USA (11.55%) European Union (19.53%), South East Asia (12.35%) Middle east (4.51%) and others (5.01%). But in terms of value Japan ranks first with 30.56% followed by USA (23.86%) European Union (19.31%) China (10.03%) South East Asia (9.04%) Middle East (3.04%) and others (4.16%).

13.21 As far as exports from Kerala are concerned the European Union is the largest market accounting for 44.61% by volume and 42.66% in value during 2001-02 compared to 36% by value and 33% in volume during 2000-01. Japan is the second largest market with a share of 12.29% in quantity 18.75% in value. Exports to USA in 2001-02 was 10435 M.T. (14.34%) valued at Rs.166.30 crores (17.50%) showing a decline of 22.03% in quantity and 27.96% in value compared to the previous year. China has imported 5550 M.T. (7.63%) of Seafood items and the value realized was Rs. 63.66 crores (6.70%). But China's share during 2000-01 was much higher at 24% in value and 12% in volume.

13.22 Issues relating to presence of certain bacteria and residues of pesticide/ insecticide/anti-biotics in exported marine products keep cropping up time and again. Focussed and constant attention is essential for maintaining the required standards and quality all the time.

SPICES

13.23 The cumulative spices export from India during 2001-02 is estimated as 245,000 tonnes valued at Rs. 1625.35 crores ($341.60 million) as against 230,000 tonnes valued Rs. 1612.07 crores ($352.13 million) during 2000-01 which shows an increase of 7% in terms of quantity and 1% in terms of value (in dollar terms, there is a decline of 3% due to depreciation of Indian Rupee). Spice oils and Oleoresins including mint oil contributed 32% of the total export earning followed by Chilli (16%) and Pepper (13%).

13.24 During 2001-02 the export of Chilli, Ginger, Coriander, Cumin and other Seed Spices like mustard seed, ajwan seed, dill seed, other spices like tamarind, nutmeg, Vanilla and asafetida, curry powder, spice oils and oleoresins are higher in terms of quantity and value as compared to the previous year.

Pepper

13.25 The export of pepper from India has shown an increase in terms of volume, from 19250 tonnes in 2000-01 to 24,000 tonnes in 2001-02. However in value terms, it declined from Rs. 326.33 crores to Rs. 211.92 crores, which is attributed to the lower unit value realization of Rs. 88.30 per kg. as against Rs. 169.52 per kg. of the previous year. There is a decrease of 35% in export value of pepper during 2001-02 compared to 2000-01.

13.26 Export of Pepper from Kerala increased from 18639 M.T during 2000-01 to 21448 M.T. in 2001-02. But its value decreased from Rs. 312.12 crores in 2000-01 to Rs. 187.21 crores during 2001-02. However during 1999-00 the export of Pepper from Kerala was 41332 M.T. valued at Rs. 856.99 crores.

Cardamom (Small)

13.27 Export of Cardamom (Small) from India decreased during 2001-02 both in terms of quantity and value. The export during 2001-02 was 900 M.T valued at Rs. 55.86 crores compared to 1100 M.T valued at Rs. 56.55 crores during the previous year. Export from Kerala during 2000-01 was 825 M.T valued at Rs. 42.41 crores as against 630 M.T valued at Rs. 40.32 crores during 2001-02.

Cardamom (Large)

13.28 During 2001-02, India exported 1250 M.T. of Cardamom (large) valued Rs.20.38 crores as against 1645 M.T valued Rs. 27.69 crores during 2000-01. However the production has increased from 2300 tonnes in 1999-2000 to 5200 tonnes in 2000-01. But in export there is a decrease of 24% in quantity and 26% in value during 2001-02 as against the performance in 2000-01.

Chilli

13.29 Export of Chilli during 2001-02 was 75,000 tonnes valued Rs. 255.84 crores as against 61,000 tonnes valued Rs. 195.24 crores of 2000-01. Export of chilli increased by 23% in quantity and 31% in value during 2001-02 .

Ginger

13.30 The export of ginger from India increased during 2001-02 from 6580 M.T in quantity and Rs. 22.954 crores in value terms in 2000-01 to 8000 tonnes valued at Rs. 25.04 crores. However the export of ginger from Kerala declined from 2752 M.T valued Rs. 14.82 crores in 2000-01 to 2560 M.T valued Rs. 14.14 crores during 2001-02.

Turmeric

13.31 Export of turmeric from India during 2001-02 was 35,000 M.T and the value realised Rs. 84.63 crores whereas it was 34,500 M.T and the value realised was Rs. 91.06 crores during the previous year. Even though there is one percent increase in the quantity of export the value realised decreased 7% compared to the previous year due to fall in unit value of exported turmeric. Export of turmeric from Kerala showed an increasing trend. During 2000-01 Kerala's export was 2682 tonnes valued at Rs. 11.90 crores. It increased to 4800 M.T and the export value was Rs. 17.87 crores during 2001-02.

Coriander

13.32 During 2001-02 India exported 15,000 M.T of Coriander valued at Rs. 45.05 crores as against 11,700 M.T valued at Rs. 27.43 crores of previous year. The export was 28% higher in quantity and 64% in value as compared to previous year.

Curry Powder

13.33 Export of Curry Powder from India during 2000-01 was 6200 M.T valued at Rs. 39.97 crores which grew to 6250 M.T valued at Rs. 40.48 crores during 2001-02. There is an increase of 1 percent in quantity and value during 2001-02 compared to the previous year. Export of Curry Powder from Kerala also increased. During 2000-01 Kerala's export was 1025 tonnes and the export value realised was 8.76 crores. It became 1100 M.T and Rs. 17.87 crores respectively during 2001-02.

Spice Oils and Oleoresins

13.34 The export of Spice Oils and Oleoresins from India during 2001-02 was 4400 M.T. valued at Rs. 386.48 crores as against 3625 tonnes valued at Rs.364.05 crores of the previous year. There is an increase of 21% in quantity and 6% in value. Export of Spice Oils and Oleoresins as value added products has been steadily growing over the past years consecutively.

13.35 Export of Spice Oils and Oleoresins from Kerala also has increased in quantity and value. The export during 2001-02 was 3150 tonnes valued at Rs. 291.62 crores as against 2811 tonnes valued at Rs. 390.37 crores during 2000-01. But the unit value realized during 2000-01 was Rs. 1032.99 per kg. which came down to Rs. 925.77 per kg. during 2001-02.

13.36 There is great demand for Spice Oils and Oleoresins in the world market, but Indian production is handicapped by the low quality and higher prices of the spices in India when compared to Imports from Srilanka, Vietnam etc. urgent action is needed to increase the productivity and quality of Indian spices like pepper.

13.37 For details of Spices see the Appendix 13.8

Production of Raw Cashewnuts

13.38 India is the largest producer of raw cashew nuts in the world followed by Brazil and Vietnam. All India production of raw cashew nuts during 1999-2000 was 5,20,000 M.T. It decreased to 4,50,000 M.T. in 2000-01 and again increased to 5,08,600 M.T during 2001-02. Production in Kerala during 1999-2000 was 1,00,000 M.T. which came down to 76,000 M.T.in 2000-01. Again the production has increased to 84,300 M.T. during 2001-02.

Export of Cashew Kernels

13.39 The export of Cashew kernels from India during 2001-02 was 97550 M.T. valued at Rs. 1776.70 crores (U.S.$ 371 Million). It showed a 9.42% increase in quantity, 13.31% decrease in value in Re. terms and 17.36% decrease in value in US $ terms in comparison with the export of 89155 M.T. cashew kernels valued at Rs. 2049.60 (US $ 449 million) crores during 2000-01. Out of the total export of cashew kernels from India 56% in quantity and 56.2% in value was from Kerala during 2000-01. Kerala's share during 2001-02 was 56% and 54.3% respectively.

Table13.2
Export of Cashew Kernels: Kerala and India (1995-96 to 2001-02)
(Quantity in MT and Value in Rs. Crores)

Year	Kerala		India		Share of Kerala (%)	
	Quantity	Value	Quantity	Value	Quantity	Value
1	2	3	4	5	6	7
1995-96	33275	606.55	70334	1240.50	47	49
1996-97	38546	731.79	68663	1285.50	56	57
1997-98	39441	746.88	76593	1396.10	52	54
1998-99	43665	940.47	77076	1630.10	57	58
1999-2000	48599	1317.15	96805	2569.50	50	51
2000-01	49874	1152.36	89155	2049.60	56	56.2
2001-02	54330	964.49	97550	1776.70	56	54.3

Source: The Cashew Export Promotion Council of India

13.40 Total All India export earnings from Cashew and Cashew nut shell liquid during 1999-2000 was Rs. 2573.24 crores which was an all time record. During 2000-01 it came down to 2053.49 crores and again to Rs. 1782.63 crores during 2001-02. Out of Rs. 1782.63 crores Rs. 1776.70 crores was received from the export of cashew kernels. The major markets of cashew kernels were USA; Netherlands, U.K, Japan, UAE, France, Canada etc.

13.41 The export of cashew nut shell liquid from India during 2001-02 was 4148 tonnes valued at Rs. 5.93 crores as against 2246 tonnes valued at Rs. 3.89 crores during 2000-01. Kerala's share was 907 tonnes valued Rs. 1.31 crores during 2000-01 which grew to 3335 tonnes valued at Rs. 4.56 crores during 2001-02. The major markets were USA, Korea, Japan etc.

Table 13.3

Export of Cashew nut Shell Liquid - Kerala & India (1995-96 to 2001-02)

(Quantity in MT and Value in Rs. Crores)

Year	Kerala		India	
	Quantity	Value	Quantity	Value
1	2	3	4	5
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	1185	1.81	1912	4.21
1999-2000	1040	1.54	1930	3.74
2000-01	907	1.31	2246	3.89
2001-02 (P)	3335	4.56	4148	5.93

(P): Provisional

Source: The Cashew Export Promotion Council of India

13.42 According to the provisional data of the D.G.C.I & S, the total raw cashew nuts imported into India for processing and exporting during the period 2000-01 was 2,49,318 M.T valued at Rs. 960.84 crores. This was 1.8% less in quantity and 18.9% less in value as against 2,53,577 M.T raw cashew nut valued at Rs. 1186.16 crores imported during 1999-2000. Import during 2001-02 was 355443 M.T. valued at Rs. 949.25 crores. This is 42.57% more in quantity and 1.21% less in value as against import of raw cashew nuts during 2000-01. Import of raw cashew nut from Guinea Bissau, Ivory coast and Benin went up by 82%, 27% and 15% respectively in terms of quantity compared to the imports of 1999-2000. Apart from African countries Indonesia was the major supplier of raw cashew nuts to India.

13.43 There is considerable scope for increasing Cashewnut production in Kerala, for which changes in laws and other promotional measures are urgently necessary.

Table 13.4

Import of Raw Cashewnuts: Kerala and India (1995-96 to 2001-02)

(Quantity in M.T. value in Rs. Crores)

Year	Kerala		India	
	Quantity	Value	Quantity	Value
1	2	3	4	5
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	109660	448.82	241161	958.00
1999-00	156488	736.63	253577	1186.20
2000-01	152516	552.74	249318	960.84
2001-02 (P)	191579	502.46	355443	949.25

Source: The Cashew Export Promotion Council of India, (P): Provisional

Coffee

13.44 Planted area of coffee in India has been growing year after year. During 1950-51 total planted area was 92523 hectares. It increased to346716 hectares in 2000-01 and to 348995 hectares in 2001-02. But a peculiar feature of coffee is that area of cultivation of Robusta is increasing and Arabica is decreasing since 1950-51. During 1950-51 Arabica was cultivated in 73% of the area under coffee while Robusta was cultivated in the remaining 27% of the area. During 2000-01 and 2001-02 period the percentage of total cultivated area of Arabica decreased to 48% while that of Robusta increased to 52%.

13.45 In Kerala, during 2001-02 Coffee plantations covered 84795 hectares which is 24.3% of the total cultivated area of India. Kerala ranks second among Indian states in the total area under coffee cultivation while Karnataka ranks first.

13.46 Total coffee production in India was 301200 tonnes during 2000-01 which decreased to 300600 tonnes in 2001-02. The Post-Blossom forecast predicts a production of 280000 tonnes in 2002-03. Total production of coffee in Kerala was 66690 tonnes in 2001-02 which is 22.2% of the total production in India. Kerala ranks second among Indian states in the production of coffee.

13.47 All India export of coffee had been decreasing both in quantity and value after 1999-2000. During 1999-2000 India exported 2,44,940.70 tonnes of coffee and realised an amount of Rs. 1901.21 crores as value which increased to 2,46,908.3 tonnes in quantity but decreased in value to Rs.1374.25 crores in 2000-01. It came down to 2,13,572.9 tonnes in quantity and in value to Rs.1050.25 crores during 2001-02.

13.48 Export of coffee from Kerala has been decreasing both in quantity and value since 1998-99. Total coffee export from Kerala was 8087.7 tonnes valued at Rs. 56.42 crores during 1998-99. It decreased to 3,140.8 tonnes valued Rs. 14.58 crores during 2000-01. During 2001-02 the export again declined to 1564.3 tonnes and export value received was only Rs. 8.51 crores.

Table 13.5
Export of Coffee from India & Kerala (1995-96 to 2001-02)

Year	Kerala		India	
	Quantity in MT.	Value (Rs. Lakhs)	Quantity in MT.	Value (Rs. Lakhs)
1995-96	360.0	346.4	170990.2	152715.8
1996-97	503.0	385.0	181223.8	146633.3
1997-98	1746.0	1251.4	179054.5	170759.2
1998-99	8087.7	5642.1	211730.8	175158.9
1999-00	3775.1	1835.9	244940.7	190120.9
2000-01	3140.8	1458.2	246908.3	137425.1
2001-02	1564.3	850.9	213572.9	105024.8

Source: Coffee Board

Tea

13.49 The world tea production went up by 2.45% in 2001 to touch 3011.9 million kgs. In India also, the year 2001 witnessed an increase of about 7 million kgs (0.9%) in tea production compared to the previous year from 846.5 million kg. to 853.7 million kgs. But as far as South India is concerned, the production decreased slightly to 202.9 million kgs in 2001 compared to 204.5 million kgs. in the previous year, a decline of 0.8%.

13.50 Export of tea during 2001 was very poor. Quantity of India's exports declined from 206.8 million kgs in 2000 to 179.8 million kgs in 2001, a decline of 13.06% and the unit value declined from Rs. 91.81 per kg. to Rs. 89.24 per kg. during the above period. In export quantity, North India registered a decline

of 17.14% compared to South India's 9.54%. Even during 2002, Indian tea exports for the first four months (April to July) has dropped by about 6.74 million kgs., i.e. from 54.85 million kgs to 48.11million Kgs.

13.51 Import of tea into India has increased by 23.4%. i.e. imports increased from 13.4 million kgs. in 2000 to 16.6 million kgs in 2001 which is higher by about 3 million kgs than the previous year.

13.52 Tea is cultivated in an area of 36,800 ha. in Kerala during 1999-00. The production of tea in Kerala decreased from 70.6 million kgs. during 1998-99 to 67.8 million kgs. during 1999-00. The productivity also came down from 1920 kgs/ha. to 1842 kg/ha. during the same period. Export of tea from Kerala was 40 million kgs. which realized an export value of Rs.270.2 crores during 2000-01. It was decreased to 35 million kgs. and the value realized was Rs. 222.53 crores during 2001-02. The unit value realized of tea exported from Kerala was Rs.67.55 per kg. during 2001. It was reduced to Rs. 63.58 in 2002.

13.53 Tea exported through Kochi Port during 2000-01 was 94839 MT valued at Rs.198.8 crores. It was increased to 96155 MT valued at Rs. 205.48 crores during 2001-02.

13.54 The fall in exports and in the prices greatly affected coffee and tea growers of the State and the income and employment of plantation workers.

Coir & Coir Products

13.55 Export of coir and coir products during 2001-02 was 71334.8 tonnes valued at Rs.320.58 crores as against the export of 67493.08 tonnes valued at Rs.313.66 crores made during the previous year. The increase recorded in quantity is 3841.73 tonnes (5.38%) and the value increase is of Rs.6.92 crores (2.15%).

13.56 During 2001-02 export of curled coir, coir pith, handloom mats, geo textiles, power loom mats, tufted mats and rubberized coir have shown an increase compared to those of the previous year. A decrease in export was noted in coir fibre, coir yarn, handloom matting , power loom matting, coir rugs & carpets, coir rope both in quantity and value (see Annexure. 13.14)

13.57 Major markets of coir products are U.S.A., U.K., Germany, Italy, Netherlands, France, Australia, Belgium, Portugal, Canada, Greece etc.,

13.58 Export of coir products from Kochi Port during 2000-01was 58140 tonnes which increased to 60861 tonnes in 2001-02.

Table 13.6
Export of Coir & Coir Products from India (1995-96 to 2001-02)

Year	Quantity in MT	Value (Rs. Crores)
1995-96	48277	206.84
1996-97	46369	212.58
1997-98	49850	238.93
1998-99	55490	292.19
1999-00	61031	303.05
2000-01	67493	313.66
2001-02	71335	320.58

Source: Coir Board

13.59 With the growing emphasis on natural products in developed countries, potential for increased export of coir products has grown significantly. Newer products have to be developed through R&D and modernization in order to explore this potential.

Box 13.1

1. *India's balance of payments in 1998-99 was 422 million U.S. dollars which was enhanced to 11757 U.S. million dollars in 2001-02. In Re. terms it was Rs. 18,245 crores in 1998-99 which was enhanced to Rs. 56,592 crores in 2001-02.*

2. *India's total export earnings was 18145 million U.S. dollars and in Re. terms it was Rs. 32,558 crores during 1990-91. It was jumped to 43827 million U.S. dollars during 2001-02. It was decreased to U.S. $ 38115 million in 2002-03.*

3. *India's Imports was only 24,073 million U.S. dollars and in Re. terms it was 43,193 crores during 1990-91. It was enhanced to 51413 U.S. million dollars during 2001-02. It was reduced to 43882 U.S. million dollars in 2002-03.*

4. *Total foreign exchange reserves of India during 1990-91 was 5,834 million U.S. dollars. It was enhanced to 51099 million U.S. dollars during 2001-02. It was again increased to 69888 million U.S. dollars in 2002-03.*

5. *The growth rate of India's imports was declined from 16.5% during 1999-00 to 7% during 2000-01.*

6. *Total export through Kochi Port start declining from 1997-98 onwards. However the total import through Kochi Port was increasing from 1995-96 onwards.*

7. *India is the largest producer of raw cashewnuts in the world. Production of cashewnut in Kerala shows a sharp declining trend since 1998-99.*

Chapter 14

INSTITUTIONAL AND BANK FINANCE

Budgetary resources alone cannot help in achieving the envisaged growth within a projected period of time. The role of financial institutions becomes more crucial when budgetary constraints hinder developmental activities. Financing institutions can supplement resources by mobilising widely scattered savings for investment. The flow of funds for investment purposes from financial institutions assumes more significance in an economic scenario where the role of the government is increasingly getting confined to social services, welfare activities and providing of basic facilities.

INSTITUTIONAL FINANCE.

14.2 As an agrarian economy with well-knit co-operatives, Kerala expects preferred consideration from NABARD and NCDC in providing assistance. During 2001-2002, NABARD disbursed a total of Rs.6682.91 crore of which Kerala received Rs. 373.29 crore (5.59%). This is higher by Rs. 136.64 crore over the previous period. But in the amount of assistance from NCDC a notable reduction has been marked during 2001-02. The amount received during 2001-02 was less by Rs. 17.43 crore than the assistance of 2000-01. Out of the total amount of disbursement of Rs. 720.02 crore during 2001-02, the share of Kerala was Rs. 51.61 crore (7.17%). However, taking NABARD & NCDC together, Kerala got a total of Rs. 424.90 crore amounting to 5.74% of the aggregate disbursement by the two institutions. Details given in Appendix 14.1

14.3 As at the end of March 2002, the cumulative disbursement by NABARD & NCDC together stood at Rs. 64147 crore. Out of this the major portion, Rs. 57565 crore. (89.73%) was accounted for by NABARD & Rs. 6582 crore by NCDC (10.26%). Uttar Pradesh continued to remain at the top in credit absorption by availing of Rs. 9376.92 crore (14.62%) followed by Maharashtra, Rs. 7518.93 crore (11.72%) and Andhra Pradesh, Rs. 6274.48 crore (9.78%). Kerala received an amount of Rs. 2972.14 crore, which is only 4.63 % of the total disbursement. (See Appendix 14.2).

14.4 During the period 2000-01, all India financial institutions such as IDBI, IFCI, ICICI, UTI, GIC ,LIC, NABARD and NCDC disbursed an aggregate amount of Rs.69731 crore.This amount shows an increase of Rs.7294 crore over 1999-2000,the disbursement of 1999-2000 being Rs.62437 crore. The share of Kerala during this period increased by Rs. 116crore (1.6% of the total increment) from Rs. 701.4 crore of 1999-2000 to Rs. 817.2 crore in 2000-01. Details of state -wise financial assistance disbursed by all India financial institutions during 1999-2000 and 2000-2001 are given in Appendix14.3 and 14.4 and disbursement as at end of March 2000 and 2001 are given in Appendix 14.5 and 14.6 respectively. The per capita assistance disbursed by all the above institutions except NABARD and NCDC are given in Appendix 14.7.

BANK FINANCE.

14.5 Nationalisation of banks in1969 paved the way for steady growth in the number of bank branches in India.There were only 8262 bank branches at the time of nationalisation. It grew steadily year after year and reached 66119 in June 2001 and 66355 in June 2002. Out of 66355 branches of June2002, 32394(48.82%) are in rural areas, 14727(22.19%) in semi-urban areas, 10578(15.94%) in urban areas and 8656(10.05%) in metropolitan areas.58576 (88.28%) branches are geographically spread over 15 major states. Uttar Pradesh has the largest number of branches,

8169 (12.31%) followed by Maharashtra with 6320(9.52%), branches and Andhra Pradesh with 5207(7.85%) branches. Kerala has 3334 (5.02%) branches and eleventh position among 15 states. Between July 2001 and June 2002, 236 branches were newly opened in the country. Out of this 236, the highest number of branches was in Punjab (39), followed by Kerala and Andhra Pradesh, 36 each.Uttar Pradesh has the largest number of rural branches, 4863(14.82%) followed by Bihar with 2499(7.71%) and Andhra Pradesh 2424(7.48%). Kerala has the lowest number of rural branches and highest number of semi-urban branches. In Kerala there are 3334 branches; 348 (10.40%) branches in rural areas, 2376(71.30%) branches in semi-urban areas and 610(18.30%) in urban areas .The average population per bank branch in India was 65000 in 1969 and declined to 14000 in 1995. Till 2001 it remained at the level of 15000. In 2002 it slightly increased to 16000. In Kerala it was 35000 in 1969 and from 1995, continues to remain at 10000. Assam and Bihar are the two states where population per branch is larger, 22000 and 21000 respectively. State wise details of bank offices, deposits, credits and credit-deposit ratios are shown in Table 14.1 and Appendix14.8

Table 14.1

Statewise Distribution of Scheduled Commercial Bank Offices as at the end of March 2002.

State /Station	Rural	% to total	Semi urban	% to total	Urban	% to total	Metro politan	% to total	Total No. of branches	% to total
1	2	3	4	5	6	7	8	9	10	11
1.Andhra Pradesh	2430	7.5	1223	8.3	1018	9.7	537	6.2	5208	7.9
2.Assam	809	2.5	259	1.8	164	1.6			1232	1.9
3.Bihar	2500	7.7	662	4.5	403	3.8			3565	5.4
4.Gujarat	1531	4.7	821	5.6	459	4.4	837	9.7	3648	5.5
5.Haryana	703	2.2	400	2.7	446	4.2			1549	2.3
6.Karnataka	2194	6.8	1028	7.0	796	7.6	758	8.8	4776	7.2
7.Kerala	348	1.1	2361	16.1	606	5.7			3315	5.0
8.Madhya Pradesh	1906	5.9	772	5.3	427	4.1	346	4.0	3451	5.2
9.Maharashtra	2290	7.1	1090	7.4	896	8.5	2030	23.5	6306	9.5
10.Orissa	1600	4.9	318	2.2	308	2.9			2226	3.4
11.Punjab	1117	3.4	685	4.7	551	5.2	206	2.4	2559	3.9
12.Rajasthan	1881	5.8	739	5.0	470	4.5	239	2.8	3329	5.0
13.Tamil Nadu	1780	5.5	1216	8.3	984	9.3	771	8.9	4751	7.2
14.Uttar Pradesh	4868	15.0	1348	9.2	1430	13.6	532	6.2	8178	12.3
15.West Bengal	2273	7.0	564	3.8	600	5.7	992	11.5	4429	6.7
TOTAL	28230	87.1	13486	91.8	9558	90.7	7248	84.0	58522	88.3
All India Total	**32423**	**100.0**	**14688**	**100.0**	**10540**	**100.0**	**8625**	**100.0**	**66276**	**100.0**

Source: Banking Statistics, Quarterly Handout March 2002

14.6 The volume of business of banks has been growing at a fast rate since nationalisation. Transactions which were for Rs. 6932 crore in 1969 increased to Rs. 1181871 crore in 2001 and further to Rs. 1323002 crore in 2002. During the period under review, the volume of business increased by 191 times. Deposits increased by 219 times but credit only by 155 times. This shows the ever-widening gap in credit deposit ratio. The credit-deposit ratio at all India level in respect of public sector banks which was 77.9% in June 1969, sharply declined to 53.4% in June 1999 slightly increased to 55.94% in June 2001 and remained more or less at the same level of 55.2% in 2002. Among fifteen major States, only four were with CD ratio higher than the national level-Maharashtra (95%), Tamil Nadu (75.8%), Andhra Pradesh (62.4%) and Karnataka (59.5%). The CD ratio Kerala was 41.8%, less by 13.40, when compared with the national average. Irrespective of the efforts made at various levels, the CD ratio of Kerala remains more or less stagnant around 42 . States like Maharashtra, Orrissa, Punjab, Rajasthan, Uttar Pradesh and

West Bengal show improving trends in CD ratio. Public Sector banks at all India level disbursed aggregate credit of Rs. 470359 crore as at the end of June 2002. The share of Kerala, out of this amount was Rs. 14300 crore, amounting to only 3%. Tamil Nadu absorbed an amount of Rs. 40600 crore (8.6%), Karnataka Rs. 27086 crore (5.76%) and Andhra Pradesh Rs. 31646 crore (6.75%). Details of state –wise deposits, credits and credit-deposit ratios are given in Table-14.2.

Box-14.1
Why is the Credit-Deposit Ratio Low in Kerala.

The low credit-deposit ratio of the scheduled commercial banks in Kerala has always been a subject of intense debate during the last decade or so. Periodically, the state government would raise the issue, many would lash out at the 'negative attitude' of the banks for the lack of development of the state, the banks would counter it, and soon everyone would forget it .A systematic discussion of the various dimensions of it has been lacking. The C-D ratio is a product of the ratio of number of credit accounts to deposit accounts and the ratio of credit amount per account to deposit amount per account. While Kerala reports one of the highest ratio of number of credit accounts to deposit accounts, the credit amount per account is one of the lowest—deposit amount is comparable to the all India level—among the states of India. The low credit amount is due to the lack of credit deployment in industry, trade and finance. In particular, the credit amount per account in industry is very low largely because of higher share of food manufacturing and processing, other industries and construction- which report low amounts of credit per account everywhere in India- in the total. Further, a comparison of the amounts per credit account in the small-scale industries with industry as a whole suggests that most of the industries in Kerala are no larger than small-scale industries. Large investments have to be planned for and facilitated in the state for which action has been initiated by government this year. On their part banks have to launch innovative schemes for financing small entrepreneurs on a vast scale instead of being content with traditional modes and ends of financing.

14.7 During the period 1992-2002, bank deposits in Kerala increased at an average annual growth rate of 19 %, but advances only by 15%. It reflects that credit disbursements were not in par with the deposit mobilisation in the state. Accordingly CD ratio in the state has been showing a declining trend over years. Taking all banks together the CD ratio, which was 62.87% in 1990, declined to 41.28% in March 2000 and moved up slightly and reached 42.77% in March 2001. By end of September 2002 it became .43.41%. Among the various groups of banks, the Gramin Banks recorded the highest CD ratio, 108.65%, followed by State Bank group, 45.34%, other nationalised banks 40.82%, Private Banks 38.33% and Foreign Banks 24.67%.

14.8 Primary Agricultural Societies recorded a high CD ratio of 109.36%. It is interesting to note that Co-operative Banks and Regional Rural Banks have relatively high CD ratios, which for State Co-operative Banks was 64.04%,District Co-operative Banks, 66.56%, PACS 109.36% and RRBs 108.65%. Total deposit mobilised in the state by all the banks as the end of March 2002 show an increase of Rs. 6805 crore from Rs. 44851 crore of March 2001 to Rs. 51656 crore in March 2002. It is estimated that about 5% of the total deposits in the country are mobilised by Commercial Banks in the State. Out of the total deposit of Rs. 51656 crore mobilised as at the end of March 2002, the largest share of Rs. 17081 crore (33.07%) was mobilised by the group of other nationalised banks followed by the State Bank group with Rs 16895 crore (32.71%), Private Banks with Rs. 16302 crore (31.56%), Gramin Banks with Rs. 1000 crore (1.94%) and Foreign Banks with Rs. 377 crore (0.73%). Co-operatives whose share in the deposit was 19.41% (Rs.

Table 14.2

Deposits, Credits and Credit-Deposit Ratios of Public Sector Banks (Rs.Crore)

States	Jun-69			Jun-01			Sep-01			Dec-01			Mar-02			Jun-02		
	Deposit	Credit	C-D Ratio	Deposit	Credit	C-D Ratio	Deposit	Credit	C-D Ratio	Deposit	Credit	C-D Ratio	Deposit	Credit	C-D Ratio	Deposit	Credit	C-D Ratio
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1.Andhra Pradesh	121	122	100.8	42999	27633	64.3	44826	29098	64.9	45324	30515	67.3	50080	32120	64.1	50699	31646	62.4
2.Assam	33	13	39.4	8627	2829	32.8	9025	2886	32.0	9280	2983	32.1	10042	3221	32.1	10022	2926	29.2
3.Bihar	169	53	31.4	22720	4794	21.1	23865	4838	20.3	23900	4964	20.8	25577	5468	21.4	24770	5379	21.7
4.Gujarat	401	195	48.6	51350	22356	43.5	53861	22805	42.3	54239	23373	43.1	56990	24614	43.2	57039	24050	42.2
5.Haryana	49	23	46.9	18135	6938	38.3	18899	7475	39.6	19026	8055	42.3	20241	9289	45.9	20729	8647	41.7
6.Karnataka	188	143	76.1	39775	23603	59.3	40512	25180	62.2	40875	25524	62.4	44128	28126	63.7	45538	27086	59.5
7.Kerala	117	77	65.8	30207	12581	41.6	31161	13803	44.3	31871	13723	43.1	34192	14418	42.2	34227	14300	41.8
8.Madhya Pradesh	107	63	58.9	25745	12268	47.7	27238	12526	46.0	27360	13022	47.6	28859	13766	47.7	29111	13614	46.8
9.Maharashtra	903	912	101	120111	101553	84.5	122500	1E+05	85.9	121426	107056	88.2	127260	117947	92.7	127105	120722	95.0
10.Orissa	29	15	51.7	12608	5144	40.8	13560	5362	39.5	13823	5781	41.8	15601	6510	41.7	15179	6506	42.9
11.Punjab	185	50	27	42749	17088	40.0	43842	17794	40.6	44809	18466	41.2	47099	20400	43.3	47712	19543	41.0
12.Rajasthan	74	38	51.4	22656	10734	47.4	23478	11169	47.6	23495	11913	50.7	24707	12650	51.2	24668	12523	50.8
13.Tamil Nadu	233	311	133.5	46706	36897	79.0	48227	37728	78.2	48842	37845	77.5	52661	40929	77.7	53639	40640	75.8
14.Uttar Pradesh	337	154	45.7	74814	21421	28.6	78140	21828	27.9	78526	22644	28.8	84258	25196	29.9	83359	24630	29.5
15.West Bengal	456	526	115.4	56304	23036	40.9	59285	25333	42.7	58670	26129	44.5	61965	29018	46.8	62986	28302	44.9
TOTAL	3402	2695	79.2	615506	328875	53.4	638419	3E+05	53.7	641466	351993	54.9	683660	383672	56.1	686783	380514	55.4
All India Total	3897	3035	77.9	758202	423669	55.9	791232	4E+05	55.4	795062	450568	56.7	846760	495429	58.5	852643	470359	55.2

Source: Banking Statistics, Quarterly Handout , June 2002.

12442 crore) have been instrumental in deploying credit to the extent of 34.82% of the total credit.

14.9 Banking in Kerala is unevenly distributed among districts. In the matter of number of branches, amount of deposits and credits and even in CD ratios differences can be seen between districts. As at the end of June 2002, Ernakulam district had the largest number of branches, 488 and Wayanad the lowest number, 73, total number of branches in Kerala being 3334. Thrissur stood second with 366 branches and Thiruvananthapuram third with 344 branches. During the period under review, Ernakulam district mobilised and disbursed the highest amount of deposit and credit of Rs. 892798 lakh and Rs. 537872 lakh respectively. Wayanad district stood fourteenth in deposit mobilisation, Rs. 24617 lakh and credit disbursement, Rs. 43965 lakh, but recorded the highest CD ratio in the state, 178.6%. Wayanad could provide more credit than its deposits, a unique feature among all the districts. Pathanamthitta district continued to mark the lowest CD ratio during the period under review also as 15.2%. The CD ratio of Idukki was 86.5% and that of Ernakulam, 60.2%. The district-wise details of bank branches, deposits, credit, CD ratio etc. are given in Appendix 14.9

14.10 However, Kerala has good banking infrastructure. As on 31st March 2002, there were 49 commercial banks, 2 Regional Rural banks, 44 Primary Co-operative Agriculture and Rural Development banks ,14 District Co-operative banks and one State Co-operative bank with a total number of 3861 branches in the state. In addition to this, 1634 Primary Agricultural Credit Societies are also operating in the state. Thus the average population covered by a branch comes to 5876 and this drastic reduction was due to a phenomenal increase in the branch network. The well spread-banking infrastructure of Kerala can be seen in Table 14.3.

Table 14.3
Banking Statistics as on 31 March 2002.

Particulars	SCB	DCBs	PCARDBs	RRBs	CBs	PACS*
No. of Banks	1	14	44	2	49	1634
No. of Branches	20	447	76	347	2971	--
Total deposit	191502	497592	--	100014	5065565	576529
Total advance	122643	340841	108436	108668	2097526	630480
CD Ratio	64.04%	68.50%	---	108.65%	41.41%	109.36%

Source: Potential Linked Credit Plan- State Focus Paper 2003-04, NABARD
*Information pertains to 1335 PACS OUT OF 1593 PACS upto March 2000

14.11 In the volume of deposit mobilisation and advance disbursement by banks, notable differences can be seen As per data of March 2002, while the group of nationalised banks accounted for 33.07% of the deposits, provided 31.61% of total advances. State Bank group did somewhat better by accounting 32.71% of deposits and 34.72% of advances. Gramin Banks though accounted for only 1.94% of deposits, contributed 4.93% of advances. Private banks, on the other hand, accounted for 31.56% of the deposits and 28.32% of advances. The performance of Foreign Banks was negligible as they accounted for 0.73% of deposits and 0.42% of advances. Appendix 14.10 gives the details of deposits ,advances and CD ratio of various groups of banks. Figure14.1 depicts the percentage share of various groups of banks in the total advances disbursed in the state as at the end of March 2002.

14.12 Table 14.4 shows credit –deposit ratios of ten major banks operating in Kerala for the period from 1992 to 2002, wherein wide variations in CD ratios can be seen among various banks. The CD ratio of State Bank of India, which was 59.90% in 1991, declined to 42.64% in

March 2002. The CD ratio of State Bank of Travancore which was above 50% in 1991 and 1992 had gone below 50% in 1994 and never returned to 50% or above till 2002. The CD ratio of Canara Bank, the Lead Bank of Kerala, was never equal to or above the state average since 1992. In March 2002, the CD ratio of Canara Bank was 42.45% and the state level CD ratio 42.71.

Fig. 14.1
Advances Disbursed by Various Groups of Banks 2002

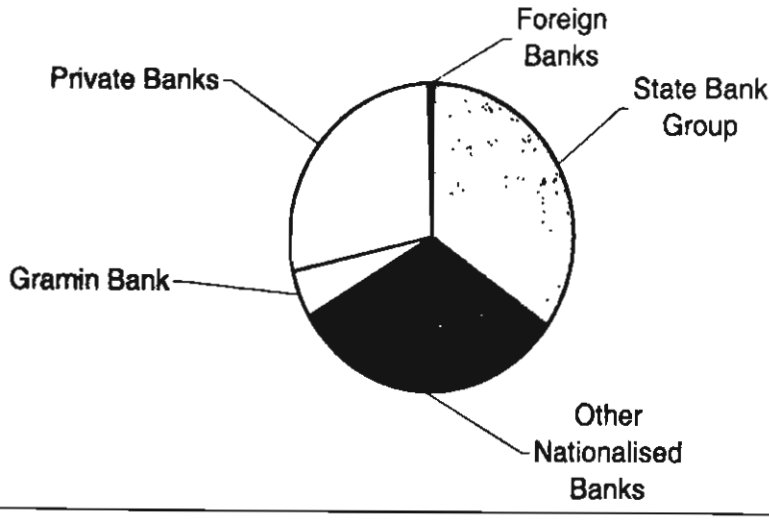


Table 14.4
Credit- Deposit Ratio of Selected Major Banks Operating in Kerala
Credit- Deposit Ratio ; March end .

Name of Bank	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2002 Sept
1	2	3	4	5	6	7	8	9	10	11	12	13
1.State Bank of India	59.90	54.20	45.30	44.70	47.00	48.00	47.53	41.95	39.8	46.68	42.64	42.34
2.State Bank of Travancore	50.60	49.50	44.50	48.00	43.50	45.20	44.82	44.93	45.97	46.00	46.13	45.38
3.Canara Bank	41.50	37.10	29.00	28.00	30.40	35.10	40.37	39.05	36.95	37.41	42.45	42.65
4.Indian Overseas Bank	28.00	25.20	21.80	24.00	25.80	25.00	25.22	26.03	26.25	28.00	33.14	30.26
5.Syndicate Bank	37.30	33.70	27.90	26.40	33.00	29.20	31.25	33.13	34.94	32.79	31.00	32.65
6.Indian Bank	72.00	69.70	61.00	51.50	61.30	47.50	41.13	34.21	32.59	35.53	29.80	31.75
7.Bank of India	36.00	39.30	37.30	35.90	39.20	34.00	34.21	28.80	32.83	34.08	31.20	54.67
8.Central Bank of India	58.00	58.80	46.00	53.00	50.30	44.00	42.38	42.84	35.48	37.03	35.00	36.54
9.Union Bank of India	57.00	47.60	44.50	45.00	45.70	47.30	47.30	51.47	51.36	45.00	49.97	50.61
10.Vijaya Bank	46.00	40.30	38.00	35.00	41.60	36.00	38.78	44.89	31.05	44.28	40.51	41.00
State Average	51.00	48.00	43.10	44.70	44.40	45.50	44.88	43.06	41.28	42.77	42.71	43.41

Source : Banking Statistics of Kerala ;Reported by State Level Banker's Committee

NRE DEPOSITS

14.13 The rate of growth of NRE deposits which was 40.48% in the year 2000, sharply declined to 14.5% in 2001 and remained at the same level during 2002 too. During the year 2001, the NRE deposits was for Rs. 21431 crore. The amount of deposit has increased by Rs. 3103 crore and reached Rs. 24534 crore in March 2002, an increase of 14.5%. At the same time, the total deposits and domestic deposits have shown a slight higher rate of growth as 16.1% and 16.4% respectively. The amount of total desposits which was Rs. 44850 crore in the year 2001, increased to Rs. 51656 crore in 2002 and domestic deposits from Rs. 23419 crore to Rs. 27112 crore during the same period. State Bank group stood first in the mobilisation of NRE deposits during 2002 with Rs. 8874 crore (36.14%) followed by other nationalised banks with Rs. 8032 (32.74%) and Private Banks with Rs. 7329 crore (29.87%). Table 14.5 shows the details of growth of bank deposits for the period from 1988 to 2002.

Table 14.5
Growth of Bank Deposits in Kerala .

Year (March)	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	6660	17.5	2012	27.0	4608	12.9
1991	7935	19.1	2304	14.5	5554	20.5
1992	9787	23.3	3039	31.9	6632	19.4
1993	12261	25.3	4499	48.0	7613	14.8
1994	15138	23.5	6015	33.7	8926	17.2
1995	17694	16.9	6886	14.5	10572	18.4
1996	20419	15.4	8103	17.7	12068	14.2
1997	23354	14.4	10178	25.6	13176	9.2
1998	27552	18.0	12735	25.1	14817	12.5
1999	31532	14.4	13329	4.7	18203	22.9
2000	38619	22.5	18724	40.5	19895	9.3
2001	44850	16.1	21431	14.5	23419	17.7
2002	51656	15.2	24534	14.5	27122	15.8
2001Sept	47129	14.3	22186	10.7	24943	17.8
2002Sept	54585	15.8	26001	17.2	28584	14.6

Source: Banking Statistics of Kerala , Reported by State Level Banker's Committee.

PRIORITY SECTOR ADVANCE

14.14 Sectors like agriculture, small scale industries, rural development etc that generate employment and income to the weaker sections come under the purview of priority sector .It has been stipulated that at least 18% of the advances of the commercial banks be earmarked to agriculture and related sectors.

14.15 Priority Sector advance show a fluctuating trend in recent years. It was 42.9% of the total advances in 2000 and increased to 46.4% in 2001 but declined to 45.9% by the end of March 2002. Out of the total bank advances of Rs. 19180 crore as at the end of March 2001, Rs. 8894 crore (46.4%) was to the priority sector. In 2002, total bank advances was Rs. 22062 crore and priority sector advance Rs 10132 crore (45.9%). While the proportion of priority sector advances

to net advances was 46.4% in 2001 and 45.9% in 2002, the priority sector advance as a proportion of total deposits was only 19.83% in 2001 and 19.61% in 2002, total deposits being Rs. 44851 crore and Rs. 51656 crore respectively for 2001 and 2002.

14.16 Out of the total advances of Rs. 19180 crore in 2001, Rs. 2747 crore (14.32%) was for agriculture sector and Rs. 2262 crore (11.79%), for SSI sector. Total advances for 2002 was Rs 22062 crore of which flow to agriculture sector was Rs. 2855 crore (12.94%) and to SSI Rs. 2324 crore (10.53%). See Table 14.6

Table 14.6
Priority Sector Advance Disbursed by Commercial Banks -Kerala

Year (March)	Total Advance	Total Priority Sector Advance		Out of which advance to			
				Agriculture Sector		SSI Sector	
		Amount	%to total advance	Amount	%to total advance	Amount	%to total advance
1	2	3	4	5	6	7	8
1992	5093	2151	42.2	821	16.1	-	-
1993	5861	2380	40.6	914	15.6	-	-
1994	6485	2590	39.9	953	14.7	811	12.5
1995	7843	3407	43.4	1199	15.3	1090	13.9
1996	9007	3994	44.3	1364	15.1	1223	13.6
1997	10565	4539	43.0	1597	15.1	1445	13.7
1998	12364	5214	42.2	1814	14.7	1558	12.6
1999	13577	5997	44.2	1951	14.4	1783	13.1
2000	15941	6840	42.9	2231	14.0	1991	12.5
2001	19180	8894	46.4	2747	14.3	2262	11.8
2002	22062	10132	45.9	3035	13.8	2540	11.5

Source :Banking Statistics of Kerala ,Reported by State Level Banker's Committee

14.17 The share of Primary Sector in the state income has been declining continuously and has reached a level of about 27%, but it continued to enjoy 35% of the aggregate priority sector credit provided by the financing institutions in 2001-02. The total credit flow to the primary sector rose significantly from about Rs. 500 crore during early nineties to over Rs. 2861 crore in 2001-02. The agency wise/broad sector wise credit flow to priority sector during the last two years is given in Appendix 14.11. The achievements for the past four years have been more than the target set forth under the Annual Credit Plan (ACP) except 2000-01. Agricultural Crop loan and Non-Farm Sector (NFS) has been more than the target for the past four years where as term loan and other priority sector (OPS) loans fell short of the target. Commercial Banks continued to be leading in priority sector lending during 2001-02 also, accounting for 59% of the total.

14.18 Details of Ground Level Credit (GLC) for the past four years indicate that, Crop loan accounts for almost 81% of the total credit under Primary Sector leaving a meagre 19% for term loan. Eventhough a marginal increase under term lending to agricultural sector was observed during 2000-01, by 17%, it further recorded a decelerating trend in 2001-02 (8%). Other priority sector has emerged as the largest sector absorbing bulk of the credit with about 46% during 2001-02. Among the investments the highest credit during 2001-02 was for plantation horticulture followed by land development and animal husbandry. Commercial banks accounted for the highest share of credit (59%) followed by Co-operative banks 31% and RRB, 8%.

14.19 Details of district wise/Sector wise Ground Level Credit (GLC) achievements against State Action Plan (SAP) and Potential Linked Credit Plan (PLP) Projections has been presented in Appendix 14.12.

14.20 The credit flow per hectare of net cropped area increased from about Rs. 3300 in 1993-94 to about Rs. 12970 per ha, during 2001-02. The investment credit flow for agriculture has increased from Rs. 209 crore in 1993-94 to Rs. 550 crore in 2001-02. Per hectare investment credit has increased from Rs. 930 to Rs. 2495 during this period. Credit flow for secondary and tertiary sectors registered a growth rate of 28% and 23% respectively in 2001-02 as compared to the performance of 19% during 2000-01.

14.21 Among the public sector banks, SBT ranks first in priority sector advance followed SBI and Canara Bank. Sub sector wise details of Ground Level Credit disbursements under agriculture and allied activities to all agencies for the period from 2000-01 to2002-03 are given in Appendix 14.13

MICRO CREDIT.

14.22 Micro finance has emerged as a major hope for the millions of rural poor for dealing with 'poverty with dignity'. Self Help Groups (SHGs) , the small , economically homogeneous and affinity group of rural poor voluntarily coming together for thrift , credit and other mutual help, seem to be the best vechiles for socio economic empowerment. The great merit of SHGs has been their ability to inculcate among the members the sound habits of thrift and banking. The recovery from SHG –Bank linkage is 95% at the all India level and in many cases this is even 100%.In the state of Kerala , SHG –Bank linkage programme has become a movement. As at the end of March 2001, under the NABARD- SHG –Bank linkage programme more than 30000 SHGs have been formed of which 9625SHGs have been provided a bank loan of Rs.19.17 crore and NABARD refinance of Rs .9.52 crore.

14.23 By March 2003, around 45000 savings linked SHGs are estimated to be in place of which around 20000 SHGs will be credit linked covering one-third of the target population. Similarly, by March 2003 , around 600 bank branches will be participating in the linkage programme apart from participation of around 2000 SHPIs. Within the two year period 16 additional NGOs are expected to be sanctioned promotional grant to the tune of Rs. 70 lakh with a potential for formation and linkage of 5000 SHGs.

RURAL INFRASRTRUCTURE DEVELOPMENT FUND (RIDF)

14.25 In the efforts for development of rural infrastructure, NABARD has been supporting the Government of Kerala through its various RIDF loans. NABARD refinances projects on irrigation, watershed development, rural bridges, rural roads and reclamation of water logged areas and inland navigation. 1667 projects with total RIDF loan of Rs. 899.52 crore have been sanctioned and a sum of Rs. 494.12 crore has been disbursed as on 30th November 2002, which accounts for 56.04% of the effective sanction. 842 projects have already been completed and another 307 projects are in progress. 101 projects have either been dropped or proposed to be dropped.

14.26 The Potential Linked Credit Plan of the entire 14 districts has culminated into State Credit Plan, which aggregates Rs. 61794 crore for the Tenth Five-Year Plan period 2002-07. For the period 2003-04 the Plan worksout to Rs. 11603 crore against the last year's plan of Rs. 9965 crore, representing a growth of 16.44%.

Box 14.2
Rural Infrastructure Development Fund.(RIDF)

The Fund's objective is to finance the State governments to create rural infrastructure and thereby tap the potential for income and employment generation. This public investment in the much-needed rural infrastructure is expected to provide an impetus to the private initiative for capital investment in agriculture and rural industries and services. RIDF was set in Kerala under the management of NABARD in 1995-96 with contribution from the commercial banks, which were not able to fulfil the commitment of channelising at least 18 per cent of their total lending to agriculture. The Fund has emerged as a popular and effective mechanism for financing rural infrastructure projects. The Fund has widened its scope by financing projects of Grama Panchayats, Self-Help Groups and Non- Governmental Organisations for village level infrastructural development since 1999-00.

Financing through RIDF has been under way in Kerala for the past eight years. Projects under minor irrigation, medium irrigation, soil and water conservation, rural bridges, rural roads, tourism orient roads, flood protection, inland navigation, rural market yards etc are assisted through the Fund. Channalising via eight tranches a total of 1667 projects with aggregate loan assistance of Rs.899.52 crore have been sanctioned to Kerala. As on 30th November 2002, a sum of Rs.494.12 crore (56.04%) have been completed and another 307 are in progress.

Studies on RIDF indicate that it could create ascertained impact on Kerala's rural economy. Cropping intensity, cropping pattern and productivity showed positive changes. 251Kms of PWD roads,346 Kms of Block Panchayat roads , 100 bridges with a length of 6154 Mts, irrigation projects benefiting an area of 42680 Ha and soil and water conservation projects covering 22000 Ha has been completed , strengthening rural infrastructure of Kerala.

IMPACT OF RIDF.

14.27 Studies conducted under RIDF observe (I) positive improvements in the cropping intensity. The improvement ranging between 45% and 105%. (2) There has been a change in the cropping pattern in certain areas to casf crops. (3) Productivity of the crops also showed positive changes. Productivity of of tea improved by over 120%, cardamom, 105%, coconut, 60%, arecanut, rubber and pepper showed an improvement of more than 40%,30% and 50% respectively. (4) The income per ha. Ranged between Rs.10000 and Rs. 23500. This, however, depended on cropping pattern and production.(5) Under various tranchies of RIDF , 647 kms of road was sanctioned for implementation by PWD, of which 251 kms have been completed .(6) Similarly, a total of 1957 km of road length has been sanctioned for implementation by the Block panchayats, of which 346km have been completed so far.These roads are expected to provide better transportation, better connectivity and savings in vehicle operating cost and time. One hundred bridges with a total length of 6154 m have been completed out of the sanctioned 184 bridges (length-14539 m) .These are also expected to add to the transport facility by way of reducing travel distance and overall development of the areas consequent savings.(7) The irrigation projects completed have benefited an area of 42680 ha which would lead to improvement in production and productivity . (8) Area benefited by soil and water conservation projects is 22000 ha.

CONSTRAINTS IN IMPLEMENTATION OF RIDF PROJECTS.

14.28 One of the major constraints identified has been the inadequate budgetary provision in the state budget. This has hampered the smooth flow of funds for project completion. As regards panchayat roads, approval of sanctions by the District Level Technical Advisory Committee has delayed the process of implementation.

14.29 Issues in respect of non-completion of the projects are being taken up by us in various forums like High Power Committee (HPC) , periodical reviews of concerned sectors of line departments , reviews with the heads of departments and also during discussions by our senior officers and the authorities of the state government . The state government in the recently held HPC Meeting under the chairmanship of the Chief Secretary has chalked out measures to address the above problems and accelerate the pace of implementation projects and drawal of funds.

SWOT ANALYSIS OF BANKING IN KERALA

Strength.

(i) Good Banking Infrastructure.

14.30 As on 31st March 2002, there were 49 commercial banks, 2 RRBs, 44 Primary Agriculture and Rural Development banks, 14 District Co-operative banks and one State Co-operative Bank with a total number of 3861 branches in the state . In addition to this 1634 PACS also. Average population covered by a bank comes to 5876.

(ii) Huge amount of deposit.

14.31 Total bank deposits in the state was Rs.51656 crore in 2002.Out of this,NRE deposit is Rs.24534 crore and Domestic deposit , Rs . 27122 crore. Average annual growth rate of total deposit is around 18% where as NRE is 19% and domestic deposit 15%.

(iii) Growing Volume of Business.

14.32 The volume of business of banks has increased by 191 times from that of 1969.Transactions, which were for Rs.6932 crore in 1969 increased to 1323002 crore in 2002.

(iv) Easy accessibility

14.33 Because of well-knit network of banking facilities, accessibility to banks is very easy. Introduction of online banking and ATM ,converted banking an easy process.

Weaknesses.

(i) Low Credit –Deposit Ratio

14.34 In Kerala while deposits increased by 219 times, credit increased only by 155 times. That means CD ratio is very low .The CD ratio of Kerala remains more or less stagnant around 42% .

(ii) Uneven Distribution of Banking.

14.35 In number of branches, amount of deposit and credit and even in CD ratio, banking in Kerala is unevenly distributed. In 2002 while Wayanad district recorded the highest CD ratio of 178.6%, Pathanamtitta district marked 15.2%.

(iii) Lack of bankable projects.

14.36 Various projects including those of local govts, come before banks for credit are reported to be non-bankable. Eventhough clear norms are listed for credit linkage of project, they are not followed. As a result banks become reluctant to advance due to risk factors.

(iv)Weakness of credit institutions

14.37 The Co- operative credit institutions particularly PACS are very weak. Although many of the co-operatives have a very good deposit base, the profitable avenues for development are limited. A study of the PACS by AFC in 1996-97 and by NABARD in 1999-2000 observed that about 350 PACS had their capital as well deposits fully or partially eroded and as many as 931 PACS were incurring losses to the of Rs.225 crore. As on March 2001 as many as 836 are on loss with an accumulated loss of Rs.153.28 crore and another 700 are on marginal profit. Apart from this, vitiated recovery climate, excessive govt. control, inadequate efforts by the employees, supercession of the boards, poor managerial competence, unrealistic method of fixation of interest rates, mismanagement / misappropriation etc are the major reasons for the weakness.

(v) Insistence on perfect securities.

14.38 In order to avoid risk in repayment of loans, banks often insist on perfect sureties and securities. This makes credit facilities unreachable to many entrepreneurs. Innovative schemes of financing small entrepreneurs are lacking.

Opportunities

(i) Ever increasing deposits.

14.39 Accumulation of deposits opens new pastures of deployment of funds, provided presence of potential, enthusiastic entrepreneurs.

(ii)High literacy and educated manpower.

14.40 According to 2001 census, Kerala has the highest literacy rate in the country, 90.92%.The state has got relatively high proportion of educated manpower particularly technocrats and professionals.Linkage of banks to this manpower can provide fruitful results.

(iii) Industralisation

14.41 Kerala provides an excellent base for promoting projects for post harvest value addition chiefly due to the availability of raw materials. Promoting agro- based industrial development programme would be an ideal area for financial institutions. Traditional industries like handloom, handcraft, coir etc have the potential to provide employment as well as livelihood many rural persons.

(iv) Rural infrastructure development and tourism.

14.42 A good number of projects can be identified for rural infrastructure development suitably modifying to suit the guidelines of banking credit. Tourism is also an area in the state that calls for considerable investment.

(v) IT revolution

14.43 Kerala state with its highly educated manpower is an ideal place for IT revolution. Information technology including E-Governance has already recognised as a thrust area for financial institutions.

Threats

(i)Defaults in repayments

14.44 Numbers of defaults in banks are increasing. Fiscal crisis, declining price of agricultural products, uncongenial lobour climate etc results in increased risk; by which repayment of credit defaults leading to mounting non-performing asset.

(ii)NRE deposits

14.45 Kerala's dependence on remittances from abroad particularly from Gulf is significant. Uncertainties stare, once the gulf employed return after the petro-boom.

(iii) *Lack of entrepreneurial spirit.*

14.46 There is a general tendency against taking risks and going for investment. Lack of entrepreneurial spirit precludes investment ventures.

(iv)Deprivation of agriculture and traditional industries.

14.47 Agriculture and traditional industries are areas with high propensity to credit. Stagnation in of these sectors upset banking.

14.48 The paradox of double the rate of national savings, high consumption and unemployment is explained only by very low investment. The flip side of it is the low credit-deposit ratio. While the climate for investment has now improved, banking practices continue to be on traditional lines- called "lazy banking " by authoritative quarters themselves. Banks have to adopt innovative methods and schemes to finance millions of small investments as well as for building up infrastructure.

Chapter 15

SCIENCE AND TECHNOLOGY

The Scientific Policy Resolution of Government of India, 1958 had guided India's scientific endeavours in earlier decades. This was updated in 1983 with the adoption of the Technology Policy Statement of 1983. Exactly after twenty years a new Science and Technology policy was announced by Government of India.

Box.15.1
Society and Economic Growth

During the last century the world has undergone a change from agriculture society, where manual labour was the critical factor, to industrial society where the management of technology, capital and labour provided the competitive advantage. Then the information era was born, last decade, where connectivity and software products are driving the economy of a few nations. In the 21st century, a new society is emerging where knowledge is the primary production resource instead of capital and labour. Efficient utilisation of this existing knowledge can create comprehensive wealth and also improve the quality of life – in the form of better health, education, infrastructure and other social indicators, ability to create and maintain the knowledge infrastructure, develop knowledge workers and enhance their productivity through creation, growth and exploitation of new knowledge society. As we progress from one society to another, we have been doing value addition to the processes followed in the previous societies.

Shri A.P.J. Abdul Kalam, Hon. President of India
(9th Indian Science Congress – 4th January 2003)

BOX.15.2
Science and Technology Policy 2003-INDIA

Policy Objectives

- *To ensure that message of science reaches every citizen of India*
- *To ensure food agricultural, nutritional, environmental, water, health and energy security for people on a sustainable basis*
- *To mount a direct and sustained effort on the alleviation of poverty.*
- *to vigorously foster scientific research in universities and other academic, scientific and engineering institutions and attract the brightest young persons to careers in science and technology.*
- *To promote empowerment of women in all science and technology activities.*
- *To provide necessary autonomy and freedom of functioning for all academic and all R&D institutions.*

- *To use the full potential of modern science and technology*
- *To accomplish national strategic and security related objectives*
- *To encourage research and innovation in areas of relevance for the economy and society.*
- *To substantially strengthen establishing mechanism that relate to technology development, evaluation, absorption and upgradation from concept to utilisation.*
- *To establish an Intellectual Property Right regime which maximises the incentives for the generation and protection of intellectual property by all types of inventors.*
- *To ensure that all efforts are made to have high-speed access to information, both in quality and quantity.*
- *To encourage research and application for forecasting.*
- *To promote International Science and Technology co-operation towards achieving the goals of national development and security, and make it a key element of our international relation.*
- *To integrate scientific knowledge with insights from other disciplines and ensure fullest involvement of scientists and technologists in national governance.*

- ***Key Elements of Implementation Strategy***

- *Science and Technology Governance and Investments*
- *Optimal Utilisation of Existing Infrastructure and Competence*
- *Strengthening of the Infrastructure for Science and Technology in Academic Institutions*
- *New Funding Mechanisms for Basic Research*
- *Human Resource Development*
- *Technology Development, Transfer* and Diffusion
- Promotion of Innovation
- Industry and Scientific R&D
- Indigenous Resources and Traditional Knowledge
- Technologies for Mitigation and Management of Natural Hazards
- Generation and Management of Intellectual Property
- Public Awareness of Science and Technology
- International Science and Technology Cooperation
- Fiscal Measures
- Monitoring
- The New Vision

Science and Technology in Kerala

15.2 Government of Kerala achieved a unique position among State Governments in the country by formulating a Policy on Science and Technology in 1977.Among other significant statements, the policy spelt out the intention to develop "research institutions which will maintain a higher standard of activity and intellectual integrity and will pay highest consideration to the pursuit of knowledge and its applications to human welfare as a worthwhile endeavour" in it.

15.3 Over a decade, Government created no less than seven institutions namely, Centre for Development Studies (CDS), Electronic Research and Development Centre (ER & DC), Sree Chithra Thirunal Institute for Medical Science and Technology (SCIMST), Centre for Earth Science Studies (CESS), Kerala Forest Research Institute (KFRI), Centre for Water Resources Development and Management (CWRDM) and Tropical Botanical Garden and Research Institute (TBGRI).

Table.15.1

S&T Centres	Year of Establishment
KFRI	1975
NATPAC	1976
CWRDM	1978
CESS	1978
TBGRI	1979
RGCB	1994
STIC	1995

15.4 The activities connected with Science, Technology and Environment in the state were co-ordinated and guided by the State Committee on Science, Technology and Environment (STEC) which had the following functions.

- Constant review of scientific and technological policies in relation to the successive Five Year Plans.
- Advise Government on how to use S&T as an effective instrument for socio-economic change.
- Identify areas for application of S&T in development needs.

In view of their excellent performance two centers viz. Sri Chithra Thirunal Institute for Medical Science and Technology and ER&DC were taken over by the Central Government

15.5 In addition, limited support was extended to other centres like Sophisticated Test and Instrumentation Cente (STIC), Centre for Development of Imaging Technology (C-DIT), Regional Research Laboratory (RRL), Regional Cancer Centre, Centre for Mathematical Science, IRTC Mundoor, STED project, Kozhikode, Kerala statistical Institute & Malabar Botanical Garden.

15.6 The five-year plans relating to the sector aimed at creation, strengthening and consolidation of the existing S&T base already created in the State, integration of S&T with development planning, coordination of activities of S&T institutions and establishment of linkages among R&D centers themselves and between R&D centres and academic institutions, universities and other user agencies and utilization of R&D output for rural development.

15.7 The S&T Institutions could build up a fairly good infrastructure with state assistance. The buildings for STEC and NATPAC and for STIC at Kochi and RGCB at Poojappura were completed during the Ninth Plan. Almost all the institutions played a key role in the decentralized planning process introduced in the State. For example, Watershed development

plans for Panchayats have been prepared and training imparted to the Panchayat people by CWRDM & CESS. TBGRI and KFRI prepared biodiversity registers enlisting the valuable biodiversity resources. TBGRI has imparted training in orchid & mushroom cultivation. NATPAC prepared transport infrastructure development plan for all districts in Kerala.

15.8 The important R&D outputs of these Centres are the following. TBGRI has obtained patent for products from plant bio-diversity. They have gone for commercialization for their product 'Sanjeevani'. NATPAC has prepared traffic management plan and detailed plans for water transport in the state. The RGCB's contribution in the field of DNA fingerprinting, PCR/ELISA Diagnostic tests for Hepatitis B and C infections, PCR diagnostics for Tuberculosis, meningitis and Herpis & Encephalitis are noteworthy. CESS has prepared Coastal Zone Management Plan for Kerala. The draft Environmental Policy of the state has been prepared by STEC.

15.9 A gap noticed in the R&D activities of the State is that the technology transfer and extension activities of these centres have not been as expected and this problem has been addressed in the Tenth Plan.The R&D output of the R&D Centres are not fully utilised by the departments due to lack of proper coordinating mechanism.

Restructuring of STEC

15.10 The present set up of STEC and STED was created more than twenty five years ago. After the STEC has grown and diversified its activities, the socio-economic scene too has changed considerably. Government reviewed the present set up, in the context of current and emerging needs. It was found that there was blurred focus, lopsided growth of non-scientific personnel, administrative drawbacks in respect of governance of Institutions, monitoring of activities and vexatious procedures. The grants from DST and other agencies were found to be less than a third of what many other State Councils received. Hence a need for restructuring the present set up of STEC was recognised.

15.11 The STEC has been restructured and a new organisation viz Kerala State Council for Science, Technology and Environment was formed vide G.O. (P) 76/ 2002/STED dt. 6-11-2002. This has been done with a view to identifying the thrust areas in Science & Technology for accelerating the socio economic development of the State, to make the Science, Technology and Environment plans responsive to the development needs of Kerala, to dovetail them with the programmes of departments of Government and to promote effective co-ordination between Centres of scientific and technological research, Government agencies, farms and industries including the private sector so that the knowledge generated by scientific research is fruitfully deployed by transfer of technology. This will also enable the State Council to bring all the Science and Technology Institutions under a single umbrella and not only avoid duplication of activities by the S&T Institutions, but also ensure much-needed synergy and multi-disciplinary research.

New S&T Policy For Kerala

15.12 A dynamic policy responsive to the changing needs of Kerala and which, at the same time, fits well with the main stream of Science and Technology at the National and International level is an urgent requirement of the State. A new policy on Science & Technology has been announced in 2002.

Box No.15.3
New Science and Technology Policy – Kerala-Salient points

The new initiatives which will form the main elements of an action plan for the next ten years are:

Science in Education

- *Package consisting of efforts to nurture young talent, rebuild laboratories, changes in science curriculum, supply of IT based educational materials and retraining of trainers in schools on a pilot scale & then extended state-wide in the light of operational experience.*
- *Massive programme of summer & winter schools for science teachers and special training programmes for talented students*
- *Measures to reactivate science education at the college level to be introduced in chosen institutions & their number expanded in phases*
- *Strengthening of University departments of science*
- *To develop new institutions in basic sciences & emerging disciplines with the partnership and support of GOI*
- *Government considers setting up of an institute for advanced science & technology*

Autonomous Institutions for Science and Technology

- *Govt. recognises that research & development programmes should no longer be carried out in isolation and that effective partnership between R & D institutions, academia and industry should become the norm for economic development and that the roles of each sector are not mixed up during planning or execution of work.*
- *The Govt. will initiate steps to reorganise and strengthen the existing institutions keeping in view their synergies with institutions and organisations of the Central Govt, private sector and international agencies to meet the challenges of Kerala's development*

Traditional Systems of Knowledge and Innovation

- *The proper documentation of traditional knowledge including oral traditions and innovative practices has become important in view of the IPR regime and there is urgent need to safeguard India's intellectual wealth.*

Environmental Protection

- *Govt. will take steps to arrest the degradation of Kerala's environment and promote the greening of it's economic development by environmental audit*
- *Special attention of govt.on effective conservation of forest ecosystem and sustainable utilisation of natural resources*
- *Support to environmental studies and research in educational institutions*
- *New initiatives in the preservation of bio-diversity and environmental balance.*

Accreditation of laboratories

- *Govt. will take steps to assist laboratories in the state to obtain accreditation from National Accreditation Board in a time bound manner and to set up reference laboratories when necessary*

- ***Role of Science and Technology in governance***

- *Govt. to reform the internal functioning system of its science & technology institutions and make them perfectly free and achieve the desired goals*
- *Govt. will create mechanisms to ensure that S & T inputs become an essential part of its decision making process in regard to industry, environment, health and other socio-economic sectors*
- *Govt. will adopt policies & programmes that would enhance the free communication of scientific ideas and the spread of scientific temper among all sections of people*

15.13 The Council will come into existence from April 2003. Action is underway for the amalgamation of all R&D Centres and bring them under the Council. A Committee of experts has been formed for drafting the rules and regulations for the functioning of the Council. From 2003-04, the financing arrangements for non-plan and plan requirements are being streamlined and significantly larger provisions are being made. In this context in order to ensure better utilisation of funds for research & development purposes , the S&T institutions have been asked

- To stop all the infructuous expenditure.
- to reduce the salary component of the staff and also to maintain the salary component of scientific and administrative staff in the ratio of 60:40 by the end of Tenth Five Year Plan
- To meet 25% of the total non- plan expenditure out of their own resources, ie. income from projects /consultancy.
- To follow all austerity measures initiated by Government for the curtailment of expenditure.

Chapter 16

LOCAL GOVERNMENTS AND DECENTRALISED DEVELOPMENT

Introduction

There has been continuing commitment to decentralisation spread across three governments. This has helped in stabilising the process of decentralisation and in focussing on proper assessment of not only the strengths but also of the weaknesses with a view to rectifying them to strengthen decentralisation. Since Kerala went in for a big bang approach to decentralisation there were several 'reversals'.

- Functions were given and then capacity was built up through a process of learning by doing.
- Powers were given and then systems were put in place for their proper exercise.
- Substantial resources were devolved and then accountability systems were created one by one.

16.2 It is because of this unorthodox sequencing that handholding by Government without infringing the autonomy of local governments has become very critical to the success of decentralisation.

Performance in the Ninth Plan

16.3 Details of performance of local governments in the last Annual Plan of the Ninth Plan (2001-02) are given in Appendix 16.1 to 16.5

16.4 The achievements of the local governments in respect of selected developmental programmes for the entire IXth Plan are summed up in Table 16.1.

Table 16.1
Selected Physical Achievements of Local Governments in Ninth Plan Period (1997-2002)
(State Total)

Sl. No.	*Items*	*Units*	*GE*	*SCP*	*TSP*	*Total*
1	Additional area under cultivation (Gross)	Acre	508265	30341	13993	552599
2	Beneficiaries of seeds/ fertilizers/pesticides	No	4863669	439088	53723	5356480
3	Tillers/Tractors supplied	,,	73971	951	226	75148
4	Cattles distributed	,,	215976	96303	11487	323766
5	Poultry distributed	,,	1788426	339826	24932	2153184
6	Cattle sheds	,,	87472	17415	1394	106281
7	Sewing machines	,,	42676	17639	915	61230
8	Persons trained	,,	127520	43578	3300	174398
9	House sites allotted	,,	9828	20435	1584	31847
10	Houses constructed	,,	373157	175533	21892	570582

11	Houses repaired	,,	93058	84226	9120	186404
12	Toilets constructed	,,	449532	109635	11978	571145
13	Houses wired	,,	94894	59116	7595	161605
14	Wells dug	,,	97808	28640	2427	128875
15	Water taps installed	,,	81115	14864	1914	97893
16	Ponds desilted	,,	33020	947	303	34270
17	Pump-sets supplied	,,	76104	7979	1318	85401
18	Roads Constructed	,,	40894	6679	1162	48735
19	Length of roads	KM	164224	17244	3645	185113
20	Culverts constructed	No	11502	540	229	12271
21	Bridges constructed	,,	4030	269	84	4383
22	Co-operative formed	,,	5815	1033	468	7316
23	New schools built (area)	M.sq	173923	2208	4549	180680
24	Hospital buildings (area)	M.sq	133575	2893	4203	140671
25	Offices built (area)	M.sq	243282	4114	1759	249155
26	Marketing complexes built (area)	M.sq	125131	8317	31	133479

16.5 Year-wise achievements can be seen in Appendix 16.6 to 16.16

Review of Issues Related to Decentralisation.

16.6 As decentralisation has entered the institutionalisation phase following the campaign phase it is the time to take stock of what happened in the last 7 ½ years. As part of an effort to address institutionalisation issues, a comprehensive assessment has been got done by the Institute of Rural Management Anand (IRMA), with special focus on the needs, concerns and opportunities thrown up by the decentralisation process. IRMA has grouped the issues into five themes:

i) Institutional and staffing issues;

ii) Local planning issues;

iii) Issues related to social justice;

iv) Issues related to financial management and accountability;

v) Issues related to administration of LSGIs.

16.7 The major issues identified under each theme are summed up below:

i) Institutional and Staffing Issues

1) There are a number of parallel programmes and schemes being implemented by departments and agencies related to the functions transferred to local governments in which local governments themselves have definite projects of the same kind.
2) DPC has not been very successful in integrating plans at the district level or in forging a link between the State Plan and local government Plans.
3) Staffing of local governments is not in consonance with the functions or the workload.
4) Personnel management is quite weak. There is no performance assessment of staff functionaries.

5) There is no central official position in the local government for efficient and effective co-ordination.
6) Dual control of staff often results in falling between two stools.
7) There is still a lot of misunderstanding and suspecision between elected representatives and the officials.
8) The capacity building efforts have been quite successful but they need further strengthening and institutionalisation calling for a training network to be set up.
9) The fund flow does not take into account differences in endowments and gaps in infrastructure and facilities.
10) The grievance redress machinery is still weak in spite of setting up of the Ombudsman and there is no credible system to detect fight and control malfeasance.
11) There is no formal link between NGOs and civil society organisations and local governments except in a few cases.
12) Local governments have not been very successful in improving the quality of health services or in planning for health from below.
13) Though much has been done for poverty reduction, social security to the poorest is still weak.

ii). Local Planning Issues.

1) The Grama Sabhas and Ward Sabhas are severely handicapped by poor attendance, non-participation of above poverty line families, lack of discussion on development issues, emphasis on beneficiary selection, lack of effective social audit and want of enthusiasm among elected members.
2) A credible methodology for participatory planning is in place. However it could be improved by focusing on local data base, rational criteria for prioritisation of needs, long range planning, avoidance of sub-optimal investments, promotion of local economic development, improving quality of services and inclusion of marginalised groups.

iii). Issues Related to Social Justice

1) Programmes for SC and ST are not delivering results commensurate with investments.
2) Ineffective functioning of Technical Advisory Committees and Technical Committees due to lack of commitment is affecting quality of schemes.
3) Women Component Plan is an innovation; it can still be improved to make it more gender sensitive.

iv). Issues Related to Financial Management and Accountability.

1) The quality of account keeping, audit and follow up is extremely weak.
2) Social audit has not been operationalised.
3) Right to information is not being fully used.
4) Resource assessment and allocation in the budget is not done on a rational basis.
5) Resource forecast is wide off the mark.
6) Maintenance of assets is often neglected.

v). Issues Related to Administration of LSGIs

(1) There is no efficient office system in local governments.
(2) The issues identified by IRMA need to be addressed with urgency. They are being followed up by detailed action plans

Institutionalisation Efforts.

16.8 The Kerala Development Programme has been launched in 2002 to take decentralisation to a new trajectory of growth and maturation. It seeks to analyse the experience of People's Plan Campaign and address issues thrown up by experience. The objectives of the programme are:

1) To make Government's policy commitments to decentralisation unambiguously clear.
2) To take decentralisation from the campaign mode to a phase of institutionalisation to make it sustainable.
3) To focus attention on the needs, opportunities and concerns arising out of experiences so far and devise clear strategies and action plans to address them.
4) Motivate and guide local governments to concentrate on local development and improve delivery of services avoiding waste and inefficiencies.
5) To bring about an organic relationship between transferred departments and local governments and bring in role clarity.
6) To launch a comprehensive capacity building programme going beyond plan formulation and implementation and stressing management, governance and long term development issues.

16.9 As part of this programme, steps have been initiated.

- To conduct model Gramasabhas, develop an operationable social audit methodology, publish model Citizen's Charters, update accounts, introduce IT enabled services and developing a transparent and norm based priority list of people below poverty line.
- To involve departments to motivate their staff and facilitate them to develop a proper relationship with local governments.
- To link up with academic and research institutions.

Towards a New Planning Approach

16.10 For the Tenth Plan the core objectives of planning at the local level have been identified as the following.

1) Promote local economic development by increasing production and productivity of agriculture and allied sectors and the traditional and small-scale industries with focus on employment generation and poverty reduction.
2) Move towards greater social justice and reduction in gender disparities.
3) Focus on National Resource Management and integrated area development.
4) Upgrade the quality of basic services provided by the local governments with special emphasis on health, education, water supply, sanitation including solid waste management and care of the disabled.
5) Improve governance particularly with reference to responsibleness, transparency, people's participation and management.
6) Achieve improved efficiency of resource use.

16.11 In the process of realizing these objectives the local governments are expected to play a proactive role by inducing synergies between various stakeholders in local development and enabling solutions to emerge through self-help and joint community action with public funds being spent only for the most critical purposes. Thus the Plan has to be much larger than the investment of public resources and much wider than the activity of local governments alone.

16.12 The general priorities of the Tenth Plan are:

1) Local economic development with emphasis on productive sectors to generate more jobs for poverty reduction.
2) Rehabilitation of existing assets to ensure optimum utilisation.
3) Upgradation of traditional industries and promotion of micro enterprises.
4) Development of agriculture on a watershed basis and shift to participatory irrigation management.
5) Rational medium term spatial planning for infrastructure development.

16.13 Certain innovations have been introduced in the planning methodoloy to make it more participatory and quality oriented. They include :

1. Preparation of a Vision document by a Working Group consisting of Experts drawn from among elected members, practitioners, officials, academicians and activists. The functions of this Working Group are:

- Analysis of the development sector(s)/area(s) assigned to it.
- Evaluation of the performance during the last five years.
- Identification of existing problems, gaps, needs, possibilities.
- Generation of a shared vision on the development of the sector(s)/area(s).
- Suggesting an action plan to realise the vision with priorities and reasons for the priority.
- Preparation of draft projects to implement the action plan.
- Identification of spillover projects.
- Updation of development reports.
- Monitoring of projects every quarter.
- Any other task assigned by the DPC or local government.

2. A stock taking of the Ninth Plan with special references to –
- Identification of spillover and incomplete works.
- Listing out of incomplete deposit works.
- Verification of assets created or distributed under the Ninth Plan.
- Quick evaluation of the Ninth Plan with reference to physical and financial targets and achievements, resources mobilised.

1) The Development Report prepared five years ago has been updated with two parts – the 1st part being an evaluation of the Ninth Plan and 2nd part giving sectorwise status, development issues and suggestions.

2) Linkage with banks has been attempted in a planned manner.

3) Anti-poverty Sub Plans are being prepared under decentralised plan and each anti-poverty sub plan should have an obligatory component for destitutes.

4) In the case of water supply programmes a 10% capital contribution from beneficiaries would be insisted on and the O&M would be fully by the beneficiary groups.

5) In the case of irrigation 20% of the capital contribution from the benefited farmers is required who would later take over their full maintenance responsibilities.

6) After Grama Sabha / Ward Sabha meetings special consultations with stakeholders, like farmers, traders, industrialists, labour poor and academics etc. are to be held.

7) 5% of the resources is earmarked for the children, aged and the disabled.

8) All plans would have a Reform Plan consisting of the following elements:

- Updating of records
- Completion of Asset Register
- Preparation of Road Register
- Preparation of benefit register including supply of benefit cards to all beneficiaries.

- Increasing local resource mobilisation through taxes, user charges and contributions.

- Innovative means of financing through cess, BOT, Community contribution and borrowings.

- Performance standards for institutions and officers.
- Steps to reduce waste and leakages.
- Measures to control possible corruption.
- Measures to improve performance of obligatory functions in the case of Village Panchayats and Municipal bodies.

- Efforts at promoting development through local action without significant outflow of funds from the local government. This could include tapping of funds from local philanthropists, NRIs, the Corporate sector and NGOs.

1. In order to eliminate benami works all works costing Rs.25,000 or more are to be implemented through competitive tenders.

2. A concurrent third-party monitoring system is to be put in place.

3. A draft social audit policy has been published which is to be discussed with stakeholders and finalised.

Preparation of the Tenth Plan

A. Capacity Building for Plan Formulation.

16.14 In order to assist the local governments in preparing Plans according to the new approach a massive Capacity Building exercise was undertaken. Course modules were designed after consultation with experts and a series of training programmes were held as follows:

1) State Level Training of Trainers Programme.

Master trainers were identified from among elected representatives, officials, non-official experts, NGOs, academic institutions etc. The composition of the participants in the State Level TOT is given in Table. 16.2

Table 16.2
Composition of Participants in State Level TOT

Sl. No.	*District*	*Participants*				
		Elected Representatives	*Officials*	*Members of Technical Advisory Committees*	*Others*	*Total*
1	Thiruvananthapuram	10	90	49	19	168
2	Kollam	2	67	29	10	108
3	Pathanamthitta	1	50	19	0	70
4	Kottayam	1	58	19	13	91
5	Alappuzha	0	55	21	3	79
6	Idukki	2	57	18	4	81
7	Ernakulam	1	54	8	15	78
8	Thrissur	1	58	19	13	91
9	Palakkad	0	74	8	1	83
10	Malappuram	19	89	14	11	133
11	Kozhikode	1	63	8	5	77
12	Wayanad	2	29	14	7	52
13	Kannur	0	60	15	9	84
14	Kasargode	5	54	9	6	74
	Total	**45**	**858**	**250**	**116**	**1269**

Important topics included in the TOT were –

- *Development perspective of the Tenth Five Year Plan for Local Governments*

- Panchayat Raj and Democratic Decentralisation in Kerala
- Institutionalisation of the local planning process and guidelines for formulating local plans of Tenth Five Year Plan

- Functioning of Working Groups and the management of social capital
- Poverty alleviation and local planning
- Local economic development and local planning
- Women's development and Women Component Plan
- Integration in local planning
- Importance of monitoring for enhancing efficiency and effectiveness in local planning

- The processes and procedures of local plan formulation
- Developing the vision for different development sectors

2) State Level Training Programme

16.16 This was organized by institutions like KILA and SIRD. The above mentioned topics were dealt with in detail. The target groups and the number of participants in these training programmes are given in Table 16.3

Table 16.3
State Level Training Programme

Sl. No.	Target Group	Number of Participants
(1)	(2)	(3)
1	Presidents, Vice-Presidents and Secretaries of District Panchayats	55
2	Government Secretaries and Heads of Departments	65
3	Core Faculty Members	50
4	Mayors, Deputy Mayors and Secretaries of Corporations and Chairpersons and Secretaries of Municipalities	123
5	Presidents / Secretaries of Block Panchayats	304
6	Secretariat staff of Local Self Government (Urban and Rural) and Planning	127
7	Presidents of Grama Panchayats	991
8	Joint Secretaries of DPCs	483
9	Staff in the office of Deputy Director of Panchayats	70
10	Secretaries of Grama Panchayats	991
11	Members of District Panchayats	336
12	Plan Co-ordinators	250
	Total	**3847**

3) District Level Training Programmes.

16.17 The cutting edge level people who actually were to be involved in preparation of plans were given training at the district level. The important topics which were covered were:-

- The objectives and development perspective of the Tenth Five Year Plan of local governments
- The new guidelines for formulation of local plans
- Poverty reduction and role of local governments
- Local economic development and local plan formulation
- Organisational structure and functioning of working groups

- Preparation of the status paper with relevant data
- Organisation and conduct of grama sabha meetings
- Preparation of development strategy and plan document
- Formulation of development projects
- Action planning for local level training

The participation in the district level programmes is indicated in Table 16.4

Table 16.4
District Level Training Programmes

Sl. No	*Districts*	*Participation*			
		Elected Representatives	*Officials*	*Others*	*Total*
1	Thiruvananthapuram	1003	939	195	2137
2	Kollam	1219	1224	773	3216
3	Pathanamthitta	396	570	1006	1972
4	Kottayam	848	984	765	2597
5	Alappuzha	396	570	1006	1972
6	Idukki	958	1315	176	2449
7	Ernakulam	1942	840	2924	5706
8	Thrissur	1348	209	492	2049
9	Palakkad	814	716	553	2083
10	Malappuram	1135	1214	227	2576
11	Kozhikode	897	938	307	2142
12	Wayanad	383	317	341	1041
13	Kannur	1066	1800	266	3132
14	Kasaragod	960	118	61	1139
	Total	**13365**	**11754**	**9092**	**34211**

4) Local Level Training

Each local government constituted not less than eight Working Groups consisting of elected members and experts – experts being defined as officials concerned, practitioners, academicians and activists in the sector. About 50,000 members of the Working Group were given training in local programmes usually organized at the Block level.

5) Specific Training Programmes

These were given on project preparation and for technical vetting and approval of public works.

The participation in these training programmes is shown in Table 16.5 and Table 16.6

Table 16.5
Training Programme on Project Preparation

Sl. No.	Districts	Number of Participants
(1)	(2)	(3)
1	State level training for proforma introduction	65
2	State level faculty training for Technical Advisory Committee members	105
3	State level faculty training for Technical Committee members	60
4	District level faculty training for Technical Advisory Committee members	8960
5	District level faculty training for Technical Committee members	4900
	Total	**14090**

Table 16.6
Training Programme for Technical Committee Members

Sl.No.	District	Total Number
1	Thiruvananthapuram	395
2	Kollam	320
3	Pathanamthitta	255
4	Kottayam	520
5	Alappuzha	350
6	Idukki	245
7	Ernakulam	450
8	Thrissur	350
9	Palakkad	395
10	Malappuram	360
11	Kozhikode	350
12	Wayanad	180
13	Kannur	300
14	Kasaragod	235
	Total	4705

6) Handbooks

In order to supplement the training programmes 18 Handbooks were prepared by expert teams and circulated to all elected members and officials to guide them in the formulation of plans. Subject matter of the handbooks is indicated below:

a. General Subjects

1. Approach to the Formulation of Tenth Five Year Plan of Local Governments
2. Local Economic Development
3. Spatial Planning
4. Social Security System
5. Statistics for Local Planning
6. Anti Poverty Sub Plan

b. Sectoral Subjects

1. Agriculture and Watershed Development
2. Animal Husbandry and Dairy Development
3. Fisheries
4. Energy
5. Industries
6. Education
7. Health
8. Drinking Water and Sanitation
9. Scheduled Castes and Scheduled Tribes Development
10. Women and Child Development
11. Sericulture Development
12. Public Works

16.15 This series of training programmes helped familiarize the local governments with the new approach to the Tenth Plan. It is intended to organize remedial and supplementary training

programmes to consolidate the process. Later it is to be followed up with subject specific detailed training focusing on implementation, monitoring etc.

B. Support for Capacity Building from CapDecK

16.16 The Swiss Agency for Development and Co-operation (SDC) supported a project named CapDecK (Capacity Development for Decentralisation in Kerala) which has been under implementation since 1999 through the Kerala Institute of Local Administration as the implementing agency. In addition to training programmes CapDecK has done the following:

1. Conducted participatory study on decentralised administrative system – on the status, problems and suggested reforms.
2. Initiated preparation of draft manuals for managing the Panchayat offices and the Primary Health Centres.
3. Held a series of consultations with stakeholders to review and develop strategies.
4. Supported development of a strategy for capacity building of local governments.
5. Published a compendium of relevant Rules and Government Orders
6. Provided infrastructure to KILA, SIRD and Institute of Management in Government.

16.17 The project has utilised Rs. 8.09 crore in the last four years.

C. Preliminary Assessment of Annual Plan 2002-03.

16.18 Local governments have prepared Five Year Plans. The detailed Annual Plan for 2002-03 took some time to complete. The Annual Plan 2003-04 prepared by the local governments of the three districts – Kollam, Palakkad and Kasargode have been analysed and the tentative results of the analysis show the following:.

(1) Allocation for crop husbandry has increased significantly.

(2) Animal husbandry programmes are also given considerable importance getting around 5% of the total outlay.

(3) In spite of the accent on watershed management, soil and water conservation and irrigation get only around 4 to 5%.

(4) Drinking water is given the maximum priority by local governments drawing more than 15% of the allocation.

(5) Housing also gets a high priority with 10 to 15% of the total allotment.

(6) Direct schemes for health get a relatively low priority with an investment of around 2%.

16.19 Details may be seen in Appendix 16.17 to 16.19

16.20 It is seen that the number of projects is very high as may be seen from the sectorwise number of projects given in Table 16.7

Table 16.7
No. of Projects of Local Governments

District	Sectors			
	Productive Sector	Infrastructures Sector	Services Sector	Total
Kollam	3109	5241	4633	12983
Palakkad	3406	6870	7138	17414
Kasaragod	1388	2287	2505	6180

16.21 Though the transport infrastructure draws only around 20% in the three districts, the number of projects is more than 12,000. This causes concern as it suggests thin spread of resources in creation of infrastructure.

GOVERNANCE IN LOCAL GOVERNMENTS

16.22 E-Governance is being introduced in Local Governments on a mission mode facilitated by the **Information Kerala Mission (IKM).** The present status is summed up below:

- The preparatory work of providing space and facilities for deploying computers is in an advanced stage. The details in respect of grama panchayats are given in Table 16.8.

Table 16.8

Sl. No.	Status of Infrastructure in Grama Panchayats	No. of Grama Panchayats
1	Arranged space for placing computers	757
2	Arranged space and completed electric wiring	556
3	Arranged space, completed wiring and earthing	414
4	Arranged space, completed electric wiring and earthing and provided furniture	346
5	Arranged facilities in all respect	310

- Application softwares for data entry on plan projects, district-level consolidation and creation of database of previous year's projects have been developed.

- The plan data of local governments for 2003 have been entered fully in respect of 558 out of 1215 local governments.

- Software applications for office automation have been developed as follows:

  - Sevena-Malayalam
  - -Tamil
  - -Kannada. } - civil registration and social security schemes
  - Sanchita (data product) - compendium of Act, Rules and Government Orders.
  - Soochika - workflow application.
  - Sanchya - revenue module
  - Sanchaya - data entry module for property & professional tax.
  - Sanchaya - storehouse of past records
  - Sugama - administration, purchase and works.
  - Saphallya - registering job opportunities.
  - Sakarma - decision support system
  - Sthapana - handling establishment matters
  - Swatantra - executive assistance for local governance.
  - Sahata - receipt application

- Vellanad Village in Thiruvananthapuram District has been fully computerized using the above mentioned applications.

- Birth, Death and Marriage Registration has been computerised in five corporations.

- Training has been given to 579 persons on IT related matters.

- Action research on developing integrated citizen database, digitization of local government maps and spatial data on watershed has been completed.

- For supplying hardware a BOLT Request For Proposal (RFP) is ready.

16.23 Once the hardware is installed it is proposed to network all of them and move on to a web based system.

Looking Ahead

16.24 The analysis of the first two years' plans would be completed by March 2003. Thereafter consultations with local governments and other stakeholders would be held and a consensus developed on improving the quality of planning to make the investments most optimum. Then with proper modifications in the guidelines the projects for the remaining three years of the Five Year Plan would be prepared.

16.25 A series of initiatives are being taken up to address the issues identified. They include:

- Deciding on a new accounting system and introduction of a new Accounts Manual.
- Finalising a Budget Manual for local governments.
- Preparation of an Audit Manual for local governments.
- Introduction of an office management system for local governments.
- Study of future staffing requirements.
- Identification of parallel schemes and parallel structures by the State Planning Board.
- Action research on Grama Sabhas / Ward Sabhas strengthening.
- Action research on Social Audit.
- Publication of Citizen's Charters.
- Introduction of a new Public Works Manual to facilitate community contracting.
- Preparation of Management Manuals for transferred institutions like hospitals, krishi bhavans, schools etc.
- Finalisation of a training strategy.
- Preparation of an Asset Register and Asset Management Plan.
- Revisit the devolution formula to make it more equitable.
- Introduction of independent monitoring mechanisms.

16.26 These initiatives to be implemented on a project mode are expected to contribute significantly to the institutionalization process. In addition, for immediate action, a comprehensive list of points on which government decisions have to be taken has been prepared and is under active consideration of the Government.

Chapter 17

GOVERNANCE REFORMS

Introduction

Lack of good governance is now widely accepted as the critical factor most responsible for government's inability to put resources to the optimum use resulting in under development and poverty. The National Development Council has approved the Tenth Plan which is to be as much a Reform Plan as it is a Resource Plan. A similar approach is being followed in Kerala also. This implies that going beyond allocating available resources to competing projects and programmes importance is given to the process, procedures and systems which govern development matters. There is need for a rational and critical review of institutions and structures which are related to development. Areas which need to be looked into are – laws, procedures, systems and administrative and managerial processes.

17.2 Governance reform is about doing things differently in a more efficient and effective manner with utmost transparency and accountability, offering enough scope for ex-ante, concurrent and ex-post participation of citizens. In simple terms it means humanizing the State. In a larger sense governance covers not only the State but also the non-state structures and systems. UNDP has an excellent definition and conceptualisation of governance. To quote –

"Governance can be seen as the exercise of economic, political and administrative authority to manage a country's affairs at all levels. It comprises the mechanisms, processes and institutions through which citizens and groups articulate their interests, exercise their legal rights, meet their obligations and mediate their differences.

Good governance is, among other things, participatory, transparent and accountable. It is also effective and equitable. And it promotes the rule of law. Good governance ensures that political, social and economic priorities are based on broad consensus in society and that the voices of the poorest and the most vulnerable are heard in decision-making over the allocation of development resources.

Governance has three legs: economic, political and administrative. Economic governance includes decision-making processes that affect a country's economic activities and its relationships with other economies. It clearly has major implications for equity, poverty and quality of life. Political governance is the process of decision-making to formulate policy. Administrative governance is the system of policy implementation. Encompassing all three, good governance defines the processes and structures that guide political and socio-economic relationships.

Governance encompasses the state, but it transcends the state by including the private sector and civil society organisations."

17.3 UNDP further lists the core characteristics of good governance which represent the ideal. These characteristics which are mutually reinforcing and cannot stand alone are:

"Participation – All men and women should have a voice in decision-making, either directly or through legitimate intermediate institutions that represent their interests. Such broad participation is built on freedom of association and speech, as well as capacities to participate constructively.

Rule of law – Legal frameworks should be fair and enforced impartially, particularly the laws on human rights.

Transparency – Transparency is built on the free flow of information. Processes, institutions and information are directly accessible to those concerned with them, and enough information is provided to understand and monitor them.

Responsiveness – Institutions and processes try to serve all stakeholders.

Consensus orientation – Good governance mediates differing interests to reach a broad consensus on what is in the best interests of the group and, where possible, on policies and procedures.

Equity – All men and women have opportunities to improve or maintain their well-being.

Effectiveness and efficiency – Processes and institutions produce results that meet needs while making the best use of resources.

Accountability – Decision-makers in government, the private sector and civil society organisations are accountable to the public, as well as to institutional stakeholders. This accountability differs depending on the organisation and whether the decision is internal or external to an organisation.

Strategic vision –Leaders and the public have a broad and long-term perspective on good governance and human development, along with a sense of what is needed for such development. There is also an understanding of the historical, cultural and social complexities in which that perspective is grounded."

17.4 The Planning Commission has an equally relevant conceptualisation of governance.

"A useful approach to examine the issues of governance, whether it is restricted to political, economic or civic governance or looked at holistically, is to view the process of intermediation as involving a continuous interplay of three elements, each representing a specific set of deliberate arrangements. These include:

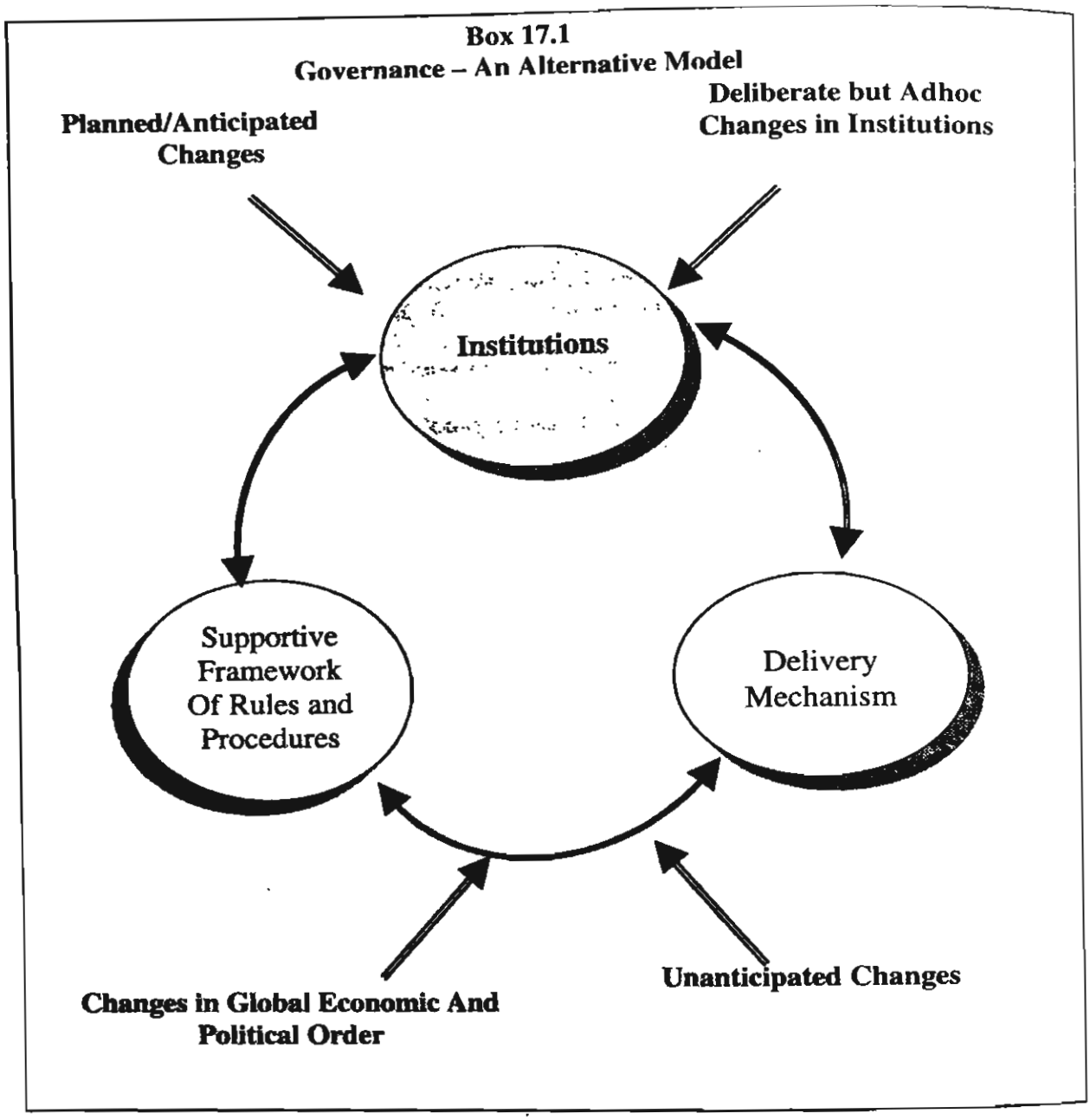
- Institutions – adopted or created arrangements, both formal and informal, to bring about predictability, stability and efficiency in managing the social, economic or political transactions in any society; (For example, the institution of Parliament, the judiciary, or the civil administration.)

- The Delivery Mechanism – including the executive apparatus adopted or evolved by the institutions for implementing the agenda and the objectives for which the said institutions have been created; (For example law courts, hospitals, police stations or the Collector's office; and

- The supportive and Subordinate Framework of Legislations, Rules, and Procedures – formulated for delivering and meeting the stated responsibilities of the concerned institutions.

17.5 Efficient governance requires efficient institutions. The efficiency and effectiveness of institutions, in turn, depends on their adopted delivery mechanism and the supportive framework of rules and procedures, each of which has to work in harmony with the other to discharge the functions for which the institutions have been created. Only then would one expect the institutions to fulfill their stated objectives and carry out their assigned responsibilities in managing the affairs of the society. More importantly, with the changing context – domestic as well as global – a change in the profile and requirements of society and development, there has to be a capacity for evolution, a continuous adaptation in each of these elements (Box 17.1)

Box 17.1
Governance – An Alternative Model



Governance Reforms in Kerala

17.6 In view of the importance of good governance Kerala which has been a pioneer State in human development has naturally made several efforts at bringing about reforms to improve governance. In recent times, decentralization is the best example. There has been a conscious attempt to structure transparent and accountable local governments capable of understanding and responding to local development needs. The important recommendations of the Committee on Decentralisation of Powers (popularly known as the Sen Committee) relating to good governance in local governments have been accepted and incorporated into the legislative framework. Now they need to be fully translated into actual practice with suitable modifications in view of experience. The ongoing reforms in strengthening local governments are narrated in Chapter 16.

17.6 In the context of strong local governments the sphere of State-government undergoes a qualitative and quantitative change. The 14 Reports of the Kerala Administrative Reforms Committee attempt to address this basic issue. Some of the key recommendations of the ARC like Transparency, Citizen's Charter, Grievance Redressal procedure, IT enabled services to the public, delegation of

powers, training policy and capacity building etc., have been cleared and are at various stages of realization.

17.7 Certain critical reforms related to revamping staff recruitment and placement, setting up of a State Civil Service, restructuring Secretariat, making execution of public works

17.8 services delivery and repositioning government in the context of decentralization, are all under the consideration of government.

Modernizing Government Programme (MGP)

17.9 Drawing upon the initiatives summed up above and responding to the need for fundamental fiscal reforms and to the need to promote employment generating investment, a comprehensive programme called Modernising Government Programme (MGP) has been conceptualized and approved for implementation. MGP seeks to address the two core problems faced by the State namely decline in performance of public services system and the breakdown of the state finances.

17.10 The first set of problems includes the public sector operating with little concern for results, an almost complete absence of a service culture, overlap and duplication across levels of government, policies riding on fragmented systems and processes of government. The deeper malady of a dysfunctional and under-performing system – a phenomenon accentuated in the last two decades – is more fundamental than the second set of problems but less undrtstood and debated in Kerala.

17.11 The second set of problems include the unsustainable position of public finances as well as the low growth in the economy coupled with a distinctly 'disabling environment' for productive, employment creating. Even the assets created by Government in the earlier decades are languishing on account of poor investment on maintenance and renewal.

17.12 The development strategy drawn up by MGP is centred around the following:

a) Protecting and building the social gains that Kerala has made in the past.

b) Defining the role of Government through regrouping and refocusing its resources on doing core functions and services for its citizens more effectively, with resources allocated on the basis of results.

c) Improving the efficiency and effectiveness of the entire public sector (government departments as well as its agencies), through planned steps to upgrade capacity of decision makers (both in the political and bureaucratic echelons), exploiting the opportunities presented by Information Technology, with clear incentives for performance being built in.

d) Building Government systems with a human face, nurtured in a culture of 'service' to the people.

e) Restoring the finances of the State to levels close to what the State can ideally achieve in revenue generation and expenditure management.

17.13 The MGP strategy document conceptualizes a development approach for Kerala around five important pillars, which are:

1) Ensuring assured level of basic public services to the poor and the marginalized.

2) Building on decentralization for efficient, effective and accessible Local Self Governments.

3) Enhancing effectiveness and efficiency of core Government functions.

4) Building an enabling environment for growth.

b) Accountability – are decision makers held answerable for their actions and use of public resources?

Accountability is best summed up as the obligation that binds a public servant to fulfill his or her responsibilities. Governmental accountability has two sides-the duty of public officials to communicate to the citizens on their actions as well as the citizen's right to initiate measures against those officials who do not satisfactorily meet requirement of accountability.

DEFINED AS A RIGHT OF THE PEOPLE

Information provided to the public should be set out in comprehensible terms, be relevant, be reliable and be comparable over time as well as across institutions. This information can take many forms, from the simple to the complex but the test should be what would be most useful to the decision makers and whether the cost of providing accountability information is commensurate with the expected benefits. External accountability information especially what is now available from the Accountant General should be integrated better into the operations of the departments. So also accounting information recorded internally should be retained in a manner that makes it easily available for the public.

INFORMATION SIMPLE TO UNDERSTAND

INTERNAL ACCOUNTABILITY SYSTEMS

MGP envisages good and robust internal audit systems built around activities with mechanisms for continuous feedback of information that can be used to upgrade performance. Information flowing out of external auditing by the office of the Accountant General should be used as an important tool in making Government more accountable to the people. MGP recognizes social auditing and public expenditure tracking surveys whose results are published in a timely manner as aids to enhancing accountability in Government, particularly where direct services to the community is involved.

c) **Transparency** – do decision makers ensure the free flow of relevant information in a comprehensible manner?

Transparency is the fundamental ingredient of ensuring public confidence in governance. Non-transparent procedures serve as the breeding ground for corruption. Transparent procedures help to affirm the faith of people in their own public systems and in government officials who discharge their duties and spend public funds responsibly. Transparency means being open to the public about the structure and functions of government, policy intentions, accounts, and actions.

OPENNESS FOR CREDIBLE ADMINISTRATION

MGP sees that affirming the right to information is one vital key for ensuring transparency. This is to foster public recognition of the fact that all citizens are entitled to partake of documents held by public authorities – the right of public access to official documents. Government in cases other than where there are compelling obligation toobserve secrecy, have to pass on certain information to the media information about issues that impinges on the lives of citizens. Information that transparently flows is itself a prerequisite for accountability. Informed judgement and appraisal by the public, press and legislature is vital to the success of MGP.

RIGHT TO INFORMATION

d) **Participation** – does public action offer the maximum scope for all people to take part in decision-making?

Participation is essential if government functioning is to be people-centred. The philosophy of the decentralization in Kerala has been based on acknowledging the primacy of place of participation in democracy.

IT ENABLED PARTICIPATIVE PROCESSES

Mechanisms of social audit and surveys of public expenditure identified as a part of MGP will strengthen such participation. The challenges for MGP, in this regard lies even beyond fostering participative processes. This lies in the task of using new technologies to allow citizens to take part in the decision-making processes. And how well government grasp the itegration of all the elements will largely determine how much value e-Government brings to citizens.

17.16 In accordance with the principles outlined above the key result areas and critical activities in each of the five thematic areas mentioned earlier have been identified. They are summarized in the ***Annexure*** (item 1 to 5) to this Chapter.

Law Reforms

17.17 While Modernizing Government Programme is underway, certain important initiatives have been taken particularly in decentralization (described in the Chapter on local governments), Law Reforms and E-Governance.

17.18 The Administrative Reforms Committee in its Seventh Report had called for a review of existing Laws and repeal of laws not required and amendment of laws to suit the times. A Law Reforms Committee was set up under the Chairmanship of the Minister for Law and Revenue with the Vice Chairman, State Planning Board and the Law Secretary as its Members. The Committee has recommended repeal of 697 laws which are obsolete to clean the statute book. It has recommended unification of laws in 10 areas particularly, irrigation, town planning, fisheries and health.

17.19 In addition it has identified the first set of 24 Reform Laws which include new laws for, among other things, regulating land use, controlling garbage, ensuring right to information and ensuring transparency in procurement by Government. The proposals of the Law Reforms Committee are in the final stages of process.

17.20 Simultaneously Government has drafted certain very important Reform Laws whose current status is given below:

Progress of Reform Laws during last one year

Law	Present position
1. The Value-added Tax Bill, 2002	*Bill approved by the Legislature*
2. The Kerala Ceiling on Government Guarantees Bill, 2002	*Draft approved by Council of Ministers*
3. The Kerala Fiscal responsibility Bill, 2002	*Ready for publication*
4. The Kerala loading and unloading (Regulation of Wages and Restriction of Unlawful Practices) Bill, 2002	*Bill as passed by the Legislative Assembly received assent of the Governor on 29th August 2002.*
5. The Kerala Infrastructure Development Bill, 2002.	*The Bill is before a Select Committee of the Legislative Assembly.*
6. The Electricity (Kerala Amendment) Bill, 2002.	*Draft approved by Council of Ministers*
7. The Kerala University Laws (Amendment) Bill, 2002	*Draft finalized by the Cabinet Committee.*

E-governance

17.21 In the case of e-governance there has been a quantum increase in Plan support to the sector. In the Annual Plan 2002-03 Rs.80 crores was earmarked for the IT sector mostly for e-governance initiatives. The major E-governance initiatives are:

(1) Computerisation in Civil Supplies Department.
(2) Treasury computerization

(3) Computerisation of the Registration Department
(4) Computerisation of the Employment Exchanges
(5) Computerisation of Motor Vehicles Department
(6) Computerisation of Land Records
(7) Computerisation of Local Governments
(8) Education grid

17.22 The current status of these projects is described in **Annexure**(item 6)

17.23 Recently an innovative project called Akshaya has been launched in Malappuram district to bring about universal E-literacy. For E-governance to be effective there is need for E-literacy which will enable citizens to access their E-governance entitlements better by providing them with what could be called E-capabilities.

17.24 FRIENDS, IT-based service centres for the public, now entering the fourth year are being strengthened. IT @ School has been launched to provide E-education in schools.

17.25 These E-governance ventures when implemented in full are expected to fundamentally alter the quality of public services and improve the efficiency of government. In the case of local governments the computerization project is expected to enhance the quality of grass-root level planning and improve accountability of the local governments besides making their services more efficient and people friendly.

Conclusion

17.26 These good governance initiatives together constitute the most critical factor in putting back Kerala on to the path of development by improving its public services and quality of performance of public institutions. It needs to be recognized that the inequity and injustice of poor public services lie in the fact that it is mostly the relatively poor who use them. As part of the alleviation of poverty, in addition to programmes for growth and employment, it is essential to stem the deterioration in the quality of public services and take steps to improve them. This is the core objective of Governance Reform.

Annexure

MGP INITIATIVES
MINIMUM NEEDS PROGRAMME

LIST OF INITIATIVES I N STRATEGIC IMPLEMENTATION PLAN AS APPROVED VIDE G.O (RT) NO.7068/2002/GAD DATED 12/11/2002

KEY RESULT AREA TARGETING AND OPTIMISING RESOURCES.

1. Development of poverty index
2. Application of poverty index to existing BPL lists
3. Restructuring subsidy for index based entitlement
4. Surveillance and tracking systems
5. Participatory community mgt.
6. Policy for housing to the landless

KEY RESULT AREA FACILITATION OF CREDIT ENVIRONMENT AND MICRO ENTERPRISES FOR THE POOR

1. Consolidation of SHGs as MFIs
2. Corpus for credit circulation
3. Niche market study
4. Consultation for value addition and market penetration
5. Facilitation for ancillarisation

KEY RESULT AREA CAPACITATING LSGS FOR PRO- POOR SERVICE DELIVERY

1. Specialisation of Extension machinery
2. Incentive systems
3. Replication of best practices
4. Capacity building for Citizens' Charter

KEY RESULT AREA CAPACITATING THE POOR FOR GOVERNANCE

1. Community social audit
2. Participatory community mgt.
3. Space for NGOs for empowerment

KEY RESULT AREA STANDARDISING HEALTH SERVICES

1. Study for standardization and costing
2. Finalisation of referral protocol
3. Introduction of equitable allocation system
4. Formulary for drug procurement
5. Updation of essential and costed drugs
6. Computerised inventory management system

KEY RESULT AREA RESOURCE MOBILIZATION FOR SERVICE DELIVERY IN HEALTH AND EDUCATION

1. Study on scope for resource mobilization including scope for levy of Health / Education cess and tax on private institutions
2. User charges on identified services
3. Pay clinics, use of school infrastructure for income generation

LIST OF INITIATIVES I N STRATEGIC IMPLEMENTATION PLAN AS APPROVED VIDE G.O (RT) NO.7068/2002/GAD DATED 12/11/2002

4. Phased closure and rehabilitation of pupils

5. Redeployment of protected teachers

KEY RESULT AREA OPERATIONAL EFFICIENCY AND TRANSPARENCY- HEALTH AND EDUCATION

1. LSGs to take doctors, teachers on contract through local recruitment wherever need felt

2. Greater financial autonomy
3. Community led health and education audit
4. Retraining of health professionals as Institution managers and teachers for CCE

5. Recertification of teachers and accreditation of training institutions

6. Strengthening health extension interface with SHGs
7. Mgt. of care institutions with NGOs under LSG supervision

8. School mgt. systems with internal and community feedback provisions

KEY RESULT AREA POLICY AND CURRICULAR REFORM FOR QUALITY ENHANCEMENT IN EDUCATION

1. Restrictions on Aided school teachers occupying LSG elected positions

2. Special curricula and strategies for vulnerable categories

3. Vocational inputs to be strengthened for occupational skills

4. Special schools or learning programmes for learning disabled children

KEY RESULT AREA INTEGRATION OF WATSAN INTO WATER RESOURCES

1. Policy for water and Sanitation integration
2. Unified water resources policy in the context of decentralisation

3. Deployment and capacity building of Watsan unit in LSG
4. Legislation for rainwater harvesting
5. Regulatory framework for Watershed

6. GIS for water resources mgt.

7. State level implementation of special projects for difficult areas where local level initiatives are not technically feasible

8. Entitlement of unauthorised occupants to WATSAN facilities

LIST OF INITIATIVES I N STRATEGIC IMPLEMENTATION PLAN AS APPROVED VIDE G.O (RT) NO.7068/2002/GAD DATED 12/11/2002

KEY RESULT AREA FACILITATION FOR COMMUNITY MGT. OF DRINKING WATER / WATSAN

1. Framework for determination of user charges and costing procedures for LSGs
2. Decentralisation of procurement and contracting procedures
3. Participatory community mgt. For O&M
4. Asset management interventions for upgradation of drinking water wells
5. Water quality mgt. and monitoring by LSGs

KEY RESULT AREA INNOVATIONS FOR ENVIRONMENTAL HYGIENE

1. Propagation of holistic waste management systems through incentive mechanisms
2. Investment into R&D for appropriate technologies
3. Regulation for institutional waste mgt.
4. Augmentation of Urban waste water mgt. Systems
5. Accreditation and training of rag pickers

2.ENABLING ENVIRONMENT FOR ECONOMIC GROWTH LIST OF INITIATIVES I N STRATEGIC IMPLEMENTATION PLAN AS APPROVED VIDE G.O (RT) NO.7068/2002/GAD DATED 12/11/2002

KEY RESULT AREA 1.0 REMOVAL OF LABOUR MARKET RIGIDITIES

1. Labour Productivity
2. Value of net investment
3. Days lost due to strike
4. Number of new business investments
5. Reduction in complaints on loading and unloading

KEY RESULT AREA I.1 Review the present labour policy

1. Constitution of a joint cell of the Labour Department and Industries Department
2. Appointment of a labour reform consultant for Technical Assistance

KEY RESULT AREA I.2 Arrest violence or threat of violence by labour

Direction given to Police for enforcement of existing laws

KEY RESULT AREA I.3 Define the role of government to positively intervene and deal with hartals and work stoppages

1. Include in the TOR of the joint cell of Labour and Industries Department
2. Report by the joint cell

KEY RESULT AREA I.4 Organising awareness programmes for employees/workers/trade unions

1. Exposure in print and electronic media

2. Seminars and group discussions

KEY RESULT AREA **I.5 Conducting of exposure visits for labour union leaders, workers and political leaders**

1. Selection of delegates
2. Arrangements at the visiting countries
3. Repeat of exposure visits in 2004- and 2005

KEY RESULT AREA **I.6 Scrutiny and Amendment of Labour reforms**

1. Draft reform submitted by the Consultant (October 2003)
2. Vetting of the reform by Law Department
3. Legislation of reforms

KEY RESULT AREA **I.7 Campaign for improving image among entrepreneurs**

1. Exposure in print and electronic media
2. Seminars and group discussions

KEY RESULT AREA **2.0 STATE LEVEL PUBLIC ENTERPRISE REFORMS**

1. Share of employment in PSUs, Government controlled societies, autonomous bodies in total employment/GSDP
2. Availability of resources with Govt. of Kerala for investing in essential services and welfare measures for poor and weaker sections

KEY RESULT AREA **2.1 Finalising procedures for handling reform transaction**

1. Submission of recommendations of ERC
2. Notification by Government of Kerala.
3. Institutional structure for reform implementation
4. Development of policy on social safetynet

KEY RESULT AREA **2.2 Case studies of undertakings promoted by LSGs, Government Societies etc.**

Reports by Enterprise Reforms Committee

KEY RESULT AREA **2.3 Case studies of successful enterprises in Kerala**

Reports by Enterprise Reforms Committee

KEY RESULT AREA **2.4 Policy to discourage Govt. of Kerala, LSGs and other Government bodies from business operations**

1. Appointment of Consultant through Technical Assistance
2. Interviews and surveys in the business establishments
3. Policy Document

KEY RESULT AREA **2.5 Capacity building for post reform environment**

Training programmes conducted

KEY RESULT AREA **2.6 Policy on proceeds from SLPE reform implementation**

Policy Document

KEY RESULT AREA 2.7 **Setting up of state and sector competitiveness council for policy management**
Enterprise Reforms Committee Report
KEY RESULT AREA 2.8 **Implementation of policy to discourage Govt. of Kerala from engaging in business operations on commercial lines**
Notification by Government of Kerala
KEY RESULT AREA 2.9 **Formulation and implementation of competitiveness policies**
KEY RESULT AREA 3.0 **STRENGTHENING INFRASTRUCTURE (December 2005)**
1. Number of infrastructure projects taken up with private participation
2. New business establishments in private sector
3. Higher share of resources earmarked for welfare measures of the poor

KEY RESULT AREA 3.1 **Gaps and potential for private participation identified**

Review of progress

KEY RESULT AREA 3.2 **Identify industries which are suitable for the state**
1. Arrangement made for technical assistance
2. Study report

KEY RESULT AREA 3.3 **Comprehensive infrastructure strengthening policy**
Policy Document

KEY RESULT AREA 3.4 **Preparation of Projects for private participation**
Project reports

KEY RESULT AREA 3.5 **Strengthening institutional mechanism**
Number of training programmes conducted
KEY RESULT AREA 3.6 **Developing Information System for entrepreneurs**
Appointment of Consultant for Technical Assistance
KEY RESULT AREA 3.7 **Implementation of policy to infrastructure**
KEY RESULT AREA 4.0 **CREATING BUSINESS CULTURE**
1. Reduction in registration of job seekers in employment exchanges
2. Improved status of entrepreneurs
3. Recognition of successful entrepreneurs every year

KEY RESULT AREA 4.1 **Conducting public awareness campaigns**

1. Number of campaigns organised
2. Number of new business enquiries

KEY RESULT AREA 4.2 **Preparation of school/college curriculum**

Appointment of Education Consultant for Technical Assistance

KEY RESULT AREA 4.3 **Modified school/college curriculum**

1. Lessons on success stories included in the curriculum
2. Number of training programmes organised

KEY RESULT AREA 5.0 **SIMPLIFYING REGULATORY AND ADMINISTRATIVE PROCEDURES**
1. Number of new business ventures
2. Reduction in number of days required to grant licenses
3. Reduction in number of reports to be sent to regulatory authorities

KEY RESULT AREA 5.1 **Review of licensing and regulation procedures**
1. Appointment of a Consultant for Technical Assistance

2. Progress reviews

KEY RESULT AREA **5.2 Setting up of business promotion/guidance cells**

1. Reduction in number of days required to grant licenses
2. Reduction in number of reports to be sent to regulatory authorities
3. Reduction in complaints and disputes
4. Publication of rules and procedures for setting up commercial units

KEY RESULT AREA **5.3 Amendments in related Acts of Law**

Amendments passed

KEY RESULT AREA **5.4 Implementation of other simplification procedures**

Amendments made

KEY RESULT AREA **6.0 RATIONALISING TAX STRUCTURES**

KEY RESULT AREA **6.1 Review of tax structure**

1. Appointment of tax consultant
2. Review report

KEY RESULT AREA **6.2 Implementation of tax reforms**

1. Increase in number of commercial parks
2. Increase in productivity of government land
3. Reduction in number of non-payment of building tax
4. Increase in accommodation facilities for tourists

3. FISCAL SUSTAINABILITY LIST OF INITIATIVES I N STRATEGIC IMPLEMENTATION PLAN AS APPROVED VIDE G.O (RT) NO.7068/2002/GAD DATED 12/11/2002

KEY RESULT AREA **MAINTAINING DEFICITS TO SUSTAINABLE LEVELS**

Revenue Budget brought to balance

Debt/GSDP Ratio reduced to 45 % (2007-08)

Expenditure reduction achieved through enforcement of economy orders

Subsidies limited to poor families identified through specific survey

Increased tax collection through better enforcement

Reduced contingent liabilities by enacting legislation to cap guaranties

Non-tax revenue enhanced to 1 % of GSDP

Debt servicing costs contained as 3% of GSDP (2007-08)

KEY RESULT AREA **ENSURE REGULARITY OF BUDGET CYCLE FACILITATING EARLY BUDGET IMPLEMENTATION BY SPENDING DEPARTMENTS AND AGENCIES**

Budget preparation rescheduled to begin in June and Budget passed before March 31

Budget Circular contains indicative ceilings for line departments and agencies

Rolling three year Forward Estimates of revenue and expenditure adopted

Practice of obtaining Administrative Sanction for Schemes/Programs included in Budget dispensed with

Liability Management System incorporated into budget allocation process

KEY RESULT AREA **ACHIEVING SOUND PUBLIC EXPENDITURE MANAGEMENT**

Predetermined flow of funds to spending departments based on realistic estimates of revenue and expenditure requirements

Mid year review of budget to prevent breach of hard budget ceilings
Supplementary Demands reduced to 2 in a year and that too against matching savings or additional revenues
Circumventing lapse of funds by transfer credit to public account stopped
Cash Management System linked to Treasury Information System for on line decision making fully operational
VAT introduced
KEY RESULT AREA **TRANSPARENT AND MORE USER FRIENDLY BUDGET DOCUMENTS**
Modified ' Budget in Brief' document and Budget Summary consistent with RBI Core Group recommendation and principles in GFS published
KEY RESULT AREA **BETTER ACCOUNTABILITY**
Early finalisation of GOK accounts leading to tabling of Finance Accounts in the Legislature by June every year;
Audit Reports of Accountant General (Audit) are monitored and Action Taken Reports are tabled in Assembly without delay;
KEY RESULT AREA **ESTABLISHING LEGAL AUTHORITY FOR FINANCIAL MANAGEMENT AND RESPONSIBILITIES OF GOVERNMENT IN FINANCIAL ADMINISTRATION.**
Enactment of Public Finance Management Act

KEY RESULT AREA **CAPACITY BUILDING IN REORGANIZED FINANCE DEPARTMENT**
Integrated Expenditure and Budget Wings.
Training in selected Units completed
KEY RESULT AREA **IMPROVED ASSET MANAGEMENT IN GOVERNMENT**
Increased revenue through optimum utilization of state owned assets
KEY RESULT AREA **SELF SUFFICIENT LOCAL SELF GOVERNMENTS**
Own revenues of Local Self Governments increased
KEY RESULT AREA **IMPROVED BUDGET PROCESS IN LSGS**
New Budget Manual Published
E-budgeting introduced in all Local Self Government Institutions
KEY RESULT AREA **BETTER ADMINISTRATIVE EFFICIENCY OF LSGS**
E-accounting Systems Operational (2004-05)
Revised Manual for fixing User Charges and new procedures devised for assessing tax
KEY RESULT AREA **INCREASED ACCOUNTABILITY**
Timely completion of audit by independent agency as per revised Audit Manual
KEY RESULT AREA **EFFICIENT, FUND AND PROJECT MANAGEMENT BY LSGS**
Predetermined, predictable fund flow from government based on entitlements

4.EFFECTIVE, EFFICIENT AND ACCESSIBLE LOCAL SELF GOVERNMENTS LIST OF INITIATIVES I N STRATEGIC IMPLEMENTATION PLAN AS APPROVED VIDE G.O (RT) NO.7068/2002/GAD DATED 12/11/2002

KEY RESULT AREA: **ADOPT FIVE YEAR PLANNING FRAMEWORK**

1. New guidelines
2. Beacon panchayats identified and freed of all Rules and processes in an action research mode and performance documented
3. Social security schemes with focus on destitute and disabled finalized
4. Anti poverty sub plans approved by district planning committee
5. Capacity building of community development society for anti poverty planning and implementation
6. Asset Management Plan

7. New Town and Country Planning Act
8. Guidelines for PPP
9. Sector plan for health and education aggregated at district level
10. Community based rehabilitation plan for the physically and mentally challenged
11. Spatial plan with focus on connectivity
12. Shelf of PPP project ideas

KEY RESULT AREA: **ESTABLISH RESULTS AND PERFORMANCE FOCUSED SERVICE DELIVERY FRAME WORK FOR ALL BASIC SERVICES**

1. Service standards and performance standards prescribed
2. Citizens Charter published
3. Management Manuals for transferred institutions
4. Monitoring system established

KEY RESULT AREA: **LOCAL ECONOMIC DEVELOPMENT (LED) WITH FOCUS ON JOBS FOR THE POOR**

1. Preparation of research papers on LED opportunities and repositioning of traditional industries
2. Guidelines on and capacity building for LED
3. Linkage between LSGs and Banks established for bringing about a better match between credit plans of Banks and investment plans of LSGs.
4. Poor capacitated to compete in labour markets
5. Areas of micro enterprise opportunities for the poor identified.

KEY RESULT AREA: **STRENGTHEN ACCOUNTABILITY**

1. Audit Commission with professional top management set up
2. Social audit systems designed as a community check on public expenditure
3. Legislation on Audit Commission & Audit Commission operationalised
4. Release of funds linked with compliance of audit findings, results and performance
5. Ombudsman restructured into a 3 member body
6. Social Audit operational for MNP
7. Performance linked funds release system operational

KEY RESULT AREA: **STRENGTHEN LSG ADMINISTRATION**

1. New office management system designed for village, urban and district level.
2. New administration system implemented and all registers and records brought up-to-date.
3. Develop management manuals for transferred institutions
4. New procurement system
5. Public Works Manual appropriate to Local Governments designed.
6. IT Plan
7. Revised office management system introduced, registers and records updated, online MIS established

KEY RESULT AREA: **HUMAN RESOURCE MANAGEMENT**

1. The post of CEO for village panchayats created
2. Training needs assessment for elected members and officials and action plan with resource requirements produced
3. Road map for Local Government personnel policy with specific reference to recruitment, assignment of work, performance review, control, placement and capacity building
4. Top management model for LSGs – CEO for LSG

KEY RESULT AREA: **ENABLING POLICY**

1. Winding up of District Rural Development Agencies (14) completed
2. Rationalisation of Local Self Government and Rural Development Departments
3. KUDFC restructured
4. II SFC Report implemented
5. Encapsulate planning, service delivery; HRM and other initiatives in an integrated policy frame work with road map and resources
6. Parallel schemes and structures brought within LSG frame work

5.CORE GOVERNMENT FUNCTIONS LIST OF INITIATIVES I N STRATEGIC IMPLEMENTATION PLAN AS APPROVED VIDE G.O (RT) NO.7068/2002/GAD DATED 12/11/2002

KEY RESULT AREA: **INTEGRATED PLANNING, POLICY FORMULATION AND IMPLEMENTATION (2006)**

1. New output/outcome and policy linked planning system in place
2. Annual Plan document presented in a way that shows links between plan projects/programs and policy; it shows performance in terms of outputs and outcomes based on monitoring & evaluation by sector/thematic area.
3. The departments of Revenue, Motor Vehicles, Treasuries, Kerala Water Authority, Civil Supplies, Police and KSEB identified as priority units for demonstrating Reforms Effects.
4. Security (Law & Order), effective Public Distribution System, General Economic and Social development (including welfare of disadvantaged groups), social cohesion and role of Government as regulator recognized as chief among the Core Functions of Government.
5. Reporting on schemes to be quarterly, not monthly. Formal mid-year review of progress against annual plan (adjustments/corrective actions)
6. Departments notified of resource envelope before preparation of annual plans
7. Clear and sound criteria for prioritising and selecting programs/ projects.
8. A targeted number of infrastructure projects closed or have clear time bound completion dates that are enforced
9. Sound project management systems (project planning, appraisal, implementation and evaluation techniques) and processes adopted for all programs/ projects
10. Training institutes deliver regular and relevant training courses on planning, appraisal, scrutiny in the quality of investments, establishing monitoring and evaluation and in project management (Secretariat and line departments)
11. Effective participation and consultation with stakeholders in the development of plans
12. Annual presentation to legislature of the performance of plan programs/ projects based on outputs and outcomes

KEY RESULT AREA: **RESULTS BASED AND PERFORMANCE ORIENTED PUBLIC SERVICE (2007)**

1. All Departments introduce integrated strategic planning for plan & non plan funds, focusing on Key Result Areas, outputs and outcomes
2. Annual departmental reports containing performance information published
3. Departmental performance reports tabled in Legislature

KEY RESULT AREA: **POLICY FRAMEWORK FOR SERVICE DELIVERY (2006)**

1. Service delivery cell in C.S's office in place and fully functional (to guide implementation of service delivery policy and provide strategic oversight)
2. Service delivery policy/legislation in place
3. Service delivery guidance &training established
4. All departments & service delivery points set, monitor and publish explicit standards for services that individual users can expect
5. Improvement of physical environment in the offices of government to establish necessary conditions for efficiency
6. Annual performance against standards published
7. Measures of enforcement in place
8. Government to recognize the seminal role of information services in service delivery and to address information asymmetries in the economic / commercial sphere.
9. A targeted number of social audits results published and corrective action taken
10. Results of public expenditure tracking surveys conducted and Corrective measures taken
11. Full, accurate information readily available in plain language about how services are run, what they cost, how well they perform and who is in charge
12. Systems to put things right when services do not meet required standards

13. Services available equally to all who are entitled and run to suit their convenience. Greater degree of public satisfaction.
14. Fewer public complaints

KEY RESULT AREA: **MODERNISED HUMAN RESOURCE MANAGEMENT (2006)**

1. Organisation and staffing of departments and agencies restructured and surplus staff redeployed based on ARC recommendations as well as functional reviews.
2. Effective upgrading of skills / re-skilling & re-deployment of surplus staff

KEY RESULT AREA: **RATIONALISING AND RESTRUCTURING THE GOVERNMENT MACHINERY TO MAKE IT MORE EFFICIENT, EFFECTIVE AND ECONOMICAL (2006)**

1. Accurate, up to date, and accessible record of personnel information that is available to all departmental heads and the Secretariat
2. Induction and refresher training given to all employees in the State Government Departments and LSGs under the aegis of IMG, through a network of training institutions including KILA and SIRD.
3. A total of 0.5 % of State Budget outlay set aside for training with appropriate share of this to IMG to discharge its responsibilities as the Apex Training Institution.
4. Revised KSR rules
5. Kerala Civil Service established
6. Job descriptions for all senior officials and new recruits
7. Performance management systems that effectively evaluates performance and provide corrective measures for poor performance
8. Merit-based promotion
9. Effective PMIS used for managing HR development, transfers, promotions etc.

KEY RESULT AREA: **REVISED SYSTEM FOR PROCUREMENT TO MAKE IT MORE TRANSPARENT, EFFECTIVE, EFFICIENT AND PROVIDING VALUE FOR MONEY (2005)**

All Departments, and other government bodies adopt suitably revised systems for procurement.

KEY RESULT AREA: **INFORMATION MANAGEMENT (2005)**

1. Citizens have access to up to date, accurate and useable information about their entitlements concerning services in major service areas
2. Accurate and timely information on the results of social audits, public expenditure tracking surveys and service delivery performance are tabled in the legislature
3. Citizen information handbooks available to all citizens
4. Public availability of all documents relating to projects/programs, procurement processes, costs incurred, performance and outputs
5. MGP results and performance placed on the Internet and communicated quarterly in the newspapers

6 Major E-Governance Initiatives: Current Status

1. Civil Supplies Department

The Civil Supplies Department computerization is intended for providing direct citizen delivery services as well as automation of its regular activities. The specific deliverables planned through the project include the following.

a) Ration cards will be issued by the computerized system.
b) The average service time for any public service like addition, deletion, change of family members, issue of new as well as duplicate ration cards etc. will be significantly reduced.
c) Transfer of ration cards from one location to another can be performed with less effort and with reduced processing time.
d) Ration allocation, Indents and Authority List can be generated automatically.
e) Many of the services can be delivered through FRIENDS Counters.
f) Moreover, Public Interfaces can be Web enabled and Public Services can be given over the

web in the second phase.

g) The process of renewal of Ration Cards undertaken once in 5 years, could then be avoided.

- ***The Current Status of the Project***

a) The entire database of 64 Lakh Ration card holders now available on the computer

b) Development of the comprehensive software package for the management of the PDS (TETRA ver. 1.0) is over; test deployed in the four taluk offices and City Rationing Offices in Trivandrum

c) Modifications and the new ver. 1.1 under preparation based on the experiences during pilot

d) Necessary training has been imparted to thirty officers in Thiruvananthapuram by NIC.

- ***Money already spent and that is expected to be spent during the current financial year.***

a) An amount of Rs. 38 lakhs has been spent during 1999-2000.

b) No amount was spent during 2000-01

c) An amount of Rs. 54.11 lakhs was spent during 2002-03 up to 31-12-02.

d) Money that the department expects to spend during the current year is Rs. 450 lakhs.

- **Activities remaining**:

a) Site preparations in all the taluk and district offices are being done and would be completed before March

b) Orders for procurement of computer furniture are being issued

c) Steps for procurement of hardwares initiated.

d) Implementation of the programme drawn up for training all the staff with help from NIC.

- **Comments:**

Regarding procurement of hardware and software licenses, the department was awaiting a simplified procedure to be notified by the Government. Since that has been delayed, they are taking steps to procure at DGS&D rates. Equipment would be installed by April-May. Project has been hampered due to absence of procurement framework for hardware and software licences. The Department has got around 100 field offices. At Rs.25,000 per office an amount of Rs. 25 Lakhs would be required for procurement of consumables and maintenance of the service in the next financial year. However, training for the staff would not be completed during the current year.

2. Treasury Department

The basic objectives of the Treasury computerization project include the following:

a) To improve the capacity and efficiency of treasury system for handling the increased transactions.

b) To increase the accuracy, speed, transparency and reliability of the system

c) To provide better and speedy service to government employees, pensioners and the general public.

d) To provide good and timely information to government for effective financial management.

- ***The Current Status of the Project***

a) The study phase of the project was undertaken during June 1997 to January 1998.

b) The design phase activities were undertaken during January 1999 to May 1999 and the development phase is continuing.

c) Pilot is being undertaking in Thiruvananthapuram and Pathanamthitta.

d) First level training has been given to all the staff of the department.

- ***Money already spent and that is expected to be spent during the current financial year.***

a) An amount of Rs. 10.57 crores has been spent during 1998-99 to 2001-02.
b) During the financial year 2002-03 the amount spent is Rs. 9.358 crores.
c) An amount of Rs. 3.00 crores is additionally required for the financial year.

- ***Amount required for completion***

The department has informed that an amount of Rs. 1000 lakhs would be required for balance payments, additional equipment, equipment maintenance and for consumables.

- Comments:

Originally the project envisaged networking of offices. Now it is confined to individual office automation.

3. Computerization of Land Records

The basic objectives of the project include issuance of the computerized Record of Right to the public, the total Computerisation of Land Revenue Department and digitization of Survey records. The project was started as a 100% Centrally Sponsored Scheme in 1990-91.

- ***The Current Status of the Project***

84.30% of the data entry has been completed and computers have been purchased for all Collectorates and all Taluks offices. The computerisation of survey department and digitization survey records are also under taken with the funds allotted.

Data entry progress as on 15.11.2002

Sl. No.	Name of the District	Total Records	Total Records entered	Total data verified	Balance data to be verified	% of Data entry.
1	Thiruvananthapuram	15,79,883	12,29,100	Data in 79/91 Villages verified	36	77.79
2	Kollam	14,87,000	14,87,000	Nil	14,87,000	100%
3	Pathanamthitta	5,98,365	3,71,144	3,71,144	2,27,221	62.02
4	Alappuzha	11,25,190	8,16,118	8,16,118	Nil	72.53
5	Kottayam	6,40,753	6,40,753	6,40,753	Nil	100
6	Idukki	1,87,124	1,87,124	1,87,124	Nil	100
7	Ernakulam	12,00,000	8,64,000	2,00,000	6,64,000	72
8	Thrissur	10,00,000	9,00,000	Nil	9,00,000	90
9	Palakkad	9,46,416	8,90,934	8,90,934	55,482	94.13
10	Malappuram	8,00,000	7,00,633	7,00,633	Nil	87.57
11	Kozhikodu	3,98,253	3,98,253	Nil	*	100
12	Wayanad	2,21,793	1,63,438	1,63,438	Nil	73.68
13	Kannur	4,03,000	3,77,933	Nil	3,77,933	93.77
14	Kasaragod	61,000	61,000	Nil	61,000	100
	Total	**1,06,48,777**	**89,87,430**			**84.30**

- *Not specified due to non-finalisation of TR cases*
- ***Critical issues highlighted by the Department***

The Department has pointed out that the data which is now entered in the UNIX platform has to be changed to the WINDOWS platform and that the data already entered has to be updated since this has become obsolete due to the absence of timely updation of the same.

- ***Money already spent and that is expected to be spent during the current financial year.***

a) An amount of Rs. 867.44 lakh has been received for this purpose

b) An amount of Rs.499.00 lakh has been distributed to the District Collectors and Rs.77.25 lakh to the Director of Survey and Land Records (499.00+77.25=576.25).

c) With the balance fund of Rs.291.19 lakh provided during 2001-2002 (revalidated during 2002-2003), it has been decided to fully computerize and issue the computerised Records of Rights to the public.

d) However, Government of Kerala has released only Rs.60.79 lakh till now this year.

- **Comments:**

The data entered can be ported into Windows platform without much difficulty. However the department needs to have a clear focus on what exactly it needs to do. Government of India made available the money for land record computerisation and issue of record of rights to titleholders. In the Kerala context, issue of record of rights is not very relevant.. However it is essential that the village records and the basic land records including the basic tax register and thandapper register are digitized. As pointed out above this digitization has happened to a large extent. What is urgently required is a mechanism to update this database, by incorporating the changes due to transactions/ survey adalats etc. Annual updation may be insisted till the registration department is also fully computerized and the two databases linked (a sort of digital jamabandi). As such the immediate priority could be to ensure that the database is built up and maintained in an up to date manner.

Computer systems are available in taluk offices and collectorates. A system by which all new certificates are issued through computers would lead to building up a citizen data base over a period of time. Similarly various computer packages now available in the collectorates can be standardized and rolled out. For training the manpower, the infrastructure at ILM can be made use of, but behavioural inputs and computer related inputs would have to be factored in.

Regarding survey department, use of electronic survey equipments which can generate digital FMB sketches has been piloted in four taluks. The results are not readily available. This work may be concentrated in one district so that the land record data base, survey offices and registration offices in one district is fully computerized and interlinked and made into a model. This could be fixed as the minimum deliverable during the next year and the project may be implemented fully with central assistance.

4. Registration Department

The computerization in the Registration Department is undertaken with the following primary objectives

a) Project is directly beneficial to the public.
   - Registration process made faster.
   - Issuance of Encumbrance Certificate without delay.

b) Beneficial to the staff and the Department
   - Preparation of Index made automatic.
   - Need not hand write encumbrance certificates, instead can be printed and

iii. Reduce workload of staff.
c) Beneficial to document writers.
d) Increase Revenue Collection.

An expert Committee setup by the Department had evaluated the CARD Project of Andhra Pradesh Registration Department and suggested that the project may be implemented in Kerala as well. It was decided to implement the pilot project in 4 Sub Registry Offices with the software named PEARL (Package for Effective Administration of Registration Laws), developed by the NIC Kerala State Unit.

- ***The Current Status of the Project***

a) The pilot project was implemented in 4 SROs in 1999-2000.
b) During 2000-2001 the project was extended to 50 more SROs.
c) During the current financial year 60 more SROs are identified for computerization.
d) Thus at the end of this financial year, 114 out of a total of 308 SROs would be computerized.

- ***Money already spent and that is expected to be spent during the current financial year.***

- Amount Sanctioned from IT Department.

1. Amount Sanctioned	Rs. 80.00 lakhs
2. Amount spent so far	Rs. 78.43 lakhs
3. Balance	Rs. 1.57 lakhs

- **Amount sanctioned under PLAN Fund**

1. Amount Allocated	Rs. 400.00 lakhs
2. Amount spent so far	Rs. 362.46 lakhs
3. Balance	Rs. 37.54 lakhs

- ***Amount required for completion***

It is estimated that Rs. 15. 52 crores will be required for computerizing the remaining SROs @Rupees 8 lakhs each. Since the software is ready and implemented in 114 SROs already, the fund allocation would now decide the pace of implementation.

- **Comments:**

This is an ideal project that can fund for itself. In registration there was a system of fast track issue of encumbrance certificates for double the normal fee, and certificates could be obtained within two days. With computerization, certificates can practically be issued within 10 minutes and if a decision is taken to charge all the encumbrance certificates at fast track rates, the extra amount that would accrue would be enough to meet the expenditure in implementing the computerisation project.

The ordinary fees levied in the SROs is Rs. 5 per year and the priority fee is Rs 10 per year. The total number of SROs is 308 and the annual average transactions per centre is about 1250. The total capital investment required is Rs 24.64 crores (Rs. 8 lakhs per SRO) of which Rs. 9.12 crores has already been invested. The recurring expense is expected to be about Rs.3 crores. The anticipated revenue (at Rs. 10 per certificate for 13 years) from all the SROs in an year is Rs. 5.01 crores. Thus apart from serving the recurring expenses, the project will payback the initial investment in a period.

Once linked with the fair value fixation exercise and the land record data base, this would be a vital data base for e-governance and would substantially augment the government revenue collection exercise.

5. Employment Exchanges

The basic objectives of the computerization of Employment exchanges are the following:

a) To eliminate time lags in the present system and to make registration, renewal and placement activities speedy and efficient.
b) To link different exchanges of one district to a central server at the state level and at the District Employment Exchanges for consolidation.
c) To digitize the data in the Employment registration cards.
d) To make available the database of the professionals on a web portal with search facilities.
e) To provide a system for continuous updating and backup.

- ***The Current Status of the Project***

a) Nearly 95% of the data has been digitized in the Professional & Executive Employment Office, Thiruvananthapuram.
b) Necessary hardware required for the pilot project is already available in P&E Employment Office.

(a) ***Money already spent and that is expected to be spent during the current financial year.***
(b) Department has obtained Administrative Sanction for Rs. 50/- lakhs to implement the scheme and Government approved the name of NICSI as TSP for the project.
(c) In their offer, NICSI has proposed to computerize all the P&E Employment Offices of Kerala (Viz. Trivandrum, Ernakulam and Kozhikode), and Four Employment Exchanges of Trivandrum district and also the computerization of Employment Directorate.
(d) Computerisation process can start only after signing the MoU between the department and NICSI.

- **Comments:**

It is important to note that the realities of the time necessitates a different approach to the computerization programme in the Employment Exchanges. About 36.89 lakh (as on 30.04.2002) employment seekers are registered with various District and Town Employment Exchanges. The annual intake into Government is less than 20,000 and the situation needs to be seen in the background of Government not expanding. In this context, there is a need to redefine the role of Employment exchanges as a state intervention aimed at providing a credible front-end for all private and public sector companies to recruit people from Kerala. .The details of candidates in an accepted framework with access option can be provided as an Employment portal. This would have serious implications on the investment decision making of investors/companies and would also highlight the availability of specially skilled people in the state. The state can, alternatively use this for framing its short, medium and long term HRD strategies. What is required is a complete change in the very objectives of the employment exchanges and substantial process reengineering. If this aspect is covered as part of the IT implementation of Employment Exchanges, it can have major impact.

6. Information Kerala Mission

In 1997 the State-level Informatics System for Strengthening the Decentralized Plan Implementation (SLIDE), was conceived focused on creating efficient and responsive mechanisms for governance at the local level. The project, which has evolved into what is now known as the Information Kerala Mission, seeks to computerize and establish a wide area network (WAN) to connect the 1,215 local governing bodies throughout the state government. One of the unique features of the IKM project had been the extensive effort taken in systems documentation and the overall emphasis on business process re-engineering and development of an integrated services backend database. This has given substantial strengths to the application development, testing of applications and implementation.

- ***The Current Status of the Project***

The Information Kerala Mission is in the final stages of its implementation. The team, after an extensive system study in urban and rural LSG institutions, has evolved standardized protocols for every business and administrative process in local bodies and has developed 12 software packages for deployment. Pilot roll out has happened in four corporations and five panchayats of Trivandrum district. In all these pilot roll deployments, while transactional data post deployment and to some extent legacy data has been captured into the data base to power the application. However due to poor systems in data maintenance, there has been many obvious data gaps. A scaled up pilot has been tried out in Vellanad covering all the applications developed by IKM and with substantive investment made on filling up the data gaps, based on other secondary sources of data and in some cases through a primary data collection exercise. Moreover protocols for identifying data gaps and bridging the same have been identified so that during replication, there is a structured approach.

In Vellanad, IKM has structured a citizen database integrating the ration card database, electoral database etc., initiated a process for mapping the skill levels and overall profiling of the unemployed people, and also integrated the Cadastral Information as well as details of utilities like electricity and water supply as a resource database. Structuring a similar scalable model for replication in all local bodies can actually lead to a substantive resources database being structured in all the local bodies. This may be taken up as a focused initiative during the current year.

- ***Rollout Strategy***

The present proposal for implementation submitted by the Mission involves a five-year public – private partnership programme in the BOLT mode culminating in the transfer of equipments and systems after the project life cycle. M/s Pricewaterhouse Coopers has already structured the request for proposal (RFP) document for the BOLT implementation. Delineation of functions across the various stakeholders in the projects have been finalized.

- ***Need for institutional strengthening***

The RFP moots a true PPP set up where the role of the Government and IKM as the nodal agency has been explicitly defined. In order to fulfill these obligations in a time bound manner IKM would require some strengthening of their infrastructure during the next year. Primary responsibility of IKM as per the role defenitions specified include maintaining a State Level Technical Call Centre for application software support and debugging. This would involve high-speed connectivity, better storage systems, high-end servers and workstations along with tools for software engineering, data mining and documentation. . The total investment would be around Rs.200 lakhs. Since this investment would substantially determine the effectiveness of the private investment in hardware sourced through the BOLT mode, a special allocation to meet these expenses would be essential.

Apart from the above augmentation of hardware, IKM also needs to work out mechanisms by which appropriate support is provided during the roll out. It is very clear that with less than 50 people IKM will not be able to effectively oversee the deployment and manage the interface with the private entreprenurs/ consortia, which is going to take up the implementation. Direct addition of manpower to IKM team is not feasible or desirable. Since the Mission is a short-term arrangement, it would be more prudent to look at institutional mechanisms to consolidate the effort put in by IKM and also to ensure back up mechanisms. IKM activities during the coming year would have to be reoriented keeping this in view. Tie-ups with management and technical institutions like IIITMK, IIM Kozhikode, Engineering Colleges and polytechnics/ ITI . IMG, CMD etc. would be useful. They could focus on social informatics, business process re-engineering, hardware and networking related issues and training and HR aspects of the IKM work. IKM may be asked to draw up specific terms of engagement on the above aspects and may be directed to enter into institutional arrangements, rather than direct addition of

manpower into the IKM team.

7. The Education Grid Project

The Educational Grid project was conceived with the objectives of developing an education grid infrastructure in institutions of higher learning across the state, promoting the design and development of quality courseware in different subjects and upgrading standards of instruction in tertiary level education institutions through the delivery of quality courseware and services over the grid.

- ***The Current Status of the Project***

(a) Kerala Government has issued orders constituting the Education Grid Governing Council and the experts body - Apex Project Coordination Unit.
(b) NIT Calicut and CUSAT have agreed to become the Education Grid Resource Centres and approved the MoU for the same. CUSAT is in the process of allocating space for Education Grid operations.
(c) The project is in the process of finalizing the infrastructure plan and commissioning of the Resource Centres.
(d) IIT Madras is in the process of finalizing an MoU to cooperate and work with the Kerala Education Grid Project.
(e) Negotiations with Redhat India (part of the international Linux and Linux based solutions developers) is leading to establishing a Redhat Referral Research Centre at IIITM-K for Education Grid technology solutions.
(f) IIITM-K has already configured and tested robust low cost thin clients for students stations that will cost Rs. 12,000 to 14,000 per PC with trouble free maintenance.
(g) IIITM-K incubated Ten servers are already in use at IIT Madras, IIM Ahmedabad, ADA, CUSAT, IIITM-K, Anna University, US Software, RRL, etc. Thus the robust solutions developed here for Education Grid are well proven in the field.
(h) A core approach paper on Content Quality and Pedagogy Management in Education Grid has been prepared and approved by many experts.
(i) ERNET India has verbally agreed to support the backbone network for the Education Grid. MHRD also has accepted in principle to fund part of the project cost. Formal correspondence is under way to finalise these.
(j) A smart portal (with Digital Library, Course Management System, Group Collaboration Spaces, etc.) for Education Grid has been started. The domain edugrid.ac.in has been registered.

Chapter -18

HUMAN DEVELOPMENT AND SOCIO-ECONOMIC WELL BEING IN KERALA

– A comparative perspective

Human Development

Most of the data in this chapter is from National Human Development Report-2001, Planning Commission. In other chapters latest available data from various sources are used. Hence, there is likelihood of variations.

1.Human Development Index (HDI)

18.2 Human development index is a composite index derived from per capita consumption expenditure, incidence of poverty, access to safe drinking water, proportion of houses with pucca houses, literacy rate for the age group 7 years and above, intensity of formal education, life expectancy at age one and infant mortality rate. It is the measure of three critical dimensions of well being (a) **longevity**-the ability to live long and healthy life: (b) **education**-the ability to read, write and acquire knowledge; and (c) **command over resources**- the ability to enjoy a decent standard of living and have a socially meaningful life.

Table-18.1
Human Development Index

States	1981		1991		2001	
	Index	Rank	Index	Rank	Index	Rank
1. Andhra Pradesh	0.298	9	0.377	9	0.416	10
2.Assam	0.272	10	0.348	10	0.386	14
3.Bihar	0.237	15	0.3.8	15	0.367	15
4.Gujarat	0.360	4	0.431	6	0.479	6
5.Haryana	0.360	5	0.443	5	0.509	5
6.Karnataka	0.346	6	0.412	7	0.478	7
7. Kerala	**0.500**	**1**	**0.591**	**1**	**0.638**	**1**
8.Madhyapradesh	0.245	14	0.238	13	0.394	12
9.Maharashtra	0.363	3	0.452	4	0.523	4
10.Orissa	0.267	11	0.345	12	0.404	11
11.Punjab	0.411	2	0.475	2	0.537	2
12.Rajasthan	0.256	12	0.347	11	0.424	9
13.Tamil Nadu	0.343	7	0.466	3	0.531	3
14.Uttar Pradesh	0.255	13	0.314	14	0.388	13
15.West Bengal	0.305	8	0.404	8	0.472	8
All India	**0.302**	**-**	**0.381**	**-**	**0.472**	**-**

Source: National Human Development Report (NHDR) 2001., . Rank at National level

18.3 Kerala(0.638) is at the top in the country in human development. This position is consistent since 1981, thanks to the Physical Quality of Life (PQL) prevalent in the State over the decades. Punjab(0.537) stood next to Kerala, followed by TamilNadu.(0.531) Maharashtra (0.523) , Haryana(0.509) ,Gujarat(0.479) and Karnataka(0.478) were the other States with satisfactory HDI. States like Uttar Pradesh(0.388), MadhyaPradesh (0.394) Orissa(0.404) and Rajastan (0.424) were at the other end. HDI is the lowest for Bihar. Poor States are the ones with relatively poor performance on HDI.

Similarly, the economically better off States are the ones with relatively better performance on HDI. But the relation between HDI and the level of development does not show any correspondence in the case of middle- income States. For example, some States like Kerala have high attainments on HDI. at the same time, there are States like Andhra Pradesh or even West Bengal where HDI values are not as high. Details are given in Table – 18.1.

2.Human Poverty Index (HPI)

18.4 Human Poverty Index has been estimated to reflect the level of deprivation. The parameters used for estimation of HPI are population below poverty line, population without access to safe drinking water/sanitation/electricity/medical attention at birth/vaccination, population living in kutcha-houses, illiterate population and children not enrolled in Schools and population not accepted to survive beyond the age of 40 years.

Table-18.2
Human Poverty Index (HPI)

States	1981		1991	
	Index	Rank	Index	Rank
1. Andhra Pradesh	50.1	20	39.8	19
2.Assam	56.00	29	48.95	27
3.Bihar	57.57	30	52.34	32
4.Gujarat	37.31	10	29.46	13
5.Haryana	38.97	13	28.55	10
6.Karnataka	44.0	15	32.7	15
7. Kerala	**32.1**	**6**	**19.9**	**4**
8.Madhya Pradesh	52.15	23	43.47	23
9.Maharashtra	38.63	12	29.25	11
10.Orissa	59.34	31	49.85	31
11.Punjab	33.00	7	25.06	7
12.Rajasthan	54.16	27	46.67	25
13.Tamil Nadu	42.1	14	29.3	12
14.Uttar Pradesh	54.84	28	48.27	26
15.West Bengal	47.64	17	40.48	20
All India	**47.3**	-	**39.4**	-

Source: NHRD 2001, Planning Commission, Rank at National level

18.5 Kerala is far ahead of even the economically better off States in the Human Poverty Index. Position of Kerala improved from Sixth in 1981 to fourth in 1991. Variations between the index of Kerala and other States are quite striking as seen in Table-18.2.The first, second and third positions at the national level went to the Union Territories.

3.Population below Poverty line

Table-18.3
Below Poverty Line: per cent

State	1987-88			1993-94			1999-2000		
	Rural	Urban	Combined	Rural	Urban	Combined	Rural	Urban	Combined
1. Andhra Pradesh	20.9	40.1	25.9	15.9	38.3	22.2	11.1	26.6	15.8
2.Assam	39.35	9.94	36.21	45.01	7.73	40.86	40.04	7.47	36.09
3.Bihar	52.63	48.73	52.13	58.21	34.50	54.96	44.30	32.90	42.6
4.Gujarat	28.67	37.26	31.54	22.18	27.89	24.21	13.17	15.59	14.07

5.Haryana	16.22	17.99	16.64	28.02	16.38	25.05	8.27	9.99	8.74
6.Karnataka	32.8	48.4	37.5	29.9	40.1	33.2	17.4	25.3	20.0
7. Kerala	**29.1**	**40.3**	**31.8**	**25.8**	**24.6**	**25.4**	**9.4**	**20.3**	**12.7**
8.Madhya Pradesh	41.92	47.09	43.07	40.64	48.38	42.52	37.06	38.44	37.43
9.Maharashtra	40.78	39.78	40.41	37.93	35.15	36.86	23.72	26.81	25.02
10.Orissa	57.64	41.63	55.58	49.72	41.64	48.56	48.01	42.83	47.15
11.Punjab	12.60	14.67	13.20	11.95	11.35	11.77	6.35	5.75	6.16
12.Rajasthan	33.21	41.92	35.15	26.46	30.49	27.41	13.74	19.85	15.28
13.Tamil Nadu	45.80	38.64	43.39	32.48	39.77	35.03	20.55	22.11	21.12
14.Uttar Pradesh	41.10	42.99	41.46	42.28	35.39	40.85	31.22	30.89	31.15
15.West Bengal	48.30	35.08	44.72	40.80	22.41	35.66	31.85	14.86	27.02
All India	**39.09**	**38.20**	**38.86**	**37.27**	**32.36**	**35.97**	**27.09**	**23.62**	**26.10**

Source: Planning Commission

18.6 Table-18.3 presents the prevalence of poverty among States and between rural and urban areas. Poverty level in 1999-2000 was at the lowest in Punjab(6.16per cent), followed by Haryana(8.74 per cent).Kerala (12.7 per cent) stood only next to Punjab and Haryana.Poverty is the highest in Orissa (47.15 per cent),followed by Bihar(42.6 per cent) and Madhya Pradesh(37.43 per cent). A point to be mentioned is that the percentage of population below poverty line as estimated by the Planning Commission for Kerala (12.7 per cent) is far below that estimated by the State Government .

ECONOMIC ATTAINMENT AND WELL BEING

4.Per capita Consumption Expenditure

18.7 Per capita consumption expenditure is the expenditure for food and non- food items for one individual for one month. Average consumption expenditure is a direct and better measure of economic well being than per capita income. Per capita consumption expenditure in 1999-2000 is significantly higher in Kerala (Rs. 816.8), followed by Punjab (Rs. 792.1) and Haryana (Rs. 767.9). Per capita consumption expenditure of Assam(Rs.473.42),Bihar(Rs.417.18),Madhya Pradesh(Rs.478.92),Orissa(Rs.413.7),Uttar Pradesh(517.0)and West Bengal(571.7) were lower than all India average (Rs.591.0). The variation between per capita consumption expenditure in rural and urban area in Kerala was Rs. 166.9 , which was much lower than the corresponding figures of neighbouring States, viz. Tamil Nadu (Rs. 457.6), Karnataka (Rs. 411.2) and Andhra Pradesh (Rs. 319.9) in 1999-2000.Details are presented in Table-18.4.

Table-18.4
Per capita Consumption Expenditure

(Rs. Per month)

State	1983			1993-94			1999-2000		
	Rural	Urban	Combined	Rural	Urban	Combined	Rural	Urban	Combined
1. Andhra Pradesh	115.6	159.6	126.3	288.7	408.6	322.3	453.6	773.5	550.5
2.Assam	113.03	160.48	117.87	258.11	458.60	280.42	426.12	814.12	473.42
3.Bihar	93.76	139.50	99.53	218.30	353.00	236.78	384.72	601.89	417.18
4.Gujarat	119.25	164.06	133.59	303.30	454.20	356.87	551.33	891.68	678.27
5.Haryana	149.14	183.97	157.03	385.0	473.90	407.67	714.37	912.07	767.89
6.Karnataka	118.1	168.1	132.8	269.4	423.1	318.5	499.8	911.0	638.8
7. Kerala	**145.2**	**178.3**	**152.1**	**390.4**	**493.8**	**419.1**	**765.7**	**932.6**	**816.8**
8.Madhya Pradesh	101.78	148.39	111.61	252.00	408.10	289.83	401.50	693.56	478.92

9.Maharashtra	110.98	187.56	138.57	272.70	529.80	371.54	496.77	973.33	697.42
10.Orissa	97.48	151.35	104.06	219.80	402.50	245.94	373.17	618.48	413.71
11.Punjab	170.30	184.38	174.26	433.00	510.70	456.59	742.43	898.82	792.07
12.Rajasthan	127.52	159.96	134.50	322.40	424.70	346.60	548.88	795.81	611.19
13.Tamil Nadu	112.2	164.2	129.4	293.6	438.3	344.3	514.0	971.6	681.4
14.Uttar Pradesh	104.25	137.84	110.45	273.80	389.00	297.62	466.68	690.68	516.99
15.West Bengal	104.60	169.94	122.03	278.80	474.20	333.36	454.49	866.60	571.66
All India	**112.3**	**165.8**	**125.1**	**281.4**	**458.0**	**328.2**	**486.1**	**855.0**	**591.0**

Source: NHRD 2001, Planning Commissio

Box.1

Poor households spend substantially more on food items as against the non-food. One expects the proportion of expenditure on food to decline with development and economic prosperity. At the national level, the share of expenditure on food declined from 65.6 per cent in 1983 to 59.4 per cent in 1999-2000 in rural areas. There was a corresponding increase in expenditure on non-food items from 34.4 per cent to 40.6 per cent in this period.

5.Incidence of Unemployment

18.8 Incidence of unemployment is defined as the percentage of persons unemployed in the age group 15 years and above on the usual principal and subsidiary status to the total number of persons in the labour force.

Table 18.5
Incidence of Unemployment

(per cent of labour force)

State	1983			1993-94			1999-2000		
	Male	Female	Persons	Male	Female	Persons	Male	Female	Persons
1. Andhra Pradesh	1.8	0.5	1.3	1.3	0.6	1.1	1.8	0.9	1.4
2.Assam	2.2	2.4	2.2	4.6	9.5	5.6	3.7	8.0	4.6
3.Bihar	1.7	0.3	1.3	2.6	1.3	2.3	2.9	0.9	2.4
4.Gujarat	1.8	0.6	1.4	1.8	1.1	1.6	1.1	0.3	0.8
5.Haryana	3.3	1.1	2.7	1.9	0.9	1.6	1.5	0.4	1.2
6.Karnataka	1.8	1.2	1.6	1.5	1.3	1.4	1.5	1.2	1.4
7. Kerala	**7.5**	**8.6**	**7.9**	**5.8**	**12.1**	**7.7**	**5.6**	**15.1**	**8.6**
8.Madhya Pradesh	0.9	0.1	0.6	1.7	0.5	1.3	1.5	0.3	1.1
9.Maharashtra	2.6	0.7	1.9	2.4	1.1	1.9	3.4	1.8	2.9
10.Orissa	1.9	0.6	1.5	2.5	1.2	2.1	3.2	1.5	2.6
11.Punjab	2.5	2.0	2.4	1.8	1.9	1.9	2.4	1.2	2.1
12.Rajasthan	1.1	0.2	0.8	0.8	0.2	0.5	1.1	0.3	0.8
13.Tamil Nadu	3.7	2.1	3.1	2.6	2.0	2.4	2.9	1.9	2.6
14.Uttar Pradesh	1.4	0.3	1.1	1.4	0.1	1.1	1.7	0.7	1.4
15.West Bengal	3.9	3.9	3.9	3.0	5.0	3.5	3.9	4.3	4.0
All India	**2.3**	**1.3**	**2.0**	**2.1**	**1.7**	**2.0**	**2.5**	**1.8**	**2.3**

Source: NHRD 2001, Planning Commission

18.9 Kerala has the highest incidence of unemployment at around 8 per cent in each of the three years for which data are presented. Incidence of unemployment among females greatly exceeds that among males in Kerala. When the incidence of unemployment among male in Kerala decreased gradually, that of females increased at a faster rate touching 15.1per cent in 1999-00.In west Bengal and Assam also the incidence of unemployment among females was higher than that of males. A comparative position of incidence of unemployment is shown in Table-18.5. Incidence of unemployment among females in Tamil Nadu witnessed downward trend in all the three years, in contrast to Kerala. At the national level, incidence of unemployment increased from 2 per cent in 1983 to 2.3 per cent in 1999-2000.

6.Access to safe drinking water

18.10 Position of Kerala in access to safe drinking water is at the bottom. As per the estimates in 1991, only 18.89 percent of the total households in Kerala was having safe drinking water accessibility. Corresponding figures of southern States, viz. Karnataka, Tamil Nadu and Andhra Pradesh were 71.68 per cent, 67.42 per cent and 55.08 per cent respectively. Households with drinking water accessibility in Punjab is 92.7 per cent, followed by West Bengal (82.0 per cent). Annual growth of drinking water coverage in Kerala was in slow pace compared to several major States. But it should be noted that only piped water coverage is taken in the case of Kerala, whereas for others hand pumps are also included (But according to KWA,drinking water supply combined rural –urban coverage in Kerala is over 62 per cent) .The fact remains that even in 1991 the coverage was much more than reported in NHDR 2001.During the period 1991-2001, accelerated effort was made in providing drinking water both by State Government as well as local self governments. Details are presented in Table 18.6.

Box:2

Nearly 80 per cent of the country's population still either defecate in open or use unsanitary bucket latrines or smelly public toilets as per one estimate. This is true in even urban areas where hardly 20 per cent of the population has access to water flush toilets connected to a sewerage system and only 14 per cent enjoy water-bone toilets connected to septic tanks or leach pits. In rural areas a mere three per cent of the population has access to sanitary toilets. This lack of adequate sanitation is responsible for severe health problems.Cholera, dysentery, typhoid, para-typhoid, infectious hepatitis and many other diseases can be traced to the unsanitary disposal of human excreta. Lack of sanitation also has grave social consequences, the need to have 'night soil' removed has given rise to the profession of 'scavenging' or collecting it from bucket latrines, the streets and other locations. Though, this practice has been banned and the Indian Constitution bans the segregation of those who service this profession, there are many pockets in the country where the practice continues unabated.

Source: Sulabh International Social Service Organisation

Table-18.6

Access to Safe Drinking Water (per cent of house holds)

State	1981			1991		
	Rural	Urban	Combined	Rural	Urban	Combined
1. Andhra Pradesh	15.12	63.27	25.89	48.98	73.82	55.08
2.Assam	NA	NA	NA	43.28	64.07	45.86
3.Bihar	33.77	65.36	37.64	56.55	73.39	58.76
4.Gujarat	36.16	86.78	52.41	60.04	87.23	69.78
5.Haryana	42.94	90.72	55.11	67.14	93.18	74.52
6.Karnataka	17.63	74.40	33.87	67.31	81.78	71.68

7. Kerala	**6.26**	**39.72**	**12.20**	**12.22**	**38.68**	**18.89***
8.Madhya Pradesh	8.09	66.65	20.17	45.56	79.45	53.41
9.Maharashtra	18.34	85.56	42.29	54.02	90.50	68.49
10.Orissa	9.47	51.33	14.58	35.32	62.83	39.07
11.Punjab	81.80	91.13	84.56	92.09	94.24	92.74
12.Rajasthan	13.0	78.65	27.14	50.62	86.51	58.96
13.Tamil Nadu	30.97	69.44	43.07	64.28	74.17	67.42
14.Uttar Pradesh	25.31	73.23	33.77	56.62	85.78	62.24
15.West Bengal	65.78	79.78	69.65	80.26	86.23	81.98
All India	**26.50**	**75.06**	**38.19**	**55.54**	**81.38**	**62.30**

Source : Housing and Amenities, Paper 2 of 1993, Census of India 1991.

*-see para 6

7.Road Density

18.11 Road density, in terms of both, area and population, is furnished in Table-18.7.Road density of Kerala was the highest among all States in terms of length per sq.km. The density was 3749 km per '000 sq km(1996-97). This shows Kerala has comparatively a comfortable road net work. Kerala was followed by Tamil Nadu (1588 km per '000 sq km). Road density was the lowest in Madhya Pradesh(451 km. per '000 sq.km.).In terms of road length per lakh of population , Orissa stood first(666.3 km per lakh population), whereas,West Bengal(90.7 km per lakh population) at the bottom. In the case of Kerala, it should be noted that considering the density of population and its spread, there are several habitations still unconnected.

Table-18. 7

Road Density in km

State	Length in km per 1000 sq. km of area			Length in km per one lakh of population		
	1981-82	1991-92	1996-97	1981	18988	1995
1.Andhra Pradesh	468	553	647	219.73	256.8	258.7
2.Assam	760	836	872	235.5	323.1	305.3
3.Bihar	481	492	508	119.73	121.3	101.8
4.Gujarat	375	419	463	171.03	219.5	263.4
5.Haryana	542	601	637	178.82	200.9	166.6
6.Karnataka	557	701	750	296.72	340.3	312.0
7. Kerala	**2571**	**3567**	**3749**	**410**	**425.6**	**480.4**
8.Madhya Pradesh	242	321	451	200	241.1	319.3
9.Maharashtra	586	730	1176	171.22	330.00	285.5
10.Orissa	772	1260	1687	454	741.3	666.3
11.Punjab	916	1078	1278	275.4	303.1	282.4
12.Rajasthan				187	310.2	296.3
13.Tamil Nadu	1020	1523	1588	256.53	345.1	367.8
14.Uttar Pradesh	520	692	868	136.05	165.9	154.1
15.West Bengal	642	700	850	104.29	105.6	90.7
All India	**466**	**615**	**749**	**21.68**	**-**	**25.82**

Source: Basic Road Statistics, Ministry of Surface Transport (Various issues), NHDR:2001

8.Rail Density and Rail Route Length

18.12 Rail density (1996-97) was the highest in Punjab (42.49 km per '000 sq. km) and the rail density of West Bengal (42.46 per cent) was very close to that of Punjab . Kerala (27.02 km per '000 sq.km) stood next to Tamil Nadu (30.75 km per sq. km). The density was the lowest in Maharashtra (18.05 km per '000 sq. km) The Rail route length was the highest in Uttar Pradesh (8911 km) in 1996-97, followed by Madhya Pradesh (5893 km) and Rajasthan(5890km) .Rail route length in Kerala was 1050 km. An additional route length of 1495 km was extended in the country during the period from 1980-81 to 1996-97. Out of this, 134 km (9 per cent) was in Kerala, 276 km (18.5 per cent) in Andhra Pradesh and 104 (7 per cent) in Tamil Nadu. Details are presented in Table-18.8

Table-18.8

Railway Density and Rail Route Length

State	Length in km per 1000 sq. km of area			Rail Route Length in km		
	1981-82	1991-92	1996-97	1980-81	1996-97	Increase
1. Andhra Pradesh	17.39	18.49	18.38	4781	5057	276
2.Assam	27.58	31.45	31.04	2179	2435	256
3.Bihar	30.82	30.29	30.27	5362	5254	-108
4.Gujarat	28.73	26.94	27.15	5632	5322	-310
5.Haryana	34.09	33.9	34.22	1500	1513	13
6.Karnataka	15.7	15.98	15.95	3015	3059	44
7. Kerala	**23.49**	**25.32**	**27.02**	**916**	**1050**	**134**
8.Madhya Pradesh	12.95	13.31	13.29	5736	5893	157
9.Maharashtra	17.32	17.68	18.05	5235	5554	319
10.Orissa	12.71	12.86	14.06	1982	2190	208
11.Punjab	42.78	42.89	42.49	2139	2140	1
12.Rajasthan	16.42	17.02	17.21	5614	5890	276
13.Tamil Nadu	29.16	30.83	30.75	3895	3999	104
14.Uttar Pradesh	30.2	30.29	30.27	8880	8911	31
15.West Bengal	41.85	43	42.46	3725	3768	43
All India	**18.63**	**19.00**	**19.08**	**61230**	**62725**	**1495**

Source: Railway Board, NHDR: 2001

9.Tele-density and Area/Population under one Post Office.

18.13 Tele-density recorded an upward trend in all States between 1987-88 and 2000. Tele density (per 100 persons) in 2000 was the highest in Kerala (5.56), which is almost. double that of all India Tele-density. Substantial increase in Tele-density was achieved during the period between 1991-92 and 2000 in all States.

18.14 The area to be served by one post office is the lowest in Kerala (7.7sq.km), followed by West Bengal and Tamil Nadu (10.76 sq.km each). The population to be served by one post office (1999-2000) was the highest in Bihar (7216 persons). Details are shown in Table-18.9.

Table-18.9
Tele-Density & Area per Population Under One Post Office

State	Tele-density (per 100 persons)			Area under one post office sq.km.			Population under one post office		
	1987-88	1991-92	2000	1980-81	1990-91	1999-2000	1980-81	1990-91	1999-2000
1. Andhra Pradesh	0.05	0.64	3.12	17.27	16.92	16.98	3341	4080	4097
2.Assam	0.18	0.24	1.06	31.97	20.84	20.04	5792	5925	5698
3.Bihar	0.12	0.16	0.65	16.9	15.42	14.53	6798	7657	7216
4.Gujarat	1.04	1.32	4.22	23.41	22.55	21.88	4072	4737	4609
5.Haryana	0.51	0.82	3.35	18.68	17.53	16.67	5459	6470	6158
6.Karnataka	0.69	0.93	3.74	20.53	19.84	19.45	3977	4637	4538
7. Kerala	**0.78**	**1.16**	**5.55**	**8.49**	**7.94**	**7.71**	**5563**	**5932**	**5751**
8.Madhya Pradesh	0.23	0.45	1.54	44.57	40.78	38.98	5253	6083	5812
9.Maharashtra	0.45	0.63	5.33	27.45	25.84	24.67	5601	6611	6315
10.Orissa	1.19	0.28	1.21	21.57	19.96	19.17	3652	4040	3873
11.Punjab	0.88	1.23	5.18	13.57	13.32	12.95	4527	5343	5356
12.Rajasthan	0.37	0.49	2.11	36.85	34.67	32.92	3668	4446	4222
13.Tamil Nadu	0.50	0.60	4.62	11.17	10.85	10.76	4158	4645	4608
14.Uttar Pradesh	0.22	0.28	1.33	16.95	15.38	14.55	6383	7250	6871
15.West Bengal	0.50	0.60	4.52	11.17	10.85	10.76	4158	4645	4608
All India	**0.59**	**0.78**	**2.85**	**23.62**	**22.10**	**21.26**	**4908**	**5675**	**5462**

Source: 1 Infrastructure in India, 1996, CMIE and Telecom Dept.
2. Departments of Posts

10.Social and Economic Infrastructure Index

18.15 The details presented below in Table-18.10 are infrastructure indices devised by the Eleventh Finance Commission for the year 1999. This index brings out a composite comparative profile of the availability of physical, social and institutional infrastructure in the State.

Table-18.10
Index of Social and Economic Infrastructure.

State	Index
1. Andhra Pradesh	103.30
2.Assam	77.72
3.Bihar	81.33
4.Gujarat	124.31
5.Haryana	137.54
6.Karnataka	104.88
7. Kerala	**178.68**

8.Madhya Pradesh	76.79
9.Maharashtra	112.80
10.Orissa	81.00
11.Punjab	187.57
12.Rajasthan	75.86
13.Tamil Nadu	149.10
14.Uttar Pradesh	101.23
15.West Bengal	111.25

Source : Eleventh Finance Commission Report 2000.

18.16 Punjab(187.57) has the highest index for economic infrastructure. Kerala (178.7) stood next to Punjab, followed by Tamil Nadu(149.1)and Haryana(137.54).The index was the lowest for Rajastan(75.9).The inter- State disparities in indices are wider and they are the replica of the regional imbalances in the level of social and economical development in the country. Infrastructure endowments of States are significant since they are important determinants in the investment decisions and consequently capital flows to the States.

11.Per Capita Net State Domestic Product

Table – 18.11

Per Capita Net State Domestic Product

(Rs. at 1980-81 prices)

State	1981-82	1983-84	1991-92	1993-94	1997-98
1. Andhra Pradesh	1525	1585	2099	2240	2550
2.Assam	1262	1455	1579	1592	1675
3.Bihar	945	999	1120	1038	1126
4.Gujarat	2038	2350	2738	2932	3918
5.Haryana	2455	2464	3521	3482	4025
6.Karnataka	1584	1668	2215	2393	2866
7. Kerala	**1502**	**1405**	**1876**	**2112**	**2490**
8.Madhya Pradesh	1387	1415	1636	1743	1922
9.Maharashtra	2485	2558	3615	4189	5032
10.Orissa	1278	1399	1480	1549	1666
11.Punjab	2846	2884	3873	4019	4389
12.Rajasthan	1282	1524	1916	1763	2226
13.Tamil Nadu	1570	1587	2303	2528	3141
14.Uttar Pradesh	1318	1359	1648	1601	1725
15.West Bengal	1749	1869	2257	2413	2977
All India	**1671**	**1790**	**2213**	**2337**	**2840**

Source : National Human Development Report 2001.

18.17 State Domestic product is an indicator of economic growth of a State. It can be seen from the table that the position of Kerala,in the case of NSDP, was lower than the all India level till 1997-98.But now it is higher by Rs.21133 as against the national average of Rs. 16787 at current prices as per CSO estimate (1999-2000).

12.Employment by Industrial Sector

18.18 It can be seen from Table 18.12 that the general trend in sector wise growth of employment was more or less same in all the States and employment under primary sector has been on decline, and that under tertiary sector on increase. Employment under secondary sector is either almost stagnant or fluctuating within a very narrow range. In Kerala, when the employment under primary sector declined

from 47.9 per cent in 1987-88 to 45.4 per cent in 1993-94 and further to 34.7 per cent in 1999-2000, that under tertiary sector moved up from 36.2 per cent in 1987-88 to 39.7 per cent in 1993-94 and further to 49.7 percent in 1999-2000. While in several better off States,the major share of employment is under primary sector, in Kerala it is under tertiary sector. When the share of employment under primary sector in respect of Bihar, Madhya Pradesh and Orissa are 73.6 percent, 68.6 percent and 69 percent respectively that under Kerala, it is only 34.7 percent.

Table-18.12

Employment by Industrial Sectors (usual principal status)(Per cent)

State	1987-88			1993-94			1999-2000		
	Prim-ary	Secon dary.	Teriti-art	Prim-ary	Secon dary.	Teri-tiary	Pri-mary	Secon dary.	Teri-tiary
1. Andhra Pradesh	67.4	10.3	22.3	68.0	9.1	22.9	60.6	9.3	30.2
2.Assam	69.30	3.00	27.70	71.64	3.04	25.32	57.90	3.81	38.29
3.Bihar	75.70	6.70	17.60	76.62	4.86	18.52	73.55	7.32	19.13
4.Gujarat	55.90	12.90	31.20	57.40	16.20	26.40	52.48	14.00	33.52
5.Haryana	58.90	12.70	28.40	46.60	11.00	42.40	45.15	12.45	42.40
6.Karnataka	66.8	12.0	21.2	66.4	10.6	23.0	58.4	11.5	30.1
7. Kerala	**47.9**	**15.9**	**36.2**	**45.4**	**14.9**	**39.7**	**34.7**	**15.6**	**49.7**
8.Madhya Pradesh	77.00	7.60	15.40	77.60	5.80	16.60	68.62	7.56	23.82
9.Maharashtra	63.20	11.30	25.50	60.40	11.20	28.40	49.96	12.63	37.41
10.Orissa	69.80	9.10	21.10	73.95	7.23	18.82	68.96	9.10	21.94
11.Punjab	52.10	14.50	33.40	49.36	11.73	38.91	43.48	13.30	43.22
12.Rajasthan	65.40	8.30	26.30	67.00	7.00	26.00	61.42	8.66	29.92
13.Tamil Nadu	51.2	19.9	28.9	52.4	18.1	29.5	41.9	20.1	38.0
14.Uttar Pradesh	70.20	9.20	20.60	66.97	9.57	23.46	60.19	11.87	27.94
15.West Bengal	52.30	17.70	30.00	48.34	18.75	32.91	47.34	17.56	35.10
All India (23 States)	**58.8**	**10.6**	**30.3**	**58.4**	**10.1**	**31.5**	**52.4**	**10.9**	**36.7**

Source: Planning Commission.

13.Houses, Toilet Facility, Electricity Connection to Households and Consumption of Electricity.

18.19 The percentage of households with pucca houses was the highest in Punjab (77 per cent) in 1991(see Table 18.13). Next to Punjab was Gujarat with 56.9 percent , followed by Rajastan (56.1 per cent) and Kerala (56 per cent). Assam (14.6 per cent) was at the bottom..In the case of households with access to toilet facility(1997) , Karnataka (90 per cent) stood at the top followed by Kerala (73.1 per cent), Punjab and Gujarat (66.7 per cent each). Position of Tamil Nadu (37.1 per cent) and Andhra Pradesh (35.1 per cent) were below that of all India (49.3 per cent). Toilet facilities were quiet low in Assam (6.4 per cent), Madhya Pradesh (7.9per cent) and Orissa (9.5 per cent).With regard to electricity connection to households (1991), Kerala's position was seventh only(48.4 per cent). Punjab stood at the top with 82.3 per cent, followed by Haryana (70.4 per cent). Bihar was at the bottom (12.6 per cent). Details are presented in Table-18.13

Table-18.13

Indicators on Amenities (per cent)

States	Pucca houses		Toilet facility		Electricity connection (Houses)	
	1981	1991	1991	1997	1981	1991
1.Andhra Pradesh	26.2	38.4	18.4	35.1	21.4	46.3
2.Assam	NA	14.62	37.43	6.44	NA	18.74
3.Bihar	23.64	30.18	11.75	58.14	9.20	12.57
4.Gujarat	48.96	56.93	30.69	66.74	44.81	65.93

5.Haryana	39.82	50.10	22.45	60.00	51.53	70.35
6.Karnataka	29.3	42.6	24.1	90.0	32.98	52.5
7. Kerala	**38.8**	**56.0**	**51.3**	**73.1**	**28.8**	**48.4**
8.Madhya Pradesh	25.02	30.47	15.07	7.87	17.11	43.30
9.Maharashtra	39.63	52.20	29.56	64.13	40.65	69.40
10.Orissa	13.00	18.71	9.81	9.46	17.75	23.54
11.Punjab	58.12	76.97	33.18	66.68	60.90	82.31
12.Rajasthan	49.08	56.13	19.57	65.40	20.54	35.03
13.Tamil Nadu	36.6	45.5	23.1	37.1	37.2	54.7
14.Uttar Pradesh	29.29	41.03	18.02	33.15	12.91	21.91
15.West Bengal	28.40	32.64	31.51	50.19	21.09	32.90
All India	**32.7**	**41.6**	**23.7**	**49.3**	**26.2**	**42.4**

Source : National Human Development Report 2001.

18.20 Access to electricity is a basic need in today's context. In India, successive five- year plans have laid specific targets for extending the coverage of electricity to households. However, progress has been far from satisfactory. As per 1991 census, only 42 per cent of households had access to electricity in their houses as against 26 per cent in 1981. There are large inter-state variations in the availability of electricity to the households, both in urban and rural areas. Per capita consumption of electricity in Kerala is low in comparison with other southern States. In 1999-2000, per capita consumption of electricity in Kerala was 261.8 Kwh, which was much lower than the all India level of 354.75 Kwh. Among southern States, per capita consumption was the highest in Tamil Nadu (484.1 Kwh), followed by Andhra Pradesh (391Kwh) and Karnataka (380.1 Kwh). At the national level Punjab is the highest with per capita consumption of electricity (921.1 Kwh), followed by Gujarat(834.7Kwh). Consumption is quite low in Assam (95.5 Kwh). The growth of per capita consumption of electricity in 90's is lower than that of 80's in all the States, but for Gujarat and West Bengal .The details are shown in Table 18.14.

Table-18.14

Consumption of Electricity

State	Per capita consumption of Electricity (Kwh)			Annual average compound growth Rate (AACGR)	
	1980-81	1989-90	1999-2000	1980-81 to 1989-90	1989-90 to 1999-2000
1. Andhra Pradesh	101.8	233.5	391.0	8.7	5.3
2.Assam	33.5	92.7	95.5	10.7	0.3
3.Bihar	74.1	109.9	140.8	4.0	2.5
4.Gujarat	238.8	436.8	834.7	6.2	6.7
5.Haryana	209.5	367.4	530.8	5.8	3.7
6.Karnataka	146.0	272.8	380.1	7.2	3.4
7. Kerala	**112.0**	**171.0**	**261.8**	**4.8**	**4.4**
8.Madhya Pradesh	100.3	217.4	351.7	8.0	4.9
9.Maharashtra	244.5	393.6	520.5	4.9	2.8
10.Orissa	114.0	249.2	354.6	8.1	3.6
11.Punjab	303.6	620.5	921.1	7.4	4.0
12.Rajasthan	99.4	191.6	334.5	6.8	5.7
13.Tamil Nadu	186.0	295.0	484.1	5.3	5.1
14.Uttar Pradesh	83.1	157.4	175.8	6.6	1.1
15.West Bengal	117.0	136.2	204.4	1.5	4.1
All India	**120.5**	**236.0**	**354.75**	**7.8**	**4.2**

Source: Planning Commission.

EDUCATIONAL ATTAINMENTS AND WELL-BEING.

18.21 Education, in the present day context, is perhaps the single most important means for individuals to improve personal capabilities. The process of education and attainments thereof has an impact on all aspects of life. Improvements in educational attainments have invariably been accompanied by improvements in health and longevity of the population and in their economic well being. Educated people are likely to be more productive and hence better off. They are also likely to contribute more to country's economic growth.

Box. 3
Productivity Benefits from Education – Some Cross Country Evidence

In agriculture, for example, studies covering 31 countries concluded that if a farmer had completed four years of elementary education, his/her productivity was on an average, 8.5 per cent higher than that of a farmer who had no education at all. In case of India there is evidence that adoption and spread of 'green revolution', in the early years was faster among the educated farmer. In industry, most evidence suggests that at enterprise level educated workers are more productive. More strikingly, the skill and knowledge intensive sectors have been the fastest growing service sector in India in recent years. A study for 88 countries for the period 1960-63 and 1970-73 found that an increase in literacy from 20 per cent to 30 per cent were associated with an increase in real GDP of between 8 and 16 per cent. Another study of 37 middle-income and 29 low-income countries indicated that a 1 per cent difference in the primary enrolment ratios was associated with 0.035 per cent difference in per capita income growth rates.

Source: National Human Development Report:2001

14.Literacy Rate

18.22 Literacy rate is defined as the proportion of literates to total population in the age group seven years and above. Kerala is the best performer in all the three measures- male literacy(94.20 per cent), female literacy (87.86 per cent) and total literacy (90.92 per cent). Bihar (47.53 per cent) continues to be at the bottom. Maharashtra(77.27 per cent) stood next to Kerala, followed by Tamil Nadu (73.47 per cent). Literacy rates of Andhra Pradesh (61.11 per cent), Assam (64.28 per cent), Madhya Pradesh (64.01 per cent) , Orissa (63.61 per cent), Rajasthan (61.03 per cent) and Uttar Pradesh (57.36 per cent) are below all India average.Gender gap in literacy in Kerala is only 6.34 per cent, whereas, that in Uttar Pradesh , Madhya Pradesh and Haryana are 27.26 per cent, 26.15 per cent and 22.94 per cent respectively. See Table-18.15

15.Drop- out rates

18.23 Drop- out rate is the percentage of students dropping out of a class /classes in a given year. There is considerable regional disparity among States in drop out rates. Drop-out rate in class I – X in 1998-99 was lowest in Kerala (24.7 per cent). At the national level, the drop- out rate was 67.4 per cent. The drop out rate was quiet high in Bihar (83.5 per cent), followed by west Bengal (82.7 per cent). Generally the drop- out rate was higher for girls. Kerala is an exception. In classes I – X, when the drop- out rate was 30 per cent for boys, it was only 19.2 per cent for girls in Kerala. See Table 18.15.

16.Intensity of Formal Education

18.24 The intensity of formal education is estimated as weighted average of the enrolled students from classes I – XII (where weights being 1 for class I, 2 for class II and so on) to the total enrolment in class I – XII. It implicitly takes care of the drop-out rates across all classes. Intensity of formal education (1993) is the highest in Kerala (5.4 years) followed by Tamil Nadu (5.3 years). Intensity of formal education is 4.6 years at national level. Compared to boys, intensity of formal education of girls is higher in Kerala, whereas in all other States the trend is the reverse. See Table-18.15

17.Age Specific Enrolment Ratio

18.25 Age specific enrolment ratio refers to percentage of children enrolled in a particular age group, irrespective of the class of enrolment, to the total population of children in that age group. A higher ratio on this measure implies a higher educational participation. Age specific enrolment ratios of Kerala, both within 6-11 years age group and 11-14 years age group are far ahead of the ratios of all other States. When there were large variations between the age specific enrolment ratios of boys and girls in all other States,in Kerala the ratios tracked closely. Details are shown in Table-16.

18.Teacher- Pupil Ratio

18.26 The teacher-pupil ratio (1997-98) in primary section is the lowest in Kerala (30), in upper primary section, it is in Punjab(18)and in secondary section in Orissa(17). Details are presented in Table-18.17

19.Number of Schools per '000 Population

18.27 Number of Schools per '000 population(1997-98) in Kerala in primary section is 2.2 and in upper primary section 1.5 which are much lower than the corresponding figures of all India, 5.0 and 2.8 respectively. Number of primary schools per '000 population is the highest in Orissa (9.7) and the number of upper primary school per '000 population is the highest in Karnataka (6.6). Details are presented in Table-18.17

Table-15

Literacy Rate, Drop Outs And Intensity of Formal Education

State	Literacy Rate 2001 (per cent)			Drop Out Rate: I-X 1998-99 (per cent)			Intensity Of Formal Education 1993(Years)		
	M	F	P	B	G	C	B	G	C
1. Andhra Pradesh	70.9	51.2	61.1	76.5	78.7	77.4	4.6	4.2	4.4
2.Assam	71.9	56.0	64.28	76.55	75.32	76.00	4.41	4.30	4.36
3.Bihar	60.3	33.6	47.53	81.44	87.26	83.47	4.12	3.66	3.97
4.Gujarat	76.46	55.61	66.43	70.12	74.96	72.29	4.94	4.69	4.83
5.Haryana	79.3	56.3	68.59	45.24	55.98	50.04	5.29	4.78	5.07
6.Karnataka	76.3	57.5	67.0	67.2	68.9	68.0	4.7	4.3	4.5
7. Kerala	**94.2**	**87.9**	**90.9**	**30.0**	**19.2**	**24.7**	**5.4**	**5.5**	**5.4**
8.Madhya Pradesh	76.8	50.3	64.11	60.37	75.22	66.73	4.82	4.17	4.57
9.Maharashtra	86.3	67.5	77.27	55.02	64.22	59.33	4.99	4.64	4.83
10.Orissa	75.95	50.97	63.61	52.44	62.05	52.27	4.37	4.09	4.25
11.Punjab	75.6	63.6	69.95	39.99	44.35	42.02	5.04	4.95	5.00
12.Rajasthan	76.5	44.3	61.03	77.63	82.74	79.29	4.53	3.83	4.32
13.Tamil Nadu	82.3	64.6	73.5	57.7	58.4	58.0	5.3	5.2	5.3
14.Uttar Pradesh	70.2	43.0	57.36	55.13	72.68	61.25	4.85	4.33	4.67
15.West Bengal	77.6	60.2	69.22	78.50	88.03	82.73	4.39	4.03	4.23
All India	**75.6**	**54.0**	**65.2**	**65.4**	**70.2**	**67.4**	**4.8**	**4.5**	**4.6**

M-Male F-Female P-Person B-Boys G-Girls C- Children

Source : National Human Development Report 2001

Table-16
Age Specific Enrolment Ratio

(per cent)

State	Age: 6-11 Years						Age:11-14 Years					
	1981			1991			1981			1991		
	B	G	C	B	G	C	B	G	C	B	G	C
1. Andhra Pradesh	54.7	37.9	46.3	59.2	46.7	53.0	50.5	28.5	39.9	65.8	45.0	55.9
2.Assam	NA	NA	NA	49.0	42.9	46.0	NA	NA	NA	67.9	58.7	63.4
3.Bihar	43.4	22.8	33.6	41.7	26.1	34.3	57.0	24.3	42.1	62.8	37.1	51.1
4.Gujarat	63.6	48.9	56.5	67.2	57.1	62.3	69.9	48.1	59.6	75.9	59.5	68.1
5.Haryana	60.4	38.2	50.0	67.5	56.2	62.2	70.5	34.4	53.8	82.3	62.2	73.1
6.Karnataka	59.3	44.2	51.7	66.6	57.2	61.9	56.9	35.4	46.3	71.4	54.6	63.2
7. Kerala	**90.1**	**89.3**	**89.7**	**91.3**	**91.1**	**91.2**	**86.0**	**81.9**	**84.0**	**93.4**	**92.8**	**93.1**
8.Madhya Pradesh	48.0	26.4	37.4	53.5	40.9	47.4	55.3	24.6	40.9	69.0	44.1	57.3
9.Maharashtra	70.5	56.1	63.4	72.9	65.1	69.1	71.7	48.8	60.7	82.2	68.6	75.7
10.Orissa	58.4	39.0	48.7	60.6	48.0	54.3	54.6	28.6	41.7	67.0	46.4	56.7
11.Punjab	68.0	60.2	64.4	68.3	63.2	65.9	67.9	53.6	61.2	77.9	68.4	73.4
12.Rajasthan	47.3	18.8	33.7	50.3	26.3	38.9	59.4	18.4	40.2	71.4	30.2	52.2
13.Tamil Nadu	73.8	60.8	67.4	79.8	74.8	77.4	63.4	41.5	52.8	78.1	65.7	72.1
14.Uttar Pradesh	43.7	22.5	33.9	43.7	28.8	36.7	59.4	24.5	43.8	63.3	37.2	51.3
15.West Bengal	51.1	40.4	45.9	49.2	42.4	45.9	60.6	44.7	52.8	66.7	55.3	61.1
All India	**55.3**	**38.5**	**47.2**	**56.6**	**45.4**	**51.2**	**62.0**	**36.7**	**50.0**	**71.1**	**52.2**	**62.1**

B-Boys G-Girls C- Children *Source:NHRD: 2001*

Table-17
Teacher – People Ratio

State	Teacher – People Ratio (1997-98)			No: of Schools / Thousand Population (1997-98)	
	Primary	U. Primary	Secondary	Primary	U. Primary
1. Andhra Pradesh	49	39	32	5.3	1.6
2.Assam	37	24	21	8.62	3.58
3.Bihar	62	49	42	3.97	1.92
4.Gujarat	47	41	30	2.86	6.12
5.Haryana	47	34	23	4.06	1.24
6.Karnataka	31	52	20	3.8	6.6
7. Kerala	**30**	**29**	**29**	**2.2**	**1.5**
8.Madhya Pradesh	44	35	34	8.18	3.76
9.Maharashtra	38	40	32	3.97	3.68
10.Orissa	35	33	17	9.66	4.99
11.Punjab	40	18	28	4.84	1.65
12.Rajasthan	42	33	25	4.88	3.88
13.Tamil Nadu	39	40	45	4.9	1.4
14.Uttar Pradesh	42	29	39	4.21	1.71
15.West Bengal	57	NA	NA	5.28	0.54
All India	**42**	**37**	**29**	**5.0**	**2.8**

Health Attainments & Demographic Indicators

18.28 Indicators on Health and longevity, as well as indicators that variously capture demographic concerns of a society are important constituents in the framework for evaluating the development process under human development approach. The relationship between health and poverty or health and development is complex, multifaceted and multi directional .

20.Life expectancy at birth

18.29 Life expectancy of an individual is the number of years the person is expected to live given the prevailing age specific mortality rates of the population to which he/she belongs. In Kerala (1992-96), a person at birth is expected to live for over 73 years (70 years for male and 76 years for female), which is the highest at the national level, followed by Punjab,67 years (66 years for male and 68 years for female). Females outlive males in all the States, but for Bihar, Madhya Pradesh, Orissa and Uttar Pradesh . When the female –male difference in life expectancy at birth is 5.6 years in Kerala, it is only marginal in the case of most of the States. See Table-18.18

21.Infant Mortality Rate (IMR)

18.30 There are various indicators of infant and child mortality. Among the more commonly used , infant mortality rate refers to the number of deaths per '000 live births in the first year of child's life. It reflects the probability of a child dying before attaining the age of one year. Infant mortality rate (1991) .is the lowest in Kerala (42 for '000) and the highest in Madhya Pradesh (133 for '000). (But IMR in Kerala as per the Economic Survey of India,2001 was 17 for '000 in 1991 and 15.6 for '000 in 1998). Compared to females, infant mortality rate is higher for males in most of the States. But the trend is reverse at the national level, where IMR of female is 79 and that of male 74. See Table 18.18

22.Death Rate

18.31 Death rate (1997) is the lowest in Kerala (6.2 for '000 persons). Next to Kerala was Maharashtra (7.3), followed by Punjab (7.4). The death rate was the highest in Madhya Pradesh (11). It can be seen from the Table that the death rate of female is lower than that of male in general .See Table – 18.18

23.Birth Delivered in Medical Institutions

18.32 In Kerala as per 1998-99 figures , proportion of birth attended by health professionals was 93 per cent, the highest at the national level, whereas, the corresponding figure was 79.8 per cent for Tamil Nadu. The same for Karnataka was 51.1 per cent and for Andhra Pradesh 50 per cent. The lowest was in Bihar(14.7 per cent),followed by Uttar Pradesh(15.7 per cent) .Out of the major 15 states as many as in nine States the number of births attended by health professionals are below 50 per cent. Births attended by health professionals showed striking rural-urban disparities across States. In Kerala, disparity was only 8 per cent ,whereas, in Karnataka and Andhra Pradesh the disparities were wider, ie, 40 per cent and 38 per cent respectively. In Kerala, almost the entire births in urban area were attended by health professionals (99.4 per cent). Details are presented in Table- 18.19

24.Couple Protection Rate

18.33 Couple protection rates (1998-99) are given in Table-19.It is the percentage of currently married women aged 15-49 using family planning (all methods). Couple protection rate is the highest in Punjab (66.7 per cent), followed by West Bengal (66.6 per cent) and Kerala (63.7 per cent).(But , the couple protection rate in 2001 was 97,as per the Directorate of Health Services,Kerala) .Couple protection rate in Bihar is 24.5 per cent, the lowest among all States. Like the other core indicators on health, the couple protection rate is also higher in urban area. See Table 18.19.

25.Total Fertility Rate (TFR)

18.34 Total fertility ratio is an indicator, useful for undertaking an analysis on the prospects of population stabilisation. It is defined as the number of live births a women would expect to deliver, if she

were to live through her productive years (age 15-49 years) and bear children at each age in accordance with the prevailing age specific fertility rates. The level of fertility has been, generally, found to be higher at the lower education levels of parents. There are large inter- State differences in TFR. TFR of Kerala (1995-97) is the lowest (1.8 per cent) followed by Tamil Nadu (2.1 per cent) . TFR is the highest in Uttar Pradesh (4.9) followed by Bihar (4.5). Details are given in Table-18.19

Table 18.18

Health Characteristics

State	Expectation of Life at Birth(1992-96).years			Infant Mortality Rate(1991) per'000			Death Rate(in '000) 1997		
	M	F	P	M	F	P	M	F	P
1. Andhra Pradesh	60.8	63.0	62.0	67	51	55	9.3	7.4	8.3
2.Assam	56.1	56.6	56.2	96	87	92	9.8	9.9	9.9
3.Bihar	60.2	58.2	59.4	62	89	75	9.9	10.2	10
4.Gujarat	60.5	62.5	61.4	74	82	78	7.8	7.5	7.6
5.Haryana	63.4	64.3	63.8	57	54	52	8.0	8.0	8.0
6.Karnataka	61.1	64.5	62.9	74	72	74	8.1	7.0	7.6
7. Kerala	**70.2**	**75.8**	**73.1**	**45**	**41**	**42***	**7.6**	**4.9**	**6.2**
8.Madhya Pradesh	55.1	54.7	55.2	131	136	133	11.2	10.9	11.0
9.Maharashtra	63.8	66.2	65.2	72	76	74	7.9	6.7	7.3
10.Orissa	56.9	56.6	56.9	129	111	125	11.0	10.7	10.9
11.Punjab	66.4	68.6	67.4	81	53	74	8.0	6.8	7.4
12.Rajasthan	58.6	59.6	59.5	94	79	87	9.0	8.7	8.9
13.Tamil Nadu	62.8	64.8	63.7	55	51	54	8.8	7.2	8.0
14.Uttar Pradesh	57.7	56.4	57.2	98	104	99	10.0	10.6	10.3
15.West Bengal	61.8	63.1	62.4	75	51	62	8.1	7.3	7.7
All India	**60.1**	**61.4**	**60.7**	**74**	**79**	**77**	**9.2**	**8.6**	**8.9**

*-see para 21.

Table-18.19

States	Birth Delivered in Medical Institutions 1998-99(percent)			Couple Protection Rate(per cent) 1998-99			Total Fertility Rate (No. of Children) 1995-97		
	R	U	C	R	U	C	R	U	C
1. Andhra Pradesh	40.4	78.6	50.0	58.3	63.4	59.6	3.1	2.3	2.8
2.Assam	15.0	59.9	17.6	42.3	53.4	43.3	3.5	2.1	3.3
3.Bihar	12.4	39.9	14.7	22.9	38.9	24.5	4.6	3.2	4.5
4.Gujarat	33.2	69.4	46.4	57.0	61.8	59.0	3.3	2.9	3.1
5.Haryana	14.9	47.1	22.3	60.4	67.2	62.4	3.8	2.8	3.5
6.Karnataka	38.7	78.8	51.1	57.4	59.9	58.3	2.8	2.2	2.6
7. Kerala	**91.5**	**99.4**	**93.0**	**63.2**	**65.5**	**63.7***	**1.8**	**1.8**	**1.8**
8.Madhya Pradesh	12.3	49.8	20.4	40.7	55.2	44.3	4.4	2.6	4.1
9.Maharashtra	34.6	80.9	52.8	62.7	58.5	60.9	3.2	2.4	2.8
10.Orissa	19.3	54.7	22.9	45.9	54.0	46.8	3.3	2.3	3.1
11.Punjab	32.0	56.0	37.5	64.4	71.7	66.7	3.0	2.3	2.8
12.Rajasthan	15.0	47.9	21.7	37.1	50.4	40.3	4.5	3.0	4.2
13.Tamil Nadu	73.1	92.6	79.8	48.8	58.2	52.1	2.2	1.8	2.1
14.Uttar Pradesh	11.7	37.3	15.7	23.9	44.8	28.1	5.1	3.8	4.9
15.West Bengal	31.5	80.1	40.4	64.5	73.4	66.6	3.0	1.8	2.7
All India	**24.6**	**65.1**	**33.6**	**44.7**	**58.2**	**48.2**	**3.7**	**2.5**	**3.4**

Source: National Human Development Report:2001- see para 24, R: Rural U: Urban C: Combined,*

26. Population Characteristics

18.35 Population of Kerala, according to 2001 census, is 31.8 million, which constitutes 3.1 per cent of the population of India. Corresponding figures with respect to Andhra Pradesh, Karnataka and Tamil Nadu are 75.7 million (7.4 per cent), 52.7 million (5.1 per cent) and 62.1 million (6.05 per cent) respectively. Kerala is at the top in sex ratio with 1058 families for '000 males. Compared to urban area, sex ratio is higher in rural areas in all States. Rate of urbanisation (percentage of urban population to total population) is slower in Kerala, in comparison with the other southern States and the nation as a whole. During the period 1991-2001 when the urbanisation rate of Tamil Nadu increased by 9.7 per cent and that of nation as a whole by 2 per cent, the rate of Kerala decreased marginally (0.4 per cent). See Table 18.20 and18. 21

27. Population Growth rate

18.36 Population growth rates have been on decline in all the southern States since 1971. In Kerala, population growth declined in all the three decades, from 1.78 per cent in 1971-81 to 1.35 per cent in 1981-91 and further to 0.90 per cent in 1991-01. Population growth rate in 1991-01 was highest in Karnataka (1.60 per cent) and the lowest in Kerala (0.90 per cent).See Table 18.20.

28. Density of Population

18.37 West Bengal is the most densely populated State (904 persons/sq.km)in India and its density is above five times that of Rajastan, the most thinly populated State(165), and around four times that of Orissa(236). kerala has the next highest figure of 819 per sq.km. Density of population of Andhra Pradesh and Karnataka (275 persons each, per sq.km) are lower than that of the density at national level (324 persons per sq.km) See Table- 18.21.

Table.20
Population Characteristics

State	Population 2001 (in Million)			Sex-Ratio (female per '000 male)			Annual Growth (per cent)		
	M	F	P	1981	1991	2001	71-81	81-91	91-01
1. Andhra Pradesh	38.29	37.44	75.73	983	965	978	2.10	2.19	1.31
2.Assam	13.79	12.85	26.64	940	878	932	3.13	1.20	1.74
3.Bihar	57.02	52.77	109.79	927	869	921	2.18	2.14	2.43
4.Gujarat	26.34	24.25	50.60	946	880	921	2.47	1.94	2.05
5.Haryana	11.33	9.76	21.08	867	847	861	2.56	2.45	2.50
6.Karnataka	26.86	25.88	52.73	976	940	964	2.4	1.93	1.60
7. Kerala	**15.47**	**16.37**	**31.84**	**1059**	**1058**	**1058**	**1.78**	**1.35**	**0.90**
8.Madhya Pradesh	41.91	39.27	81.18	927	899	920	2.28	2.41	2.06
9.Maharashtra	50.33	46.42	96.75	959	874	922	2.22	2.32	2.06
10.Orissa	18.61	18.09	36.71	986	895	972	1.85	1.84	1.49
11.Punjab	12.96	11.33	24.29	887	848	874	2.17	1.91	1.82
12.Rajasthan	29.38	27.09	56.47	932	890	922	2.89	2.53	2.53
13.Tamil Nadu	31.27	30.84	62.11	992	980	986	1.63	1.44	1.07
14.Uttar Pradesh	91.78	82.75	174.53	904	879	898	2.30	2.30	1.79
15.West Bengal	41.49	38.73	80.22	950	893	934	2.11	2.23	1.65
All India	**531.28**	**495.74**	**1027.02**	**946**	**901**	**933**	**2.26**	**2.13**	**1.95**

Source: National Human Development Report:2001

Table18.21

State	Urban Population (Per cent)			Population Density (persons/sq.km)		
	1981	1991	2001	1981	1991	2001
1.Andhra Pradesh	23.32	26.9	27.08	195	242	275
2.Assam	9.88	11.10	12.72	254	286	340
3.Bihar	NA	NA	NA	402	497	NA
4.Gujarat	31.10	34.49	37.35	174	211	258
5.Haryana	21.88	24.63	29.00	292	372	477
6.Karnataka	28.89	30.92	33.98	194	235	275
7. Kerala	**18.74**	**26.39**	**25.97**	**655**	**749**	**819**
8.Madhya Pradesh	NA	NA	26.67	118	149	NA
9.Maharashtra	35.03	38.69	42.40	204	257	314
10.Orissa	11.79	13.38	14.97	169	203	236
11.Punjab	27.68	29.55	33.95	333	403	482
12.Rajasthan	21.05	22.00	23.38	100	129	165
13.Tamil Nadu	32.95	34.15	43.86	372	429	478
14.Uttar Pradesh	NA	NA	20.78	377	473	NA
15.West Bengal	26.47	27.48	28.03	615	767	904
All India	**23.34**	**25.71**	**27.78**	**216**	**274**	**324**

Source: National Human Development Report:2001

Other Aspects Of Well Being

29. Persons aged 60 and above

18.38 Proportion of persons aged 60 and above to total population is the highest in Kerala.. This is because Kerala has done well on a number of socio economic indicators and has also been successful in bringing down the population growth rate. The ratios were 7.1 in 1981 and 8.6 in 1991. The relative positions of other States are presented in Table 22

Box.4

India has the second largest number of elderly persons after China. In a number of countries, as well as in most international fora, an elderly is a person in the age group 65 years and above. However, in India elderly constitutes persons in age group 60 years and above. There were about 33 million elderly, comprising 6.5 per cent of population in 1981, 57 million of 6.7 per cent of population in 1991. The Technical Group on Population Projections, set up by the Planning Commission, had projected the number of elderly to be around 113 million accounting for nearly 9 per cent of the population in 2016.
Source: National Human Development Report, 2001

30. Old - Age Dependency Ratio

18.39 The old age dependency ratio is defined as the number of persons in the age group 60 years and above, per 100 persons in the age group 15 - 59 years. At the national level, the old age dependency ratio marginally increased from 12.04 per cent in 1981 to 12.19 per cent in 1991. The ratio is much higher in rural area at 13.16 per cent in comparison to 9.66 per cent in urban area. It could, partly, be explained by the migration of individuals in age group 15-59 to urban areas, leaving the elderly in the villages. At the State level, Haryana has the highest old age dependency ratio of 14.53 per cent in 1991, followed by Kerala (14.41 per cent) and Punjab (13.76 per cent). See Table- 18.22

31. Working Children

18.40 A child is classified as labourer if the child is in the age group 5-14 years and is 'economically active'. A person is treated as economically active or gainfully employed if he/she does work on regular basis for which he/she receives remuneration or if such labour results in output for the market. This is the definition used by International Labour Organisation and also by Indian census to estimate number of working children in India. At the national level, incidence of child labour as per 1981 census was 7.6 per cent and in 1991 it was 5.4 per cent. At the State level, child labour is lowest in Kerala. It declined 1.5 per cent in 1981 to 0.6 per cent in 1991. Percentages of child labour in other southern States vary between 8.4 per cent to 13.8 per cent in 1981 and between 4.8 per cent to 10 per cent in 1991. Child labour is the highest in Andhra Pradesh. The details are presented in Table- 18.24.

32. Rate of Suicide and Dowry Death

18.41 The rate of suicide (1997) is the highest in Kerala (284.8 per million population), compared to else where in India and the incidence of dowry death (1998), is the lowest (21 per million population). Details are given in Table –18. 22

Table -18. 22
Indicators on Other Attainments

States	Persons Aged 60 and above (per cent)		Old age dependency Ratio(%)		Working Children in Age Group 5-14 (per cent)		Rate of Suicides (per million populati on)	Dowry Deaths (per million populati on)
	1981	1991	1981	1991	1981	1991	1997	1998
1. Andhra Pradesh	6.65	6.78	10.1	11.9	13.8	10.0	115.9	500
2.Assam	NA	5.33	NA	9.85	NA	5.5	119.4	32
3.Bihar	6.80	6.26	13.99	12.06	5.6	4.0	14.0	1039
4.Gujarat	5.33	6.39	10.78	11.11	6.9	5.3	85.2	90
5.Haryana	6.34	7.70	12.22	14.53	5.3	2.6	84.0	309
6.Karnataka	6.62	6.99	12.3	12.4	11.2	8.8	203.3	200
7. Kerala	**7.50**	**8.82**	**13.1**	**14.4**	**1.5**	**0.6**	**284.8**	**21**
8.Madhya Pradesh	6.45	6.63	12.33	12.40	11.8	8.1	99.2	598
9.Maharashtra	6.39	6.98	11.58	12.25	9.4	5.7	143.1	420
10.Orissa	6.39	7.20	11.85	12.74	9.6	5.9	92.0	240
11.Punjab	7.80	7.84	14.12	13.76	5.2	3.0	26.6	219
12.Rajasthan	6.03	6.29	11.71	11.95	8.4	6.5	62.4	433
13.Tamil Nadu	6.41	7.45	11.0	12.1	8.4	4.8	152.5	176
14.Uttar Pradesh	6.84	6.86	13.29	13.17	4.6	3.8	27.1	2229
15.West Bengal	5.55	6.05	9.99	10.65	4.1	4.2	184.8	249
All India	**6.49**	**6.70**	**12.0**	**12.2**	**7.6**	**5.4**	**100.3**	**6917**

Source: National Human Development Report:2001

SOME OTHER RELEVANT INDICATORS

33. Per Capita Resource Flow to States

18.42 Per capita public and private investment, per capita plan outlay, per capita institutional investment and per capita total credit utilised by the States are shown in the Table- 18.23. Kerala was far behind several major States in per capita plan outlay(2001-02) and per capita public and private

investment(2001 October). In the case of per capita institutional investment(2001), Kerala stands first. Per capita plan outlay is the highest in Karnataka(Rs.1499) and the lowest in Uttar Pradesh(Rs.293). Assam is at the top (Rs.42158) in the case of per capita public and private investment (2001 Oct),followed by Tamil Nadu(Rs.26292).Maharashtra is first in per capita total credit utilised (2001 March).

Table-18.23
Comparative Position of per Capita Flow to State(Rupees)

States	Per Capita Public and Private Investment 2001 Oct.	Per Capita Plan Outlay 2001-02	Per Capita Institutional Investment 2001	Per Capita Total Credit Utilised in States 2001March
1. Andhra Pradesh	21447	1032	909	4668
2.Assam	42158	642	624	1411
3.Bihar	2852	319	546	669
4.Gujarat	33875	1285	720	5827
5.Haryana	9201	860	827	5098
6.Karnataka	24776	1499	688	6420
7. Kerala	**12235**	**710**	**1172**	**5872**
8.Madhya Pradesh	7287	652	725	2528
9.Maharashtra	17556	1120	660	14890
10.Orissa	25525	627	1049	1706
11.Punjab	12688	1244	1078	7707
12.Rajasthan	6763	822	914	2419
13.Tamil Nadu	26292	837	709	9194
14.Uttar Pradesh	3304	293	619	1638
15.West Bengal	7113	710	662	3674

Source: Planning Commission

34. External Aid and Central Assistance to State Plans

18.43 Performance of Kerala in tapping external aid and securing Central assistance for State Plans was far from satisfactory in comparison to other States in the Ninth Plan period. . Kerala's share in the average annual external aid during the Ninth Plan (agreed) was only 0.8 per cent of the total external aid of all States. In other words, Kerala's share was only 3.5 per cent of the share of Andhra Pradesh or 8.9 per cent of the share of Karnataka or 11.5 per cent of the share of Tamil Nadu or 49.4 per cent of that of West Bengal. In per capita per annnum external aid also these inter-State variations are reflected. See Table- 24. In the case of obtaining Central assistance for the State Plan, Kerala's place was at the bottom among southern States. While Kerala's share in the total agreed Central assistance for the Ninth Plan for all States was 2.2 per cent only, that of Andhra Pradesh, Karnataka and Tamil Nadu were 9.3 per cent, 4.6 per cent, 4.6 per cent respectively. The details are presented in Table – 24.

Table 24

External Aid and Central Assistance to the State Plans

State	External Aid			Central assistance (Rs.crores)				
	Total EAP in The Ninth Plan. (Rs. Crores)	Average EAP per annum (Rs. Crores)	Average per capita EAP per annum (Rs.)	Sixth Plan (80-81)	Seventh Plan(85-90)	Eighth Plan (1992-97)	Ninth Plan (1997-02) Agreed	Tenth Plan Projected (2002-07)
1. Andhra Pradesh	8381	1676	221	1021	1830	7091	17268	22242
2.Assam	246	49	18	1215	2560	4926	7762	9528
3.Bihar	456	91	11	1442	2667	6151	10475	11721
4.Gujarat	3495	699	138	623	1284	2579	11325	13156
5.Haryana	1116	223	106	281	431	1932	3885	3180
6.Karnataka	3309	662	125	589	1242	3843	8582	17993
7. Kerala	**295**	**59**	**19**	**495**	**1294**	**2908**	**4186**	**10839**
8.Madhya Pradesh	1872	374	62	1105	2018	3794	9324	10168
9.Maharashtra	2524	505	52	1046	1817	6223	9532	9770
10.Orissa	2170	434	118	759	1379	3677	9232	14608
11.Punjab	824	165	68	262	285	6183	4189	3979
12.Rajasthan	991	198	35	731	1325	3692	7211	9641
13.Tamil Nadu	2580	516	83	757	1716	6677	8466	15006
14.Uttar Pradesh	3922	784	47	2342	3219	12916	25997	35410
15.West Bengal	3573	715	89	729	1332	4997	13304	14346
All India	**36159**	**7232**	**70**	**16557**	**31425**	**93834**	**185260**	**253844**

Source: Planning Commission

35.Public Spending

Table 18.25
Public Spending: Actual Expenditure 1998-99

(percentage)

State	Plan			Non-Plan			Total	
	Rev.	Cap.	Total	Rev.	Cap.	Total	Rev.	Cap.
1. Andhra Pradesh	52.89	47.11	33.14	98.25	1.75	66.86	83.22	16.78
2.Assam	72.50	27.50	29.35	98.61	1.39	70.65	90.95	9.05
3.Bihar	62.71	37.29	18.39	97.49	2.51	81.61	91.10	8.90
4.Gujarat	43.48	56.52	26.55	98.34	1.66	73.45	83.78	16.22
5.Haryana	43.42	56.58	21.40	96.13	3.87	78.60	84.85	15.15
6.Karnataka	59.94	40.06	29.28	96.72	3.28	70.72	85.95	14.05
7. Kerala	**68.83**	**31.17**	**29.85**	**98.71**	**1.29**	**70.15**	**89.79**	**10.21**
8.Madhya Pradesh	66.08	33.92	24.13	99.66	0.34	75.87	91.56	8.44
9.Maharashtra	54.01	45.99	21.38	96.08	3.92	78.62	87.08	12.92
10.Orissa	59.21	40.79	34.45	97.62	2.38	65.55	84.38	15.62
11.Punjab	40.53	59.47	16.08	95.85	4.15	83.92	86.95	13.05
12.Rajasthan	41.29	58.71	25.31	98.23	1.77	74.69	83.82	16.18
13.Tamil Nadu	62.68	37.32	20.03	98.60	1.40	79.97	91.41	8.59
14.Uttar Pradesh	53.50	46.5	22.54	97.49	2.51	77.46	87.58	12.42
15.West Bengal	46.79	53.21	23.97	98.54	1.46	76.03	86.14	13.86
All India	**54.12**	**45.88**	**25.49**	**97.54**	**2.46**	**74.51**	**86.48**	**13.52**

Source: National Human Development Report-2001

Table-18.26
Public Spending on Education & Health

(as per cent of GSDP)

State	1980-81		1990-91		1998-99	
	Edn.	Health	Edn.	Health	Edn.	Health
1. Andhra Pradesh	2.80	1.44	2.94	0.99	2.43	1.61
2.Assam	3.46	1.48	4.53	1.32	5.23	1.05
3.Bihar	3.36	1.31	4.54	1.37	4.02	0.75
4.Gujarat	2.33	1.17	3.40	1.18	2.78	0.94
5.Haryana	2.15	1.24	2.37	0.71	2.57	0.71
6.Karnataka	2.78	1.19	3.33	1.32	2.92	1.01
7. Kerala	**5.22**	**2.02**	**5.25**	**1.49**	**3.25**	**0.95**
8.Madhya Pradesh	2.28	1.57	3.18	0.99	2.69	0.94
9.Maharashtra	2.28	1.13	2.78	0.84	2.21	0.61
10.Orissa	2.86	1.60	4.09	1.37	3.92	1.25
11.Punjab	2.61	1.04	2.68	0.89	2.87	0.86
12.Rajasthan	3.19	2.51	3.95	1.35	3.96	1.35
13.Tamil Nadu	2.91	1.50	4.04	1.94	3.08	1.35
14.Uttar Pradesh	2.30	1.06	3.51	1.14	3.09	0.91
15.West Bengal	2.59	1.39	3.63	1.18	2.71	0.94
All India	**0.40**	**0.20**	**0.60**	**0.25**	**0.50**	**0.25**

Source: National Human Development Report-2001

Table-18.27
Employment in Organised Sector-200

(in '000)

State	Public Sector						Private Sector Total	Grand Total
	Govt.		Quasi Govt.		Local Bodies	Total		
	Central	State	Central	State				
1. Andhra Pradesh	260.3	414.7	193.7	361.7	273.0	1503.4	568.4	2071.8
2.Assam	81.8	307.7	76.9	56.1	13.1	535.6	548.9	1084.5
3.Bihar	180.3	454.8	547.1	123.2	55.1	1360.5	253.3	1613.8
4.Gujarat	137.8	200.8	135.5	161.5	284.2	919.8	770.5	1690.3
5.Haryana	32.1	253.1	43.5	74.2	17.9	420.8	230.8	651.6
6.Karnataka	133.1	555.9	182.8	173.8	67.1	1112.7	750.7	1863.4
7. Kerala	**103.3**	**290.9**	**92.4**	**134.0**	**24.5**	**645.1**	**564.7**	**1209.8**
8.Madhya Pradesh	210.1	692.8	287.7	111.5	65.1	1367.2	226.5	1593.7
9.Maharashtra	423.8	518.3	412.1	262.1	673.6	2289.9	1469.9	3759.8
10.Orissa	82.5	400.9	101.4	109.1	18.0	711.9	86.0	797.9
11.Punjab	79.4	304.2	68.0	106.5	31.8	589.9	256.0	845.9
12.Rajasthan	166.8	530.1	83.7	107.9	128.0	1016.5	259.1	1275.6
13.Tamil Nadu	233.9	632.3	178.7	372.3	180.0	1597.2	927.3	2524.5
14.Uttar Pradesh	430.6	751.7	243.9	469.6	133.5	2029.3	523.4	2552.7
15.West Bengal	397.4	311.4	517.1	159.2	156.4	1541.5	810.8	2352.3
All India	**3273.5**	**7459.3**	**3413.0**	**2912.9**	**2255.1**	**19313.8**	**8646.1**	**27959.9**

Source: National Human Development Report-2001

Table-18.28
Plan Expenditure- Sectoral Composition

(per cent)

	Social Sectors			Infrastructure Sectors		
	1981-82	1991-92	1997-98	1981-82	1991-92	1997-98
1. Andhra Pradesh	17.7	20.5	22.5	41.14	43.2	37.7
2.Assam	17.97	34.31	45.89	52.56	29.97	22.12
3.Bihar	15.18	18.28	17.26	38.59	28.88	15.82
4.Gujarat	17.21	19.19	22.97	41.53	40.49	27.71
5.Haryana	15.84	31.82	34.26	41.80	35.55	32.41
6.Karnataka	17.8	23.3	32.3	45.7	39.0	23.5
7. Kerala	**22.8**	**18.2**	**18.9**	**39.6**	**42.6**	**39.4**
8.Madhya Pradesh	13.80	21.89	32.74	47.01	39.03	26.39
9.Maharashtra	25.72	20.10	20.69	43.90	38.00	35.09
10.Orissa	12.28	17.60	32.38	40.79	37.94	23.43
11.Punjab	18.50	20.40	20.67	49.95	56.62	60.32
12.Rajasthan	17.19	23.30	24.22	47.99	39.00	44.19
13.Tamil Nadu	25.2	34.4	38.9	47.2	40.4	38.7
14.Uttar Pradesh	15.74	18.48	29.60	45.66	51.09	34.85
15.West Bengal	29.85	21.13	22.83	41.38	47.52	38.06
All India	**8.8**	**12.5**	**14.8**	**77.4**	**72.9**	**73.0**

APPENDIX TABLES

LIST OF APPENDIX TABLES

Appendix No.	Title	Page No.
	Chapter - 3 *Income, Employment and Population*	
3.1	Gross National Product at Factor Cost - All India	S 1
3.2	Net National Product at Factor Cost - All India	S 2
3.3	Gross Domestic Product at Factor Cost by Economic Activity - All India	S 3
3.4	Gross Domestic Product at Factor Cost by Economic Activity – All India (percentage change)	S 4
3.5	Gross Domestic Product (Kerala) at Factor Cost by Industry of Orgin for the Years from 1996-97 to 2001-02 (At Current Prices)	S 5
3.6	Gross Domestic Product (Kerala) at Factor Cost by Industry of Orgin (At Constant Prices)for the Years from 1996-97 to 2001-02	S 6
3.7	Net Domestic Product (Kerala) at factor cost by industry of origin (at current prices) for the years from 1996-97 to 2001-02	S 7
3.8	Net Domestic Product (Kerala) at factor cost by industry of origin (at constant prices) for the years from 1996-97 to 2001-02	S 8
3.9	District-wise Distribution of Net State Domestic Product and Percapita income of Kerala at Factor Cost by Industry of Origin for the year 1999-00 (at current prices)	S 9
3.10	District-wise Distribution of Net State Domestic Product and Percapita Income of Kerala at Factor Cost by Industry of Origin for the year 1999-00 (at constant prices)	S 10
3.11	District-wise Distribution of Net State Domestic Product and Percapita Income of Kerala at Factor Cost by Industry of Origin for the year 2000-01 (at current prices)	S 11
3.12	District-wise Distribution of Net State Domestic Product and Percapita Income of Kerala at Factor Cost by Industry of Origin for the year 2000-01 (at constant prices)	S 12
3.13	District-wise Distribution of Net State Domestic Product and Per capita Income of Kerala at Factor Cost by Industry of Origin for the year 2001-02 (at current prices)	S 13
3.14	District-wise Distribution of Net State Domestic Product and Per Capita Income of Kerala at Factor Cost by Industry of Origin for the year 2001-02 (at constant prices)	S 14
3.15	Total Work Seekers in Kerala as on 1-10-2002	S 15
3.16	Distribution of Work Seekers in Kerala by Educational Level	S 15
3.17	Number of Professional and Technical Work Seekers	S 16
3.18	District-wise Distribution of Work Seekers (as on 1.10.2002)	S 16
3.19	Unemployment Assistance and Self Employment Scheme	S 17
3.20	Employment in the Public and Private Sectors in Kerala	S 17
3.21	Number of Placements through Employment Exchanges and monthly average Number of Employers using Employment Exchanges in Kerala	S 18
3.22	Population of States/Union Territories by sex and percentage share of population in total population – 2001	S 19
3.23	District-wise Population, Decadal Growth Rate, Sex-ratio and Population Density	S 20
	Chapter - 4 *Agriculture and Irrigation*	
4.1	Number of Operational Holdings and area Operated by Size Class in Kerala	S 21
4.2	Percentage Distribution of Main Workers in Kerala	S 21
4.3	Districtwise Actual and Normal Rainfall (2002)	S 22
4.4	Monthwise Distribution of Rainfall for the last 10 years	S 23
4.5	Districtwise Monthly Rainfall for 2002	S 24
4.6	Area, Production & Productivity of Principal Crops	S 25
4.7	Index of Area, Production & Productivity of Crops in Kerala	S 26
4.8	Seasonwise Area, Production & Productivity of Rice in Kerala	S 27
4.9	Coverage of HYV of Rice in Kerala (Seasonwise)	S 28
4.10	District-wise Area, Production and Productivity of Rice in Kerala	S 29
4.11	District-wise and season-wise Area, Production and Productivity of Rice	S 30
4.12	Area under HYV of Rice	S 31
4.13	Production of HYV of Rice	S 32

4.14	Productivity of HYV of Rice	S 33
4.15	Area under Local Variety of Rice	S 34
4.16	Production of Local Variety of Rice	S 35
4.17	Productivity of Local Variety of Rice	S 36
4.18	Area, Production and Productivity of Rice (Irrigated and unirrigated)	S 37
4.19	Plantation Crops – Area, Production and Productivity	S 38
4.20	Average Market Price of Natural Rubber in Kottayam Market and International Market	S 39
4.21	Import of Rubber	S 39
4.22	Consumption of Rubber in India and Kerala	S 40
4.23	Production, Consumption, Export and Auction Price of Tea	S 40
4.24	Tariff rates on Major Agricultural Commodities/Groups	S 41
4.25	Consumption of Fertilizers/ha of Gross Cropped Area in Kerala	S 42
4.26	Selected Indicators of Agricultural Development in Kerala during IX Plan	S 43
4.27	Average Price of Agricultural inputs during IX Plan	S 43
4.28	Number of Students Admitted for Various Courses in Kerala Agricultural University and Number of Students Passed out in 2002	S 44
4.29	Crop Varieties Released and Equipments & Tools developed by Kerala Agricultural University during the IX Plan	S 45
4.30	Financial and Physical Achievement under Western Ghat Development Programme	S 46
4.31	Composition of Cattle Population for the last 4 Census Periods	S 47
4.32	Livestock Population of All India and Kerala	S 48
4.33	Distribution of Working Bullocks and Male Calves over the Four Census Periods and Percentage Variation over 1977 to 1996	S 49
4.34	Trend in Distribution of Adult Female Cattle over the Census Periods from 1977 to 1996, their Percentage Distribution and Percentage variation over the Previous Census Period	S 50
4.35	Major State wise Production of Milk and Egg	S 51
4.36	Details of Milk Production in the State – Results of Integrated Sample Survey	S 52
4.37	Index of Milk and Egg production in Kerala & India	S 53
4.38	Activities in the Animal Husbandry Sector	S 54
4.39	Production and Distribution of Frozen Semen in Kerala	S 55
4.40	Artificial Insemination Centres in the State as on 31.03.2002	S 55
4.41	Important Activities of KLD Board During 2001-02	S 55
4.42	Average Price of Livestock Products and Feeds in the State	S 56
4.43	Performance of Kerala Co-operative Milk Marketing Federation	S 57
4.44	Performance of the Dairies under Kerala Co-operative Milk Marketing Federation	S 58
4.45	Average Quantity of Milk Procured per day by APCOS	S 59
4.46	Price Revision Details of Milk	S 59
4.47	Price Spread of Milk	S 59
4.48	Sale of Milk and Milk Products by KCMMF	S 60
4.49	District-wise Distribution of Fishermen Population in Kerala (2001-02)	S 61
4.50	Species-wise Inland Fish Production in Kerala	S 62
4.51	Details on Fishery Harbours in Kerala	S 63
4.52	NCDC Assisted Integrated Fisheries Development Project: Physical and Financial Achievement during the year 2000-01	S 65
4.53	Welfare Activities of Fisheries Department	S 66
4.54	Details of Revenue Collection in various Fishing Harbours/Fish Landing Centres	S 67
4.55	Performance of Janakeeya Matsyakrishi	S 68
4.56	Species wise composition of Marine fish landings in Kerala	S 69
4.57	Division-wise Area of Forest in Kerala	S 70
4.58	Species-wise Area Under Forest Plantation	S 71
4.59	Production of Major Forest Produce	S 72
4.60	Forest Revenue in Kerala	S 73
4.61	Physical Targets & Achievements under General Forestry for the IX Plan	S 74
4.62	Kerala Forestry Project (World Bank Assisted) Year-wise Financial Achievement	S 76

4.63	Kerala Forestry Project (World Bank Assisted) Year-wise Physical Achievement	S 77
4.64	Operation of the Kerala State Co-operative Bank Limited	S 78
4.65	Purpose – wise Outstanding Loans in the Kerala State Co-operative Bank Limited	S 79
4.66	Selected Indicators of the Performance of the Primary Agricultural Credit Societies	S 80
4.67	Selected Indicators of the Credit Operations of the Primary Agricultural Credit Societies	S 81
4.68	Targets and Achievements of Deposit Mobilisation Programme of Co-operatives in Kerala	S 82
4.69	Annual Long Term Loan Disbursement and Debentures Floated by Kerala State Co-operative Agricultural and Rural Development Bank Limited	S 83
4.70	Purpose-wise Classification of Long Term Loans issued by Primary Co-operative Agricultural & Rural Development Banks	S 84
4.71	Agency-wise Disbursement of Refinance Assistance by NABARD in Kerala	S 85
4.72	Purpose-wise Refinance by NABARD	S 85
4.73	Details of Externally Aided Projects Implemented Under Irrigation	S 86
4.74	Physical Achievements under Minor Irrigation Schemes	S 87
4.75	Physical Achievements under Ground Water Development Schemes	S 88
4.76	Physical Achievements Under Command Area Development Programme	S 89
4.77	Operations of CAMPCO	S 90
4.78	National Co-operative Development Corporation – Release of Funds for Kerala	S 91
4.79	NCDC – Activity-wise Cumulative Sanction/Release of Funds to Kerala	S 92
4.80	District-wise Flow of Credit	S 93
4.81	Activities of Major Co-operatives	S 94
4.82	District-wise/Sector-wise PLP Projections	S 95
4.83	Production and Sales of Chocolate by CAMPCO	S 96
	Chapter – 5 *Energy Development*	
5.1	Growth of Kerala Power System at a Glance - 1997,2001 & 2002	S 97
5.2	Profile of on -going Hydro-Electric Projects in the State	S 98
5.3	Power Projects and Power Generation as on 31-3-2002	S 99
5.4	Average Tariff Rate	S 100
5.5	Average Realisation from Sale of Power	S 100
5.6	Pattern of Power Consumption and Revenue Collected during 2001-02 (Provisional)	S 101
5.7	Outlay and Expenditure during the various Plan Periods on Energy Development	S 102
5.8	Sources of Funding of the Power Programmes of KSEB for the year 2001-02 (Provisional)	S 103
	Chapter - 6 *Industry and Mining*	
6.1	Index of Industrial Production for the Years 1999 – 2000 & 2000-01	S 104
6.2	Growth of Working Factories and Average Daily Employment in Kerala – 1990-2001	S 105
6.3	District-wise Distribution of Registered Working Factories in Kerala from 1990 to 2001	S 106
6.4	District-wise Distribution of Employment in Kerala 1995 to December 2001	S 107
6.5	Industrial Disputes Arose, Handled, Settled etc. in Kerala (1996-97 to 2001-02)	S 108
6.6	Central Sector Investment In Kerala	S 109
6.6(a)	Central Sector Investment & Employment in Selected States as on 31.3.2001	S 109
6.7	Capital Investment and Employment in respect of Government of India Companies functioning in Kerala	S 110
6.8	Performance of Government of India companies in Kerala in terms of value of Production and Sales turnover	S 111
6.9	Production And Capacity Utilization In Government of India Companies Functioning In Kerala	S 112
6.10	District-wise break up of medium and large scale Industries in Kerala as on 31-3-2002	S 115
6.11	Units Assisted By KSIDC as on 31.3.2002	S 116
6.12	Capital Invested and Employment in respect of Government owned Companies in Kerala	S 117
6.13	Performance of Government owned companies in Kerala in terms of value of Production and Sales Turnover	S 118

6.14	Production and Capacity Utilization of Government owned companies in Kerala during 2000-01 and 2001-02	S 119
6.15	Capital Invested and Employment in respect of Government Majority Companies in Kerala	S 121
6.16	Performance of Government Majority companies in Kerala in terms of value of Production and Sales Turnover	S 122
6.17	Production and Capacity Utilization of Government Majority Companies in Kerala during 2000-01 and 2001-02	S 123
6.18	Sector-wise Summary of Performance of Public Sector Enterprises in Kerala: 2001-02	S 125
6.19	Details of Joint Stock companies working in Kerala	S 126
6.20	District-wise details of Small Scale Industrial Units Registered in Kerala during the year 2001-02	S 127
6.21	District-wise details of Small Scale Industrial Units Registered in Kerala as on 31st March 2002	S 128
6.22	Working Status of Small Scale Units as on 31st March 2002	S 129
6.23	Achievement under Self Employment Programme during 2001-02 (PMRY)	S 129
6.24	Industrial Co-operative Societies in Kerala as on 30-6-2002	S 130
6.25	Outstanding Credit to Various Sectors by Banks in Kerala	S 130
6.26	District-wise Number of Handloom Co-operative Societies in the State	S 131
6.27	Production and Productivity under Handloom Industry in Kerala	S 132
6.28	Working Results of Handloom Apex Society (Hantex)	S 134
6.29	Working Results of Kerala State Handloom Development Corporation Ltd. (Hanveev)	S 134
6.30	Production and Productivity under Powerloom Industry	S 135
6.31	Coir Co-operative Societies in Kerala	S 135
6.32	Activities of Coir Co-operative Societies	S 136
6.33	District-wise details of Coir Co-operative Societies as on 31.3.2002	S 137
6.34	Export of Coir and Coir Products from India during 2000-01 and 2001-02	S 137
6.35	Foreign exchange earnings of India from Cashew Industry	S 138
6.36	Import of Raw Cashew nuts into India	S 138
6.37	Khadi & Village Industries: Production, Sales, Employment and Wages paid during 2000-01 & 2001-02	S 139
6.38	District-wise Number of Sales outlets and Sales under Khadi & Village Industries 2001-2002	S 140
6.39	Physical Achievement under Sericulture for the year 2001-02	S 141
6.40	Progress of Sericulture Development Programme in the State	S 142
6.41	Kerala State Industrial Development Corporation – Physical and Financial Performance 1997-98 to 2001-02	S 143
6.42	Kerala Financial Corporation : Loan Operations as on 31-3-2002	S 144
6.43	District-wise details of Disbursement of Loan by KFC 2001-02	S 145
6.44	Industry-wise Classification of Loan sanctioned and Disbursed by the Kerala Financial Corporation as on 31-03-2002	S 146
6.45	Progress of Working of Kerala Financial Corporation at a Glance	S 147
6.46	Selected Indicators of the activities of SIDCO	S 148
6.47	Small Industries Service Institute (SISI) Achievements during 2001-02	S 149
6.48	Small Industries Development Bank of India's Assistance to Small Scale Industries	S 150
6.49	Total area covered by Mining lease	S 151
6.50	Production and Sales of Major Minerals other than Mineral Sand in Kerala	S 151
6.51	Production and sale of Mineral Sand in Kerala	S 152
6.52	Mineral Resources of Kerala – 2002	S 153
	Chapter - 7 *Tourism*	
7.1	Foreign Tourist Arrivals at Major Tourist Generating States/U.T During 2000 & 2001	S 156
7.2	Growth of Foreign Tourist Arrivals in India and Kerala – (1995 – 2001)	S 156
7.3	Flow of domestic tourists to Kerala (1995 to 2001)	S 157
7.4	Earnings from Tourism (1995 to 2001)	S 157
7.5	Details of Availability of Accommodation Facility in classified Hotels – 1999-2001	S 157
7.6	State Plan Allocation for Tourism 1995-2003	S 158

7.7	Central Fianancial Assistance for Tourism 1995-2002	S 158
7.8	Kerala Tourism Development Corporation Limited - Performance for 2001-02	S 159
	Chapter – 8 *Transport & Communication (Infrastructure)*	
8.1	Growth of Transport & Communications in Kerala Since 1975	S 160
8.2	District-wise and Category-wise Length of Roads Maintained by PWD (R&B) as on 1-4-2002	S 161
8.3	District-wise, Surface-wise and Category-wise Length of roads maintained by Kerala P.W.D as on 1.4.2002	S 162
8.4	Surface-wise and Category-wise Length of PWD Roads added during 2001-2002	S 163
8.5	District-wise and Surface-wise Length of Roads maintained by PWD as on 1-4-2002	S 164
8.6	Number of Bridges and Culverts in PWD Roads as on 1.4-2002	S 164
8.7	District-wise details of Vehicles newly Registered in the State during the year 2001-02 (Provisional).	S 165
8.8	Number of Motor Vehicles Having valid Registration as on 31-03-2002	S 166
8.9	District-wise Growth of Motor Vehicles in Kerala and their Index (Base 1990-91 = 100)	S 167
8.10	Category-wise Growth of Motor vehicles in Kerala since 1990	S 168
8.11	District-wise Road Accidents in Kerala in which number of persons held during 2000-01 & 2001-02	S 169
8.12	Motor Vehicle Accidents in Kerala by Primary causes of Accidents during 2001-02	S 170
8.13	Type-wise details of Motor Vehicles involved in Road Accidents in Kerala during 2001-02	S 171
8.14	Motor Vehicle Accidents by time of day during 2001-02	S 172
8.15	Age-wise Details of Vehicles owned by KSRTC as on 30.11.2002	S 173
8.16	Major indicators showing Operational efficiency of KSRTC	S 174
8.17	KSRTC Operational Statistics during 2001-02	S 175
8.18	Fare Structure of KSRTC during 2002	S 177
8.19	KSRTC Operational Ratios during 2001-02	S 178
8.20	Category-wise Staff Position of KSRTC	S 181
8.21	Number of Ships called at Cochin Port during 2000-01 and 2001-02 and their net registered tonnage (NRT)	S 182
8.22	Commodity-wise cargo handled at the intermediate and minor ports of Kerala during 2001-02	S 183
8.23	Number and Tonnage of Steamers and sailing vessels which called at the Intermediate and Minor Ports of Kerala during 2001-02	S 184
8.24	Number of Harbour Crafts registered at the Intermediate and Minor Ports of Kerala during 2001-02	S 184
8.25	Category-wise break-up of Revenue collected at the Intermediate and Minot Ports of Kerala during 2001-2002	S 185
8.26	Operational Statistics of Inland Water Transport Agencies in Kerala	S 186
8.27(A)	Details of Flights Operated by Various Agencies from Thiruvananthapuram International Airport	S 187
8.27 (B)	Details of Flights Operated by Various Agencies from Kozhikode Airport	S 187
8.27 (C)	Details of Flights Operated by Various Agencies from Nedumbassery International Airport	S 188
8.28	Number of passports issued from the Passport Offices in Kerala from 2000-01 to 2001-02	S 189
8.29	Growth of Post Offices in Kerala During the Last Ten Years	S 190
8.30	Category-wise Offices In Postal and Other Postal services in Kerala	S 191
8.31	Division-wise and Category-wise Post Offices under Kerala Circle as on 1-4-2002	S 192
8.32	Urban/Rural split of Post offices as on 1-4-2002	S 193
8.33	District-wise details of area and population served by one Post Office during 2001-02	S 194
8.34	District-wise details of Telephone network during 2001-2002	S 195
	Chapter – 9 *Social Services*	
9.1	Comparative statement showing literacy rate in India and States – 1991 & 2001	S 196
9.2	Literacy rate by Sex for State and Districts – 1991 & 2001 – Kerala	S 197
9.3	District-wise literates in Kerala – 2001	S 197

6.14	Production and Capacity Utilization of Government owned companies in Kerala during 2000-01 and 2001-02	S 119
6.15	Capital Invested and Employment in respect of Government Majority Companies in Kerala	S 121
6.16	Performance of Government Majority companies in Kerala in terms of value of Production and Sales Turnover	S 122
6.17	Production and Capacity Utilization of Government Majority Companies in Kerala during 2000-01 and 2001-02	S 123
6.18	Sector-wise Summary of Performance of Public Sector Enterprises in Kerala: 2001-02	S 125
6.19	Details of Joint Stock companies working in Kerala	S 126
6.20	District-wise details of Small Scale Industrial Units Registered in Kerala during the year 2001-02	S 127
6.21	District-wise details of Small Scale Industrial Units Registered in Kerala as on 31st March 2002	S 128
6.22	Working Status of Small Scale Units as on 31st March 2002	S 129
6.23	Achievement under Self Employment Programme during 2001-02 (PMRY)	S 129
6.24	Industrial Co-operative Societies in Kerala as on 30-6-2002	S 130
6.25	Outstanding Credit to Various Sectors by Banks in Kerala	S 130
6.26	District-wise Number of Handloom Co-operative Societies in the State	S 131
6.27	Production and Productivity under Handloom Industry in Kerala	S 132
6.28	Working Results of Handloom Apex Society (Hantex)	S 134
6.29	Working Results of Kerala State Handloom Development Corporation Ltd. (Hanveev)	S 134
6.30	Production and Productivity under Powerloom Industry	S 135
6.31	Coir Co-operative Societies in Kerala	S 135
6.32	Activities of Coir Co-operative Societies	S 136
6.33	District-wise details of Coir Co-operative Societies as on 31.3.2002	S 137
6.34	Export of Coir and Coir Products from India during 2000-01 and 2001-02	S 137
6.35	Foreign exchange earnings of India from Cashew Industry	S 138
6.36	Import of Raw Cashew nuts into India	S 138
6.37	Khadi & Village Industries: Production, Sales, Employment and Wages paid during 2000-01 & 2001-02	S 139
6.38	District-wise Number of Sales outlets and Sales under Khadi & Village Industries 2001-2002	S 140
6.39	Physical Achievement under Sericulture for the year 2001-02	S 141
6.40	Progress of Sericulture Development Programme in the State	S 142
6.41	Kerala State Industrial Development Corporation – Physical and Financial Performance 1997-98 to 2001-02	S 143
6.42	Kerala Financial Corporation : Loan Operations as on 31-3-2002	S 144
6.43	District-wise details of Disbursement of Loan by KFC 2001-02	S 145
6.44	Industry-wise Classification of Loan sanctioned and Disbursed by the Kerala Financial Corporation as on 31-03-2002	S 146
6.45	Progress of Working of Kerala Financial Corporation at a Glance	S 147
6.46	Selected Indicators of the activities of SIDCO	S 148
6.47	Small Industries Service Institute (SISI) Achievements during 2001-02	S 149
6.48	Small Industries Development Bank of India's Assistance to Small Scale Industries	S 150
6.49	Total area covered by Mining lease	S 151
6.50	Production and Sales of Major Minerals other than Mineral Sand in Kerala	S 151
6.51	Production and sale of Mineral Sand in Kerala	S 152
6.52	Mineral Resources of Kerala – 2002	S 153
	Chapter - 7 *Tourism*	
7.1	Foreign Tourist Arrivals at Major Tourist Generating States/U.T During 2000 & 2001	S 156
7.2	Growth of Foreign Tourist Arrivals in India and Kerala – (1995 – 2001)	S 156
7.3	Flow of domestic tourists to Kerala (1995 to 2001)	S 157
7.4	Earnings from Tourism (1995 to 2001)	S 157
7.5	Details of Availability of Accommodation Facility in classified Hotels -- 1999-2001	S 157
7.6	State Plan Allocation for Tourism 1995-2003	S 158

7.7	Central Fianancial Assistance for Tourism 1995-2002	S 158
7.8	Kerala Tourism Development Corporation Limited - Performance for 2001-02	S 159
	Chapter – 8 *Transport & Communication (Infrastructure)*	
8.1	Growth of Transport & Communications in Kerala Since 1975	S 160
8.2	District-wise and Category-wise Length of Roads Maintained by PWD (R&B) as on 1-4-2002	S 161
8.3	District-wise, Surface-wise and Category-wise Length of roads maintained by Kerala P.W.D as on 1.4.2002	S 162
8.4	Surface-wise and Category-wise Length of PWD Roads added during 2001-2002	S 163
8.5	District-wise and Surface-wise Length of Roads maintained by PWD as on 1-4-2002	S 164
8.6	Number of Bridges and Culverts in PWD Roads as on 1.4-2002	S 164
8.7	District-wise details of Vehicles newly Registered in the State during the year 2001-02 (Provisional).	S 165
8.8	Number of Motor Vehicles Having valid Registration as on 31-03-2002	S 166
8.9	District-wise Growth of Motor Vehicles in Kerala and their Index (Base 1990-91 = 100)	S 167
8.10	Category-wise Growth of Motor vehicles in Kerala since 1990	S 168
8.11	District-wise Road Accidents in Kerala in which number of persons held during 2000-01 & 2001-02	S 169
8.12	Motor Vehicle Accidents in Kerala by Primary causes of Accidents during 2001-02	S 170
8.13	Type-wise details of Motor Vehicles involved in Road Accidents in Kerala during 2001-02	S 171
8.14	Motor Vehicle Accidents by time of day during 2001-02	S 172
8.15	Age-wise Details of Vehicles owned by KSRTC as on 30.11.2002	S 173
8.16	Major indicators showing Operational efficiency of KSRTC	S 174
8.17	KSRTC Operational Statistics during 2001-02	S 175
8.18	Fare Structure of KSRTC during 2002	S 177
8.19	KSRTC Operational Ratios during 2001-02	S 178
8.20	Category-wise Staff Position of KSRTC	S 181
8.21	Number of Ships called at Cochin Port during 2000-01 and 2001-02 and their net registered tonnage (NRT)	S 182
8.22	Commodity-wise cargo handled at the intermediate and minor ports of Kerala during 2001-02	S 183
8.23	Number and Tonnage of Steamers and sailing vessels which called at the Intermediate and Minor Ports of Kerala during 2001-02	S 184
8.24	Number of Harbour Crafts registered at the Intermediate and Minor Ports of Kerala during 2001-02	S 184
8.25	Category-wise break-up of Revenue collected at the Intermediate and Minot Ports of Kerala during 2001-2002	S 185
8.26	Operational Statistics of Inland Water Transport Agencies in Kerala	S 186
8.27(A)	Details of Flights Operated by Various Agencies from Thiruvananthapuram International Airport	S 187
8.27 (B)	Details of Flights Operated by Various Agencies from Kozhikode Airport	S 187
8.27 (C)	Details of Flights Operated by Various Agencies from Nedumbassery International Airport	S 188
8.28	Number of passports issued from the Passport Offices in Kerala from 2000-01 to 2001-02	S 189
8.29	Growth of Post Offices in Kerala During the Last Ten Years	S 190
8.30	Category-wise Offices In Postal and Other Postal services in Kerala	S 191
8.31	Division-wise and Category-wise Post Offices under Kerala Circle as on 1-4-2002	S 192
8.32	Urban/Rural split of Post offices as on 1-4-2002	S 193
8.33	District-wise details of area and population served by one Post Office during 2001-02	S 194
8.34	District-wise details of Telephone network during 2001-2002	S 195
	Chapter – 9 *Social Services*	
9.1	Comparative statement showing literacy rate in India and States – 1991 & 2001	S 196
9.2	Literacy rate by Sex for State and Districts – 1991 & 2001 – Kerala	S 197
9.3	District-wise literates in Kerala – 2001	S 197

6.14	Production and Capacity Utilization of Government owned companies in Kerala during 2000-01 and 2001-02	S 119
6.15	Capital Invested and Employment in respect of Government Majority Companies in Kerala	S 121
6.16	Performance of Government Majority companies in Kerala in terms of value of Production and Sales Turnover	S 122
6.17	Production and Capacity Utilization of Government Majority Companies in Kerala during 2000-01 and 2001-02	S 123
6.18	Sector-wise Summary of Performance of Public Sector Enterprises in Kerala: 2001-02	S 125
6.19	Details of Joint Stock companies working in Kerala	S 126
6.20	District-wise details of Small Scale Industrial Units Registered in Kerala during the year 2001-02	S 127
6.21	District-wise details of Small Scale Industrial Units Registered in Kerala as on 31st March 2002	S 128
6.22	Working Status of Small Scale Units as on 31st March 2002	S 129
6.23	Achievement under Self Employment Programme during 2001-02 (PMRY)	S 129
6.24	Industrial Co-operative Societies in Kerala as on 30-6-2002	S 130
6.25	Outstanding Credit to Various Sectors by Banks in Kerala	S 130
6.26	District-wise Number of Handloom Co-operative Societies in the State	S 131
6.27	Production and Productivity under Handloom Industry in Kerala	S 132
6.28	Working Results of Handloom Apex Society (Hantex)	S 134
6.29	Working Results of Kerala State Handloom Development Corporation Ltd. (Hanveev)	S 134
6.30	Production and Productivity under Powerloom Industry	S 135
6.31	Coir Co-operative Societies in Kerala	S 135
6.32	Activities of Coir Co-operative Societies	S 136
6.33	District-wise details of Coir Co-operative Societies as on 31.3.2002	S 137
6.34	Export of Coir and Coir Products from India during 2000-01 and 2001-02	S 137
6.35	Foreign exchange earnings of India from Cashew Industry	S 138
6.36	Import of Raw Cashew nuts into India	S 138
6.37	Khadi & Village Industries: Production, Sales, Employment and Wages paid during 2000-01 & 2001-02	S 139
6.38	District-wise Number of Sales outlets and Sales under Khadi & Village Industries 2001-2002	S 140
6.39	Physical Achievement under Sericulture for the year 2001-02	S 141
6.40	Progress of Sericulture Development Programme in the State	S 142
6.41	Kerala State Industrial Development Corporation – Physical and Financial Performance 1997-98 to 2001-02	S 143
6.42	Kerala Financial Corporation : Loan Operations as on 31-3-2002	S 144
6.43	District-wise details of Disbursement of Loan by KFC 2001-02	S 145
6.44	Industry-wise Classification of Loan sanctioned and Disbursed by the Kerala Financial Corporation as on 31-03-2002	S 146
6.45	Progress of Working of Kerala Financial Corporation at a Glance	S 147
6.46	Selected Indicators of the activities of SIDCO	S 148
6.47	Small Industries Service Institute (SISI) Achievements during 2001-02	S 149
6.48	Small Industries Development Bank of India's Assistance to Small Scale Industries	S 150
6.49	Total area covered by Mining lease	S 151
6.50	Production and Sales of Major Minerals other than Mineral Sand in Kerala	S 151
6.51	Production and sale of Mineral Sand in Kerala	S 152
6.52	Mineral Resources of Kerala – 2002	S 153
	Chapter - 7 *Tourism*	
7.1	Foreign Tourist Arrivals at Major Tourist Generating States/U.T During 2000 & 2001	S 156
7.2	Growth of Foreign Tourist Arrivals in India and Kerala – (1995 – 2001)	S 156
7.3	Flow of domestic tourists to Kerala (1995 to 2001)	S 157
7.4	Earnings from Tourism (1995 to 2001)	S 157
7.5	Details of Availability of Accommodation Facility in classified Hotels – 1999-2001	S 157
7.6	State Plan Allocation for Tourism 1995-2003	S 158

7.7	Central Fianancial Assistance for Tourism 1995-2002	S 158
7.8	Kerala Tourism Development Corporation Limited - Performance for 2001-02	S 159
	Chapter – 8 *Transport & Communication (Infrastructure)*	
8.1	Growth of Transport & Communications in Kerala Since 1975	S 160
8.2	District-wise and Category-wise Length of Roads Maintained by PWD (R&B) as on 1-4-2002	S 161
8.3	District-wise, Surface-wise and Category-wise Length of roads maintained by Kerala P.W.D as on 1.4.2002	S 162
8.4	Surface-wise and Category-wise Length of PWD Roads added during 2001-2002	S 163
8.5	District-wise and Surface-wise Length of Roads maintained by PWD as on 1-4-2002	S 164
8.6	Number of Bridges and Culverts in PWD Roads as on 1.4-2002	S 164
8.7	District-wise details of Vehicles newly Registered in the State during the year 2001-02 (Provisional).	S 165
8.8	Number of Motor Vehicles Having valid Registration as on 31-03-2002	S 166
8.9	District-wise Growth of Motor Vehicles in Kerala and their Index (Base 1990-91 = 100)	S 167
8.10	Category-wise Growth of Motor vehicles in Kerala since 1990	S 168
8.11	District-wise Road Accidents in Kerala in which number of persons held during 2000-01 & 2001-02	S 169
8.12	Motor Vehicle Accidents in Kerala by Primary causes of Accidents during 2001-02	S 170
8.13	Type-wise details of Motor Vehicles involved in Road Accidents in Kerala during 2001-02	S 171
8.14	Motor Vehicle Accidents by time of day during 2001-02	S 172
8.15	Age-wise Details of Vehicles owned by KSRTC as on 30.11.2002	S 173
8.16	Major indicators showing Operational efficiency of KSRTC	S 174
8.17	KSRTC Operational Statistics during 2001-02	S 175
8.18	Fare Structure of KSRTC during 2002	S 177
8.19	KSRTC Operational Ratios during 2001-02	S 178
8.20	Category-wise Staff Position of KSRTC	S 181
8.21	Number of Ships called at Cochin Port during 2000-01 and 2001-02 and their net registered tonnage (NRT)	S 182
8.22	Commodity-wise cargo handled at the intermediate and minor ports of Kerala during 2001-02	S 183
8.23	Number and Tonnage of Steamers and sailing vessels which called at the Intermediate and Minor Ports of Kerala during 2001-02	S 184
8.24	Number of Harbour Crafts registered at the Intermediate and Minor Ports of Kerala during 2001-02	S 184
8.25	Category-wise break-up of Revenue collected at the Intermediate and Minot Ports of Kerala during 2001-2002	S 185
8.26	Operational Statistics of Inland Water Transport Agencies in Kerala	S 186
8.27(A)	Details of Flights Operated by Various Agencies from Thiruvananthapuram International Airport	S 187
8.27 (B)	Details of Flights Operated by Various Agencies from Kozhikode Airport	S 187
8.27 (C)	Details of Flights Operated by Various Agencies from Nedumbassery International Airport	S 188
8.28	Number of passports issued from the Passport Offices in Kerala from 2000-01 to 2001-02	S 189
8.29	Growth of Post Offices in Kerala During the Last Ten Years	S 190
8.30	Category-wise Offices In Postal and Other Postal services in Kerala	S 191
8.31	Division-wise and Category-wise Post Offices under Kerala Circle as on 1-4-2002	S 192
8.32	Urban/Rural split of Post offices as on 1-4-2002	S 193
8.33	District-wise details of area and population served by one Post Office during 2001-02	S 194
8.34	District-wise details of Telephone network during 2001-2002	S 195
	Chapter – 9 *Social Services*	
9.1	Comparative statement showing literacy rate in India and States – 1991 & 2001	S 196
9.2	Literacy rate by Sex for State and Districts – 1991 & 2001 – Kerala	S 197
9.3	District-wise literates in Kerala – 2001	S 197

9.4	Number of schools in Kerala – Government Schools – 2001-02	S 198
9.5	Number of schools in Kerala – Private Aided Schools – 2001-02	S 198
9.6	Number of schools in Kerala – Un aided Schools – 2001-02	S 198
9.7	District-wise Number of schools (other than state syllabus) in Kerala - 2001-02	S 199
9.8	Progress of Educational Institutions from 1961-62 to 2001-02	S 200
9.9	District-wise/Management-wise Number of schools in Kerala – 2001-02	S 201
9.10	District-wise details of Government schools having Building Facilities Kerala (2001)	S 202
9.11	District-wise details of Government schools having Drinking Water/Latrines/Urinal facilities in Kerala (2001)	S 202
9.12	Enrolment of students in schools in Kerala – Stage wise and Management wise (1992-2002)	S 203
9.13	Enrolment of students in Government schools – Kerala – 2001-02	S 204
9.14	Enrolment of students in Private aided schools – Kerala – 2001-02	S 204
9.15	Enrolment of students in Private Unaided schools – Kerala – 2001-02	S 204
9.16	Enrolment of students in Govt., Aided and Unaided schools – Standard wise and Management wise – 2001-02	S 205
9.17	Enrolment of students in schools – District wise and Stage wise – 2001-02	S 205
9.18	Enrolment of SC/ST students at school level – 2002	S 206
9.19	Standard wise strength of SC/ST students – 2002	S 206
9.20	Strength of pupils studying other than stage syllabus – 2000-01	S 207
9.21	Stage-wise and Management-wise Number of Teachers in schools in Kerala – 2001	S 207
9.22	Number of Teachers in Kerala – 1994 to 2001	S 208
9.23	Management-wise Teachers Training Institutions, students strength and Number of Teachers 1999-2000 & 2000-01	S 209
9.24	Number of Trained School Teachers during 1996-97 to 2000-01 (Stage wise)	S 209
9.25	District-wise/Management-wise Number of Higher Secondary Schools in Kerala – 2002	S 210
9.26	Intake of students in Higher Secondary (Plus Two) Courses – XI & XII Standards (1995-96 to 2001-02)	S 211
9.27	Progress of Vocational Education in Kerala – 1988-89 to 2001-02	S 211
9.28	District-wise details of Vocational Higher Secondary Schools & Courses during 2002-03	S 211
9.29	Course-wise intake of students in VHSE – 2002-03	S 212
9.30	Number of students appeared and passed – VHSE – 1995 to 2002	S 213
9.31	District-wise number of Arts & Science Colleges (Government & Private Aided) in Kerala – 2002	S 214
9.32	Enrolment in Arts & Science Colleges in Kerala – University-wise and Stage-wise – 2002	S 215
9.33	Details of B.A Degree Enrolment in colleges during 2002-03	S 215
9.34	Details of B.Sc Degree Enrolment in colleges during 2002-03	S 216
9.35	Details of B.Com. Degree Enrolment in colleges during 2002-03	S 216
9.36	Details of Enrolment of M.A students in colleges during 2002-03	S 217
9.37	Details of Enrolment of M.Sc. Students in colleges during 2002-03	S 217
9.38	Details of Enrolment of M.Com. Students in colleges during 2002-3	S 218
9.39	University-wise Number of Teachers in Arts & Science Colleges – 2001-02	S 218
9.40	University-wise Number of Engineering Colleges in Kerala – 2002	S 219
9.41	Distribution of total Seats in various Engineering Colleges (Branch-wise) 2002	S 220
9.42	Branch-wise Annual Intake in Govt./Aided Engineering Colleges – 2002-03	S 223
9.43	Course-wise Annual Intake of students in Govt. Engineering Colleges at Post Graduate level – 2002	S 223
9.44	Annual Intake & students strength in Polytechnics in Kerala – 1996-97 to 2002-03	S 224
9.45	Trade-wise Annual Intake of students in Polytechnics – 2002	S 224
9.46	Number of Students and Teachers in Polytechnics – 2002	S 225
9.47	Number of SC/ST students and SC/ST Teachers in Polytechnis – 2002	S 225
9.48	Trade-wise Annual Intake of students in THS – 2002	S 225
9.49	Number of students and Teachers in THS – 1995-2002	S 226
9.50	Details of courses in Cochin University of Science and Technology – 2002	S 227

9.51	Growth of Institutions (Allopathy) 1990 2002	S 230
9.52	Growth of beds under Allopathy system in Kerala 1990-2002	S 231
9.53	Rural Health Infrastructure – 1986 - 2002	S 232
9.54	Details of Infrastructure, Doctors and Nurses under Co-operative Sector	S 233
9.55	Details of Infrastructure in the Directorate of Insurance Medical Service - District-wise. as on 31.3.2002.	S 238
9.56	Medical Institutions and beds in Kerala – Category-wise - 2002	S 239
9.57	District-wise Medical Institutions and beds Government sector	S 240
9.58	District-wise availability of vehicles under DHS - 2002	S 241
9.59	Number of attack and death due to major principal diseases during 2000	S 241
9.60	Sector-wise Details of Blood Units collected in Blood Banks Kerala	S 242
9.61	Details of Blood Units collected in Blood Banks – Kerala	S 243
9.62	Medical and Paramedical personnel in the Health Services Department	S 246
9.63	District-wise Number of Medical and Paramedical personnel under DHS – 2002	S 247
9.64	Medical and Paramedical Courses conducted in the Medical College with Annual Intake of students.	S 248
9.65	Medical College with distribution of hospital beds, inpatients and outpatients treated, delivery cases attended during 2001	S 250
9.66	Details of personnel (clinical/non-clinical) in Medical Colleges – 1991 2002	S 251
9.67	District-wise distribution of Institutions, beds and patients treated under Ayurvedic system of medicine in Kerala (2001 & 2001)	S 252
9.68	District-wise distribution of Institutions and beds under Homoeopathy -- 2001-02	S 253
9.69	Target and Achievement of Family Welfare Programme	S 254
9.70	Percapita expenditure on Medical and Public Health	S 255
9.71	Family Welfare Programme in 1999-2000 - District-wise	S 256
9.72	List of Institutions under DHS transferred to Local Bodies	S 256
9.73	List of Institutions transferred to Local Bodies – Ayurveda	S 257
9.74	List of Institutions transferred to Local Bodies – Homoeopahty	S 258
9.75	Number of practitioners (numbers cum.)	S 259
9.76	List of registered Paramedical practitioners	S 259
9.77	District-wise details of Service connections and street taps as on 31.3.2002	S 260
9.78	District-wise Population covered by Rural Water Supply Scheme – 2002	S 261
9.79	District-wise Population covered by Urban Water Supply Scheme – 1992 to 2002	S 262
9.80	Achievements under Major Housing Schemes	S 263
9.81	Houses Constructed by various agencies including LSGs	S 267
9.82	HUDCO Assistance given – Housing Schemes	S 268
9.83	Interest Rates of Different Financial Institutions on Housing as on 11/2002	S 269
9.84	Trends in Urbanisation – 1901 to 2001	S 272
9.85	District-wise details of Urban Population/Urban Local Governments – 2001	S 273
9.86	Trade-wise Enrolment in Government it is and Private ITCs for various courses as on 31.11.2002 (Two year courses)	S 274
9.87	Trade-wise Enrolment in Government it is Private ITCs for various courses as on 30.11.2000 (One year courses)	S 275
9.88	District-wise Industrial Institutions and Seat Strength in Kerala as on 30.11.2002	S 276
	Chapter – 10 *Poverty and Special Programmes for Weaker Sections*	
10.1	Pattern of Urban Poverty (Kollam Corporation – BPL Families)	S 277
10.2	Physical Targets and achievements of Centrally Sponsored Poverty Alleviation Schemes	S 281
10.3	Break-up of amount released and utilised under Computerisation of Land Records Programme as on 31.12.2001.	S 282
10.4	Distribution of Surplus Land as on 30.9.2001	S 283
10.5	Distribution of Government Waste Lands as on September 2001	S 284
10.6	District-wise Details of Urban Population	S 285
10.7	Trends in Urbanisation	S 286
10.8	District-wise Number of beneficiaries in Welfare Institutions – 2002	S 287
10.9	Major Pension Schemes in Kerala – District-wise beneficiaries – 2002	S 288

10.10	Details of Social Security Pension Schemes in Kerala - 2002	S 289
10.11	ICDS Projects (General) – 2002	S 293
10.12	Development Indicators of Scheduled Castes in India - Demography	S 298
10.13	Development Indicators of Scheduled Castes in India – Literacy and Education	S 299
10.14	Development Indicators of Scheduled Castes in India – Work participation and Economic Status	S 300
10.15	Development Indicators of Scheduled Castes in India – Decision Making	S 301
10.16	Development Indicators of Scheduled Tribes in India – Demography	S 302
10.17	Development Indicators of Scheduled Tribes in India – Literacy and Education	S 303
10.18	Development Indicators of Scheduled Tribes in India – Health and Child Care	S 304
10.19	Development Indicators of Scheduled Tribes in India – Work Participation and Economic Status	S 305
10.20	Development Indicators of Scheduled Tribes in India – Decision Making	S 306
10.21	District-wise Details of Enrolment of SC/ST students at school level as on 1.7.2002	S 307
10.22	Admission Details of SC/ST students in Medical and Paramedical Courses	S 308
10.23	Housing Need of Primitive Tribal Groups in 1996-97	S 309
10.24	Physical Achievements of Major Schemes for Scheduled Castes	S 310
10.25	Institutions under Scheduled Castes Development Department as on 31.10.2002	S 311
10.26	District-wise Details of Institutions under Scheduled Tribes Development Department as on 31.10.2002	S 312
10.27	Physical Achievements of Major Schemes for Scheduled Tribes	S 313
10.28	Major Physical Achievements under Special Component Plan and Tribal Sub Plan (Pooled Funds 2001-02)	S 314
10.29	Details of Schemes implemented by Kerala State Development for SC/ST	S 315
10.30	Financial and Physical Achievement of KSBCDC through different sources of funds	S 316
10.31	Scheduled Castes and Scheduled Tribes Registered in the Employment Exchanges (as on 1.10.2002)	S 317
10.32	Population and Literacy of Primitive Tribes as per the Primitive Tribes Survey – 1996-97 (District-wise)	S 318
10.33	Details of SC/ST Students in Higher Secondary Schools as on 2002-03	S 319
10.34	Availability of Power (Electricity) in PTG settlements (District-wise)	S 320
10.35	Grama Panchayats with highest Primitive Tribe Groups Concentration & Population	S 321
10.36	Availability of High School Facilities in PTG Tribal Areas – District-wise (1996-97)	S 322
10.37	Availability of Drinking Water in PTG Settlements (District-wise)	S 323
	Chapter – 11 *Gender and Development*	
11.1	Status of Women in India – International Comparisons	S 324
11.2	District-wise Female Population and Sex Ratio in Kerala – 1991 & 2001	S325
11.3	Details of Elderly women by Districts in Kerala – 1991 Census	S 326
11.4	Enrolment of Girl Students in Kerala at various stages – 1991 to 2002	S 327
11.5	Female Infant Mortality Rates and Gender Gap – 1999	S 328
11.6	District-wise Number of Work Seekers	S 329
11.7	Gender Difference in Work Participation – State-wise – 2001	S 330
11.8	District-wise Number of Women Employees – 2000 & 2001	S 331
11.9	Women's Autonomy Levels by State	S 332
11.10	Women's Representation in Panchayati Raj Institutions	S 333
11.10(A)	Number of Seats reserved for Women in LSGs in Kerala – 2001	S 334
11.11	Complaints Received by Kerala Women's Commission	S 335
11.12	Number of Suicide Cases by Cause in Kerala – 1997 to 2001	S 336
11.13	Details of Atrocities Committed Against Women – Kerala & All India	S 337
11.14	District-wise Crime Against Women Reported in Kerala – 2001	S 338
11.15	Crime Rates Against Women and Ranks of States and Union Territories	S 339
	Chapter – 12 *Prices, Cost of Living and Wages*	
12.1	Consumer Price Index (Cost of Living Index) Numbers for Agricultural and Industrial Workers, Kerala – 2002	S 340
12.2	Month-end Average Retail Prices of Essential Commodities 2002	S 341
12.3	Wholesale Price Index of Agricultural Commodities – 1990 – 2002	S 343

12.4	Month-Wise Wholesale Price Index of Agricultural Commodities - Kerala (2001 and 2002)	S 344
12.5	Monthly Farm Price of Principal Crops (2001-02)	S 345
12.6	Index Number of Wholesale Prices in India by Groups and Sub-Groups (Averages)	S 346
12.7	Consumer Price Index Numbers for Industrial workers- All India and Selected Centres	S 347
12.8	Consumer Price Index Numbers for Agricultural Labourers State-wise	S 348
12.9	Consumer Price Index Numbers for Urban Non-Manual Employees - All India & Selected Centers	S 349
	Chapter - 13 *Export and Import*	
13.1	Commodity-wise Exports Through Kochi Port	S 350
13.2	Commodity-wise Imports Through Kochi Port	S 350
13.3	Market-wise Export of Marine Products from India	S 351
13.4	Market-wise Export of Marine Products from Kerala	S 351
13.5	Kerala's Share in the Export of Marine Products from India	S 352
13.6	Item-wise Exports of Marine Products from India	S 353
13.7	Item-wise Exports of Marine Products from Kerala	S 354
13.8	Item-wise Exports of Spices from India	S 355
13.9	State-wise Production of Raw Cashewnuts from 1994-95 to 2001-02	S 356
13.10	Export of Cashew Kernels : Kerala & India	S 356
13.11	Export of Cashewnut shell liquid : Kerala & India	S 357
13.12	Import of Raw Cashewnut: Kerala & India	S 357
13.13	Export of Cashew Kernals from India during 1999-00 to 2001-02	S 358
13.14	Export of Coir and Coir Product from India during 1997-98 to 2001-02	S 359
13.15	Leading Export Market for Coir Products during 2001-02	S 360
	Chapter – 14 *Institutional and Bank Finance*	
14.1	State-wise Financial Assistance Disbursed by NABARD and NCDC during 2001-02.	S 361
14.2	State-wise Financial Assistance Disbursed by NABARD and NCDC as at the end of March 2002.	S 361
14.3	State-wise Financial Assistance Disbursed by All India Financial Institutions During 1999-2000.	S 362
14.4	State-wise Financial Assistance Disbursed by All India Financial Institutions During 2000-2001	S 363
14 .5	State-wise Financial Assistance Disbursed by All India Financial Institutions as at the end of March 2000.	S 364
14.6	State-wise Financial Assistance Disbursed by All India Financial Institutions as at the end of March 2001.	S 365
14.7	State-wise Per capita Assistance Disbursed by All India Financial Institutions During 1998-99 to 2000-2001.	S 366
14.8	State-wise Distribution of Commercial bank branches and Population per bank office.	S 367
14.9	District-wise Distribution of Number of branches, aggregate deposits, gross bank credit and CD ratio of Scheduled Commercial banks in Kerala.	S 369
14.10	Banking Statistics of Kerala 1990-2002.	S 370
14.11	Details of Agency-wise Broad Sector-wise Flow of Ground Level Credit (GLC)	S 372
14.12	District-wise / Sector-wise PLP Projections / SAP Targets / GLC (SAP) achievements During 2000-01 to 2002-03	S 373
14.13	Sub Sector-wise Details of Ground Level Credit (GLC) Disbursements under Agriculture and Allied Activities by all Agencies During 2000-01 to 2002-03.	S 374
	Chapter – 16 Local Governments and Decentralised Development	
16.1	Selected Physical Achievements of Local Governments in Annual Plan 1997-98	S 375
16.2	Selected Physical Achievements of Local Governments in Annual Plan 1998-99	S 376
16.3	Selected Physical Achievements of Local Governments in Annual Plan 1999-2000	S 377
16.4	Selected Physical Achievements of Local Governments in Annual Plan 2000-01	S 378
16.5	Selected Physical Achievements of Local Governments in Annual Plan 2001-02	S 379
16.6	Performance of Local Governments in Annual Plan 2001-02	S 380
16.7	Performance of Local Governments in Annual Plan 2001-02 (Sources of Funds and Expenditure)	S 381

16.8	Performance of Local Governments in Annual Plan 2001-02 (Sector wise Allocation and Expenditure of Plan Grants)	S 382
16.9	Performance of Local Governments in Annual Plan 2001-02 (Allocation and Expenditure of Plan Grant for Housing, Drinking Water and Women Component Plan)	S 383
16.10	Performance of Local Governments in Annual Plan 2001-02 (Details of Deposit Works)	S 384
16.11	Performance of Local Governments in Annual Plan 2001-02 (Agency wise Details of Projects for which Plan Grant was Given as Advance)	S 385
16.12	Performance of Local Governments in Ninth Plan 1997-2002 (Year wise Receipts of Plan Grants)	S 386
16.13	Performance of Local Governments in Ninth Plan 1997-2002 (Year wise Expenditure of Plan Grants)	S 387
16.14	Performance of Local Governments in Ninth Plan 1997-2002 (Receipts and Expenditure under State Sponsored Schemes)	S 388
16.15	Performance of Local Governments in Ninth Plan 1997-2002 (Receipts and Expenditure under Centrally Sponsored Schemes)	S 389
16.16	Performance of Local Governments in Ninth Plan 1997-2002 (Source wise and Year wise Expenditure)	S 390
16.17	Analysis of Local Self Governments Annual Plan 2002-03 (Sectoral Investment Pattern – Kollam)	S 392
16.18	Analysis of Local Self Governments Annual Plan 2002-03 (Sectoral Investment Pattern – Palakkad)	S 394
16.19	Analysis of Local Self Governments Annual Plan 2002-03 (Sectoral Investment Pattern – Kasaragode)	S 396

Appendix 3.1

Gross National Product at Factor Cost - All India

(Rs. crore)

Year	At Current Prices		At Constant Prices	
	Amount	% change	Amount	% change
Old Series (Base 1980-81)				
1970-71	39424	6.4	89465	5.1
1980-81	122772	19.7	122772	7.3
1981-82	143256	16.7	129928	5.8
1982-83	158761	10.8	133299	2.6
1983-84	185779	17.0	143861	7.9
1984-85	207109	11.5	149256	3.8
1985-86	232370	12.2	155365	4.1
1986-87	258225	11.1	161535	4.0
1987-88	292232	13.2	168121	4.1
1988-89	348210	19.2	185226	10.2
1989-90	402931	15.7	198082	6.9
1990-91	470269	16.7	208481	5.2
1991-92	542691	15.4	209621	0.5
1992-93	618969	14.1	220461	5.2
New Series (Base 1993-94)				
1993-94	769265	16.4	769265	6.2
1994-95	901111	17.1	822649	6.9
1995-96	1053736	16.9	884388	7.5
1996-97	1224208	16.2	953667	7.8
1997-98	1376943	12.0	1005750	5.1
1998-99	1583110	15	1070498	6.4
1999-00	1740207	9.9	1136898	6.2
2000-01@	1900310	9.2	1186246	4.3
2001-02*	2081350	9.5	1257043	6

@ - Provisional, *- Quick Estimates

Source: - Central Statistical Organisation

4/100/2003—1

Appendix 3.4

Gross Domestic Product at Factor Cost by Economic Activity-All India

(percentage change over the previous year) *(Per cent)*

At Current Prices		Industry	At 1993-94 Prices	
2000-01@	2001-02*		2000-01@	2001-02*
1	2	4	5	6
3.6	9.2	**1. Agriculture, Forestry & Fishing**	-0.4	5.7
3	8.8	1.1 Agriculture	-0.6	5.7
7.3	13.4	1.2 Forestry & Logging	2.6	2.2
11.6	13.6	1.3 Fishing	2.2	8.1
9.9	1.9	**2. Mining & Quarrying**	2.4	1.0
13	6.1	**3. Manufacturing**	7.3	3.4
14.8	7.4	3.1 Registered	7.7	4.4
9.8	3.7	3.2 Unregistered	6.6	1.5
10.1	7.3	**4. Electricity, Gas & Water Supply**	5	4.3
10.7	7.7	**5. Construction**	6.9	3.7
10.8	10.9	**6. Trade, Hotels & Restaurants**	4.1	8.8
10.7	10.9	6.1 Trade	3.9	8.7
12.8	11.4	6.2 Hotels & Restaurants	6.9	11.2
12.8	10.1	**7. Transport, Storage and Communication**	12.2	8.5
4.6	16.8	7.1 Railways	4.3	6.0
13.8	7.6	7.2 Transport by other means	6.6	3.9
9.6	1	7.3 Storage	3.1	-0.8
15.1	14.8	7.4 Communication	26.8	17.0
8.3	11.8	**8. Financing, Insurance, Real Estate & Business Services**	3.5	4.5
-0.5	9.9	8.1 Banking & Insurance Real Estate, Ownership of Dwellings & business	-1.2	3.4
18.6	13.8	8.2 Services	9.2	5.7
9.5	10.1	**9. Community, Social & Personal Services**	5.6	5.6
6.2	7.3	9.1 Public Administration &	2.5	2.9
12.3	12.4	9.2 Other Services	8.1	7.7
8.8	9.2	**10. Total Gross Domestic Product at Factor Cost**	4.4	5.6

*@- Provisional, *- Quick Estimates*

Source: - Central Statistical Organisation

Appendix 3.5

Gross Domestic Product (Kerala) at Factor Cost by Industry of Origin from 1996-97 to 2001-02 (At Current Prices)

(Rs.in lakh)

Sl. No	Industry of Origin	1996-97	1997-98	1998-99	1999-2000	2000-01 (Provisional)	2001-02 (Quick)
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*
1	Agriculture	1105224	1111503	1162233	1270793	1332045	1392253
2	Forestry and Logging	102011	98529	104358	122311	130347	138494
3	Fishing	113754	116297	126496	153325	169792	186364
4	Mining and Quarrying	8647	10143	13025	14679 *	17537	20359
	Sub Total: Primary	**1329636**	**1336472**	**1406112**	**1561108**	**1649721**	**1737470**
5	Manufacturing	532231	562910	645220	700918 *	762422	857690
5.1	Registered	271161	298265	365455	408329	444159	510783
5.2	Un-registered	261070	264645	279765	292589	318263	346907
6	Electricity, Gas & Water Supply	53587	65056	82741	104370	129064	161166
6.1	Electricity	47520	58687	75599	95779	119724	150852
6.2	Gas	1013	1084	1109	1251	1339	1433
6.3	Water Supply	5054	5285	6033	7340	8001	8881
7	Construction	359539	452554	550848	514915 *	602451	704868
	Sub total : Secondary	**945357**	**1080520**	**1284809**	**1320203**	**1493937**	**1723724**
8	Transport,Storage & Communication	348477	432239	491807	557636	618196 *	666800
8.1	Railways	13570	**15225**	19581	21571*	24110	26593
8.2	Transport by other means*	268153	339826	372295	434417	482241	517933
8.3	Communication	65854	76250	98780	100544 *	110689	121083
8.4	Storage	900	938	1151	1104	1156	1191
9	Trade, Hotel & Restaurants	840334	1010716	1187409	1317402	1438603	1563761
10	Banking and Insurance	239207	226967	277067	306734 *	349646	400092
11	Real estate ownership, Business, legal	248062	278011	306129	351569	395480	444440
12	Public Administration	182682	219761	252750	340249	378151	416125
13	Other Services	312235	363761	418612	496543	580459	665786
	Sub Total:Tertiary	**2170997**	**2531455**	**2933774**	**3370133**	**3760535**	**4157004**
	Gross State Domestic Product	**4445990**	**4948447**	**5624695**	**6251444**	**6904193**	**7618198**
	Mid Year Population('000)	31186	31539	31856	32145	32418	32662
	Per capita Income (Rs.)	**14256**	**15690**	**17657**	**19448**	**21297**	**23324**

* - Subject to change as and when final results are available

Source : *Department of Economics & Statistics*

Appendix 3.8

Net Domestic Product (Kerala) at Factor Cost by Industry of Origin at constant prices from 1996-97 to 2001-02

[Base year 1993-'94] *(Rs.in lakh)*

Sl. No	Industry of Origin	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*
1	Agriculture	711466	677678	689962	701705	714020	726373
2	Forestry and Logging	74640	72479	75683	80182	84335	89024
3	Fishing	66012	53424	57329	62300	67278	72882
4	Mining and Quarrying	5048	5600	6520	6781*	7474	8005
	Sub Total: Primary	**857166**	**809181**	**829494**	**850968**	**873107**	**896284**
5	Manufacturing	340550	329021	350458	369687*	389280	405872
5.1	Registered	168617	172039	193471	209064	220144	233353
5.2	Un-registered	171933	156982	156987	160623	169136	172519
6	Electricity, Gas & Water Supply	24320	29806	35933	48518	58369	71977
6.1	Electricity	20903	26421	32010	43589	53179	66474
6.2	Gas	756	742	725	797	839	847
6.3	Water Supply	2661	2643	3198	4132	4351	4656
7	Construction	204232	227233	252240	219186*	223570	228041
	Sub total : Secondary	**569102**	**586060**	**638631**	**637391**	**671219**	**705890**
8	Transport,Storage & Communication	181348	202925	223784	249511	265602	276433
8.1	Railways	7402	6549	6873	7933*	8296	8618
8.2	Transport by other means*	133497	147665	152362	167971	178436	183842
8.3	Communication	39790	48066	63855	72954	78207	83306
8.4	Storage	659	645	694	653	663	667
9	Trade, Hotel & Restaurants	528555	562538	598017	648161	685106	715936
10	Banking and Insurance	180090	168681	220560	248188*	268763	292280
11	Real estate ownership, Business, legal	147185	157287	165724	171367	178856	187396
12	Public Administration	119124	134495	137964	184368	198543	208966
13	Other Services	220075	242148	250192	281661	303869	324790
	Sub Total:Tertiary	**1376377**	**1468074**	**1596241**	**1783256**	**1900739**	**2005801**
	Net State Domestic Product	***2802645***	***2863315***	**3064366**	**3271615**	**3445065**	**3607975**
	Population('000)	*31186*	31539	31856	32145	32418	32662
	Per capita Income (Rs.)	**8987**	**9079**	**9619**	**10178**	**10627**	**11046**

** Subject to change on receipt of final results*

Source : *Department of Economics & Statistics*

Appendix- 3.9

District wise Distribution of Net State Domestic Product and Per Capita Income of Kerala at Factor Cost by Industry of Origin for the year 1999-2000 (at Current Prices)

(Rs. in Lakh)

Sl.No	Industry of Origin	TVM	KLM	PTA	ALPA	KTM	IKI	EKM	TSR	PLKD	MLPM	KKD	WYD	KNR	KSD	STATE
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*	*15*	*16*	*17*
1	Agriculture	100580	95448	57073	54140	96425	108158	105958	86159	92392	97770	93614	75894	96303	62206	1222120
2	Forestry and Logging	5600	9147	17432	0	911	29301	911	11638	15306	11613	4653	8856	5479	632	121479
3	Fishing	6145	29125	162	12249	1002	68	26527	8540	514	12438	27001	0	5265	6307	135343
4	Mining and Quarrying	605	560	241	376	405	134	1140	818	649	1235	2012	165	2200	709	11249
	Sub Total: Primary	**112930**	**134280**	**74908**	**66765**	**98743**	**137661**	**134536**	**107155**	**108861**	**123056**	**127280**	**84915**	**109247**	**69854**	**1490191**
5	Manufacturing	55722	66132	11634	71030	29392	7960	80829	80829	44088	30004	44088	3674	50824	36128	612334
5.1	Registered	31391	37255	6554	40015	16558	4484	45535	45535	24837	16903	24837	2070	28632	20353	344959
5.2	Unregistered	24331	28877	5080	31015	12834	3476	35294	35294	19251	13101	19251	1604	22192	15775	267375
6	Electricity, Gas & Water supply	13241	7222	3719	6442	6908	6187	9163	6997	4896	2684	5540	546	2466	1079	77090
6.1	Electricity	10840	6880	3475	5907	6393	6115	8130	6463	4656	2293	4864	486	2085	903	69490
6.2	Gas	128	107	54	91	83	47	125	121	100	118	111	28	95	43	1251
6.3	Water Supply	2273	235	190	444	432	25	908	413	140	273	565	32	286	133	6349
7	Construction	52534	31423	14729	29459	27986	9329	92303	52043	27004	38296	54498	5892	40751	14729	490976
	Sub total : Secondary	**121497**	**104777**	**30082**	**106931**	**64286**	**23476**	**182295**	**139869**	**75988**	**70984**	**104126**	**10112**	**94041**	**51936**	**1180400**
8	Transport,Storage & Communication	51439	25550	14131	22325	30274	5585	54336	44939	23182	35300	30716	15587	13451	9636	376451
8.1	Railways	1177	1123	96	877	780	0	1230	910	1915	1316	1145	0	1113	1136	12818
8.2	Transport by other means	43596	20089	12158	17329	25510	4374	42574	36966	16070	29048	21928	14822	7570	6876	298910
8.3	Communication	6575	4237	1867	4007	3791	1191	10390	7021	5116	4874	7632	726	4683	1599	63709
8.4	Storage	91	101	10	112	193	20	142	42	81	62	11	39	85	25	1014
9	Trade, Hotel & Restaurants	121624	94942	38080	91055	87818	30438	164626	144031	99345	104138	138333	20465	113853	46499	1295247
10	Banking and Insurance	30876	18724	17164	20794	23705	9992	43479	32137	23285	18604	23615	6661	20494	10532	300062
11	Real estate ownership, business & legal	30177	23926	12637	19804	17702	11397	27186	25516	21744	23306	22336	6601	18133	8972	269437
12	Public Administration	73035	26036	13617	20871	22654	5103	33167	23853	20257	16660	24160	3596	19888	4488	307385
13	Other Services	61309	34939	16475	35081	37590	13541	48763	45733	32667	43887	44692	10605	33141	15008	473431
	Sub Total:Tertiary	**368460**	**224117**	**112104**	**209930**	**219743**	**76056**	**371557**	**316209**	**220480**	**241895**	**283852**	**63515**	**218960**	**95135**	**3022013**
	Net State Domestic Product	602887	463174	217094	383626	382772	237193	688388	563233	405329	435935	515258	158542	422248	216925	5692604
	Population('000)	3255	2660	1313	2211	2020	1191	3112	3024	2632	3420	2894	742	2487	1184	32145
	Per capita Income (Rs.)	18522	17413	16534	17351	18949	19915	22120	18625	15400	12747	17804	21367	16978	18321	17709

Source : *Department of Economics & Statistics*

Appendix- 3.10

District wise Distribution of Net State Domestic Product and Per Capita Income of Kerala at Factor Cost by Industry of Origin for the year 1999-2000 (at Constant Prices)

Base Year 1993-94 (Rs. in Lakh)

Sl.No	Industry of Origin	TVM	KLM	PTA	ALPA	KTM	IKI	EKM	TSR	PLKD	MLPM	KKD	WYD	KNR	KSD	STATE
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*	*15*	*16*	*17*
1	Agriculture	57750	54803	32770	31085	55365	62101	60838	49470	53049	56136	53751	43576	55294	35717	701705
2	Forestry and Logging	3696	6038	11506	0	601	19341	601	7681	10103	7665	3071	5846	3616	417	80182
3	Fishing	2828	13408	75	5638	461	31	12211	3931	237	5725	12429	0	2423	2903	62300
4	Mining and Quarrying	365	338	145	226	244	81	687	493	391	745	1213	100	1326	427	6781
	Sub Total: Primary	**64639**	**74587**	**44496**	**36949**	**56671**	**81554**	**74337**	**61575**	**63780**	**70271**	**70464**	**49522**	**62659**	**39464**	**850968**
5	Manufacturing	33272	39926	7025	42883	17745	4806	48798	48798	26618	18484	26618	2218	30684	21812	369687
5.1	Registered	18816	22579	3973	24251	10035	2718	27596	27596	15053	10453	15053	1254	17352	12335	209064
5.2	Unregistered	14456	17347	3052	18632	7710	2088	21202	21202	11565	8031	11565	964	13332	9477	160623
6	Electricity, Gas & Water Supply	8361	4536	2337	4052	4343	3883	5770	4400	3075	1691	3490	344	1555	681	48518
6.1	Electricity	6800	4315	2179	3705	4010	3836	5100	4054	2920	1438	3052	305	1308	567	43589
6.2	Gas	82	68	34	58	53	30	80	77	64	75	70	18	61	27	797
6.3	Water Supply	1479	153	124	289	280	17	590	269	91	178	368	21	186	87	4132
7	Construction	23453	14028	6576	13150	12494	4165	41207	23234	12055	17096	24330	2630	18192	6576	219186
	Sub total : Secondary	**65086**	**58490**	**15938**	**60085**	**34582**	**12854**	**95775**	**76432**	**41748**	**37271**	**54438**	**5192**	**50431**	**29069**	**637391**
8	Transport,Storage & Communication	32822	16899	9040	14930	19292	3846	36672	29407	16132	22763	21767	9172	10355	6414	249511
8.1	Railways	728	695	59	543	483	0	762	563	1185	815	708	0	689	703	7933
8.2	Transport by other means	24507	11288	6836	9726	14344	2469	23919	20778	9037	16327	12312	8315	4249	3864	167971
8.3	Communication	7529	4851	2138	4589	4341	1364	11899	8039	5858	5581	8740	832	5362	1831	72954
8.4	Storage	58	65	7	72	124	13	92	27	52	40	7	25	55	16	653
9	Trade, Hotel & Restaurants	60862	47510	19056	45566	43945	15232	82381	72076	49714	52112	69224	10241	56973	23269	648161
10	Banking and Insurance	25539	15487	14196	17199	19607	8265	35963	26580	19259	15388	19533	5509	16951	8712	248188
11	Real estate ownership, business & legal	19193	15217	8037	12595	11259	7249	17291	16228	13829	14823	14207	4199	11533	5707	171357
12	Public Administration	43806	15616	8168	12518	13588	3060	19893	14307	12150	9993	14491	2157	11929	2692	184368
13	Other Services	36475	20787	9802	20871	22364	8055	29011	27208	19435	26110	26589	6309	19716	8929	281661
	Sub Total:Tertiary	**218697**	**131516**	**68299**	**123679**	**130055**	**45707**	**221211**	**185806**	**130519**	**141189**	**165811**	**37587**	**127457**	**55723**	**1783256**
	Net State Domestic Product	348422	264593	128733	220713	221308	140115	391323	323813	236047	248731	290713	92301	240547	124256	3271615
	Population('000)	3255	2660	1313	2211	2020	1191	3112	3024	2632	3420	2894	742	2487	1184	32145
	Per capita Income (Rs.)	**10704**	**9947**	**9804**	**9982**	**10956**	**11764**	**12575**	**10708**	**8968**	**7273**	**10045**	**12439**	**9672**	**10495**	**10178**

Source . *Department of Economics & Statistics*

Appendix- 3.11

District wise Distribution of Net State Domestic Product and Per Capita Income of Kerala at Factor Cost by Industry of Origin for the year 2000-01 (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	107586	102096	61048	57911	103141	115691	113338	92160	98827	104579	100135	81180	103011	66538	1307241
2	Forestry and Logging	6246	10203	19444	0	1016	32682	1016	12981	17073	12954	5190	9878	6111	704	135498
3	Fishing	6797	32219	180	13549	1108	75	29344	9447	569	13759	29868	0	5824	6977	149716
4	Mining and Quarrying	702	649	279	436	470	155	1320	948	753	1432	2333	192	2551	822	13042
	Sub Total: Primary	121331	145167	80951	71896	105735	148603	145018	115536	117222	132724	137526	91250	117497	75041	1605497
5	Manufacturing	60612	71935	12655	77265	31971	8660	87920	87920	47956	32638	47956	3997	55283	39298	666066
5.1	Registered	34146	40525	7129	43527	18011	4878	49530	49530	27016	18386	27016	2252	31144	22139	375229
5.2	Unregistered	26466	31410	5526	33738	13960	3782	38390	38390	20940	14252	20940	1745	24139	17159	290837
6	Electricity, Gas & Water Supply	16016	8840	4545	7861	8436	7601	11150	8542	5990	3252	6735	663	2986	1306	93923
6.1	Electricity	13334	8462	4274	7265	7864	7522	10000	7949	5727	2820	5983	598	2564	1111	85473
6.2	Gas	136	115	58	98	88	51	134	130	107	126	119	29	102	46	1339
6.3	Water Supply	2546	263	213	498	484	28	1016	463	156	306	633	36	320	149	7111
7	Construction	61466	36765	17233	34466	32743	10915	107995	60892	31594	44806	63763	6893	47678	17233	574442
	Sub total : Secondary	138094	117540	34433	119592	73150	27176	207065	157354	85540	80696	118454	11553	105947	57837	1334431
8	Transport,Storage & Communication	57223	28393	15725	24782	33679	6227	60368	49972	25757	39257	34089	17324	14902	10708	418406
8.1	Railways	1308	1248	107	975	868	0	1368	1012	2129	1463	1273	0	1236	1263	14250
8.2	Transport by other means	48587	22379	13554	19282	28439	4895	47421	41193	17916	32368	24409	16484	8426	7659	333012
8.3	Communication	7232	4660	2053	4408	4170	1311	11430	7723	5627	5361	8396	799	5151	1759	70080
8.4	Storage	96	106	11	117	202	21	149	44	85	65	11	41	89	27	1064
9	Trade, Hotel & Restaurants	132813	103676	41584	99433	95897	33239	179771	157282	108485	113718	151059	22348	124327	50777	1414409
10	Banking and Insurance	35197	21344	19565	23704	27022	11390	49563	36634	26543	21207	26919	7594	23362	12006	342050
11	Real estate ownership, business & legal	33916	26890	14202	22257	19895	12809	30555	28677	24438	26194	25104	7419	20380	10084	302820
12	Public Administration	81181	28940	15136	23200	25181	5672	36866	26514	22516	18519	26855	3998	22106	4988	341672
13	Other Services	71241	40599	19145	40764	43680	15734	56663	53142	37959	50997	51932	12323	38509	17439	550127
	Sub Total:Tertiary	411571	249842	125357	234140	245354	85071	413786	352221	245698	269892	315958	71006	243586	106002	3369484
	Net State Domestic Product	670996	512549	240741	425628	424239	260850	765869	625111	448460	483312	571938	173809	467030	238880	6309412
	Population('000)	3283	2682	1324	2230	2037	1201	3139	3050	2654	3450	2918	748	2508	1194	32418
	Per capita Income (Rs.)	20439	19111	18183	19086	20827	21719	24399	20495	16898	14009	19600	23236	18622	20007	19463

** Provisional Estimate*

Source : *Department of Economics & Statistics*

Appendix- 3.12

District wise Distribution of Net State Domestic Product and Per Capita Income of Kerala at Factor Cost by Industry of Origin for the year 2000-01 (at Constant Prices) *

Base Year 1993-94 (Rs.in Lakh)

Sl.No	Industry of Origin	TVM	KLM	PTA	ALPA	KTM	IKI	EKM	TSR	PLKD	MLPM	KKD	WYD	KNR	KSD	STATE
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*	*15*	*16*	*17*
1	Agriculture	58764	55765	33345	31631	56336	63191	61905	50338	53980	57122	54693	44341	56265	36344	714020
2	Forestry and Logging	3888	6350	12102	0	633	20342	633	8079	10626	8062	3230	6148	3804	438	84335
3	Fishing	3054	14478	81	6089	498	34	13186	4245	256	6183	13422	0	2617	3135	67278
4	Mining and Quarrying	402	372	160	250	269	89	757	543	431	821	1337	110	1462	471	7474
	Sub Total: Primary	66108	76965	45688	37970	57736	83656	76481	63205	65293	72188	72682	50599	64148	40388	873107
5	Manufacturing	35423	42043	7397	45157	18686	5060	51385	51385	28028	19075	28028	2336	32310	22967	389280
5.1	Registered	20033	23776	4183	25537	10567	2862	29059	29059	15850	10787	15850	1321	18272	12988	220144
5.2	Unregistered	15390	18267	3214	19620	8119	2198	22326	22326	12178	8288	12178	1015	14038	9979	169136
6	Electricity, Gas & Water Supply	9940	5498	2825	4886	5243	4729	6928	5310	3726	2021	4185	412	1855	811	58369
6.1	Electricity	8296	5265	2659	4520	4892	4680	6222	4946	3563	1755	3723	372	1595	691	53179
6.2	Gas	86	72	36	61	55	32	84	81	67	79	75	18	64	29	839
6.3	Water Supply	1558	161	130	305	296	17	622	283	96	187	387	22	196	91	4351
7	Construction	23923	14308	6707	13414	12743	4248	42032	23698	12296	17438	24816	2683	8556	6708	223570
	Sub total : Secondary	69286	61849	16929	63457	36672	14037	100345	80393	44050	38534	57029	5431	52721	30486	671219
8	Transport,Storage & Communication	34928	17986	9622	15892	20519	4097	39054	31307	17171	24221	23197	9751	11038	6819	265602
8.1	Railways	763	728	62	568	501	0	796	589	1239	853	742	0	720	735	8296
8.2	Transport by other means	26034	11991	7262	10332	15238	2623	25409	22073	9600	17344	13079	8833	4514	4104	178436
8.3	Communication	8071	5201	2291	4919	4654	1462	12756	8618	6280	5983	9369	892	5748	1963	78207
8.4	Storage	60	66	7	73	126	12	93	27	52	41	7	26	56	17	663
9	Trade, Hotels & Restaurants	64331	50218	20142	48163	46450	16100	87077	76184	52548	55083	73169	10825	60221	24595	685106
10	Banking and Insurance	27656	16771	15373	18625	21232	8950	38944	28784	20856	16663	21152	5967	18357	9433	268763
11	Real estate ownership, business & legal	20032	15882	8388	13146	11750	7566	18047	16938	14434	15471	14827	4382	12037	5956	178856
12	Public Administration	47174	16816	8795	13481	14633	3296	21423	15407	13084	10761	15605	2323	12846	2899	198543
13	Other Services	39351	22425	10575	22517	24127	8691	31298	29354	20967	28169	28685	6807	21270	9633	303869
	Sub Total:Tertiary	233472	140098	72895	131824	138711	48700	235843	197974	139060	150368	176635	40055	135769	59335	1900739
	Net State Domestic Product	368866	278912	135512	233251	233119	146393	412669	341572	248403	261090	306346	96085	252638	130209	3445065
	Population('000)	3283	2682	1324	2230	2037	1201	3139	3050	2654	3450	2918	748	2508	1194	32418
	Per capita Income (Rs.)	11236	10399	10235	10460	11444	12189	13147	11199	9360	7568	10498	12846	10073	10905	10627

* *Provisional Estimate*

Source : *Department of Economics & Statistics*

Appendix- 3.13

District wise Distribution of Net State Domestic Product and Per Capita Income of Kerala at Factor Cost by Industry of Origin for the year 2001-02 (at Current Prices) *

(Rs.in Lakh)

Sl.No	Industry of Origin	TVM	KLM	PTA	ALPA	KTM	IKI	EKM	TSR	PLKD	MLPM	KKD	WYD	KNR	KSD	STATE
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*	*15*	*16*	*17*
1	Agriculture	112965	107200	64101	60806	108298	121476	119005	96769	103769	109808	105141	85239	108161	69865	1372603
2	Forestry and Logging	7145	11671	22242	0	1162	37386	1162	14849	19530	14818	5936	11299	6990	806	154996
3	Fishing	7439	35264	197	14830	1213	82	32117	10340	623	15059	32691	0	6374	7636	163865
4	Mining and Quarrying	816	756	325	507	546	181	1537	1103	876	1666	2714	223	2968	956	15174
	Sub Total: Primary	128365	154891	86865	76143	111219	159125	153821	123061	124798	141351	146482	96761	124493	79263	1706638
5	Manufacturing	67509	80121	14095	86056	35613	9643	97926	97926	53414	36351	53414	4452	61575	43770	741865
5.1	Registered	38926	46198	8127	49620	20535	5560	56464	56464	30799	20960	30799	2567	35504	25238	427761
5.2	Unregistered	28583	33923	5968	36436	15078	4083	41462	41462	22615	15391	22615	1885	26071	18532	314104
6	Electricity, Gas & Water Supply	19449	10831	5562	9608	10318	9339	13602	10443	7337	3953	8208	809	3627	1586	114672
6.1	Electricity	16401	10408	5257	8936	9672	9252	12300	9777	7044	3469	7359	736	3154	1367	105132
6.2	Gas	146	123	62	105	95	54	143	139	115	135	127	32	108	49	1433
6.3	Water Supply	2902	300	243	567	551	33	1159	527	178	349	722	41	365	170	8107
7	Construction	71914	43014	20163	40326	38310	12770	126354	71242	36965	52424	74603	8065	55784	20163	672097
	Sub total : Secondary	158872	133966	39820	135990	84241	31752	237882	179611	97716	92728	136225	13326	120986	65519	1528634
8	Transport,Storage & Communication	61756	30674	16966	26772	36340	6725	65213	53954	27874	42389	36874	18663	16159	11588	451947
8.1	Railways	1440	1374	118	1073	955	0	1506	1114	2344	1611	1401	0	1362	1391	15689
8.2	Transport by other means	52304	24091	14591	20757	30615	5269	51049	44346	19286	34846	26277	17746	9070	8245	358492
8.3	Communication	7913	5099	2246	4822	4561	1434	12504	8449	6156	5865	9185	874	5635	1925	76668
8.4	Storage	99	110	11	120	209	22	154	45	88	67	11	43	92	27	1098
9	Trade Hotel & Restaurants	144368	112696	45201	108084	104240	36130	195412	170966	117923	123612	164201	24292	135143	55195	1537463
10	Banking and Insurance	40358	24473	22434	27181	30984	13061	56831	42005	30435	24317	30867	8707	26788	13767	392208
11	Real estate ownership, business & legal	38088	30198	15949	24994	22342	14385	34313	32204	27443	29416	28192	8332	22887	11324	340067
12	Public Administration	89102	31763	16613	25464	27638	6225	40463	29101	24713	20326	29476	4388	24263	5475	375010
13	Other Services	81358	46364	21863	46553	49883	17968	64709	60689	43349	58238	59306	14073	43977	19915	628245
	Sub Total:Tertiary	455030	276168	139026	259048	271427	94494	456941	388919	271737	298298	348916	78455	269217	117264	3724940
	Net State Domestic Product	742267	565025	265711	471181	466887	285371	848644	691591	494251	532377	631623	188542	514696	262046	6960212
	Population('000)	3308	2702	1334	2246	2052	1210	3162	3073	2674	3476	2941	754	2527	1203	32662
	Per capita Income (Rs.)	22439	20911	19918	20979	22753	23584	26839	22505	18484	15316	21476	25006	20368	21783	21310

* Quick Estimate

Source : *Department of Economics & Statistics*

Appendix- 3.14

strict wise Distribution of Net State Domestic Product and Per Capita Income of Kerala at Factor Cost by Industry of Origin for the Year 2001-02 (at constant pric

(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	59780	56730	33922	32178	57311	64284	62977	51209	54914	58110	55640	45108	57238	36972	726373
2	Forestry and Logging	4104	6704	12774	0	668	21472	668	8528	11217	8511	3410	6490	4015	463	89024
3	Fishing	3309	15684	87	6596	539	36	14285	4599	277	6698	14540	0	2835	3396	72882
4	Mining and Quarrying	431	399	171	267	288	95	811	582	462	879	1432	118	1566	504	8005
	Sub Total: Primary	67624	79517	46954	39041	58806	85887	78742	64918	66870	74198	75022	51716	65654	41335	896284
5	Manufacturing	36934	43834	7712	47081	19482	5277	53576	53576	29222	19887	29222	2435	33687	23947	405872
5.1	Registered	21235	25202	4434	27069	11201	3034	30803	30803	16801	11434	16801	1400	19368	13768	233353
5.2	Unregistered	15699	18632	3278	20012	8281	2243	22773	22773	12421	8453	12421	1035	14319	10179	172519
6	Electricity, Gas & Water Supply	12123	6826	3500	6038	6488	5802	8528	6567	4624	2474	5142	506	2268	991	71977
6.1	Electricity	10370	6581	3324	5650	6116	5850	7777	6182	4454	2194	4653	465	1994	864	66474
6.2	Gas	86	73	36	62	55	33	85	82	68	80	75	19	64	29	847
6.3	Water Supply	1667	172	140	326	317	19	666	303	102	200	414	22	210	98	4656
7	Construction	24400	14595	6842	13682	12998	4333	42872	24172	12543	17787	25313	2736	18927	6841	228041
	Sub total : Secondary	73457	65255	18054	66801	38968	15512	104976	84315	46389	40148	59617	5677	54882	31779	705890
8	Transport,Storage & Communication	36271	18716	9995	16547	21309	4274	40686	32560	17921	25167	24233	10076	11578	7100	276433
8.1	Railways	791	755	65	589	525	0	827	612	1287	885	770	0	748	764	8618
8.2	Transport by other means	26823	12354	7482	10645	15700	2703	26179	22741	9891	17869	13476	9100	4651	4228	183842
8.3	Communication	8697	5540	2441	5240	4957	1558	13587	9180	6689	6373	9980	950	6123	2091	83306
8.4	Storage	60	67	7	73	127	13	93	27	54	40	7	26	56	17	667
9	Trade, Hotel & Restaurants	67226	52478	21049	50330	48541	16824	90996	79612	54912	57561	76462	11312	62931	25702	715936
10	Banking and Insurance	30076	18239	16718	20255	23090	9732	42352	31303	22681	18121	23002	6489	19963	10259	292280
11	Real estate ownership, business & legal	20988	16641	8789	13774	12312	7927	18908	17746	15123	16210	15585	4591	12611	6241	187396
12	Public Administration	49650	17699	9257	14189	15401	3469	22547	16216	13771	11326	16425	2445	13520	3051	208966
13	Other Services	42060	23970	11303	24067	25788	9289	33453	31375	22411	30108	30661	7275	22735	10295	324790
	Sub Total:Tertiary	246271	147743	77111	139162	146441	51515	248942	208812	146819	158493	186318	42188	143338	62648	2005801
	Net State Domestic Product	387352	292515	142119	245004	244215	152914	432660	358045	260078	272839	321017	99581	263874	135762	3607975
	Population('000)	3308	2702	1334	2246	2052	1210	3162	3073	2674	3476	2941	754	2527	1203	32662
	Per capita Income (Rs.)	11710	10826	10654	10908	11901	12638	13683	11651	9726	7849	10915	13207	10442	11285	11046

* Quick

Source : Department of Economics & Statistics

Appendix - 3.15

Total Work Seekers in Kerala as on 1-10-2002

Year (at the end of December)	General Work Seekers	Professional/ Tech. Work	Total Work Seekers
1	*2*	*3*	*4*
1995	3107374	118931	3226305
1996	3158515	128959	3287474
1997	3412211	138597	3550808
1998	3629499	154750	3784249
1999	3748493	152148	3900641
2000	4049082	166201	4215283
2001	4254209	177130	4431339
2002	3784684	171333	3956017

Source: Directorate of Employment and Training

Appendix - 3.16

Distribution of Work Seekers in Kerala by Educational Level

Year (at the end of December)	Below SSLC	SSLC	PDC	Degree	P.G.	SSLC & above	% to total work	Total work seekers
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*
1990	1227319	1655465	273725	135213	28313	2092716	63	3320035
1991	1318514	1885304	257173	150014	27799	2320230	64	2638804
1992	1345260	2027567	283556	161571	29109	2501803	65	3847063
1993	1412925	2210314	317719	181605	34329	2743967	66	4156892
1994	1377759	2230232	325760	190261	36637	2790910	67	4168669
1995	928954	1857110	260505	154207	25529	2297351	71	3226305
1996	822183	1984136	287766	161962	31427	2465291	75	3287474
1997	858219	2144636	327753	182555	37645	2692589	76	3550808
1998	935092	2224481	372921	206243	45512	2849157	75	3784249
1999	904194	2300026	415298	228976	52147	2996447	77	3900641
2000	952434	2416709	530231	256772	59137	3262849	77	4215283
2001	966914	2574722	542815	280618	66270	3464425	78	4431339
2002	774646	2311477	563377	250665	55852	3181371	80	3956017

Source : Directorate of Employment & Training

Appendix - 3.17

Number of Professional and Technical Work Seekers

Year (at the end of December)	Medical Graduates	Engineering Graduates	Diploma holders in Engg.	ITI Certificate Holders	Agricultural Graduates	Veterinary Graduates	Total
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*
1990	1806	6507	20154	87069	368	128	116032
1991	2588	7762	22399	75898	363	13	109023
1992	3123	9286	25810	89616	219	83	128137
1993	3318	9549	34680	87962	451	110	136070
1994	3494	10420	30720	80757	4001	214	129606
1995	1974	7553	26403	82030	1305	148	119413
1996	1976	7274	28565	89847	1265	32	128959
1997	2158	7059	31787	96241	1327	25	138597
1998	2126	7314	37201	106690	1324	95	154750
1999	1698	8334	39408	101384	1205	119	152148
2000	2455	9858	42991	109592	1284	21	166201
2001	2734	10397	46377	115736	1503	383	177130
2002	3575	9207	43352	113739	1008	452	171333

Source : Directorate of Employment & Training

Appendix - 3.18

District-wise Distribution of Work Seekers (as on 1-10-02)

Sl.No.	District	General work seekers	Professional/Teachnical Work seekers	Total Work Seekers		
				Men	Women	Total (5+6)
1	*2*	*3*	*4*	*5*	*6*	*7*
1	Thiruvananthapuram	518231	31023	225938	323316	549254
2	Kollam	421979	15971	181344	256606	437950
3	Pathanamthitta	151986	6144	64803	93327	158130
4	Alappuzha	350124	15818	154504	211438	365942
5	Kottayam	244433	12992	111051	146374	257425
6	Idukki	122972	4410	54968	72414	127382
7	Ernakulam	365636	30952	179403	217185	396588
8	Thrissur	367953	14581	153623	228911	382534
9	Palakkad	248484	7680	126409	129755	256164
10	Malappuram	243909	7110	123644	127375	251019
11	Kozhikode	355474	12843	164488	203829	368317
12	Wayanad	78496	1990	39072	41414	80486
13	Kannur	222967	7888	104103	126752	230855
14	Kasaragod	92040	1931	46303	47668	93971
	Total	**3784684**	**171333**	**1729653**	**2226364**	3956017

Source : *Directorate of Employment & Training*

Appendix - 3.19

Unemployment Assistance and Self Employment Scheme

Year (at the end of December)	Unemployment Assistance			Self Employment Scheme		
	Application received	No.of Beneficiaries	Amount Disbursed (Rs. Lakhs)	Application received	No.of Beneficiaries	Amount Disburrsed (Rs. Lakkhs)
1	2	3	4	5	6	7
1990-91	118279	264314	19.35	10127	4665	27.99
1991-92	99814	260196	16.20	10279	2653	15.92
1992-93	Nil	229149	6.26	-	45	0.27
1993-94	121376	273512	17.49	6382	100	0.60
1994-95	67602	281424	21.37	2802	5741	34.45
1995-96	194312	313731	2106.95	2963	1145	6.90
1996-97	140003	297253	1464.84	144	438	2.42
1997-98	138277	294568	3206.69	1985	26	0.03
1998-99	147380	271959	1926.85	3548	1582	9.52
1999-2000	188584	369863	2366.09	3384	885	7.09
2000-01	56906	346114	3689.39	17097	392	22.12
2001-02	65245	351685	2175.97	7114	480	26.73

Source : *Directorate of Employment & Training*

Appendix - 3.20

Employment in the Public and Private Sector in Kerala

Year at the end of December	Public Sector	Index	Private sector	Index	Total	Index
1	2	3	4	5	6	7
1990-91	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	624534	95.90	557260	104.50	1181784	99.80
1996-97	625966	96.10	549745	103.00	1175711	100.70
1997-98	621975	95.50	556241	104.30	1178216	99.50
1998-99	643784	98.90	575801	107.00	1219585	103
1999-2000	643927	98.9	588337	110.3	1232264	104
2000-01	643576	98.9	597779	112.1	1241355	104.8
2001-02	644906	99	596788	111.9	1241694	105

Source : *Directorate of Employment & Training*

Appendix - 3.21

Number of Placements through Employment Exchanges and Monthly average No. of employers using employment exchanges in Kerala

Year	No of placements	Monthly average no.of Employers using unemployment Exchange
1	2	3
1990-91	15640	540
1991-92	16748	392
1992-93	17890	404
1993-94	13828	452
1994-95	18305	412
1995-96	17589	-
1996-97	17498	-
1997-98	19276	-
1998-99	18002	475
1999-2000	23419	426
2000-01	17970	370
2001-02	15750	324
Sep-02	9555	229

Source: Directorate of Employment & Training

Appendix 3.22

Population of States/Union Territories by sex and percentage share of population in total population - 2001

Sl.No.	India/State/Union Territory	Total population			Percentage share in total population	Population density (per sq.km.)
		Persons	Males	Females		
1	2	3	4	5	6	7
	INDIA	1027015247	531277078	495738169	100	324
1	Andaman & Nicobar Islands	356,265	192,985	163,280	0.03	43
2	Andhra Pradesh	75,727,541	38,286,811	37,440,730	7.37	275
3	Arunachal Pradesh	1,091,117	573,951	517,166	0.11	13
4	Assam	26,638,407	13,787,799	12,850,608	2.59	340
5	Bihar	82,878,796	43,153,964	39,724,832	8.07	880
6	Chandigarh	900,914	508,224	392,690	0.09	7903
7	Chatisgarh	20,795,956	10,452,426	10,343,530	2.03	154
8	Dadra & Nagar Haveli	220,451	121,731	98,720	0.02	449
9	Daman & Diu	158,059	92,478	65,581	0.02	1411
10	Delhi	13,782,976	7,570,890	6,212,086	1.34	9294
11	Goa	1,343,998	685,617	658,381	0.13	363
12	Gujarat	50,596,992	26,344,053	24,252,939	4.93	258
13	Haryana	21,082,989	11,327,658	9,755,331	2.05	477
14	Himachal Pradesh	6,077,248	3,085,256	2,991,992	0.59	109
15	Jammu & Kashmir	10,069,917	5,300,574	4,769,343	0.98	99
16	Jharkhand	26,909,428	13,861,277	13,048,151	2.62	338
17	Karnataka	52,733,958	26,856,343	25,877,615	5.14	275
18	Kerala	31,838,619	15,468,664	16,369,955	3.1	819
19	Lakshadweep	60,595	31,118	29,477	0.01	1894
20	Madhya Pradesh	60,385,118	31,456,873	28,928,245	5.88	196
21	Maharashtra	96,752,247	50,334,270	46,417,977	9.42	314
22	Manipur	2,388,634	1,207,338	1,181,296	0.23	107
23	Meghalaya	2,306,069	1,167,840	1,138,229	0.22	103
24	Mizoram	891,058	459,783	431,275	0.09	42
25	Naagaland	1,988,636	1,041,686	946,950	0.19	120
26	Orissa	36,706,920	18,612,340	18,094,580	3.57	236
27	Pondicherry	973,829	486,705	487,124	0.09	2029
28	Punjab	24,289,296	12,963,362	11,325,934	2.37	482
29	Rajasthan	56,473,122	29,381,657	27,091,465	5.5	165
30	Sikkim	540,493	288,217	252,276	0.05	76
31	Tamil Nadu	62,110,839	31,268,654	30,842,185	6.05	478
32	Tripura	3,191,168	1,636,138	1,555,030	0.31	304
33	Uttar Pradesh	1,66,052,859	87,466,301	78,586,558	16.17	689
34	Uttaranchal	8,479,562	4,316,401	4,163,161	0.83	159
35	West Bengal	80,221,171	41,487,694	38,733,477	7.81	904

Source: Census of India - 2001

4/100/2003—2A

Appendix 3.23

District-wise Population, Decadal Growth Rate, Sex-ratio and Population Density

Sl. No.	State/District	Population 2001			Percentage decadal growth rate		Sex-ratio (No.of females per 1000 males)		Population density per sq.km.	
		Persons	Males	Females	1981-91	1991-01	1991	2001	1991	2001
1	2	3	4	5	6	7	8	9	10	11
	Kerala	31838619	15468664	16367955	14.32	9.42	1036	1058	749	819
1	Kasaragod	1203342	587763	615579	22.78	12.3	1026	1047	538	604
2	Kannur	2412365	1154144	1258221	16.63	7.13	1049	1090	759	813
3	Wayanad	786627	393397	393230	21.32	17.04	966	1000	315	369
4	Kozhikode	2878498	1398674	1479824	16.69	9.87	1027	1058	1118	1228
5	Malappuram	3629640	1759479	1870101	28.87	17.22	1053	1063	872	1022
6	Palakkad	2617072	1265794	1351278	16.52	9.86	1061	1068	532	584
7	Thrissur	2975440	1422047	1553393	12.2	8.7	1085	1092	903	981
8	Ernakulam	3098378	1535881	1562497	11.42	9.09	1000	1017	963	1050
9	Idukki	1128605	566405	562200	10.45	6.96	975	999	236	252
10	Kottayam	1952901	964433	988468	7.71	6.76	1003	1025	828	884
11	Alappuzha	2105349	1012572	1092777	7.28	5.21	1051	1079	1415	1489
12	Pathanamthitta	1231577	588035	643542	5.6	3.72	1062	1094	450	467
13	Kollam	2584118	1248616	1335502	10.68	7.33	1035	1070	967	1038
14	Thiruvananthapuram	3234707	1571424	1663283	13.5	9.78	1036	1058	1344	1476

Source: Census of India - 2001

Appendix - 4.1

Number of Operational Holdings and Area Operated by Size Class in Kerala (1995-96)

Sl. No.	Size of Holding (ha)	Number	Area (ha)	Average Size (ha)
1	*2*	*3*	*4*	*5*
1	Below .02	751951	10150	0.01
2	0.02-0.50	4683476	569248	0.12
3	0.50-1	483648	336425	0.70
	Marginal(1+2+3)	5919075	915823	0.16
4	1 to 2 (Small)	261418	346100	1.32
5	Above 2	116794	453381	3.88
	Total	**6297287**	**1715304**	**0.27**

Source: *Directorate of Economics and Statistics*

Appendix - 4.2

Percentage Distribution of Main Workers in Kerala

Sl.No.	Category	1961	1991
1	*2*	*3*	*4*
1	Cultivators	20.92	12.24
2	Agricultural labourers	17.38	25.55
3	Livestock, Forestry, Fishing, Plantation, Mining, Quarrying and allied sectors	8.65	10.23
4	Household industry workers	8.68	2.58
5	Other workers	44.37	49.40

Source: *Census Reports.*

Appendix - 4.3

District-wise Actual and Normal Rainfall (in mm)
with Percentage Departure from Normal Rainfall for 2002

Sl.No	Districts	Actual	Normal	Percentage Departure
1	*2*	*3*	*4*	*5*
1	Thiruvananthapuram	1502.6	1954.5	-23
2	Kollam	2273.3	2497.9	-9
3	Alappuzha	2563.4	2763.1	-7
4	Pathanamthitta	2531.8	2837.0	-11
5	Kottayam	2780.2	3000.8	-7
6	Idukki	3156.4	2963.3	7
7	Ernakulam	2893.3	2987.6	-3
8	Thrissur	2522.8	3041.0	-17
9	Palakkad	1750.3	2228.0	-21
10	Kozhikode	2710.8	3425.2	-21
11	Malappuram	2281.3	2830.9	-19
12	Wayanad	1914.2	3408.8	-44
13	Kannur	3108.5	3321.8	-6
14	Kasargode	3223.0	3606.9	-11
	State average	**2515.1**	**2919.1**	**-14**

Source: Meteorological Centre, Thiruvananthapuram

Appendix - 4.4

Month-wise Distribution of Normal Rainfall and Actual Rainfall for last 10 years (in mm)

Month	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	Normal Rainfall	Deviation from normal rainfall during 2002
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	13
January	0.0	32.5	11.0	12.6	2.1	8.7	2.0	14.2	19.7	6.7	14.6	-7.9
February	18.1	31.0	7.2	8.4	3.8	1.5	23.9	67.4	29.2	9.8	16.6	-6.8
March	21.0	20.3	41.3	13.5	37.5	10.8	22.1	23.0	6.9	34.5	36.1	-1.6
April	70.6	145.7	173.6	134.4	62.9	64.9	124.2	98.8	230.1	116.9	110.9	6.0
May	169.5	151.9	348.5	71.0	134.0	170.6	471.0	129.8	246.7	340.7	252.6	88.1
June	688.8	836.2	531.8	592.1	551.0	722.9	614.0	649.2	706.7	491.0	653.2	-162.2
July	804.6	941.0	719.7	680.0	941.9	600.1	656.9	335.9	587.4	318.9	687.2	-368.3
August	293.2	478.9	458.2	337.0	520.4	366.5	250.3	580.1	348.0	422.2	404.7	17.5
September	91.7	205.8	293.3	329.4	291.0	516.4	85.4	198.8	224.9	89.8	242.3	-152.5
October	442.7	448.5	208.2	320.6	284.5	440.5	544.9	216.5	320.1	486.7	270.7	216.0
November	169.1	163.7	180.6	97.2	284.7	129.0	71.3	80.9	177.6	137.9	158.6	-20.7
December	49.3	42.5	0.1	88.4	92.7	87.6	5	70.2	10.0	2.3	45.9	-43.6
TOTAL	**2818.6**	**3498**	**2973.5**	**2684.6**	**3206.5**	**3119.5**	**2871**	**2464.8**	**2907.3**	**2515.1**	**2919.1**	**-404.0**

Source: *Meteorological Centre, Thiruvananthapuram*

Appendix 4.5

District-wise Monthly Rainfall in mm for 2002

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	1.0	16.8	40.3	133.8	228.7	173.9	59.0	118.3	42.9	467.5	215.6	5.3
2	Kollam	2.9	18.0	60.9	199.5	251.8	264.8	206.4	278.2	85.7	592.2	306.6	0.0
3	Alappuzha	43.6	2.6	57.7	143.7	415.1	477.8	301.1	367.5	72.0	466.7	216.9	0.7
4	Pathanamthitta	11.0	16.0	49.1	211.1	358.6	369.2	370.7	238.5	71.0	598.1	242.3	2.0
5	Kottayam	5.8	49.4	66.7	209.9	409.5	436.1	383.3	403.6	70.9	475.4	265.0	1.5
6	Idukki	0.0	3.8	76.8	188.2	421.7	564.0	502.2	676.7	150.8	460.2	103.7	8.7
7	Ernakulam	3.7	7.7	8.2	107.7	569.6	515.7	369.9	584.5	119.0	462.8	143.4	1.6
8	Thrissur	0.3	0.0	7.3	61.7	337.5	558.0	351.3	459.7	108.3	576.1	69.5	0.0
9	Palakkad	0.5	0.1	34.8	51.8	192.2	341.9	288.0	372.6	65.5	341.0	61.4	0.5
10	Kozhikode	0.0	16.8	21.4	51.6	380.2	617.6	341.7	459.8	119.2	593.5	109.0	0.0
11	Malappuram	0.0	0.0	20.5	77.7	315.1	415.5	303.0	445.8	61.8	498.2	142.2	0.0
12	Wayanad	24.9	5.2	39.6	128.6	147.8	405.8	279.0	476.1	76.1	297.7	30.6	0.0
13	Kannur	0.0	1.4	0.0	40.9	295.3	774.6	325.2	673.9	159.1	746.2	127.1	1.0
14	Kasargode	0.0	0.0	0.0	29.8	446.9	959.1	383.6	534.3	119.3	686.0	60.6	2.3
State Average		**6.7**	**9.8**	**34.5**	**116.9**	**340.7**	**491.0**	**318.9**	**422.2**	**89.8**	**486.7**	**137.9**	**2.3**

Source: *Meteorological Centre, Thiruvananthapuram.*

Appendix 4.6

Area, Production and Productivity of Principal Crops

Sl. No.	Crops	Area (ha)			Production (tonnes)			Productivity (kg/ha)		
		1999-00	2000-01	2001-02	1999-00	2000-01	2001-02	1999-00	2000-01	2001-02
1	Rice	349774	347455	322368	770686	751328	703504	2203	2162	2182
2	Jowar	2529	463	2902	1287	236	1480	509	510	510
3	Ragi	870	1955	1947	704	1582	1575	809	809	809
4	Other Millets	1831	2071	2658	1423	1605	2065	777	775	777
5	Pulses	10985	6986	8191	8571	5472	6281	780	783	767
6	Sugarcane	5780	3367	3267	57882	27555	26978	10014	8184	8258
7	Pepper	198406	202133	203956	47543	60929	58240	240	301	286
8	Chillies	312	226	692	310	222	692	994	982	1000
9	Ginger	11264	11612	10706	41344	42699	40181	3670	3677	3753
10	Turmeric	3971	4127	3558	8362	9037	7895	2106	2190	2219
11	Cardamom	41491	41288	41336	6585	7580	8380	159	184	203
12	Arecanut	81941	87360	93193	83337	87947	84681	1017	1007	909
13	Banana	39046	45059	50871	398145	327955	375903	10197	7278	7389
14	Other Plantains	53252	54353	55183	410566	403695	393182	7710	7427	7125
15	Cashewnut	89403	92122	89718	65547	66178	65867	733	718	734
16	Tapioca	111922	114609	111189	2531752	2586903	2455880	22621	22572	22087
17	Sweet Potato	989	816	747	10698	8963	8672	10817	10984	11609
18	Groundnut	6921	3677	2437	5144	2733	1812	743	743	744
19	Sesamum	2612	2002	878	718	797	284	275	398	323
20	Coconut *	925035	925783	905718	5680	5536	5479	6140	5980	6049
21	Cotton **	4772	3847	3760	7701	6209	6069	1614	1614	1614
22	Tobacco	44	213	71	245	1186	395	5568	5568	5563
23	Coffee	84139	84735	84795	60470	70550	66690	719	833	786
24	Tea	34793	36847	36899	61955	69132	66090	1781	1876	1791
25	Rubber	472900	474364	475039	572820	579866	580350	1211	1222	1222

Source : Directorate of Economics and Statistics

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

** Production in bales of 170 kg & Productivity in bales/ha.

Appendix - 4.7

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

Sl.No.	Crops	Average of 3 Years 1976-77 to 1978-79	1999-00	2000-01	2001-02
1	*2*	*3*	*4*	*5*	*6*
	AREA				
A	Food Grains (1+2)	102.55	42.94	42.11	39.67
1	Cereals	102.59	43.48	43.10	40.40
2	Pulses	101.53	30.75	19.55	22.93
B	Non-Food Grains (3to9)	101.00	126.17	127.21	126.44
3	Oil Seeds	101.66	134.23	133.78	130.56
4	Plantation Crops	95.04	188.93	190.22	190.47
5	Condiments& spices	100.65	141.71	145.64	148.45
6	Drugs & Narcotics	82.29	25 89	28.41	26.29
7	Fruits	103.20	119.30	122.51	123.89
8	Tubers	100.00	37.52	38.36	37.20
9	Miscellaneous Crops	103.59	81.51	55.72	54.28
	PRODUCTION				
A	Food Grains(1+2)	98.67	59.64	57.91	54.41
1	Cereals	98.85	59.84	58.36	54.73
2	Pulses	87.06	46 39	29.62	34.00
B	Non-Food Grains (3to9)	100.52	176.06	178.33	176.22
3	Oil Seeds	103.48	181.30	176.56	174.63
4	Plantation Crops	93.54	313 08	326.36	322.46
5	Condiments & spices	89.40	160.11	182.61	177.90
6	Drugs & Narcotics	89.54	26.44	63.50	32.35
7	Fruits	100.00	128.04	121.46	124.65
8	Tubers	100.00	61.46	62.76	59.58
9	Miscellaneous Crops	98.02	124.93	66.08	64.67
	PRODUCTIVITY				
A	Food Grains (1+2)	96.22	137.96	135.73	135.90
1	Cereals	96.35	137.75	135.48	135.71
2	Pulses	85.25	150.90	151.48	148.30
B	Non-Food Grains (3to9)	99.52	137.55	137.52	136.03
3	Oil Seeds	101.79	132.49	129.22	130.82
4	Plantation Crops	98.74	173.66	178.47	176.66
5	Condiments& spices	88.82	107.58	116.36	109.59
6	Drugs & Narcotics	108.85	110.49	380.21	156.95
7	Fruits	100.00	116.18	107.05	108.78
8	Tubers	100.00	163.78	163.58	160.15
9	Miscellaneous Crops	94.62	154 95	117.04	117.61

Source. *Directorate of Economics and Statistics*

Appendix - 4.8

Season-wise Area,Production and Productivity of Rice in Kerala (1999-00 to 2001-02)

Season	Area (ha)			Production (t)			Productivity (kg/ha)		
	1999-00	2000-01	2001-02	1999-00	2000-01	2001-02	1999-00	2000-01	2001-02
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*
Virippu	121525	129752	116540	252876	260306	235838	2081	2006	2024
Mundakan	170228	162445	161978	373259	336416	362634	2193	2071	2239
Puncha	58021	55258	43850	144551	154606	105032	2491	2798	2395
All Seasons	349774	347455	322368	770686	751328	703504	2203	2162	2182

Source: *Directorate of Economics and Statistics*

Appendix - 4.9

Coverage of HYV of rice in Kerala (Seasonwise)

Sl.No.	Year	Coverage of HYV (ha.)				Total area under rice (ha)				% of HYV over total area under rice in the season			
		Virippu (Autumn)	Mundakan (winter)	Puncha (Summer)	Total	Virippu (Autumn)	Mundakan (winter)	Puncha (Summer)	Total	Virippu (Autumn)	Mundakan (winter)	Puncha (Summer)	Total
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*
1	1985-86	83782	40650	38846	163278	279699	313423	85159	678281	29.95	12.97	45.62	24.07
2	1990-91	80025	40005	42786	162816	236078	258564	64808	559450	33.90	15.47	66.02	29.10
3	1991-92	73304	49745	43287	166336	218767	253981	68579	541327	33.51	19.59	63.12	30.73
4	1992-93	78090	45417	51589	175096	218751	244096	74761	537608	35.70	18.61	69.01	32.57
5	1993-94	73243	51192	47983	172418	203776	236757	67299	507832	35.94	21.62	71.30	33.95
6	1994-95	74478	55576	44391	174445	198725	237788	66777	503290	37.48	23.37	66.48	34.66
7	1995-96	71027	51602	41247	163876	186676	224643	59831	471150	38.05	22.97	68.94	34.78
8	1996-97	61532	54725	37072	153329	163893	210309	56624	430826	37.54	26.02	65.47	35.59
9	1997-98	69306	50693	48680	168679	144743	180701	61678	387122	47.88	28.05	78.93	43.57
10	1998-99	62346	66338	48414	177098	120217	174714	57700	352631	51.86	37.97	83.91	50.22
11	1999-00	70948	85936	54106	210990	121525	170228	58021	349774	58.38	50.48	93.25	60.32
12	2000-01	83868	89927	52892	226687	129752	162445	55258	347455	64.64	55.36	95.72	65.24
13	2001-02	78753	102714	40621	222088	116540	161978	43850	322368	67.58	63.41	92.64	68.89

Source *Directorate of Economics and Statistics*

Appendix 4.10

Districtwise Area , Production and Productivity of Rice in Kerala (1999-00 to 2001-02)

Sl. No	District	Area (ha)			Production (tonnes)			Productivity (kg/ha)		
		1999-00	2000-01	2001-02	1999-00	2000-01	2001-02	1999-00	2000-01	2001-02
1	2	3	4	5	6	7	8	9	10	11
1	Thiruvananthapuram	7969	6995	6810	17550	14469	14686	2202	2068	2157
2	Kollam	17426	14939	11459	35083	30812	24933	2013	2063	2176
3	Pathanamthitta	6716	6279	5218	18639	17159	12855	2775	2733	2464
4	Alappuzha	35326	37740	33111	92087	103544	72799	2607	2744	2199
5	Kottayam	15822	16677	15250	41431	43055	34651	2619	2582	2272
6	Idukki	3640	3473	4388	9056	7892	10726	2488	2272	2444
7	Ernakulam	42894	37433	32905	82326	65307	59725	1919	1745	1815
8	Thrissur	42887	39384	37012	92209	82105	84281	2150	2085	2277
9	Palakkad	109704	118701	115904	250911	262173	269307	2287	2209	2323
10	Malappuram	23495	23148	22654	42117	43797	44059	1793	1892	1945
11	Kozhikode	6495	6737	6402	8720	9045	8313	1343	1343	1299
12	Wayanad	17304	15000	12855	44761	33802	32076	2587	2253	2495
13	Kannur	11710	11791	10987	19800	20684	19463	1691	1754	1771
14	Kasaragod	8386	9158	7413	15996	17484	15637	1907	1909	2109
	State	**349774**	**347455**	**322368**	**770686**	**751328**	**703504**	**2203**	**2162**	**2182**

Source: Directorate of Economics & Statistics

Appendix 4.11

District-wise and season-wise Area, Production and Productivity of Rice for 2001-02

Name of District	Autumn			Winter			Summer			Total		
	Area (ha)	Production (tonnes)	Productivity (kg/ha)	Area (ha)	Production (tonnes)	Productivity (kg/ha)	Area (ha)	Production (tonnes)	Productivity (kg/ha)	Area (ha)	Production (tonnes)	Productivity (kg/ha)
1	2	3	4	5	6	7	8	9	10	11	12	13
Thiruvananthapuram	3336	7335	2199	3466	7345	2119	8	6	750	6810	14686	2157
Kollam	5263	11232	2134	6188	13682	2211	8	19	2375	11459	24933	2176
Pathanamthitta	801	1729	2159	2118	4911	2319	2299	6215	2703	5218	12855	2464
Alappuzha	6851	2390	349	17519	47741	2725	8741	22668	2593	33111	72799	2199
Kottayam	2057	4226	2054	7225	17601	2436	5968	12824	2149	15250	34651	2272
Idukki	1063	2593	2439	2770	6836	2468	555	1297	2337	4388	10726	2444
Ernakulam	11821	22370	1892	14391	26486	1840	6693	10867	1624	32905	59723	1815
Thrissur	9809	19830	2022	21074	48590	2306	6129	15861	2588	37012	84281	2277
Palakkad	57462	129463	2253	51104	119346	2335	7338	20493	2793	115904	269302	2323
Malappuram	6908	13313	1927	14023	25638	1828	1723	5108	2965	22654	44059	1945
Kozhikode	652	748	1147	4878	6082	1247	872	1483	1701	6402	8313	1299
Wayanad				9903	24725	2497	2952	7351	2490	12855	32076	2495
Kannur	5915	10557	1785	4703	8392	1784	369	514	1393	10987	19463	1771
Kasaragode	4602	10052	2184	2616	5259	2010	195	326	1672	7413	15637	2109
STATE	**116540**	**235838**	**2024**	**161978**	**362634**	**2239**	**43850**	**105032**	**2395**	**322368**	**703504**	**2182**

A - Area (ha), P - Production (t) and PY - Productivity (kg/ha)
Source: Directorate of Economics and Statistics

Appendix 4.12

Area under HYV of Rice

(Ha.)

District	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01
Thiruvananthapuram	7164	7467	7454	7904	7954	7928	6657	5395	4765	5080	4767
Kollam	11983	12453	13819	13450	13242	11374	10263	9250	9128	10774	9397
Pathanamthitta	8170	7382	9268	7923	7337	7878	7656	6005	4775	4730	5058
Alappuzha	37431	37023	40411	39729	47520	36739	34926	38324	31949	33989	35662
Kottayam	21227	20654	22227	22593	22542	22760	18016	12575	13476	15822	16101
Idukki	816	833	796	574	1392	990	1707	850	1549	2420	2574
Ernakulam	19525	21240	21657	23097	19273	18357	15509	31146	41718	37389	33547
Thrissur	17583	16940	17225	15860	14952	14563	13836	13292	11964	18394	24331
Palakkad	10111	10572	9409	8656	8084	11777	16586	23148	26363	47830	60093
Malappuram	11651	11692	12379	11127	11321	9065	8485	10065	9873	10433	12105
Kozhikode	2681	2429	2599	2381	1316	1917	1938	1779	2038	1845	1731
Wayanad	4797	6347	7152	7438	8689	9508	8715	8154	10966	11815	9989
Kannur	6751	8003	7467	7684	7382	7187	5650	5811	5388	6296	7117
Kasaragode	2926	3301	3232	4002	3441	3833	3385	2885	3146	4594	4215
STATE	**162816**	**166336**	**175095**	**172418**	**174445**	**163876**	**153329**	**168679**	**177098**	**211411**	**226687**

Source: Directorate of Economics & Statistics

Appendix 4. 13
Production of HYV of Rice

(tonnes)

District	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01
Thiruvananthapuram	14912	13787	15052	14876	14174	15821	12608	9966	9509	11608	10148
Kollam	26788	22601	28489	27313	25061	22574	20284	17056	18241	22627	20404
Pathanamthitta	21778	19543	25973	20678	18444	21149	17072	14213	13715	14575	14486
Alappuzha	87742	85288	106146	94099	90400	111207	76892	90178	88793	90546	101540
Kottayam	52903	49391	54245	55715	51386	51640	39438	26942	43797	40549	41974
Idukki	1512	1889	1738	1204	3028	2191	4017	1630	3471	5936	5806
Ernakulam	35076	37058	39908	39422	33448	34174	28415	50695	71204	71130	59502
Thrissur	36462	37302	35950	32576	33184	35739	34766	31951	26057	45826	55775
Palakkad	23462	21728	22851	18509	17938	26177	40922	54272	53191	121997	142317
Malappuram	23068	22852	25186	22439	21936	19250	18000	19929	21073	22086	26294
Kozhikode	4042	3900	3812	3513	1969	2650	2921	2432	2996	3080	2777
Wayanad	13054	17444	9966	18513	21921	24990	21528	20645	25638	31838	23895
Kannur	12433	14332	12821	14194	12250	12152	10796	10510	9435	11413	13368
Kasaragode	6140	7094	7075	8854	7088	7311	7289	6638	7182	9744	9130
STATE	**359372**	**354209**	**389212**	**371905**	**352227**	**387025**	**334948**	**357057**	**394302**	**502955**	**527416**

Source: Directorate of Economics & Statistics

Appendix 4.14
Productivity of HYV of Rice

(kg/ha)

District	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01
Thiruvananthapuram	2082	1846	2019	1882	1782	1996	1894	1847	1996	2285	2129
Kollam	2236	1815	2062	2031	1893	1985	1976	1844	1998	2100	2171
Pathanamthitta	2666	2647	2802	2610	2514	2685	2230	2367	2872	3081	2864
Alappuzha	2344	2304	2627	2369	1902	3027	2202	2353	2779	2664	2847
Kottayam	2492	2391	2441	2466	2280	2269	2189	2143	2508	2563	2607
Idukki	1853	2268	2183	2098	2175	2213	2353	1918	2241	2453	2256
Ernakulam	1796	1745	1843	1707	1735	1862	1832	1628	1707	1902	1774
Thrissur	2074	2202	2087	2054	2219	2454	2513	2404	2178	2491	2292
Palakkad	2320	2055	2429	2138	2219	2223	2467	2345	2397	2551	2368
Malappuram	1980	1954	2035	2017	1938	2124	2121	1980	2134	2117	2172
Kozhikode	1508	1606	1467	1475	1496	1382	1507	1367	1470	1669	1604
Wayanad	2721	2748	1393	2489	2523	2628	2470	2532	2338	2695	2392
Kannur	1842	1791	1717	1847	1659	1691	1911	1809	1751	1813	1878
Kasaragode	2098	2149	2189	2212	2060	1907	2153	2301	2283	2121	2166
STATE	**2207**	**2129**	**2223**	**2157**	**2019**	**2362**	**2185**	**2117**	**2226**	**2379**	**2327**

Source: Directorate of Economics & Statistics

Appendix 4.15
Area under Local Variety of Rice

(hectares)

District	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01
Thiruvananthapuram	14513	12137	10907	10199	9384	9058	7304	5973	4833	2889	2228
Kollam	18530	15166	14641	13325	12040	11878	11960	10773	8443	6652	5542
Pathanamthitta	6064	5771	3624	4268	3708	2982	3329	2262	2722	1986	1221
Alappuzha	23244	18849	12932	11052	7344	7393	6521	4896	3176	1337	2078
Kottayam	5030	3201	3221	2103	2464	2118	2184	1179	917	421	576
Idukki	4262	4018	3601	3074	3304	3670	3392	3218	2297	1220	899
Ernakulam	43553	43761	44501	38190	40745	38176	38479	15006	8012	5505	3886
Thrissur	56455	52125	49926	47648	47192	44140	37708	27685	27251	24493	15053
Palakkad	135576	136494	136686	131113	131982	123853	111773	97661	81104	61874	58608
Malappuram	40283	38669	38529	32717	30742	28854	22613	18871	13945	13062	11043
Kozhikode	9381	9106	8156	7781	7141	6832	6378	6209	4805	4650	5006
Wayanad	15546	13235	13983	13508	14083	10880	8363	9772	4676	5489	5011
Kannur	12831	12330	10867	10465	9920	9614	9771	9837	8490	5414	4674
Kasaragode	11366	10129	10938	9971	8796	7826	7722	5101	4862	3792	4943
STATE	396634	374991	362512	335414	328845	307274	277497	218443	175533	138784	120768

Source: Directorate of Economics & Statistics

Appendix 4. 16
Production of Local Variety of Rice

(tonnes)

District	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01
Thiruvananthapuram	23451	19766	19764	17044	16042	16010	12269	9644	8180	5942	4321
Kollam	31597	23485	26087	22952	21768	22796	21953	18995	15070	12456	10408
Pathanamthitta	11448	10974	7853	9174	6540	6061	6618	4321	5752	4064	2673
Alappuzha	43921	30801	17032	16771	8840	9840	8300	4950	2888	1541	2004
Kottayam	9816	5775	6553	4145	4716	3969	4290	2087	1861	882	1081
Idukki	9441	9043	7450	6447	7070	8626	6561	6838	5524	3120	2086
Ernakulam	67613	72426	74019	61924	67600	67777	64967	23539	13325	11196	5805
Thrissur	92825	84421	83387	77050	80876	74959	70200	51040	48133	46383	26330
Palakkad	301445	323010	312795	298438	295830	254228	253143	208222	174597	128914	119856
Malappuram	57762	57494	56946	48765	48889	45958	35443	28388	21268	20031	17503
Kozhikode	10792	9881	9196	9172	8574	7943	7508	7223	4838	5640	6268
Wayanad	28920	25359	40371	28096	28571	21664	16035	19088	9051	12923	9907
Kannur	19870	16917	15929	14891	13816	13898	15803	14951	13105	8387	7316
Kasargode	18300	16789	18284	17164	13706	12272	13323	8267	8849	6252	8354
STATE	**727201**	**706141**	**695666**	**632033**	**622838**	**566001**	**536413**	**407553**	**332441**	**267731**	**223912**

Source: Directorate of Economics & Statistics

Appendix 4. 17
Productivity of Local Variety of Rice

(kg/ha)

District	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01
Thiruvananthapuram	1616	1629	1812	1671	1710	1767	1680	1615	1693	2057	1939
Kollam	1705	1549	1782	1722	1808	1919	1836	1763	1785	1873	1878
Pathanamthitta	1888	1902	2167	2149	1764	2033	1988	1910	2113	2046	2189
Alappuzha	1890	1634	1317	1517	1204	1331	1273	1011	909	1153	964
Kottayam	1951	1804	2034	1971	1914	1874	1964	1770	2029	2095	1877
Idukki	2215	2251	2069	2097	2140	2350	1934	2125	2405	2557	2320
Ernakulam	1552	1655	1663	1621	1659	1775	1688	1569	1663	2034	1494
Thrissur	1644	1620	1670	1617	1714	1698	1862	1844	1766	1894	1749
Palakkad	2223	2366	2288	2276	2241	2053	2265	2132	2153	2083	2045
Malappuram	1434	1487	1478	1491	1590	1593	1567	1504	1525	1534	1585
Kozhikode	1150	1085	1128	1179	1201	1163	1177	1163	1007	1213	1252
Wayanad	1860	1916	2887	2080	2029	1991	1917	1953	1936	2354	1977
Kannur	1549	1372	1466	1423	1393	1446	1617	1520	1544	1549	1565
Kasargode	1610	1658	1672	1721	1558	1568	1725	1621	1820	1649	1690
STATE	**1833**	**1883**	**1919**	**1884**	**1894**	**1842**	**1933**	**1866**	**1894**	**1929**	**1854**

Source: Directorate of Economics & Statistics

Appendix 4. 18

Area, Production & Productivity of Rice

	Year	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01
Irrigated	Area (ha)	225063	228916	212576	209430	249885	234409	230087	202143	196927	208790	208047
	Production (t)	451106	473337	439552	427511	523971	521239	487152	421011	435963	494460	481279
	Productivity (kg / ha)	2004	2068	2068	2041	2097	2224	2117	2083	2214	2368	2313
Unirrigated	Area (ha)	334387	312591	325062	298402	253405	23741	200739	184983	155704	140984	139408
	Production (t)	635452	587033	645326	576427	451094	431787	384209	343599	290780	276226	270049
	Productivity (kg / ha)	1900	1878	1985	1932	1780	1824	1914	1857	1868	1959	1937

Source: Directorate of Economics & Statistics

Appendix - 4.19

Plantation Crops - Area, Production and Productivity (1997-98 to 2001-02)

	1997-98		1998-99		1999-2000		2000-01		2001-02	
	Kerala	India	Kerala	India	Kerala	India	Kerala	India	Kerala	India
1	2	3	4	5	6	7	8	9	10	11
AREA (hectares)										
Tea	36817	434294	36826	436337	34793	437857	36847	438000	36899	438000
Coffee	82878	305902	83683	329238	84139	340306	84735	347000	84795	347000
Rubber	465282	544534	469924	553041	472900	558592	474364	562670	475039	566558
Cardamom	40867	72444	41449	72444	41491	72444	41288	72000	41336	72000
PRODUCTION (tonnes)										
Tea	72667	838465	68373	845158	61955	810767	69132	846500	66090	854000
Coffee	48300	228300	61150	265000	60470	292000	70550	301200	66690	300600
Rubber	541935	583830	559099	605045	572820	622265	579866	630405	580350	631400
Cardamom	5290	7900	4990	3500	6585	9290	7580	10489	8380	11365
PRODUCTIVITY (kg/ha)										
Tea	1974	1931	1857	1937	1780	1852	1876	1933	1791	1950
Coffee	583	746	731	805	719	858	833	868	786	866
Rubber	1165	1072	1190	1094	1211	1114	1222	1120	1222	1114
Cardamom	129	109	120	48	159	128	184	146	203	158

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

Appendix - 4.20

Average Market Price of Natural Rubber in Kottayam Market (Domestic) and international market (FOB, Kualalumpur)

(Rs. per quintal)

Sl.No	Year	Kottayam (RSS - 4)	Kualalumpur (RSS - 3)
1	1992-93	2550	2608
2	1993-94	2569	2510
3	1994-95	3638	4171
4	1995-96	5204	5016
5	1996-97	4901	4509
6	1997-98	3580	3221
7	1998-99	2994	2885
8	1999-00	3099	2704
9	2000-01	3036	2958
10	2001-02	3228	2793

Source: *Rubber Board, Kottayam.*

Appendix 4.21

Import of Rubber

Sl. No.	Year	Import (tonnes)		
		Natural Rubber	Synthetic Rubber	Total
1	2	3	4	5
1	1990-91	49013	51715	100728
2	1991-92	15070	39210	54280
3	1992-93	17884	47362	65246
4	1993-94	19940	64338	84278
5	1994-95	8093	73860	81953
6	1995-96	51635	71735	123370
7	1996-97	19770	91050	110820
8	1997-98	32070	86389	118459
9	1998-99	29534	97548	127082
10	1999-00	20213	104842	125055
11	2000-01	8970	106923	115893
12	2001-02	49590	111323	160913

Source: *Rubber Board, Kottayam.*

Appendix - 4.22

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	237440	70035	38215
2	1995-96	75200	22727	6232	525465	134085	65775
3	1996-97	67144	24575	5968	561765	142810	66585
4	1997-98	68542	27825	6270	571820	160915	70085
5	1998-99	77583	29074	6245	591545	156395	63095
6	1999-00	86849	31068	6820	628110	167220	63450
7	2000-01	88221	32978	6773	631475	170670	62260
8	2001-02	100163	32114	6583	638210	174530	63875

Source: Rubber Board, Kottayam.

NR- Natural Rubber SR-Synthetic Rubber RR- Reclaimed Rubber

Appendix 4.23

Production, Consumption, Export and Auction Price of Tea

Year	Production			Consumption ('000 tonnes)	Exports		Cochin Auction Price (Rs/kg)
	India ('000 tonnes)	Kerala ('000 tonnes)	% of Kerala		India ('000 tonnes)	% Production	
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
1980	569	54	9.5	346	224	39.37	13.14
1981-85	600	50	8.3	387	214	35.67	20.498
1986-90	679	57	8.4	464	204	30.04	27.536
1991-95	740	65	8.8	567	174	23.51	38.136
1996	780.1	61.6	7.9	618	162	20.77	44.42
1997	810	69.8	8.6	633	203	25.06	61.57
1998	874.1	65.9	7.5	664	210	24.02	73.39
1999	824.4	67.8	8.2	650	192	23.29	62.04
2000	846.5	69.3	8.2	NA	207	24.45	51.34
2001	853.7	66.1	7.7	NA	180	21.08	NA

Source : Association of Planters of Kerala

Appendix 4.24
Tariff rates on Major Agricultural Commodities/Groups

(As on 01.04.2002)

Sl.No	Item description	Basic Duty (%)	Bound Duty (%)
1	Pulses	10	100
2	Rice in the husk	80	80
3	Fresh milk and cream	35	100
4	Butter, dairy spreads and melted butter (ghee)	30	40/60
5	Milk powder upto 10000 MT under TRQ	15	15
6	Milk powder (outside TRQ)	60	60
7	Yoghurt	35	150
8	Natural honey	35	100
9	Tea	100	150
10	Coffee	100	100/150
11	Coconut, dessicated coconut	70	100
12	Copra	70	100
13	Cloves, cassia and cinnamon	35	100/150
14	Other spices	35	35/100/150
15	Chicken leg (processed); sausages	100	150
16	Fish	35	unbound
17	Sugar	60	150
18	Fruit juices	35	35/85
19	Frozen vegetables-peas, beans, spinach, sweet corn etc.	35	150
20	Arecanut	100	100
21	Planting materials of oil seeds	5	10/100
22	Soyabean Oil	45	45
23	Palm Oil - crude	65	300
24	Coconut Oil - crude	75	300
25	RBD Palmolein - refined	85	300
26	Palm Oil - refined	85	300
27	Coconut Oil - refined	85	300

Source : Government of India

Appendix - 4.25

Consumption of Fertilizers/ha of Gross Cropped Area in Kerala (kg)

Sl.No	Year	N	P	K	Total (N+P+K)		N:(P+K)% (Kerala)
					Kerala	India	
1	*2*	3	*4*	*5*	6	*7*	*8*
1	1995-96	28.62	14.15	24.11	66.88	74.38	75
2	1996-97	28.33	13.59	19.60	61.52	75.49	85
3	1997-98	29.29	15.23	29.40	73.92	84.98	66
4	1998-99	29.50	14.58	18.14	62.22	87.08	90
5	1999-00	29.85	15.08	27.54	72.47	93.81	70
6	2000-01	24.83	12.66	20.82	58.32	86.34	74
7	2001-02	25.54	12.44	21.21	59.19	NA	76

Source: Directorate of Agriculture and CMIE.

Appendix - 4.26

Selected Indicators of Agricultural Development in Kerala during IX Plan

Sl.No	Programme	Unit	1997- 98	1998-99	1999-00	2000-01	2001-02
1	2	3	4	5	6	7	8
1	**Fertilizer consumption**						
	a)Nitrogen	t	86960	86042	87061	73756	76417
	b)Phosphorus	t	45226	42528	43975	37600	37237
	c)Potash	t	87297	52917	80326	61849	63471
	Total	**t**	**219483**	**181487**	**211362**	**173205**	**177125**
2	**Plant protection measures**						
	a) Fungicide (Liquid& Solid) in terms of technical grade	t	359.91	839.53	472.41	497.36	608.4
	b) Insecticides (Liquid& Solid) in terms of technical grade	t	192.16	232.51	467	144.64	568.29
	c) Weedicide (in terms of technical grade)	t	31.13	70.62	108.27	98.41	142.79
	d) Rodenticides(in terms of technical grade)	t	13.19	8.9	10.24	7.33	8.63
	e) Area under Plant Protection coverage	lakh ha.	13.96	10.02	9.8	5.63	8.65
	f) Rodent control operation	lakh ha.	1.07	0.98	1.02	0.09	0.09
	g) Biological control of Nephantic Serinopa-parasites liberated	lakh nos.	105.60	96.49	95.69	95.09	66.35
	h) Weed control	lakh ha.	1.32	2.85	3.7	0.49	0.71
3	**High Yeilding Varieties of paddy seeds**	t	4300.00	4301	4300	681.96	854.49
4	**Quality planting materials distributed**						
	a) Coconut seedings	lakh no	9.62	8.32	3.53	3.53	4.77
	b) Rooted pepper cuttings	lakh no.	60.00	70.36	68.74	48.43	43.63
	c) Cashew grafts	lakh no.	3.16	3.17	2.92	1.21	4.95
5	**Soil testing**						
	Soil samples analysed	No.	170009	179296	190760	245588	253602

Source: *Directorate of Agriculture*

Appendix - 4.27

Average Price of Agricultural Inputs during IX Plan

(in Rs.)

Sl No	Item	1997-98	1998-99	1999-00	2000-01	2001-02
1	2	3	4	5	6	7
I	Ferlitizer(Price/tonne)					
a	Urea	3660+ST	4000+ST	4600+ST	4600	4830
b	Ammonium sulphate	4400+ST	5000+ST	5000+ST	NA	NA
c	Super Phosphate	2850	2850	2850+ST	2880	3060
d	Muriate of Potash	3700+ST	3700+ST	4255+ST	4255	4455
II	Paddy Seed	NA	NA	1100	1100	1400
a	Average NSC Price (per Qtl)	1300	1400	1450	1200	1200
b	State Seed Farm Price (per Qtl)	500	900	900	900	1200
III	Green manure seed(per Kg.)					
a	Daincha	10	...	20	NA	14
b	Sannhemp	13.5	...	...		
IV	Coconut Seedlings (per seedlings)					
a	WCT	15	20	20	18	18
b	Hybrids	18	23	23	20	20
V	Cashew grafts	20	20	20	20	20
VI	Rooted pepper cuttings(price per cuttings)	1.5	1.5	1.5	1.5	1.5
VII	Pesticides (price per litre/kg)					
a	Phosphamidon (per lit)	390	353	410	365	Banned
b	Quinal phos (per lit)	297	307	390	357	315
c	Monocrotophos (per lit)	410	377	346	350	380
d	Copper sulphate (per kg)	47	45.3	40.75	47	47.25

Source: *Directorate of Agriculture*

Appendix 4.28

Number of Students Admitted for Various Courses in Kerala Agricultural University and Number of Students Passed Out in 2002

Courses	No. Admitted	No. Passed out
1	*2*	*3*
U G Programme		
B.Sc. (Ag)	122	193
B.V.Sc. & AH	112	114
B.F.Sc.	43	35
B.Sc. (C & B)	39	30
B.Sc.(Forestry)	18	17
B.Tech.(Ag.Engg)	22	18
B.S.c.(D.Sc. & Tech)	28	26
P G Programme		
M.Sc.(Ag)	9	37
M.Sc.(Hort)	18	19
M.Sc. (Ag.Stat)	3	2
M.Sc. (Forestry)	8	5
M.Sc. (C& B)	6	1
M.Sc. (FS & N)	-	3
M.Tech.(Ag.Engg)	1	7
M.V.Sc.	56	39
M.F.Sc.	4	-
Plant Pathology	6	-
Plant Breeding & Genetics	7	-
Agriculture Extension	2	-
Agriculture Entomology	5	-
Soil science & Agricultural Chemistry	1	-
Agriculture Economics	5	-
Plant Physiology	1	-
MSc.(HSC)	8	8
Ph. D Programme		
Ph.D.(Agrl)	34	-
Ph.D.(Vety.)	3	3
Ph.D (C&B)	-	1
TOTAL:	561	558

Source: *Kerala Agricultural University*

Appendix 4.29

Crop Varieties Released and Equipments & Tools Developed by Kerala Agricultural University during the Ninth Plan

Sl.No.	Crop	Variety
1	Rice (13)	Deepthi (WN D-3), Makaram (KTR - 2), Kumbham (KTR-3), Pavithra (MO 13), Panchami (MO-14), Remanika (MO-15), Uma (MO-16), Revathy (MO-17), Karishma (MO-18), Krishnarjana (MO-19), Karuna, Ahalya (Cul. 10-1-1) & Mangala Mashuri (RM-1)
2	Banana (2)	BSR -1 & BSR-2
3	Cashew (4)	Anagha, Amrutha, Priyanka & Akshaya
4	Cocoa (5)	CCRP-1 to 5
5	Groundnut (2)	Sneha, Snigdha
6	Sesamum	Thilahara
7	Sugarcane	Madhumathi
8	Cowpea	CWP-11,CWP-16,VS-15-3-1,VS-96
9	Vegetables	
a	Brinjal	Haritha, Neelima
b	Melon	Soubhagya
c	Greater yam	Indu
d	Bitter gourd	Priyanka, Kaomudi
e	Vegetable Cowpea	VS-13-2, Vyjayanthi
f	Snake gourd	TA-17,TA-23
g	Coccinia	CC-29
h	Tomato	Mukti.
I	Bhindi (2)	Saikeerthi and Aruna
j	Pumpkin	Suvarna
II	**Equipments and Tools Developed**	
a	Tender coconut punch	
b	Tender coconut cutter	
c	Black pepper thresher	
d	'Jab' type paddy dibbler	
e	Fruit plucker	
f	Papaya plucker	
g	Foot operated coconut dehusker	

Source: Kerala Agricultural University

Appendix 4.30

Financial and Physical Achievement under Western Ghat Development Programme

I. Financial Achievement

Sl. No.	Component	Expenditure (Rs. lakhs)
1	Soil Conservation	1261.70
2	Minor Irrigation	1125.70
3	Forestry Schemes	1392.36
4	Foot Bridges	408.00
5	Others	1924.94
	TOTAL	**6112.70**

II. Major Physical Achievements

Sl. No	Component	Unit	Achievement
1	Soil Conservation	Ha.	9941
2	Distribution of Milk Cows	Nos	4091
3	Fodder Development	Ha.	1215
4	Construction of Wells	Nos	2216
5	Check Dams/Cross Bars/ Weirs	Nos	155
6	Foot Bridges	Nos	463

Source: Western Ghat Development Cell

Appendix 4.31

Composition of Cattle Population for the last 4 Census Periods

(No.000's)

Year	Composition		Male		Female		Total	
			Nos.	%	Nos.	%	Nos.	%
1	2	3	4	5	6	7	8	9
1977	Crossbred	No	217	16.01	1138	83.99	1355	100
		%	28.82	-	50.51	-	45.08	-
	Indegenous	No	536	32.47	1115	67.53	1651	100
		%	71.18	-	49.49	-	54.92	-
	Total	No	753	25.05	2253	74.95	3006	100
		%	100	-	100	-	100	-
1982	Crossbred	No	217	14.93	1236	85.07	1453	100
		%	32.93	-	50.70	-	46.92	-
	Indegenous	No	442	26.89	1202	73.11	1644	100
		%	67.07	-	49.30	-	53.08	-
	Total	No	659	21.28	2438	78.72	3097	100
		%	100	-	100	-	100	-
1987	Crossbred	No	199	11.69	1503	88.31	1702	100
		%	39.17	-	51.54	-	49.71	-
	Indegenous	No	309	17.94	1413	82.06	1722	100
		%	60.83	-	48.46	-	50.29	-
	Total	No	508	14.84	2916	85.16	3424	100
		%	100	-	100	-	100	-
1996	Crossbred	No	232	10.14	2055	89.86	2287	100
		%	60.42	-	68.23	-	67.34	-
	Indegenous	No	152	13.73	957	86.27	1109	100
		%	39.58	-	31.77	-	32.66	-
	Total	No	384	11.31	3012	88.69	3396	100
		%	100	-	100	-	100	-

Source : Livestock Census Report - 1996

Appendix 4.32

Livestock Population of All India and Kerala

(Nos. in lakh)

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

Source: Livestock Census All India & Livestock Census Kerala.

Appendix 4.33

Distribution of Working Bullocks* and Male Calves over the Four Census Periods and Percentage Variation over 1977 to 1996

('000 Nos)

Category	1977	1982	% variation	1987	% variation	1996	% variation
1	2	3	4	5	6	7	8
Working Bullocks							
Indegenous	343.99	240.94	-29.96	120.66	-49.92	57.50	-52.35
Cross bred	19.60	14.33	-26.89	18.70	30.50	63.88	241.60
Total	**363.59**	**255.27**	**-29.79**	**139.36**	**-45.41**	**121.38**	**-12.90**
Male calves							
Indegenous	125.24	135.30	8.04	112.14	-17.12	52.36	-53.31
Cross bred	136.53	165.55	21.26	132.76	-19.81	111.30	-16.10
Total	**261.77**	**300.85**	**14.93**	**244.90**	**-18.60**	**163.66**	**-33.17**

Source: Livestock Census Report -1996

* Includes bullocks used for work & those used for work and breeding

Appendix 4.34

Trend in Distribution of Adult Female Cattle over the Census Periods from 1977 to 1996 , their Percentage Distribution and Percentage Variation over the Previous Census Period

000 numbers

Category	1977		1982			1987			1996		
	No.	% distribution	No.	% distribution	% variation	No.	% distribution	% variation	No.	% distribution	% variation
1	2	3	4	5	6	7	8	9	10	11	12
Cattle in Milk											
Indegenous	334.29	47.41	392.79	45.45	17.5	451.8	44.51	15.02	329.66	29.57	-27.03
Cross bred	370.75	52.59	471.48	54.55	27.17	563.17	55.49	19.45	785.36	70.43	39.45
Adult Female Cattle											
Indegenous	684.96	49.96	785.71	51.94	14.71	812	47.73	3.35	569.53	31.71	-29.86
Cross bred	686.02	50.03	726.91	48.06	5.96	889.33	52.27	22.34	1226.36	68.29	37.89

Source: Livestock Census Reports - 1996

Appendix 4.35

Major State wise Production of Milk and Egg

State	Milk ('000 tonnes)			Egg (million nos)		
	1989-90	1998-99	% increase over1989-90	1989-90	1998-99	% increase over1989-90
Andhra Pradesh	3030	4842	59.80	3710	5924	59.68
Assam	617	725	17.50	461	486	5.42
Bihar	3000	3440	14.67	1328	1430	7.68
Gujarat	3351	5059	50.97	386	467	20.98
Haryana	3151	4527	43.67	333	683	105.11
Jammu &Kashmir	487	990	103.29	267	520	94.76
Karnataka	2291	4231	84.68	1278	1938	51.64
Kerala	**1600**	**2420**	**51.25**	**1501**	**2044**	**36.18**
Madhya Pradesh	4500	5442	20.93	915	1400	53.01
Maharashtra	3266	5609	71.74	1957	2938	50.13
Orissa	454	733	61.45	411	763	85.64
Punjab	4972	7394	48.71	1619	2630	62.45
Rajastan	4200	6923	64.83	230	534	132.17
Tamil Nadu	3410	4273	25.31	2461	3589	45.84
Uttar Pradesh	9146	13618	48.90	494	767	55.26
West Bengal	2805	3441	22.67	2220	2653	19.50
All India	**51401**	**75184**	**46.27**	**19964**	**29475**	**47.64**

Source: Animal Husbandry Department

Appendix 4. 36

Details of milk production in the state - Results of Integrated Sample Survey - 1991-92 to 2000-01

		1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01
Estimated no. of animals in milk (lakh)	ND	4.778	4.764	4.688	4.681	4.072	3.905	3.105	2.927	2.496	2.132
	CB	6.609	6.887	7.41	8.027	8.108	8.478	8.346	8.557	8.942	9.297
	Total	**11.387**	**11.651**	**12.129**	**12.708**	**12.18**	**12.383**	**11.451**	**11.484**	**11.438**	**11.429**
Estimated no. of milch animals (lakh)	ND	7.278	7.256	7.338	7.641	5.418	5.133	5.057	3.995	3.385	2.841
	CB	9.256	9.651	10.701	11.614	11.058	11.448	11.877	12.241	11.793	12.388
	Total	**16.534**	**16.907**	**18.039**	**19.255**	**16.476**	**16.581**	**16.934**	**16.236**	**15.178**	**15.229**
Average milk yield/animal in milk (kg.)	ND	1.749	1.863	1.864	1.864	2.208	2.216	2.282	2.552	2.502	2.506
	CB	5.259	5.372	5.385	5.388	5.625	5.63	6.201	6.234	6.433	6.556
	Total	**3.781**	**3.938**	**4.024**	**4.089**	**4.482**	**4.553**	**5.138**	**5.295**	**8.935**	**9.062**
Average milk yield of milch animal/day (kg.)	ND	1.155	1.223	1.191	1.142	1.662	1.686	1.401	1.869	1.845	1.879
	CB	3.755	3.483	3.745	3.724	4.124	4.169	4.357	4.358	4.878	4.920
	Total	**2.611**	**2.713**	**2.666**	**2.7**	**3.314**	**3.4**	**3.474**	**3.746**	**6.723**	**6.799**
Annual milk production in the State (lakh tonnes)	ND	3.069	3.240	3.190	3.185	3.282	3.158	2.586	2.726	2.280	1.950
	CB	12.688	13.507	14.626	15.786	16.641	17.420	18.889	19.471	20.996	22.247
	Total	**15.757**	**16.748**	**17.815**	**18.971**	**19.923**	**20.578**	**21.475**	**22.197**	**23.276**	**24.197**
	Buff.	1.069	1.0930	1.1023	1.0589	0.8529	0.8182	0.7405	0.7481	0.7003	0.6345
	Goat	1.019	1.0534	1.0956	1.1254	1.1467	1.1844	1.2140	1.2557	1.2772	0.2212
	Grand Total	**17.845**	**18.894**	**20.013**	**21.182**	**21.922**	**22.581**	**23.43**	**24.200**	**25.253**	**26.053**
Per capita per day availability of milk (gm)		**169**	**176**	**184**	**192**	**196**	**199**	**204**	**207**	**214**	**220**

Source: Animal Husbandy Department

Appendix - 4.37

Index of Milk and Egg production in Kerala & India (base 1984-85)

Year	Index of Milk Production		Index of Egg Production	
	Kerala	India	Kerala	India
1	2	3	4	5
1984-85	100.00	100.00	100.00	100.00
1985-86	105.16	106.02	103.66	113.16
1986-87	109.34	111.08	106.48	121.46
1987-88	116.89	112.53	109.76	124.86
1988-89	124.02	116.63	111.89	133.17
1989-90	131.15	123.85	114.41	141.76
1990-91	138.52	129.88	118.14	148.06
1991-92	146.31	134.22	130.34	154.24
1992-93	154.84	141.20	135.21	160.88
1993-94	164.02	146.02	140.55	169.56
1994-95	173.61	153.73	146.04	182.25
1995-96	179.67	159.76	151.45	191.44
1996-97	186.08	164.58	154.27	192.90
1997-98	192.05	169.88	154.95	199.27
1998-99	198.36	181.20	155.79	206.82
1999-00	206.97	188.19	156.56	221.03
2000-01	213.52	195.18	155.03	224.47
2001-02	222.79	NA	152.59	NA

Source : Animal Husbandry Department & Economic Survey

Appendix - 4.38

Activities in the Animal Husbandry Sector during 1993-94 to 2001- 2002

Sl.No	Activities	"000	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
1	2	3	4	5	6	7	8	9	10	11	12
1	Cases treated	Nos.	3330	3401	3441	3851	3725	3893	3738	3885	4161
2	Operations Performed	Nos.	112	117	121	116	115	119	97	117	123
3	Castration done	Nos.	12	10	12	9	8	7	6	7	6
4	Vaccination done										
	1. Livestock	Nos.	2349	2424	2502	355	285	691	530	461	524
	2.Poultry	Nos.	4648	4755	4864	1828	1794	1235	2073	1888	1994
5	Anti Rabies Vaccinations done in Dogs	Nos.	50	47	49	96	45	132	127	102	67
6	Artificial Inseminations done	Nos.	1352	1465	1240	1151	1259	1251	1391	1372	1249
7	Calvings recorded	Nos.	303	307	324	318	327	314	349	361	333
8	Chicks hatched out in Department Poultry Farms	Nos.	901	921	947	651	915	1057	1639	533	566
9	Vaccines produced in Veterinary Biologicals										
	1. Poultry	Doses	9070	15392	5702	4543	787	2645	5561	3627	5410
	2. Livestock	Doses	1489	1149	732	1026	254	303	250	202	230

Source Animal Husbandry Department.

Appendix - 4.39

Production and Distribution of Frozen Semen in Kerala from 1993-94 to 2001-2002

(lakh doses)

Year	Production of Frozen Semen	Distribution Inside the State	Distribution Outside the State	Total Distribution
1	*2*	*3*	*4*	*5*
1993-94	26.81	14.99	9.99	24.98
1994-95	24.85	15.36	10.97	26.33
1995-96	14.93	16.27	6.61	22.88
1996-97	24.78	15.39	7.83	23.22
1997-98	24.49	15.04	7.95	22.99
1998-99	25.57	15.75	7.70	23.45
1999-00	26.17	15.74	6.80	22.54
2000-01	20.13	15.83	7.60	23.43
2001-02	28.94	15.52	5.50	21.02

Source: *KLD Board*

Appendix - 4.40

Artificial Insemination Centres in the State as on 31.03.2002

	Department/ Institutions	*No.of A.I Centres*
1	*2*	*3*
1	Department of Animal Husbandry (Both ICDP and Non-ICDP)	2505
2	Department of Dairy Development	50
3	Other Voluntary Organisation (Private)	38
4	APCOS	61
5	Tata Tea	27
	Total:	**2681**

Source: *Animal Husbandry Department & KLD Board*

Appendix - 4.41

Important Activities of KLD Board During 2001-02

	Name of Programme	**Achievement**
1	*2*	*3*
1	Liquid Nitrogen (Lakh litres)	6.4
2	Quantity of basic fodder seeds produced (kg.)	1150
3	Quantity of fodder seed supplied (MT)	20.68
4	No. of kids produced	
	(I) Malabari	284
	(ii)Boer	22
5	No. of Malabari kids distributed:	361
6	No. of personnel trained	309
7	No. of embryos collected	57
8	No of pigs distributed:	
	For breeding and rearing	1742
	For meat	140

Source: ***KLD Board.***

Appendix - 4.42

Average Price of Livestock Products and Feeds in the State from 1995-96 to 2001-2002

Item	Unit	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	% increase over 1999-00	2001-02	% increase over 2000-01
1	*2*	*3*	*4*	*5*	*6*	*8*	*9*		*11*	*12*
Meat										
Chicken	Kg.	50	55	62.57	Broiler .. 57.69	59.03	57.63	-2.37	55.6	-3.52
					Desi .. 64.87	67.36	68	0.95	70.92	4.29
Mutton	Kg.	83	92	99.12	106.20	107.00	109	1.87	113	3.67
Beef	Kg.	33	38	41.36	46.30	48.62	50	2.84	51	2.00
Pork	Kg.	43	47	50.53	56.33	57.00	60	5.26	63	5.00
Egg										
Fowl	100Nos.	130	130	155	White .. 135	145.00	152	4.83	140	-7.89
					Brown .. 170	196.00	254	29.59	210	-17.32
Duck	100Nos.	200	209	217	228.00	245.00	260	6.12	252	-3.08
Milk										
Cow	Litre	9.75	10.55	11.87	12.00	12.66	12.80	1.11	12.70	-0.78
Buffalo	Litre	11	12	13.24	14.00	14.56	15.32	5.22	15.10	-1.44
Feeds (price)										
Groundnut cake	Kg.	8.25	10.5	10.95	11.00	11.20	12.57	12.23	12.20	-2.94
Coconut cake	Kg.	7.5	9.5	10.70	10.83	11.21	10.80	-3.66	9.84	-8.89
Gingely oil cake	Kg.	8.25	10	10.01	10.00	10.93	11.50	5.22	11.45	-0.43
Straw	Kg.	2.6	3	3.44	4.04	4.19	4.04	-3.58	3.61	-10.64
Grass	Kg.	1.3	1.5	1.99	2.87	2.88	3.32	15.28	2.96	-10.84

Source: *Animal Husbandry Department.*

Appendix - 4.43

Performance of Kerala Co-operative Milk Marketing Federation (1995 to 2002)

Sl. No	Particulars	1995	1996	1997	1998	1999	2000	2001	2002*
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*
1	No. of Apcos registered(Cum)	1823	1930	1983	2149	2235	2308	2424	2456
2	No. of Apcos functional (Cum)	1722	1784	1826	1985	2040	2092	2130	2233
3	No.of members in Apcos(Cum) (lakh Nos)	4.82	5.11	5.27	5.72	5.99	6.25	6.53	6.78
4	No.of Women in Apcos (lakh nos)	0.65	0.67	0.75	0.81	0.83	0.84	1.03	1.08
5	No.of SC/ST members in Apcos (lakh Nos)	0.27	0.28	0.31	0.34	0.40	0.39	0.42	0.48
6	Average milk marketed/day by KCMMF (tonnes)	458	516	529	568	611	629	659	699
7	Average milk procured per day (tonnes) - Apcos	465	485	465	477	536	689	714	709
8	Direct employment generated (persons)	3602	3816	5242	5565	5709	5844	7060	7196
9	No.of Veterinary routes.	15	16	25	51	43	41	18	12
10	No.of cases treated (lakh Nos)	1.98	1.61	0.71	0.14	0.09	0.06	0.05	0.03
11	No.of emergency veterinary routes	15	16	17	19	19	17	20	38
12	No.of cases treated yearly(lakh Nos)	0.33	0.39	0.36	0.36	0.43	0.28	0.31	0.33
13	Cattle feed sold (MT)	35702	28367	38743	43480	83071	121629	116790	104832
14	Quantity of ghee produced (tonnes)	1093	912	1213	1220	1562	1613	1709	1448
15	Quantity of ghee sold (tonnes)	1075	1119	1055	1181	1435	1493	1786	1450

* *October 2002*

Source: *KCMMF*

Appendix - 4.44

Performance of the Dairies under Kerala Co-operative Milk Marketing Federation from 1999 to 2002

Sl No..	Dairy	Capacity (Ltr.per day)	Procurement (ltrs)				Sales (ltrs)			
			1999	2000	2001	2002*	1999	2000	2001	2002*
1	*2*	*3*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*
1	Thiruvananthapuram	200000	27836464	35703831	44997500	36154510	50890339	52097619	54553141	45866863
2	Kollam	100000	25112356	35588677	43295185	36517001	32238355	32154478	34552709	30454662
3	Alappuzha	60000	6233448	7301033	9636573	7646695	15150692	18549080	20100332	16053619
4	Kottayam	40000	7636690	8766872	8691677	6781727	12919219	12238403	12038245	9912875
5	Ernakulam	150000	35088256	38644363	40352098	31459962	32649012	32170932	33422512	31667883
6	Thrissur	60000	16528530	18392808	17596740	12616511	11738185	11576618	12177002	10197531
7	Palakkad	100000	29554870	32596767	35890129	28538382	24608489	15297940	15699328	13296420
8	Kannur	100000	27813222	28475565	29613828	28444032	25724496	27613759	28871901	24854518
9	Kozhikode	150000	19227334	19843503	18317042	14161813	25702020	27553944	28874426	25712292
	Total	**960000**	**195031170**	**225313419**	**248390772**	**202320633**	**231620807**	**229252773**	**240289596**	**208016663**

**as on October 2002*

Source : KCMMF

Appendix - 4.45

Average Quantity of Milk Procured per day by APCOS (1994 to 2002)

Year	No. of Societies (Functional)	Total Procurement/ day (lit)	Procurement per Society/day (lit)
1	*2*	*3*	4
1994	1621	414730	256
1995	1722	465294	270
1996	1784	484969	272
1997	1826	464998	255
1998	1985	566247	285
1999	2040	629114	308
2000	2092	688864	329
2001	2130	714301	335
2002*	2233	709207	318

*as on October 2002
Source: *KCMMF*

Appendix - 4.46

Price Revision Details of Milk

Date of Revision	FAT(Rs./Kg)	SNF(Rs/Kg)	Purchase Price/kg. (Average rate)	Sales price(Rs/ltr) Toned Milk
1	2	3	4	5
01/04/84	30.00	21.00	2.67	4.00
01/10/85	31.00	24.00	2.97	4.50
11/08/87	34.00	27.50	3.36	5.00
21/07/89	35.00	31.10	3.69	5.50
15/02/91	39.00	34.90	4.14	6.00
21/11/91	42.80	42.80	4.92	7.00
01/11/92	49.25	49.25	5.66	8.00
01/02/94	55.50	55.50	6.38	9.00
21/01/95	62.50	62.50	7.19	10.00
31/01/96	69.90	69.90	8.04	11.00
01/01/97	80.15	77.01	8.95	12.00
01/04/99	95.70	78.30	9.73	13.00

Source: KCMMF

Appendix - 4.47

Price Spread of Milk (average price per lit.in Rs.)

Year	Producer	Society	Consumer	Difference in price between producer & consumer
1	*2*	*3*	*4*	*5*
1993-94	*6.14*	*6.56*	*9.00*	*2.86*
1994-95	*7.44*	*7.80*	*10.00*	*2.56*
1995-96	*8.31*	*8.81*	*11.00*	*2.69*
1996-97	*9.42*	*9.91*	*12.00*	*2.58*
1997-98	9.26	9.64	12.00	*2.74*
1998-99	9.18	9.55	12.00	*2.82*
1999-2000	9.93	10.33	13.00	*3.07*
2000-till date	9.93	10.33	13.00	*3.07*

Appendix 4.48

Sale of Milk and Milk products by KCMMF – 2000-01 &2001-02

Sl.No	Product	2000-01	2001-02	% change over 2000-01
1	Milk Toned (Lakh Ltrs)	-	2153	-
2	Milma Rich (Lakh Ltrs)	-	141	-
3	Milma White/Smart (Lakh Ltrs)	-	114	-
	Total Milk	2389	2408	0.80
4	Ghee (MT)	1596	1834	14.91
5	Butter (MT)	262	270	3.05
6	Ice-cream (Ltrs)	165380	229191	38.58
7	Peda (Kg.)	55406	62168	12.20
8	SFM (Bottles)	403360	353124	-12.45
9	Refresh/Trays	58096	52815	-9.09
10	Card Milk/ trays	3113	2689	-13.62
11	Sambharam (Ltrs.)	1646397	1531183	-7.00
12	Curd (Ltr.)	7376450	8538026	15.75
13	Lassy (Ltr.)	16355	25386	55.22
14	Kulfi (Cups)	22472	17299	-23.02
15	Sip up (Nos.)	2339261	3210544	37.25
16	Cream (Kg.)	172482	429734	149.15
17	Dairy Whitener (MT)	40	129	222.50
18	Cream Roll (Nos.)	9666	9799	1.38
19	Palada (Kg.)	6903	5138	-25.57
20	Milma Plus (Bot.)	-	23329	-
21	Paneer (Kg.)	-	2400	-
22	Chocolik (No.)	-	54394	-

Source: KCMMF – Annual Reports

Appendix - 4.49

District-wise Distribution of Fishermen Population in Kerala (2001-2002)

Sl. No	District	Marine				Inland				Marine & Inland
		Male	Female	Children	Total	Male	Female	Children	Total	Total
1	2	3	4	5	6	7	8	9	10	11
1	Thiruvananthapuram	52106	50450	71643	174199	452	478	473	1403	175602
2	Kollam	31527	28863	37649	98039	11397	10864	13385	35646	133685
3	Alappuzha	36232	35043	45087	116362	21372	20623	22797	64792	181154
4	Pathanamthitta	....	....	....	....	604	736	1075	2415	2415
5	Kottayam	....	....	....	....	8559	8366	9022	25947	25947
6	Idukki	....	....	....	....	329	249	233	811	811
7	Ernakulam	24613	23828	27307	75748	22816	22819	21963	66968	142716
8	Thrissur	22436	22713	27734	72883	6823	6694	7198	20715	93598
9	Palakkad	....	....	....	....	753	851	1111	2715	2715
10	Malappuram	24646	25212	33733	83591	1447	1438	1672	4557	88148
11	Wayanad	....	....	....	....	94	88	100	282	282
12	Kozhikode	32409	31237	39515	103161	3984	3864	4743	12591	115752
13	Kannur	17968	17063	23237	58268	2324	2263	2220	6807	65075
14	Kasaragod	14731	14190	16781	45702	335	319	336	990	46692
	State	***256668***	***248599***	***322686***	***827953***	***81289***	***79652***	***86328***	***246639***	***1074592***

Source: *Directorate of Fisheries*

Appendix - 4.50

Species-wise Inland Fish Production in Kerala from 1994 - 95 to 2001 - 2002

(Quantity in Tonnes)

Sl. No	Species	1994-95		1995-96		1996-97		1997-98		1998-99		1999-00		2000-01		2001-02	
		Actual	%	Actual	%	Actual	%	Actual	%	Actual	%	Actual	%	Actual	%	Actual	%
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	Prawns	12265	25.45	11984	25.45	12531	24.05	130	22.35	14346	21.79	16459	22.2	22392	26	22410	29
2	Etroplus	4468	9.27	4660	9.27	4883	9.37	4964	8.53	4756	7.22	4860	6.56	5006	6	5123	7
3	Murrels	4179	8.67	4386	8.67	4618	8.86	468	7.85	4369	6.64	4596	6.2	4652	5	4718	6
4	Tilapia	6836	14.18	7347	14.18	7732	14.84	8532	14.65	7219	10.96	8510	11.48	8638	10	8378	11
5	Catfish	4546	9.43	4882	9.43	4928	9.46	5239	9.00	4420	6.71	4816	6.5	4816	6	4910	6
6	Jew Fish	2566	5.32	2652	5.32	2791	5.36	3181	5.46	3012	4.57	3054	4.12	3110	4	3016	4
7	Others	13332	27.66	13695	27.66	14622	28.06	18721	32.16	27733	42.11	31835	42.94	36620	43	39484	37
	Total	**48192**	**100**	**49606**	**100**	**52105**	**100**	**41235**	**100**	**65855**	**100**	**74130**	**100**	**85234**	**100**	**88039**	**100**

Source: Directorate of Fishereis

Appendix 4.51
Details on Fishery Harbours in Kerala

(Amount Rs. in lakhs)

Sl. No.	Name of Fishing Harbours	Total Estimated Cost		Year of Starting	Year of Completion targeted	Expenditure up to March 2002 - Progressive Total	Amount Sanctioned	Amount Sanctioned & Released	Remarks
		Original	Revised						
1	2	3	4	5	6	7	8	9	10
1	Vizhinjam Fshing Harbour 100% CSS	704.00	1585*	1987 II Stage 3/1995 - III Stage	1999 March	1477.29	704.00	690.50	Non-receipts of land in time, rehabilitation issues, communal riots, stooppage of works by contractor seeking enhancement of rate etc., affected the progress of work. Dredging of basin activities are to be completed. Only 50% work is completed.
2	Fishing Harbour at Muthalappozhi	1366.00	-	May-00	Apr-00	79.93	1366.00	300.00	Works Commenced
3	Thamkassery Fishing Harbour	1980.50	4385.5	Apl.89	Mar-97	3804.69	1980.50	990.25	Partially Commissioned during 3/3/2001.
4	Neemdakara Fishing Harbour	622.00	-	1982	Apr-90	799.13	622.00	311.00	Partially Commissioned on 27/3/2001.
5	Kayamkulam Fishing Harbour	624.00	1770.00*	Jun-95	1-Mar	453.35	624.60	300.00	Sannction not received for Rs. 1770 (revised estimate from GOI)
6	Fishing Harbour at Munambam	1167.23	1895*	Mar-89	Mar-97	1686.48	1167.20	683.60	Major works completed. Harbour Commissioned on 7.8.2000
7	Fishing Harbour Puthiappa	962.50	-	Feb-90	Feb-96	1130.68	962.50	481.25	Works completed
8	Fishing Harbour Chombal	556.00	975*	1992	May-99	870.48	556.00	370.00	Works completed
9	Fishing Harbour Mopla Bay	564.00	-	Nov-91	May-99	970.70	816.00	408.00	Works completed
10	Fishing Harbour Ponnani	2759.40	-	May-02	5-Sep	73.66	2759.50	350.00	Major works started
11	Fishing Harbour Thalai	1376.00	1970	2000	2004	23.54	-	-	GOI sanction is not received
	Total: Fishing Harbours	**12675.63**	**7940.50 4640.***	-	-	**11369.93**	**11558.30**	**4884.60**	

1	2	3	4	5	6	7	8	9	10
II	**Fish Landing Centres for Traditional Fishermen**								
1	Kattoor Pollathai	59.00	-	1996	Jun-96	71.31	50.25	25.13	C ompleted
2	Ettikulam	85.20	-	1998	Jan.2000	62.24	85.2	85.2	Work in Progress
3	Thikkodi	49.25	-	1999	2001	38.08	49.55	24.63	Construction of groyne is progressing Land not received.
4	Poovar	26.99	-	Mar-99	2001	-	26.99	2.50	Not started due to local resistance
5	Kanjanhad	28.42	-	Mar-99	2001	-	28.42	2.50	not commenced due to non-avilability of land
6	Kadapra Moyilalikadappuram	18.52		1999	2001	5.97	85.2	42.60	Work in Progress
	Total: Fish Landing Centres	**267.38**				**177.58**	**325.61**	**182.56**	
	Grand Total - Fishing Harbours and Landing centres	**12943.01**	**7940.50 4640.***			**11547.51**	**11883.91**	**5067.16**	

Source : Harbour Engineering Department

Appendix 4.52

NCDC ASSISTED INTEGRATED FISHEREIS DEVELOPMENT PROJECT

Physical and financial achievement during the year 2000-01

Sl.No.	Project Component	Physical		Financial (Rs. in lakhs)
1	Fishing inputs	Out Board Motor	504 No.	360.48
		Crafts	99 No.	98.40
		Webbings	81.261 Tonnes	225.30
		Accessories		20.74
		SUB TOTAL		704.92
2	Support for Direct Marketing		3 Units	24.57
3	Marketing infrastructure-Kerosene bunks		1 Unit	5.50
4	No. of beneficiaries		3995	
	TOTAL			**734.99**

Source: Matsyafed

Appendix 4.53

Welfare Activities of Fisheires Department during the period from 1997-98 to 2001-02

(Amount in Rs. lakhs and Physical in Nos.)

Sl. No	Particulars	1997-98		1998-99		1999-00		2000-01		2001-02		Total	
		Financial	Physical	Financial	Physical	Financial	Physical	Financial	Physical	Financial	Physical	Financial	Physical
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*
1	NFWF Housing	670.00	1914	600	1714	600	1714	800	1795	800.00	1592	3502.00	8729
2	Danida Model Sanitation	30.00	1200	60.00	2400	60.00	2400	80.00	3200	50.00	2000	280.00	11200
3	Theerajyothi (Electrification)	30.00	3000	60.00	6000	60.00	6000	80.00	8000	50.00	5000	280.00	28000
4	Group Accident Insurance Scheme							37.75	47	30.46	40	68.21	87
5	Fishermen Oldage Pension							346.18	27240	180.97	27240	527.15	54480
6	Pension for wives of diceased fishermen									9.41	1380	9.41	1380

Source: Fisheries Directorate

Appendix 4.54

Details of Revenue Collection in various Fishing Harbours/Fish Landing Centres

(Rs. lakhs)

Sl.No.	Name of Project	Up to 2000-01	2001-02	Total
I	**FISHING HARBOURS**			
1	Neendakara	578.51	74.79	653.3
2	Puthiyappa	79.57	31.57	111.14
3	Munambam	20.63	12.24	32.87
4	Mopla Bay	2.7	1.76	4.47
5	Chompal	22.53	9.92	32.45
6	Azheekal	6.82	3.52	10.34
7	Beypore	3.3	8.73	12.03
8	Thangassery	0.14	6.13	6.27
II	**FISH LANDING CENTRES**			
1	Munnakkadavu	0.74		0.74
2	Thottappaly	1.43		1.43
3	Neeleswaram	0.86	0.15	1.01
4	Dharmadam	1.9	0.15	2.05
5	New Mahe	1.2		1.2
6	Vellayil Beach	1.36	0.85	2.21
7	Cheruvathoor	2.45	1.32	3.77
8	Chalilgopalapettah	0.35	0.01	0.36
9	Quilandy	0.5	0.38	0.88
10	Chettuva	3.72	0.29	4.01
11	Palacode	0.32	0.32	0.64
	TOTAL	**729.04**	**152.13**	**881.17**

Source: Harbour Engineering Department

Appendix 4.55

Performance of Janakeeya Matsyakrishi

(Amount Rs. lakhs)

Sl. No.	Particulars	1997-98	1998-99	1999-00	2000-01	2001-02
1	Number of Local Bodies Participated					
	Grama Panchayat	694	770	817	807	804
	Municipality	32	37	43	43	43
	Corporation	2	2	2	2	2
	Total	728	809	862	852	849
2	Number of Motivators Participated	1886	1324	958	441	382
3	Number of Farmers Participated					
	I Phase	22257	29492	38298	32621	20168
	II Phase	1816	3171	4441	5306	4564
	Total	24073	32663	42739	37927	24732
4	Area Brought Under Fish Culture (ha)					
	I Phase	2937	5685.37	934.90	4435	3682
	II Phase	320	934.84	214.13	1460	2240
	Total	3257	6620.21	9149.03	5895	5922
5	Number of fish seed for culture (in lakhs)					
	I Phase	108.88	274.28	360.81	336	262
	II Phase	73.10	159.27	170.70	292	364
	Total	181.98	433.55	531.51	628	626
6	Number of Fish seed Rearing Farmers	141	141	262	191	164
7	Number of Fish seed Rearing Units	179	115	197	191	164
8	Area of Fish seed Rearing Farms (ha.)	8.95	11.79	17.43	19.15	13.2
9	Spawn reared by the Rearing Farmers (lakhs)	241.08	346.5	661.22	812.82	614
10	Seed Production by Rearing Farmers (lakhs)	17.88	46.54	107.81	203	129
11	Fish Production from JMK (tonnes)					
	Freshwater Fishes	6110	13750	21600	11760	10200
	Prawn (Scampi)	300	1000	1600	470	680
	Shrimp	1300	1650	2100	2190	3280
12	Cost of fish produced (Rs.Crores)					
	Fish	18	48	55	42	38
	Prawn (Scampi)	2	20	28	38	55
	Shrimp	26	36	65	72	107
13	Budget Allotment for JMK Programme					
	JMK-Department Programme	46	104	148	152	200
	JMK-Local Body Programme	250	180	100	150	50
		250	200	100	50	25

Source: Matsyafed

Appendix.4.56

Species wise composition of Marine fish landings in Kerala from 1997-98 to 2001-2002

Sl. No	NAME OF FISH	1997-98	1998-99	1999-00	2000-01	2001-02	AVERAGE
1	Elasmobranchs	3955	3831	3681	2683	2991	3428
2	Eels	308	262	132	90	143	187
3	Cat fishes	211	314	127	98	150	180
4	Chirocentrtrus	1070	1445	214	214	252	639
5 (a)	Oil Sardines	72007	115519	158368	19544	169851	107058
(b)	Lesser Sardines	15534	26719	20940	23668	96831	36738
(c)	Hils Ilisha	0	5	0	0	0	1
(d)	Other Hilsa	34	80	6	0	0	24
(e)	Anchovilla	27841	28245	25347	21825	34925	27637
(f)	Trissocles	6693	6674	3190	2914	2254	4345
(g)	Other Clupeids	8706	10712	7161	20796	12694	12014
6 (a)	Harpoden Nehereus	0	0	0	0	0	0
(b)	Saurida & Saurua	7181	8597	6181	7620	5856	7087
7	Hemirhamphus & Belone	668	647	709	584	632	648
8	Flying fish	8	4	0	6	0	4
9	Perches	37613	42477	36431	49589	30212	39264
10	Red Mullets	184	302	105	64	1544	440
11	Polynemids	190	179	116	36	21	108
12	Sciaenids	12252	10630	7729	1418	8863	8178
13	Ribbon fish	18281	16397	17401	8379	18364	15764
14 (a)	Caranx	22191	50601	27417	19880	25110	29040
(b)	Chorinemus	1785	378	392	4044	1022	1524
(c)	Thachynotus	0	0	0	0	0	0
(d)	Other Carangids	18463	15460	13969	21844	23977	18743
(e)	Coryphaena	0	0	0	0	0	0
(f)	Elacate	0	0	0	0	0	0
15 (a)	Leiognathus	4537	5245	6298	4114	5046	5048
(b)	Gazza	0	0	0	0	0	0
16	Lactrious	1897	3058	1539	1430	3839	2353
17	Pomfrets	2338	2635	1868	746	1379	1793
18	Mackerel	66945	61745	86530	30667	42446	57667
19	Seerfish	4274	5309	2915	4798	2326	3924
20	Tunnies	15363	14320	19807	14072	1104	12933
21	Sphyraena	3965	9272	2345	2894	1562	4008
22	Mugil	70	111	65	333	28	121
23	Bregmaceros	0	0	0	0	0	0
24	Soles	18034	23356	19782	15187	7946	16861
25 (a)	Penaid Prawn	55928	52841	51893	51390	53219	53054
(b)	Non Penaid Prawn	454	28	7889	6522	3226	3624
(c)	Lobsters	253	260	651	217	0	276
(d)	Crabs	9729	6746	5699	5051	3343	6114
(e)	Stomatopods	13202	13219	12194	10458	335	9882
26	Cephalop0ods	38741	28531	31945	29626	15698	28908
27	Miscellaneous	20182	16340	12704	8255	6683	12833
	TOTAL	**511087**	**582494**	**593720**	**566571**	**593783**	**569531**

Source: Directorate of Fisheries

Appendix - 4.57

Division-wise Area of Forest in Kerala (as on 31-3-2002 Provisional)

Area in Sq.kms

Sl. No	Division	Reserve Forest	Proposed for Reserve Forest	Vested Forest	Total
1	2	3	4	5	6
1	Thiruvananthapuram	359.124	5.825	3.651	368.600
2	Thenmala	204.323	–	6.895	211.218
3	Achenkovil	268.794	–	0.206	269.000
4	Ranni	1050.336	7.167	1.611	1059.114
5	Punalur	280.051	–	0.169	280.220
6	Konni	320.643	11.021	–	331.664
7	Kothamangalam	316.845	–	0.152	316.997
8	Mannar	662.750	47.256	7.364	717.370
9	Kottayam	655.486	5.257	31.409	692.152
10	Vazhachal	413.944	–	–	413.944
11	Chalakkudi	279.710	–	–	279.710
12	Malayattoor	617.241	0.525	–	617.766
13	Thrissur	204.293	–	5.715	210.008
14	Mannarkkad	209.982	–	319.586	529.568
15	Nilambur North	57.920	0.017	335.779	393.716
16	Nilambur south	267.389	–	97.763	365.152
17	Palakkad	73.410	–	162.742	236.152
18	Nenmara	205.517	–	144.379	349.896
19	Kozhikode	0.004	47.578	245.072	292.654
20	Wayanad North	134.024	15.064	66.062	215.150
21	Wayanad South	67.518	6.845	272.706	347.069
22	Kannur	206.388	5.397	88.933	300.718
23	Thiruvananthapuram W.L	181.000	–	–	181.000
24	Idukki	130.524	–	–	130.524
25	Thekkadi	777.000	–	–	777.000
26	Agasthyavanam	30.447	1.553	–	32.000
27	Parambikulam	274.141	–	–	274.141
28	Wayanad	344.440	–	–	344.440
29	Silent Valley	89.516	–	–	89.516
30	Senthuruni	95.820	–	4.500	100.320
31	Eravikulam	187.440	–	–	187.440
32	Peechi	201.725	–	–	201.725
33	Aralam	22.357	–	32.643	55.000
	Total:	***9190.102***	***153.505***	***1827.337***	***11170.943***

Source : *Forest Department*

Appendix - 4.58

Species-wise Area Under Forest Plantation

(area in ha)

Sl. No.	*Name of Species*	*1991-92*	*1992-93*	*1993-94*	*1994-95*	*1995-96*	*1996-97*	*1997-98*	*1998-99*	*1999-2000*	*2000-2001*	*2001-2002*	% to total
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*
1	Teak	75355	74914	74947	75320	76288	76010	76116.0	75979.725	75939.793	75443.150	75507.170	41.02
2	Eucalyptus	29923	29633	29066	28745	29818	29459	28450.2	25650.380	24009.730	24268.780	23217.910	12.61
3	Softwood	919	895	787	781	758	3312	5853.7	8457.491	9035.620	8450.310	8415.560	4.57
4	Mixed Plantation	32887	33999	34526	35156	35692	34296	45353.6	43613.342	44722.735	55749.450	57285.070	31.12
5	Cashew	4558	4570	4525	4471	4470	4454	4537.5	6194.588	6243.770	6242.880	6259.220	3.40
6	Bamboo	646	996	1036	1124	1212	2114	2226.9	2475.474	2662.724	2673.710	2453.110	1.33
7	Wattle -	3735	3890	3811	3811	3336	3316	3316.3	3316.300	3387.160	3387.160	3387.160	1.84
8	Hardwood	849	859	847	863	863	817	769.7	776.728	786.608	1134.270	1575.270	0.86
9	Fuelwood	96	138	165	165	165	150	154.2	170.700	270.672	217.700	217.700	0.12
10	Pepper	408	459	439	439	454	270	305.3	325.300	309.980	309.940	309.940	0.17
11	Mahagany	169	169	169	169	153	143	119.2	80.630	80.640	78.630	78.630	0.04
12	Pine	452	452	452	452	897	965	548.6	548.600	222.400	182.400	182.400	0.10
13	Rosewood	155	155	164	263	267	290	326.6	415.150	414.280	422.280	455.950	0.25
14	Balsa	93	93	93	93	93	93	93.2	93.200	93.200	93.200	83.900	0.05
15	Cardamom	...	...	...	...	...	...	...	...	...	1800.000	1830.000	0.99
16	Sandal wood	11	11	11	21	166	183	183.1	183.100	73.120	73.100	100.820	0.06
17	Kongu	...	...	...	...	...	...	...	...	...	140.100	140.100	0.08
18	Liylesiyam	...	...	...	...	...	...	...	...	...	...	...	...
19	Others	3502	3855	4034	3877	4050	4164	1746.1	1820.083	1848.385	2511.480	2560.340	1.39
	Total	**153758**	**155088**	**155072**	**155750**	**158682**	**160036**	**170100.2**	**170100.791**	**170100.817**	**183178.530**	**184060.250**	**100.00**

Source : *Forest Department*

Appendix - 4.59

Production of Major Forest Produce

Sl. No.	Item	Unit	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000	2000-01	2001-02	Increase or decrease over the previous year
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*
1	Timber(round logs)	cum.	78691	123501	61430	51972	19246	26664	44519	31299	38219	+22.11
2	Timber(round poles)	Nos.	725231	779507	361179	683391	287243	275050	455389	129349	270898	+109.43
3	Timber(Swan & Squard)	cum.	226	10	30	4	2	10	7	3	4.861	+62.03
4	Fire wood	MT.	33409	82888	45336	29877	11291	18424	14191	8105	6949	-14.26
5	Cardamom	Kg.	1459	4379	3155	1233	1717	2758	4249	4687	2942	-37.23
6	Honey	Kg.	65655	37512	74787	72161	71214	21376	41734	47976	49257	+2.67
7	Reeds	Nos.	64783879	57647490	49615070	56840410	63239268	62708610	39576143	49047940	49934906	+1.81
8	Bamboo	Nos.	1810194	1596297	1339741	4829421	2338472	2088407	627805	1390456	1026502	-26.18
9	Jungle Wood Poles	Nos.	174	5282	64	289	7054	670	....	212	2823	+1231.60
10	Sandal wood	Kg.	218424	112726	133847	103523	171252	17762	97028	405	27560	+6704.94

Source : Forest Department

Appendix - 4.60

Forest Revenue in Kerala

(Rs. In Lakh)

Sl. No.	Items	Sale Proceeds								
		1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000	2000-2001	2001-2002
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*
A	Revenue from Forests									
	1. Timber	9043.50	11847.95	13890.86	13598.36	12395.55	10183.28	9932.44	11393.74	9121.82
	2. Firewood&Charcoal	100.89	107.38	261.00	151.74	227.72	163.45	112.41	110.89	20.90
	3. Livestock	7.63	3.14	1.64	2.61	4.29	7.26	65.27	2.70	6.56
	4. Others	683.74	1294.49	1327.07	1423.78	1361.06	1236.59	954.33	1437.08	1619.69
	Sub total (A)	9835.76	13252.96	15480.07	15176.49	13988.62	11590.58	11064.45	12944.41	10768.97
B	Other receipts	483.45	462.20	610.74	1085.34	531.51	627.23	376.50	1201.86	605.16
C	**Total (A+B)**	10319.21	13715.16	16091.31	16261.83	14520.13	12217.81	11440.95	14146.27	11374.13
D	Refunds	23.37	26.66	14.77	61.56	28.69	114.77	113.54	22.40	3.81
E	**Net Revenue(C-D)**	**10295.84**	**13688.50**	**16076.54**	**16200.27**	**14491.44**	**12103.04**	**11327.41**	**14123.87**	**11370.32**

Source : Forest Department

Appendix 4.61

Physical Targets & Achievements under General Forestry for the IXth Plan

Sl. No.	Item	Unit	1997-98		1998-99		1999-2000		2000-2001		2001-2002		Total	
			Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*	*15*
1	**Survey of Forest Boundaries**													
a	Boundary demarkation	km	400	627	500	513	1000	1057	1530	1490	700		4130	3687
b	Cairns constructed	Nos	6450	7668	8000	3841	8000	2076	2850	725	10430	434	35730	14744
2	**Fire Protection Works**													
a	Fireline	km	3008	2084	3700	1504	5000	928.8	2183.9	194	1440	747.7	15332	5458.5
b	Fire Watch Tower	Nos		2	2	2	5	5	4	3	4	1	15	13
c	Check dam	Nos.	-	2	10	3	10	0	2	0	0	0	22	5
d	Shed	Nos.	-	6	6	5	10	2	3	2	4	0	23	15
e	Water Tank	Nos.	1	7	-	-	8	0	0	0	0	0	9	7
f	Pump set	Nos.	7	2	-	-	8	0	0	2	0	0	15	4
g	Generator set	Nos.	5	7	-	-	-	-	0	0	0	0	5	7
3	**Culture Operations**													
a	Special tending	Ha.	7352	6440			1500	530.35	1242.1	641	555	66.36	10149	7677.7
b	Climber cutting	Ha.	-	-	-	-	10000	1246.5	1620.2	1303			11620	2549.5
c	Loranthus cutting	No of trees	-	-	-	-	50000	546.8 (Ha)	86000	15000			136000	15546.8
4	**Roads**													
a	Metalling and Tarring	Km	-	-	3	3.7	30	11.2	9.2	4.5	25	4	67.2	23.4
b	Other Road Works	Km	13.8	23.35	22	13.7			15.2	25.91	29.9	6	80.9	68.96
c	Culvert	Nos.	6	4	-	-	5	6	2		2	-	15	10
5	**Buildings**													
a	Spill over works	Nos	22	18	7	1	15	-	-	-	10	-	54	19
b	Fire Watch Tower	Nos	-	-	-	-	8	-	-	-	1	1	9	1
c	Picket Station	Nos	-	-	-	-	8	-	-	-	-	-	8	-
d	Check Post	Nos	-	-	-	-	3	-	3		-	-	6	-
e	Other Buildings	Nos.	44	3	30	60	-	-	10	-	2	5	96	68
6	**Fast Growing Species (IRM)**													
a	Replanting/Augmentation	Ha.	1422	825	738	787.1	1000	828.6	6070	25	31	44	9261	2509.1

continued

Physical Targets & Achievements under General Forestry for the IXth Plan

Sl. No.	Item	Unit	1997-98		1998-99		1999-2000		2000-2001		2001-2002		Total	
			Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*	*15*
7	**Teak**													
a	Planting	Ha.	399	395	290	353.59			1800	675	225	408	2714	1831.59
8	**Soft Wood**													
a	Replanting/Augmentation	Ha.	-	-	-	-	-	-	-	-	150	138.5	150	138.5
9	**Bamboo & Reeds**													
a	Planting	Ha.	261	91	100	32	-	-	4700	3819	1090	1091	6151	5033
b	Preliminary Operations (Plg.)	Nos.	-	10	-	-	-	-	-	-	-	-	-	10
10	**Cashew**													
a	Augmentation	Ha.	470	481	250	429	-	-	-	-	-	-	720	910
11	**Rosewood Project**													
a	Planting	Ha.	60	-	70	90	25	15	28	15	-	-	183	120
b	Rosewood Nursery	No.	-	-	-	-	-	-	-	-	10	10	10	10
12	**Fuelwood & Fodder Development (50% CSS)**													
a	Planting Augmentation	Ha.	837	989	813	727.02	800	683.6	315	588	244	258	3009	3245.62
b	Nursery beds	Nos.	770	180	-	524	1000	-	-	85	170	169	1940	958
13	**Regeneration of denuded Forests**													
a	Planting	Ha.	60	110	1920	2022.2	1500	668.91	168	463	120	45	3768	3309.11
14	**Regeneration of desired species**													
a	Planting	Ha.	-	-	415	348.44	621	284.17	121.5	122.26	57	30	1214.5	784.87

Source: Forest Department

Appendix - 4.62

KERALA FORESTRY PROJECT (WORLD BANK ASSISTED)

Year-wise Financial Achievement

(Rs. Lakh)

Table No.	Items / Components of Project	1998-99	1999-2000	2000-01	2001-02	2002-03 (provisional up to 31-12-02)	Total
1	2	3	4	5	6	7	8
1	Strengthen Instiutional Development & Human Resource Development	77.07	49.52	32.08	50.69	51.49	260.85
2	Introduce FMIS	25.00	139.16	78.51	159.54	194.02	596.23
3	Support Project Management	129.23	264.57	274.51	223.68	109.62	1001.61
4	Improve Management of Natural Forest	420.66	1107.50	1197.48	989.26	595.10	4310.00
5	Sustainable Management of Teek Plantation	85.49	87.90	135.01	181.21	216.14	705.75
6	Improve Productivity of Pulpwood Plantation	65.81	154.39	260.99	305.18	216.86	1003.23
7	Introduce Participatory Management Natural Forests areas of Degraded	13.35	57.75	43.25	144.40	86.87	345.62
8	Improve Quality of Seed Handling	90.11	2.27	3.23	7.84	3.02	106.47
9	Improve Quality and Quantity of Planting Stock	59.57	255.44	293.72	217.95	111.56	938.24
10	Improve Applied Research in to Improved Seed Handling and Plant Quality	0.00	2.96	75.12	122.73	12.00	212.81
11	KFDC Clonal Planting	25.00	100.00	40.00	158.00	83.25	406.25
12	Extension and Information Services	30.07	32.23	33.62	36.69	13.11	145.72
13	Kalady Forest Study Centre	3.69	5.06	3.12	-	-	11.87
14	Primary Environmental Care	4.29	2.55	1.10	-	-	7.94
15	Tree Management in Public Institutions	13.73	32.56	10.92	-0.15	-	57.06
16	Improved fire protection system	133.54	156.80	172.51	136.20	59.60	658.65
17	Establish Statewide Strategy on Biodiversity Conservation	1.10	0.22	1.31	0.30	-	2.93
18	Strenghten Sustainability of PA System	167.39	298.77	279.69	93.20	44.58	883.63
19	Expand Village Ecodevelopment	15.74	14.96	16.82	42.07	11.47	101.06
20	Improve Scientific knowledge and Understanding public support for Biodiversity Conservation.	11.41	59.51	61.22	53.16	18.53	203.83
	PPF						266.56
	Total:	**1372.25**	**2824.12**	**3014.21**	**2921.95**	**1827.22**	**12226.31**

Source : Kerala Forest Department

Appendix 4.63

Kerala Forestry Project (World Bank Assisted)
Yearwise Physical Achievement

Sl. No.	Items/components of the Project	Unit	1998-99	1999-2000	2000-01	2001-02	2002-03 (Provisional up to 31/12/02)	Total
1	2	3	4	5	6	7	8	9
1	**Treatment Areas**							
	Assisted Natural Regeneration (ANR)	Ha	2352	6543	7453	2601	3707	22656
	Reeds, Rattons & Bamboos (RRB)	Ha	479	1504	1836	1103	1576	6498
	Rehabilitation of Degraded Forest (RDF) 1&2	Ha	1269	4056	4507	1643	1637	13112
	Plantation Teak P1	Ha	115	202	358	408	642	1725
	Plantation Pulpwood P2	Ha	252	786	1124	866	973	4001
	Sub Total		4467	13091	15278	6621	8535	47992
2	**Civil Works**							
	Quarters	No	6	9	54	45	3	117
	Office Buildings	No	0	0	3	0	0	3
	Roads / Trekpaths	Km	0	55	60	0	0	115
3	**Consultant Studies ***	No						27
4	**Training**	No	17	57	58	28	32	192
5	**Workshops**	No	38	51	28	21	13	151
6	**Studytour**	No	4	7	2	3	13	29
7	**Equipments**							
	Computers & Accessories	No	29	80	45	235	0	389
	Vehicles							
	Car	No	19	7	0	3	0	29
	Jeep	No	39	24	0	7	0	70
	Truck	No	0	0	1	0	0	1
	Mini Bus	No	0	0	0	1	0	1
	Motor Cycle	No	10	10	0	0	0	20
	Lorry	No	0	1	0	0	0	1
	Boat	No	2	0	1	0	0	3
	Sub Total	No	70	42	2	11	0	125

Source : Kerala Forest Department

* Up to the project period

Appendix - 4.64

Operations of the Kerala State Co-operative Bank Limited

(Rs. Lakh)

Sl.No	Particulars	1991-92	1995-96	1996-97	1997-98	1998-99	1999-2000	2000-01	2001-02
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*
1	Share Capital	1209.50	1801.46	1851.46	2073.53	2073.53	2127.85	2195	2268
2	Reserves	1881.20	2500.00	2656.07	2846.91	3081.50	3633.25	4174	5131
3	Deposits	27098.19	47461.64	57915.93	77522.27	123616.97	153972.09	168724	191501
4	Borrowings	15203.45	19973.73	22960.66	19984.82	9351.17	8440.35	14598	20973
5	Working Capital	44966.62	71249.39	84893.35	101957.59	137566.39	180810.00	189174	216173
6	Loans & Advances	27970.68	53566.00	52219.64	51809.69	46811.19	101905.94	117931	122643
7	Investments	7461.00	18832.96	19093.64	23549.84	41738.70	45581.24	52004	54691
8	Net Profits	69.51	136.90	69.55	81.38	126.13	25.06	50	71

Source: *Kerala State Co - operative Bank Ltd.*

Appendix - 4.65

Purpose - wise Outstanding Loans in the Kerala State Co-operative Bank Limited as on 31-03-2002

(Rs.in Crore)

Sl.No.	Purpose	1996	1997	1998	1999	2000	2001	2002
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*
1	Agriculture	134.00	151.09	167.61	155.36	175.72	120.69	79.88
2	Procurements/Marketing Distribution	126.63	109.70	102.69	98.59	103.71	176.47	84.89
3	Cottage and Small Scale Industries	69.38	58.94	68.47	70.65	53.01	66.65	66.22
4	Other Industries	24.38	42.67	22.68	15.67	11.49	30.11	33.95
5	Consumer Activities	4.42	2.06	1.91	6.43	1.02	0.12	2.92
6	Consumption Purpose	40.23	77.01	59.21	29.69	42.00	110.45	115.74
7	Housing	44.69	43.59	50.04	55.83	23.58	113.99	128.82
8	Other Purposes	91.93	37.14	45.49	35.89	608.52	560.83	714.00
	Total	**535.66**	**522.20**	**518.10**	**468.11**	**1019.05**	**1179.31**	**1226.42**

Source: *Kerala State Co - operative Bank Ltd.*

Appendix - 4.66

Selected Indicators of the Performance of the Primary Agricultural Credit Societies

Sl.No.	Indicators	Unit	2000	2001	2002
1	*2*	*3*	*4*	*5*	*6*
1	Average membership per society	No.	7015	12671	13377
2	Average Share Capital per Society	Rs.lakh	17.95	20	21
3	Average deposit per society	Rs.lakh	328.12	386	427
4	Average deposit per member	Rs	4677.18	3043.16	3192.4
5	Average working capital per society	Rs.lakh	449.48	507.05	555
6	Average loan per member	Rs	3496.75	2593.24	2599.54
7	Percentage of borrowing members to total	%	56.03	44.44	42.09
8	Average loan advanced per advancing society	Rs.lakh	245.31	328.58	347.75
9	Average loan advanced per borrowing members	Rs	6240	5835.03	6175.93
10	Percentage of overdue to demand	%	20.78	21.87	23.84
11	Percentage of overdue to outstanding	%	18.40	25.67	23.54

Source: *Registrar of Co-operative Societies, Kerala.*

Appendix - 4.67

Selected indicators of theCredit Operations of the Primary Agricultural Credit Socities

Sl. No.	Indicators	Unit	2000	2001	2002
1	*2*	*3*	*4*	*5*	*6*
1	No.of Societies	Nos.	1628	1682	1685
2	No.of Members	Nos. in crore	114	2.1312	2.2541
	(i) of which SC	Nos. in lakhs	12.96	8.429	8.951
	(ii) of which ST	Nos. in lakhs	2.23	1.0198	1.1987
3	Paid up share capital	Nos. in crore	292.17	337.0195	361.3958
4	Reserves	Nos. in crore	236.23.	320.999	372.2008
5	Deposits	Nos. in crore	5341.81	6485.577	7195.995
6	Working Capital	Nos. in crore	7317.48	8528.576	9351.775
7	Loans Issued	Nos. in crore	3993.63	5526.709	5859.624
	(i) short-term	Nos. in crore	2593.26	3549.578	3746.013
	(ii) Medium-term	Nos. in crore	1183.14	1498.429	1606.113
	(iii) Long - term	Nos. in crore	217.23	478.702	507.498
8	Loan Outstanding	Nos. in crore	4401.91	5774.563	6267.657
9	Loan Overdue	Nos. in crore	809.9	1482.206	1475.175
10	S.T Loan for agricultural purpose alone	Nos. in crore	738.46	1263.284	1401.557
11	S.T Loan for non- agricultural purpose	Nos. in crore	1854.79	2290.688	2583.476
12	M.T loan for Agricultural purpose	Nos. in crore	349.79	455.879	504.465
13	M.T loan for non-Agricultural purpose	Nos. in crore	833.35	1014.01	1125.818
14	L.T. Loan for Agricultural purpose	Nos. in crore	57	181.383	194.66
15	L.T. Loan for non-agricultural purpose	Nos. in crore	160.22	260.449	310.048
16	Value of Fertilizers Sold	Nos. in crore	871.02	179.803	284.793
17	Value of Agricultural Produce Marketed	Nos. in crore	180.83	84.974	74.506
18	Dormant Societies	Nos.	26	126	109
19	Societies on Profit	Nos.	720	654	663
20	Profit Amount	Nos. in crore	57.97	101.004	116.063
21	Societies on loss	Nos.	836	1134	913
22	Loss Amount	Nos. in crore	153.28	307.501	397.443
23	Societies without profit or loss (U/L)	Nos.	46	1	0
24	Societies having paid Secretaries	Nos.	1559	1559	1558
25	Societies having own Godowns	Nos.	1457	1302	1309
26	Societies having Hired Godowns	Nos.	493	169	176
27	Viable Societies	Nos.	1432	1334	1347
28	Computerised societies	Nos.	153	289	426
29	Self Help Group Formed PACS	Nos.	1307	5905	5878
30	State Contribution to Agri. Credit	Lakhs	92.88	96.2	90.93
31	Assistance for insurance	Lakhs	0	0.002	0

U/L: Under Liquidation

Source: *Registrar of Co-operative Societies, Kerala.*

Appendix - 4.68

Targets and Achievements of Deposit Mobilisation Programme of Co-operatives in Kerala

Year	Target (Rs. Lakhs)	Achievement (Rs. Lakhs)	Achievement in terms of percentage
1	*2*	*3*	*4*
1976	2000	2656.38	133.00
1979	2000	3698.72	185.00
1980	2000	4796.27	240.00
1981	2625	5635.64	214.00
1982	2500	6024.95	241.00
1983	4000	9367.35	234.00
1984	6000	11861.56	198.00
1986	6000	13772.60	230.00
1987	6000	13608.58	227.00
1988	3000	11314.51	377.00
1989	6000	17885.37	298.00
1990	6000	28881.12	481.30
1991	6000	28121.97	468.60
1992	6000	34681.77	578.02
1994	20000	47514.85	237.57
1995	20000	54139.77	270.70
1996	20000	58891.36	294.45
1997	20000	59210.11	296.05
1998	20000	59773.00	298.87
1999	20000	72557.00	362.79
2000	20000	77578.00	387.89
2001	20000	102686.00	513.43
2002	20000	85320.00	426.60

Source: *Registrar of Co-operative Societies , Kerala*

4/100/2003—6A

Appendix - 4.69

Annual Long Term Loan Disbursement and Debentures Floated by Kerala State Co-operative Agricultural and Rural Development Bank Ltd.

(Rs. in Crore)

Sl. No.	Year	Loan advanced					Debenture Floated				
		Ordinary	Scheme	NFS	Rural Housing	Total	Ordinary	Scheme	NFS	Rural Housing	Total
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*
1	1992-93	12.43	27.42	18.72	11.31	69.88	12.40	24.74	17.75	9.65	64.54
2	1993-94	11.80	31.76	27.64	13.71	84.91	11.50	30.65	26.92	24.32	93.39
3	1994-95	10.63	45.60	30.77	24.31	111.31	10.00	30.46	25.07	14.86	80.39
4	1995-96	10.44	67.54	40.53	35.49	154.00	11.00	45.78	37.65	40.53	134.96
5	1996-97	17.96	80.93	61.51	47.06	207.46	12.00	90.19	51.09	24.32	177.60
6	1997-98	10.84	79.38	51.01	95.07	236.30	17.25	102.82	61.33	60.98	242.38
7	1998-99	4.64	94.75	45.85	86.70	231.94	4.10	80.28	37.22	69.07	190.67
8	1999-00	4.44	100.97	72.84	123.03	301.29	4.24	95.59	66.61	98.66	265.10
9	2000-01	6.65	121.51	81.37	123.79	333.32	3.25	104.31	77	86.18	270.74
10	2001-02	7.66	117.4	74.2	119.81	319.07	9.85	146.89	86.83	133.64	377.21

NFS - Non Farm Sector

Source: *Kerala State Co-operative Agricultural and Rural Development Bank Ltd.*

Appendix - 4.70

Purpose-wise Classification of Long Term Loans Issued by Primary Co-operative Agricultural & Rural Development Banks

(Rs. Lakhs)

Sl.No	PURPOSE	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
1	2	3	4	5	6	7	8	9	10	11	12
	Ordinary Loan										
1	Construction of Wells/Tanks	19.71	3.47	11.33	0.21	8.68	4.27	11.41	20.63	55.34	149.91
2	Renovation of Wells/Tanks	1.39	2.71	2.42	1.61	0.17	-	0.4	1.10	9.31	2.34
3	Pumpsets	5.42	3.17	1.83	0.37	2.84	2.86	2.44	1.98	9.71	8.79
4	Plantation & Horticulture	107.21	86.73	55.71	55.96	45.37	130.19	93.49	141.33	217.05	114.44
5	Agricultural Mechinary	0.07	1.45	14.16	-	-	-	-	-	-	-
6	Animal Husbandry	12.77	5.67	14.06	4.19	121.97	214.29	109.9	46.12	74.92	48.09
7	Land Development	418.41	526.84	415.64	420.61	628.13	386.62	133.05	105.26	107.49	160.3
8	Construction of Godowns/Cattle	307.74	266.05	243.12	260.09	475.13	132.98	42.81	57.86	92.83	178.49
9	Barbed wire or stonefencing	205.95	177.21	219.16	231.74	355.34	75.62	12.95	18.28	36.51	42.36
10	Construction of drainage channels	0.84	-	-	0.43	2.47	3.96	1.5	0.15	3.62	3.83
11	Loans for Redemption of prior debts	1.00	0.59	-	-	-	-	-	-	-	-
12	Others	172.72	113.53	60.93	91.66	141.66	142.42	62.18	70.84	46.06	83.7
	Total	***1253.23***	***1187.42***	***1038.36***	***1066.87***	***1781.76***	***1093.21***	***470.13***	***463.55***	**652.84**	**792.25**
	Scheme Loan										
1	Minor Irrigation	517.66	630.70	883.83	1304.09	1224.94	1178.6	1496.15	1572.75	1899.84	2086.31
2	Plantation & Horticulture	1092.17	1803.19	2237.07	2502.58	3294.19	3861.87	3613.84	4276.5	4637.57	5187.6
3	Agricultural Mechinary	215.78	362.98	464.04	831.73	875.39	582.01	676.34	890.04	1268.6	337.74
4	Dairy	147.71	121.94	264.02	714.38	109.58	12.46	24.65	23.14	24.7	12.55
5	Land Development	239.7	38.80	327.12	786.04	1291.96	1047.87	1688.53	1471.79	2308.23	2360.4
6	Poultry	57.24	142.94	270.22	399.80	992.78	991.58	1477.73	1554.53	1585.21	1228.97
7	Fisheries	32.67	58.32	85.56	80.06	162.84	97.32	202.82	200.32	229.85	375.44
8	Others	467.41	5.26	18.71	224.89	149.16	158.35	342.43	235.49	194.41	169.92
	Total	***2770.34***	***3164.13***	***4551.47***	***6861.57***	***8100.84***	***7930.06***	***9522.49***	***10224.56***	12148.41	11758.93

Source: *Kerala State Co-operative Agricultural & Rural Development Bank Ltd.*

Appendix - 4.71

Agency-wise Disbursement of Refinance Assistance by NABARD in Kerala

(Rs. in Crore)

Sl. No.	District	1993-94		1994-95		1995-96		1996-97		1997-98		1998-99		1999-2000		2000-01		2001-02	
		Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*	*15*	*16*	*17*	*18*	*19*	*20*
1	KSCARD Bank Ltd.	54.00	43.1	51.86	41.11	78.50	61.8	131.97	71.7	153.67	75.2	110.00	69.3	153.44	72.1	172.47	72.9	303.36	81.3
2	Commercial Banks	40.05	32.0	43.48	34.46	23.62	18.6	9.26	5.0	8.26	4.0	21.55	13.6	16.30	7.7	32.72	13.8	22.66	6.1
3	State Co-op. Banks	19.08	15.2	18.73	14.85	12.24	9.6	15.21	8.3	18.91	9.3	1.49	0.90	18.59	8.7	-	-	24.29	6.5
4	Regional Rural Banks	12.21	9.7	12.08	9.58	12.66	10.0	27.62	15.0	23.55	11.5	25.74	16.2	24.49	11.5	31.46	13.3	22.98	6.1
	Total:	***125.34***	***100***	***126.15***	***100***	***127.02***	***100***	***184.06***	***100***	***204.39***	***100***	***158.78***	***100***	***212.82***	***100***	***236.65***	***100***	***373.29***	***100***

Source: *NABARD (Statistical Statements)*

Appendix - 4.72

Purpose-wise Refinance by NABARD

(Rs. in Crore)

Sl. No.	District	1993-94		1994-95		1995-96		1996-97		1997-98		1998-99		1999-2000		2000-2001		2001-2002	
		Refinance	%	Refinance	%	Refinance	%	Refinance	%	Refinance	%	Refinance	%	Refinance	%	Refinance	%	Refinance	%
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*	*15*	*16*	17	18	19	20
1	Minor Irrigation	19.62	15.7	16.12	12.8	23.04	18.1	26.09	14.2	25.92	12.7	15.30	9.6	22.70	10.7	18.52	7.8	28.99	7.8
2	Land Development	1.39	1.1	2.70	2.1	3.97	3.1	9.24	5.0	16.29	8.0	14.02	8.8	16.18	7.6	23.56	10	27.16	7.3
3	Farm Mechanisation	4.29	3.4	5.09	4.0	3.78	3.0	3.79	2.1	7.41	3.6	2.12	1.3	3.76	1.8	3.12	1.3	1.69	0.4
4	Plantation & Horticulture	23.24	18.5	22.95	18.2	24.33	19.2	42.17	22.9	43.53	21.3	34.94	22.0	41.35	19.4	39.49	16.7	53.54	14.3
5	Dairy Development	3.82	3.0	5.14	4.1	6.74	5.3	10.42	5.7	12.73	6.2	12.45	7.8	13.49	6.3	14.16	6	14.49	3.9
6	Fisheries	2.05	1.6	1.52	1.2	2.09	1.6	2.22	1.2	2.10	1.0	2.56	1.6	2.22	1.0	2.79	1.1	2.55	0.7
7	Poultry	2.09	1.7	2.41	1.9	3.81	3.0	8.42	4.6	6.46	3.2	4.94	3.3	6.55	3.1	5.96	2.5	7.12	1.7
8	Bio-gas	0.34	0.3	0.15	0.1	0.11	0.1	0.10	0.1	0.11	0.1	0.16	0.1	0.06	0.0	0.21	0.1	0.71	0.2
9	I.R.D.P	12.88	10.3	14.51	11.5	6.33	5.0	8.67	4.7	9.55	4.7	8.62	5.4	8.26	3.9	-	-	-	-
10	Non Farm Sector	50.33	40.2	50.50	40.0	51.87	40.8	72.33	39.3	78.84	38.6	59.13	37.2	88.28	41.5	110.25	46.6	210.57	56.4
11	SC & ST Action Plan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.01	-	-	-
12	SGSY	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.64	2.4	7.4	2
13	Self Help groups	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.39	1.9	6.56	1.7
11	Agro Processing	5.08	4.1	5.04	4.0	0.84	0.7	0.46	0.2	0.53	0.2	1.09	0.7	0.06	0.0	-	-	-	-
12	Others	0.22	0.2	0.02		0.11	0.1	0.15	0.1	0.92	0.4	3.45	2.2	9.91	4.7	8.55	3.6	12.51	3.4
	Total	**125.34**	**100.0**	**126.15**	**100.0**	**127.02**	**100.0**	**184.06**	**100.0**	**204.39**	**100.0**	**158.78**	**100.0**	**212.82**	**100.0**	**236.65**	**100**	**373.29**	**100**

Source: *NABARD*

Appendix - 4.73

Details of Externally Aided Projects Implemented Under Irrigation during 2001- 02

(Rs.crore)

Sl. No.	Name of Project	Project Period	Date of Commencement	Date of Completion	Project Cost	Expenditure incurred upto 12/2002	Physical Achievement
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*
1	National Hydrology Project (World Bank assistance)	6 years	95-96	2001-2002	a. Original 35.93 (external - 32.19 GOK -3.74) (b) Revised - 28.81 crores	21.04	**Under surface water,** A. Civil Works completed i) River Gauge Sites - 12 ii) Meteorological stations - 9 iii) Site Equipment Store - 4 iv) Level 1 lab -8 v) Level II - lab - 1 vi) Buildings for new sites - 1 B. Equipments procured i) Atomic absorption spectro photometer - 1 ii) Bacteriological Incubator - 1 iii) Biochemical Oxygen demanded Incubator - 1 iv) AWLR - 32 v) DWLR -7 vi) SRG - 131 vii) Vehicles - 12 viii)Computers - 18 **Under Ground Water** C. Equipment procured i) Portable Compresser - 15 ii) Field monitoring kit - 30 iii) Digital Water Level Recorder - 30 iv) Protective Cover Piezometer-440 v) Computers package -Type D-30.5 vi) Vehicles - 21 D. Civil Works Completed 1. Level - II lab - 2
2	EEC assisted Kerala Minor Irrigation Programme	5 years	1993-94	2000 Dec.	52.04 (external - 41.30 GOK - 10.74)	18.90	Irrigation Potential created 6766 ha
3	Dutch assisted Community Irrigation Project	5 years	1993-94	2000 June	(a) original -21.70		
					(b) Revised 15.45 (External - 13.23, GOK - 2.00 beneficiary contribution- 0.23)	6.88	131 Borewells drilled

Source: Water Resources Department and Ground Water Depa

Appendix 4.74

Physical Achievement under Minor Irrigation Schemes

Area in hectares

Sl. No.	Name of Schemes	Physical Achievement (net area)				
		1997-98	1998-99	1999-00	2000-01	2001-02
1	*2*	*3*	*4*	*5*	*6*	*7*
1	Minor Irrigation - class -I	3213	2184	2766	924	714
2	Minor Irrigation - class -II	1514	1716	2458	821	587
3	Lift Irrigation	1161	378	943	512	160
4	Jaladhara Padhathy	562	735	--	--	--
5	EEC assisted M.I Programme	1282	1544	932	881	--

Source : Department of Water Resources

Appendix - 4.75

Physical Achievement under Ground Water Development Schemes

During 1999-00 to 2001-02

Sl.No	Items	Unit	1999-00	2000-01	2001-02
1	*2*	*3*	*4*	*5*	*6*
1	Detailed hydrological survey	Km^2	....	....	....
2	Siting and providing technical assistance for open wells	No.	511	245	142
3	Siting and construction of different types of drilled wells	No.	473	554	460
4	Creation of additional irrigation facilities	ha.	1036	1214	1010
5	Training of personnel	No.	28	7	2
6	Failed well compensation	(persons)	5	....	....
7	Drought sample analysis	No.	308	204	35
8	Water sample analysis	No.	....	....	....

Source: Gorund Water Department

Appendix - 4.76

Physical Achievements Under Command Area Development Programme

Sl No.	Item	Unit	Achievement till 1995-96	1999-00	2000-01	2001-02
1	*2*	*3*	*4*	5	6	7
1	Construction of field channels	ha.	121769	2593	2858	926
2	Construction of field drain	ha.	1994	21228	18456	8207
3	Warabandhi works	ha.	113556	5743	994	..
4	Training programme for farmers	No.	2684	305	400	129
5	Adaptive trails	ha.	19226	392	102	..
6	Large scale demonstration	ha.	39449	12082	10896	5201
7	Subsidy to small & marginal farmers	No.	313	..	104	40
8	Beneficiary farmers associations organised and registered	No.	3577	41	26	2
9	Detailed soil survey conducted	ha.	23312	3035	1750	..
10	Land levelling & shapping	ha.	22683	82	111	32
11	Bench mark and evaluation survey conducted	ha.	..	3084	309	1263
12	Crop estimation Survey	ha.	..	..	3243	..
13	Yield estimation survey on Principal Crops	No.	..	1742	1857	1348
14	Evaluation reports published	No.	..	3	3	3
15	Reclamation of water logged areas	ha.	..	3367	3649	1635

Source : CADA

Appendix - 4.77

Operations of CAMPCO from 1996-97 to 2001-2002

(Quantity in tonnes) *(Value in Rs. lakh)*

Sl. No.	Commodity	1996-97		1997-98		1998-99		1999-2000		2000-01		2001-02	
		Qty	Value	Qty	Value	Qty	Value	Qty	Value	Qty	Value	Qty	Value
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*
1	Arecanut												
	a)Procurement	27923	23003	27172	22142	28693	28246	23576	30930	35049	32491	41242	23859
	b) Sales	26055	22328	26990	23217	31323	31614	20940	29813	34451	33598	38370	24948
2	Cocoa Procurement												
	a) Cocoa Pods	17	1	17	1	14	1	98	6	13	0.52	13	0.39
	b) Wet Beans	4908	956	6339	1255	4851	960	5203	1008	3565	550	4769	717
	c) Dry Beans	3	2	18	13	17	12	0	0	3	2	82	51
3	Copper Sulphate Sales	250	138	289	155	253	124	221	117	301	146	366	188

Source : *CAMPCO*

Appendix - 4.78

National Co-operative Development Corporation

Release of Fund for Kerala from 1997-98 to 2001-2002

(Amount in Rs. lakh)

Sl.No.	Name of Schemes	1997-98	1998-99	1999-2000	2000-01	2001-02
1	*2*	*3*	*4*	*5*	*6*	*7*
1	Marketing Co-operatives					
	(a) Margin Money to Federation	--	167.000	203.000	-	300.000
	(b) Share Capital to PAMS	55.750	11.000	134.270	53.630	413.130
	(c) Agro Custom Hiring-cum-	-	-	-	-	-
	service Centre of	-	-	-	-	-
	RAIDCO (Margin Money)	-	120.000	70.000	-	-
	(d) Farmers Service Centre	-	-	142.400	544.400	161.850
2	Processing Unit					
	(a) Rubber	119.190	62.075	319.025	1967.06	55.145
	(b)Spices Powdering Unit	4.990	37.764	58.800	49.055	-
3	Storage	98.005	29.200	79.000	36.407	81.276
4	Fisheries (a) Marine	695.438	653.881	1335.484	1143.72	1659.36
	(b) Inland	116.441	239.363	208.466	-	-
	(c)Fish marketing cell	-	-	42.200	-	-
5	Coir Co-operatives	608.434	371.847	397.826	1057.087	79.320
6	Handloom Co-operatives	181.923	141.849	264.173	74.140	71.593
	(a) Spinning Mills	-	220.810	150.000	107.990	-
	(b) Powerloom	538.675	117.790	382.850	551.555	95.620
7	SC/ST Co-operatives	24.320	23.840	51.965	68.310	-
8	Sugar Factory	-	24.000	-	-	-
9	Computerisation	-	-	249.660	270.520	23.730
10	Tech/Promo Cell	-	-	-	-	-
11	Project Reports Study etc. Others	-	0.500	-	-	-
12	EEC-Coconut Development Project (KERAFED Project)	223.370	439.100	120.850	-	-
13	INTE-Co-operative Development Project (I.C.D.P)	455.456	1228.010	945.517	773.632	2094.527
14	Consumer Schemes	114.080	826.900	443.130	205.050	188.800
15	Student Stores	1.358	2.120	7.140	1.500	7.130
16	Animal Husbandry Department	-	-	-	-	-
	Poultry Co-operatives	-	-	-	-	-
17	Godown to dairy		9.800	2.500	-	-
	Total:	***3237.430***	***4726.849***	***5605.756***	***6904.056***	***5161.481***

Appendix - 4.79

NCDC- Activity-wise Cumulative Sanction/Release of Funds to Kerala

as on 2001-02

(Rs. In Crore)

Sl.No	Scheme	Total Release From 1962-63 to 1999-2000	% to toal releas	Total release 2000-01	% to toal releas	Total release 2001-02	% to toal releas
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*
1	Mktg. & Input Distribution	34.5944	9.26	5.98	8.66	8.75	16.95
2	Agro- Processing						
	a) Sugar	1.3944	0.37	-	-	-	-
	b) Spinning Mills	8.9671	2.40	1.078	1.56	-	-
	c) Oil Processing	74.2549	19.87	-	-	-	-
	d) Powerlooms	13.0193	3.48	5.515	7.99	0.956	1.85
	e) Rubber/others	14.1436	3.79	20.161	29.2	0.551	1.07
3	Storage	13.1777	3.53	0.364	0.53	0.813	1.57
4	Rural consumer / Student stores	16.6107	4.98	2.065	2.99	1.959	3.8
5	ICDP	58.4570	15.65	7.736	11.2	20.945	40.58
6	Weaker Section						
	a) Fisheries	77.4797	20.74	11.437	16.57	16.594	32.15
	b) Handloom	14.9801	4.01	0.741	1.07	0.716	1.39
	c) Coir	38.1826	10.22	10.571	15.32	0.093	0.18
	d) SC-ST Co-ops.	1.4981	0.40	0.683	0.99	-	-
	e) Poultry	0.0980	0.03	-	-	-	-
	f) Dairy	0.0250	0.01	-	-	-	-
7	Promotional/Development Projects	4.7612	1.27	-	-	-	-
8	computerisation	-	-	2.705	3.92	0.237	0.46
	Total:	***373.6438***	***100.00***	**69.036**	**100**	**51.614**	**100**

Source: *NCDC*

Appendix 4.80
DISTRICT WISE FLOW OF CREDIT

(Rs. in lakhs)

DISTRICT	Agriculture Advances		Total Advances to Priority Sector	
	2000-01	2001-02	2000-01	2001-02
Thiruvananthapuram	19936.77	23143.6	64330.5	69066.02
Kollam	20409.56	20524.06	93818.64	120217.22
Pathanamthitta	13681.10	11632.13	29087.57	28244.50
Alappuzha	13905.60	13312.04	36818.02	47505.64
Kottayam	32176.96	29177.52	67533.92	69720.43
Idukki	12283.22	14216.7	24972.91	30903.00
Ernakulam	20415.65	19343.91	75888.02	103615.42
Thrissur	19155.57	18711.75	56671.57	72390.31
Palakkad	25536.25	26302.41	50856.30	54159.49
Malappuram	21977.05	25712.20	42798.30	50142.90
Kozhikode	23774.45	27728.22	42722.64	48841.53
Wayanad	24458.90	24515.89	30383.95	31901.98
Kannur	25936.66	16077.19	79752.49	70199.18
Kasaragod	17016.16	15707.30	28974.62	27173.86
STATE TOTAL	**290663.90**	**286104.92**	**724609.45**	**824081.48**

Source: SLBC

Appendix 4.81

Activities of Major Co-operatives from 1999 to 2002

Schemes	Unit	1999-00	2000-01	2001-02
1. Operational activities by Rubber Mark				
(a) Natural rubber marketed	MTs	30332	35700	42522
	Value			
	Rs. lakhs	9585	11190	12934
(b) Fertilizer distributed	Rs. lakhs	767	571	575
(c) Processing natural rubber	MTs	1358	2620	2564
(d) Product manufacturing	MTs	5811	1582	5021
(e) Tread rubber production	MTs	120	169	254
2. Procurement of natural Rubber by RUBCO	MTs	28631	23135	1508
	Value			
	Rs. lakhs	8856	7108	1508
3. Sales of natural rubber				
(a) Domestic	MTs	21433	21274	6011
	Vlue			
	Rs. lakhs	6684	6461	1836
(b) Export	MTs	4032	10633	71
	Value			
	Rs. lakhs	1052	2895	349
4. Hawai chappal – sales turnover	Rs. lakhs	33	230	349
5. Business operation in consumer distribution				
(a) Retail business	Rs. lakhs	7052	8781	28109
(b) Whole Sale business	Rs. lakhs	3319	3248	3474
6. Performance of KERAFED				
(a) Copra procured	MTs	13518	7000	1778
(b) Sales - copra	MTs	--	11198	990
	Value			
	Rs. lakhs	--	13712	521
(c) Coconut oil procured	MTs	5109	5688	7512
	Value			
	Rs. lakhs	3321	2091	2935
(d) Coconut oil cake procured	MTs	--	1810	2711
	Value			
	Rs. lakhs	--	138	126

Source: Annual Reports of Major Co-operatives

Appendix 4.82

District-wise/Sector-wise PLP Projections during the year 2000-01 to 2003-04

Sector/Sub-Sector: Crop Loan

(Rs. lakhs)

Sl. No	District	2000-01			2001-02			2002-03			2003-04		
		PLP projections (Financial)	SAP target	SAP ach.	PLP projections (Financial)	SAP target	SAP ach.	PLP projections (Financial)	SAP target	SAP ach.	PLP projections (Financial)	SAP target	SAP ach.
1	Thiruvananthapuram	16769.15	12867.67	15234.22	20930.41	17720.76	18084.41	22417.97	19854.91	19520.60	23801.51	-	-
2	Kollam	8978.70	6195.84	14565.65	11234.70	7092.01	14310.45	11564.11	9057.59	11564.11	13317 87	-	-
3	Alappuzha	7062.21	6493.26	10051.48	8354.79	7550.91	10457.69	10161.68	8767.81	10161.68	11176 20	-	-
4	Pathanamthitta	8359.49	7369.82	9473.97	8145.51	8043.36	8804.30	10341.24	8125.10	9000.00	11415.84	-	-
5	Idukki	26920	13882.61	12726.18	32460.00	14768.03	10605.95	14640.84	12700.86	12560.00	15793.20	-	-
6	Kottayam	17005.85	13207.00	24931.00	18898.40	16108.75	22334.30	29520.00	19167.74	28000 00	35840 00	-	-
7	Ernakulam	10620.38	7933.54	8723.37	12752.37	10082.36	14522.85	31066.20	18829.09	17800 00	32856.13	-	-
8	Thrissur	17652.00	17432.00	16497.06	18349.00	20700.00	15577.48	24236.83	23459.68	24236.83	21707 11	-	-
9	Palakkad	16374.40	12320.90	21099.81	19658.00	17154.91	22442.30	19276.11	17324.15	19276.11	21589.60	-	-
10	Malappuram	19012.83	15157.83	19511.70	26718.22	18277.43	23029.06	29558.36	21838.41	22535.50	30534.34	-	-
11	Kozhikode	27700.00	15958.72	20966.88	27700.00	16526.75	24241.91	27700.00	21514.19	23145.99	29420.51	-	-
12	Wayanad	17978.49	13749.91	20509.39	24634.38	16578.95	19813.29	21846.76	19896.53	21846.76	28950.66	-	-
13	Kannur	19896.67	19168.61	89236.41	24383.11	23588.93	13706.92	27763.75	26567.53	26000.00	29232.00	-	-
14	Kasargod	11890.00	11099.40	14020.21	13959.00	12975.76	13166 29	14712.76	14619.16	14632.68	15448 40	-	-
	Total	**225620.17**	**173737.11**	**297547.33**	**268177.89**	**207168.91**	**231097.20**	**294806.61**	**241722.75**	**260280.26**	**321083.37**	-	-

Source: NANARD

Appendix - 4.83

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*
	1995-96			
1	Chocolate	466.1	496.1	471.8
2	Semi finished	827.9	596.6	608.5
3	Internal Sales for Nestle	3097.4	457.2	602.3
	1996-97			
1	Chocolate	517.3	509	517.0
2	Semi finished	642	969.3	696.2
3	Internal Sales for Nestle	2433.2	349.4	467.0
	1997 - 98			
1	Chocolate	687.2	627.1	695.9
2	Internal Sales for Nestle	-	454.1	698.6
	1998-99			
1	Chocolate	571.4	580.6	784.2
2	Internal Sales for Nestle	-	378.6	597.7
	1999-2000			
1	Chocolate	1386.42	1318	1591.6
2	Internal Sales for Nestle	-	285.6	463.6
	2000-01			
1	Chocolate	1732.86	1697.38	2082
2	Internal Sales for Nestle	-	359.6	424.9
	2001-02			
1	Chocolate	2457.93	1851.3	2441
2	Internal Sales for Nestle	-	293.17	354.9

Source : *CAMPCO*

Appendix - 5.1

Growth of Kerala Power System at a Glance - 1997, 2001 and 2002

Sl. No.	Particulars	Position as on		
		31-3-97	31-3-2001	31-3-2002
1	*2*	*3*	*4*	*5*
1	Installed Capacity -MW	1508.50	2420.68	2601.18
2	Maximum Demand _ (System) MW	1508.5	2316.00	2333.00
3	Generation Per Annum-M.U	5502.86	6967.00	7142.10
4	Import Per Annum -M.U	3298.38	5543.00	5699.53
5	Export Per Annum - M.U	1.97	107.41	101.61
6	Energy Sales Per Annum-M.U	7020.77	10319.00	8667.91
7	Energy Losses of Percentage of Energy Available for Sales	..	17.21	30.81
8	Per capita Consumption- Kwh	224.18	311.67	395.00
9	220 K.V Lines- CT Km	1175.99	2577.89	2577.89
10	110 K.V Lines- CT Km	2429.37	3465.92	3545.60
11	66K.V Lines- CT Km	2669.463	2911.37	2935.37
12	11 K.V Lines- CT Km	26444.14	29922.42	30803.52
13	L.T. Lines- CT Km	132864.00	187199.42	191745.34
14	Step up Transformer Capacity -MVA	1699.47	2251.48	2346.48
15	No. of EHT Sub Stations	157.00	190.00	194.00
16	Step down Transformer Capacity -MVA	7296.30	10305.80	10573.50
17	Distribution Transformers			
	a) Numbers	25940	31422	32585.00
	b) Capacity - MVA	3192.57	4088.94	4389.05
18	No. of Villages Electrified	1384.00	1384.000	1384.00
19	No. of Consumers(in lakhs)	49.23	64.460	66.61
20	Connected Load -M.W	6089.41	8551	9197.25
21	No.of Street Lights	612334.00	763912.00	797053.00
22	No.of irrigaition pumps	315149	392295.00	405900.00
23	**Total Revenue per Annum(Rs. Lakhs)**	**69187.61**	**174679.04**	**194599.67**

Source : *KSEB*

4/100/2003—7

Appendix - 5.2

Profile of on-Going Hydro-Electric Projects in the State

Sl. No.	Name of Schemes	District	Energy Potential (MU)	Project Sanctioned on	Major works commenced on	Original Estimated cost (Rs. In lakh)	Originally scheduled year of completion	Latest Estimated cost(Rs. In lakh)	Expenditure upto 3/2001 (Rs. In lakh)	Outlay for 2001-2002 (Rs.in Lakh)	Expected Year of commissioning
1	2	3	4	5	6	7	8	9	10	11	13
1	Malankara 10.5 MW	IDK	65	Au-86	Nov.99	780		4113.00	518.36	1100.00	Feb. 2003
2	Chembukadavu I SHE Scheme 2.75 MW	KKD	6.59	1989	Jul-00	1654(I+II)		1138.00	Nil	2100.00	2003
3	Chembukadavu II	KKD	9.03	1989	20-7-2001			1272.00	Nil		2003
4	Urmi I - 3.75 MW	KKD	9.72		Apr-01			1320.00	Nil		2003
5	Urumi II - 2.40 MW	KKD	6.28		Jun-01			1095.00	Nil		2003
6	Vadakkepuzha Diversion	IDK	12	24-4-01		131		514.00	143.08	140.00	2003
7	Vazhikkadavu Diversion	IDK	24	Jun-89	23-2-00	185		1599.00	1303.96	130.00	2003
8	Kuttiyadi Tail Race-3.75 MW	TCR	15	May-89	19-10-00	397		1494.00	814.74	500.00	Apr.03
9	Kuttiayar Diversion	IDK	37	Feb-89	May-92	214		949.00	381.32	100.00	Apr.03
10	Athirapally HE project-163 MW	TCR	386			10254		23048.00	Nil	2500.00	2006
11	Bhothathankettu (Private)-16MW		61.5	30-12-94		3283	31-3-99				2006
12	Karikkayam(SHEP) (pvt)-15MW.		72.7	1994		3860	31-3-99				2006
13	Kuttiyadi Addl.Extension(100	KKD	240		Nov.02	6200				2500	2005
14	Kutiyadi Augementation	EKM	223			1305				300.00	2004
15	Lower Meenmutty(3.5 MW)	EKM	9.9			495				50.00	2004

Source: K S E B

Appendix - 5.3

Power Projects and Power Generation as on 31-3-2002

Sl.No.	Name of Projects and Districts	Installed Capacity (MW)	Firm Power (MW)	Units Generated during 2001-02 (M.U) Gross Energy
1	Pallivasal - Idukki	37.50	32.5	120.3
2	Sengulam- Idukki	48.00	20.8	116.54
3	Neriamangalam- Idukki	45.00	27.0	271.39
4	Panniyar -Idukki	30.00	18.0	124.08
5	Peringalkuthu +LBE Thrissur	32+16	19.6 + 9.8	218.34
6	Sabarigiri- Pathanamthitta	300.00	153	1405.98
7	Sholayar- Thrissur	54	20.6	223.77
8	Kuttiady - + Kuttiyadi ExtensionWayanad	75+50	30.6+8.56	329.9
9	Idukki - Idukki	780	280.2	2754.79
10	Idamalayar-Ernakulam	75	43.3	332.59
11	Kallada- Mini-Kollam	15	6.05	63.32
12	Kanjikode Wind Farm - Palakkad	2	0.4	2.47
13	Peppara- TVPM	3	1.30	7.14
14	Lower Periyar- Idukki	180	56.3	561.67
15	Brahmapuram- Ernakulam	107	73	127.24
16	Madupetty - Idukki	2	0.7	1.59
17	Kakkad, Pathanamthitta	50	30	185.43
18	Kayamkulam (NTPC)	359.58	0	1316.23
19	Kozhikkode (KDPP)	128	102.4	293.85
20	Kasaragode Power Corporation	21.93	0	95.67
21	Maniyar (Private)	12	3.70	37.25
22	Kuthunal (Hydro-Captive)	21		31.10
23	BSES (gas-IPP)	157		240.45
24	Malampuzha	2.5		0.71
	Grand Total			8861.80

Source: KSEB

Appendix - 5.4
Average Tarrif Rate

Sl.NO	Consumer Category	Average Tariff(in paise/unit)	
		2000-01	2001-02
1	*2*	*3*	*4*
1	Domestic	90.10	109.42
2	Commercial	480.10	586.10
3	Public Lighting	121.11	153.00
4	Agriculture	71.11	92.26
5	Public Water Works	197.00	206.35
6	Industry (LT)	284.67	362.40
7	Industry (HT & EHT)	230.00	261.65
8	Railway Traction	198.48	198.66
9	License (HT & EHT)	151.94	182.21
10	Overall Average	181.00	224.00

Source: KSEB

Appendix - 5.5
Average Realisation from Sale of Power

(Ps per Unit)

Sl.No	Category of Consumer	Average Realisation (Including Elelctricity duty)	
		31-3-01	31-3-2002 (Provisional)
1	*2*	*3*	*4*
1	Domestic		
	(a) Paying Group	90.10	121.80
	(b) Non-paying Group		
2	Commercial	480.10	636.33
3	Public light	121.11	153.17
		71.11	99.28
		207.98	217.04
		284.67	388.60
		229.99	270.95
		151.94	182.21
		98.48	198.66

Appendix - 5.6

Pattern of Power Consumption and Revenue Collected During 2001-02 (Provisional)

Sl.No	Category	No.of Consumers as on 31-3-2002	Connected Load as on 31-3-2002 (M.W)	Energy Sold (M.U)	Consumption as % to total	Revenue Collected (Rs. Lakhs)	Revenue As percentage to Total
1	Domestic						
	(a) Paying Group	5169405	5039.40	3699.39	42.73	40478.44	20.80
	(b) Non-paying Group	60107	16.25	10.81	0.12		
2	Commercial L.T.	938209	1147.90	796.47	9.20	46681.41	23.99
3	Public lighting	2325	91.56	150.58	1.74	2303.79	1.18
4	Irrigiation & Dewatering L.T.	383913	691.72	183.21	2.12	1690.36	0.87
5	Public Water Works.L.T.	1775	32.03	307.32	3.55	6341.41	3.26
6	Industrial						
	(a) LT	104327	1103.53	591.96	6.84	21451.14	11.02
	(b)HT & EHT	1653	1024.86	2704.83	31.24	70861.27	36.41
7	Railway Traction	3	20.00	46.71	0.54	837.94	0.43
8	Bulk Supply to licencee	7	30.00	176.63	2.04	3218.40	1.65
9	Outside supply						
10	Miscellaneous					735.51	0.38
	Total	**6661724**	**9197.25**	**8667.91**	**100**	**194599.67**	**100**
	Total excluding NPG *	**6601617**	**9181**	**8657.1**			

Source: KSEB

*- NPG : Non Paying Group

Appendix - 5.7

Outlay and ExpenditureDuring the Various Plan Periods on Energy Development

(Rs. Lakh)

Plan Period	Outlay	% to total	Expenditure	Expenditure as percentage to Outlay
1	*2*	*3*	*4*	*5*
I Plan 1951-56	1185	39.5	1060	89.5
II Plan1956-61	2345	26.9	2192	93.5
III Plan1961-66	4356	25.6	6084	139.7
Annual Plans 1966-67 to1968-69	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 Plan1980-85	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	16.6	289005	108.2
X Plan 2002-07	350000	14.6		

Source: *State Planning Board*

Appendix - 5.8
Sources of Funding of the Power Programmes of K.S.E.B. for the year 2001-02
(Provisional)

(Rs. Lakh)

No.	Particulars	2000-01	2001-02
1	2	3	4
1. a)	Loan from State Government under Section 64 of Electricity Supply Act 1948	2500.00	1484
b)	Loan from Rural Electrification Corporation Ltd.	47349.18	52353.03
2	Borrowings under Section 65		
a)	Loan from LIC of India		
b)	Assistance from IDBI	14414.16	8046.89
c)	Loan from PFC	234.79	925.21
d)	Loans from Banks through REC	2207.73	388.63
e)	Loan from SIDBI	371.40	762.82
f)	Foreign Currency Loan	0.00	479.03
g)	OECF	513.62	357.06
3	Non-SLR Bonds	42446.00	
4	Receipts under OYEC Scheme/Service Connection Charges/Contribution from Panchayats		
5	Medium Term Loan	8609.00	
6	Borrowings and Reserves		
a)	Pension Fund/Provident Fund		
b)	Deposits and other Debit Heads		
7	Other Internal Resources		
8	Loan from Kerala PFC	1322.19	2488.86
9	EDC Kuttiyadi	970.16	434.64
10	EDC-PSP	9418.3	1311.25
	Total	**130356.53**	**69031.42**

Source: KSEB

Appendix - 6.1

Index of Industrial Production for the years 1999-2000 & 2000-01
Base (1980-81=100)

Sl. No.	Item	Weight	1999-2000	2000-01
1	2	3	4	5
	General Index		**351.243**	**360.2**
1	Manufacture of Food Products	8.82	147.19	143.990
2	Manufacture of beverages, tobacco and related products	1.46	157.937	128.195
3	Manufacture of Cotton Textiles	8.02	139.20	135.923
4	Manufacture of wool, silk and man made fibre textiles	1.26	92.888	72.496
5	Manufacture of Textile products	3.26	15.712	17.134
6	Manufacture of wood and wood products	1.35	44.103	43.781
7	Manufacture of Paper and Paper products	3.16	322.885	*
8	'Manufacture of basic chemicals and chemical products (Except products of Petroleum and Coal)	19.78	318.565	308.943
9	'Manufacture of rubber, plastic, petroleum and coal products and processing of unclear fuels.	10.06	197.920	193.725
10	Manufacture of non-metallic mineral products	3.42	151.561	175.005
11	Manufacture Basic Metals and Alloys Industries	3.43	82.450	92.422
12	Manufacture of metal products and parts except machinery and equipment	0.50	896.201	787.536
13	Manufacture of Machinery and equipments other than transport equipment	9.46	1911.615	2066.235
14	Manufacture of Transport equipment and parts	2.67	7.856	9.019
15	Other Manufacturing Industries	1.42	106.789	39.883
16	Electricity generation, transmission and distribution	21.93	189.160	194.694

Source: *Directorate of Economics and Statistics, Thiruvananthapuram*

* The selected units under this group have no production during the year 2000-01

Appendix . 6.2

Growth Of Working Factories And Average Daily Employment In Kerala - 1990-2001

	No.of Factories			No.of Employment		
Year	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	17177	542	17719	334143	109698	443841
1999	17955	549	18504	318729	117747	436474
2000*	17986	558	18544	336895	101855	438750
2001(p)	18068	553	18621	338764	96154	434918

Source : Directorate of Economics and Statistics , Thiruvananthapuram

* Revised

P - Provisional

Appendix 6.3

District Wise Distribution of Registered Working Factories in Kerala from 1990 to 2001

No	Districts	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000*	2001(P)
1	Thiruvananthapuram	655	606	712	864	855	809	850	868	892	923	898	894
2	Kollam	1179	1188	1415	1440	1425	1498	1654	1735	1787	1899	1927	1902
3	Pathanamthitta	292	586	329	366	442	363	382	430	470	498	526	559
4	Alappuzha	750	802	901	921	1098	1024	1059	1111	1140	1194	1211	1222
5	Kottayam	963	799	1098	1127	1126	1180	1247	1283	1293	1302	1294	1306
6	Idukki	278	289	292	302	251	290	303	305	303	341	325	327
7	Ernakulam	1931	1933	2274	2299	2294	2364	2543	2686	2700	2924	2931	2944
8	Thrissur	1692	1591	1939	1986	1987	1944	2084	2188	2364	2547	2557	2571
9	Palakkad	1220	1330	1574	1638	1692	1620	1774	1972	1966	2028	1993	1981
10	Malappuram	672	650	816	856	857	815	894	912	924	963	995	1004
11	Wayanad	122	125	129	126	128	128	151	180	176	139	140	143
12	Kozhikode	1386	1981	1565	1635	1703	1582	1656	1778	1777	1749	1764	1773
13	Kannur	1137	1182	1359	1369	1296	1473	1579	1614	1636	1738	1716	1726
14	Kasargode	171	193	205	203	151	241	258	274	291	259	267	269
	Total	**12448**	**13255**	**14608**	**15132**	**15305**	**15331**	**16434**	**17336**	**17719**	**18504**	**18544**	**18621**

Source: Directorate of Economics & Statistics, Thiruvananthapuram

* Revised

(p) Provisional

Appendix - 6.4

District wise Disitribution of Employment in Kerala 1995 to December 2001

Sl.No.	*District*	*No.of Employment*						
		1995	1996	1997	1998	1999	2000*	2001(p)
1	Thiruvananthapuram	28431	29013	28300	29582	29502	29123	29508
2	Kollam	103706	120973	139283	143957	134112	13714	135566
3	Pathanamthitta	8522	9302	9863	10880	11873	12325	13207
4	Alappuzha	22366	23719	24058	24839	25149	26359	26688
5	Kottayam	17482	17544	17692	18389	17436	17504	17954
6	Idukki	6269	7668	7958	7887	7982	8032	7832
7	Ernakulam	65626	70117	70340	71988	64949	64815	64982
8	Thrissur	40376	36361	38261	41338	37599	36206	36763
9	Palakkad	19552	23036	24329	24442	24425	24462	24381
10	Malappuram	9144	9869	9954	10344	12917	13357	13534
11	Kozhikode	30358	31506	28978	29371	26653	25822	25363
12	Wayanad	2377	2759	3387	2600	16983	17001	17101
13	Kannur	18595	20286	23278	23807	23810	23562	23791
14	Kasargode	2344	2914	4159	4417	3084	3168	3203
	TOTAL:	**375148**	**405067**	**428840**	**443841**	**436474**	**438750**	**439873**

Source:- Directorate of Economics and Statistics, Thiruvananthapuram

* Revised

Appendix 6.5

Industrial Disputes Arose, Handled, Settled etc. in Kerala (1996-97 to 2001-02)

Sl.No.	Particulars	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*
1	No. of disputes pending at the beginning of the year	3303	2811	3844	3287	2409	2241
2	No. of disputes that arose during the year	5274	5455	5272	5339	4123	3356
3	No. of disputes handled during the year(1+ 2)	8577	8266	9116	8626	6532	5597
4	No. of disputes settled during the year						
	a.By voluntary negotiation between parties	1340	1183	1228	1310	791	578
	b. By conciliation	1829	1621	1520	1630	1210	922
	c. By withdrawal	2150	1303	2575	2603	1834	1428
	d.Referred for Arbitration	6	0	0	0	0	0
	e. Referred for Adjudication	447	315	506	674	456	406
	f.Total number of disputes settled (a to e)	5772	4422	5829	6217	4291	3834
5	Number of disputes pending at the year (3 - 4)	2805	3844	3287	2409	2241	2263
6	Number of disputes led to						
	a. Strike (including pending previously)	26	31	16	28	21	9
	b. Lockout including pending previously	27	19	23	45	40	38
	c. Total (a + b)	53	50	39	73	61	47
7	No. of workers affected due to						
	a. Strike	20063	69898	4754	166603	198040	29827
	b. Lockout	14313	5285	7316	13661	8553	6700
	c. Total (a + b)	34376	75183	12070	180264	206593	36527
8	Mandays lost						
	a. Strike	185822	497078	369234	1507008	279914	392172
	b.Lockout	1247530	214043	719419	813197	1E+06	1405805
	c. Total (a + b)	1433352	711121	1088653	2320205	1E+06	1797977

Source: Office of the Labour Commissioner - Thiruvananthapuram

Appendix - 6.6

Central Sector Investment In Kerala

(Rs. crore)

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	319829	4717	1.50
1999	353660	5962	1.69
2000	381365	6828	1.79
2001	411869	9641	2.34

Source: *Reports of the Public Enterprises Survey, Government Of India*

Appendix-6.6(a)
Central Sector Investment & Employment in Selected states as on 31-3-2001
Gross Block(Rs crores) Employment (No.lakhs)

Name of State	As on 31-3-2001	
	Gross Block	Employment
Kerala	9640.87	0.38
Karnataka	11337.66	0.73
Andhrapradesh	27910.81	0.82
West Bengal	21601.66	2.8
Gujarat	31345.32	0.45
Maharashtra	72524.65	1.96
Orissa	22658.87	0.75
Uttarpradesh	26284.85	0.88
Assam	19900.36	0.52
Tamil Nadu	20335.19	0.67
All India	411868.65	17.42

Source: Survey of Public Enterprises, 2000-01

Appendix 6.7

Capital Investment and Employment in respect of Government of India Companies functioning in Kerala

(Rs. Lakh)

Sl.No.	Name of Company	Investment in capital as on		Employment as on (Nos)	
		31-3-01	31-3-02	31-3-01	31-3-02
1	2	4	5	6	7
1	Hindustan Organic Chemicals Ltd.	3342	3342	480	472
2	Hindustan Newsprint Ltd.	8253.99*	8253.99	1457	1253
3	Cochin Refineries Ltd.	91568	84931	1988	2005
4	Hindustan Latex Ltd.	1841.72*	1672.6	1933	1955
5	Vijayamohini Mills	1637.05*	1214.4	389.00	338
6	Hindustan Machine Tools	2024.87	3761.72	1134	994
7	Fertilisers and Chemicals Travancore Ltd.	104576.30*	90055.46	7198	6466
8	Alagappa Textiles (Cochin) Mills Ltd.	2296.61*	1744.47	888	830
9	Instrumentation Ltd.	3247.29	2781.44	432	379
10	Cannanore Spinning and Weaving Mills	657.44	657.44	198.00	190
11	Kerala Lekshmi Mills, Thrissur	2372.71*	1580.26	599.00	536
12	Hindustan Insecticides Ltd.	7950.78	6895.45	669.00	566
13	Cochin Shipyard Ltd.	37524.82	35247.05	..	2232
14	Indian Rare Earths Ltd. Kollam	8268.37	9318.23	..	572
15	Indian Rare Earths Ltd. Aluva	NA	NA	NA	510

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.in lakhs)

Sl.No.	Name of Company	Value of production		Sales Turnover	
		2000-01	2001-02	2000-01	2001-02
1	2	3	4	5	6
1	Hindustan Organic Chemicals Ltd.	30081*	17760.00	31128.68	18824.00
2	Hindustan Newsprint Ltd.	25402.00	NA	103923.00	96042.00
3	Cochin Refineries Ltd.	717414.00	588099.00	807024*	675825.00
4	Hindustan Latex Ltd.	10702.06	NA	21923.26	44457.29
5	Vijayamohini Mills	1423.25	1523.23	1346.62	1019.48
6	Hindustan Machine Tools	4255.00	5166.00	4147.00	5578.00
7	The Fertilisers and Chemicals	177216@	122614@	96618.87*	120196.38
8	Alagappa Textiles (Cochin Mills) Ltd.	2201.37*	1574.15	2217.14*	1587.24
9	Instrumentation Ltd.	2661.19	3013.99	3346.06*	3512.87
10	Cannanore Spinning and Weaving Mills	1327.19	1229.05	1546.46	1275.81
11	Kerala Lakshmi Mills, Thrissur	2465.46	2984.30	2365.11	1832.82
12	Hindustan Insecticides Ltd.	6262.83	6382.24	5648.09	7838.05
13	Cochin Shipyard Ltd.	30424.15	20929.28	32567.31	21025.22
14	Indian Rare Earths Ltd. Kollam	4314.84	4646.43	9196.28	7722.14
15	Indian Rare Earths Ltd., Aluva	2287.95	2697.21	3255.70	3015.00

Source: Reports of Companies Concerned

@ Value of Production includes other income

* Revised

Appendix 6.9

Production and capacity utilisation in Government of India Companies functioning in Kerala

Sl.No.	Name of Company	Name of Product	Unit	Installed capacity as on		Production during		Capacity utilisation %	
				31-3-2001	31-3-2002	2000-01	2001-02	2000-01	2001-02
1	2	3	4	5	6	7	8	9	10
1	Hindustan Organic Chemicals Ltd.	Phenol	M.T.	40000	40000	39054	28562	97.64	71.41
		Acetone	M.T.	24640	24640	24397	17918	99.01	72.72
		H2O2(100%)	M.T.	5225	5225	5903	5475	112.98	104.78
		Propylene	MT	Produced for internal consumption and not for sale		27132	17348	Nil	Nil
		Cumene	MT			51373	35338	Nil	Nil
2	Hindustan News Print Limited	Newsprint	MT	100000	100000	104004	104004	104	104
3	Cochin Refineries Ltd.	Petroleum/Petrochemical Products- Crude, Thruput(MMT)	Million MT	7.5	7.5	7.52	6.8	100.26	90.67
4	Hindustan Latex Ltd.	1.Condom	MPcs	576	670	646.65	691.62	112.27	103.23
		2.Gloves	MPcs	24	24	..	..	..	..
		N.S.OCP	M.Tab	30	30	6.39	15.48	21.3	51.6
		Str.OCP	M.cycles	30	30	45.5	46.09	151.67	153.63
		Hydroshunt	MPcs	5000	5000	1952	736	39.04	14.72
		Coper-T	MPcs	4	4	1.01	1.23	25.25	30.75
		Blood Bag	MPcs	2	2	1.51	2.17	75.5	108.5
5	Vijayamohini Mills	Yarn	Lakh Mtrs.	28796 (Spindles)	28796 (Spindles)	11.90 (Lakh Mtrs.)	10.80 (Lakh Mtrs)	..	..

Sl.No.	Name of Company	Name of Product	Unit	Installed capacity as on		Production during		Capacity utilisation %	
				31-3-2001	31-3-2002	2000-01	2001-02	2000-01	2001-02
1	2	3	4	5	6	7	8	9	10
6	HMT Ltd.	Machine Tools,Printing and cutting machines, accessories and spares	Nos.	431	363	233	256	54.06	70.52
7	Fertilizers & Chemicals Travancore Ltd. (Ammonia/Urea Plants in Cochin Division were shut down since July 2001)	Udyogamandal division							
		1. Amonium Sulphate	Mt.	225000	225000	238066	220945	105.81	98.2
		2.Factamfos Cochin division	MT	633500	633500	838108	826119	132.3	130.41
		3.Urea	MT	330000	330000	275170	22260	83.38	6.75
		5.Caprolactam	MT	50000	50000	52541	48865	105.08	97.73
8	Alagappa Textiles(Cochin) Mills	Yarn-Cotton/Polyster Cotton, Polyster Viscose	Kgs	49532 (Spindles)	49532 (Spindles)	20.77*(lakh kgs)	16.84 (Lakh Kgs)	..	..
9	Hindustan Insecticides Ltd.	Tech.DDT	Mt	..	..	860.28	706.12	..	..
		Form DDT	Mt	..	..	1345.95	1316.4	..	..
		Tech Endosulfan	Mt	..	..	958.8	796.36	..	..
		Form Endosulfan	KL	..	..	528.00	783.32	..	..
		Dicofol . Tech.	Mt	..	..	107.80	107.11	..	..
		Dicofol-Form	Mt	..	..	37.663	73.98	..	..
		Hilban	Mt	..	..	..	172.45	..	..
10	Cochin Shipyard Ltd.		DWT	150000	150000	54384	55200	36.26	36.8
		Ships repair	GRT	1 Million	1 Million GRT				
11	Instrumentation Ltd.	Process Control Valves	Nos.	7500	7500	2620	2104	34.93	28.05
		Safety Relief & Pressure reducing valves	Nos.	2000	2000	505	347	25.75	17.35
		Orifica Plates/Flow measuring devices	Nos.	500	500	90	184	18.00	36.80

Sl.No.	Name of Company	Name of Product	Unit	Installed capacity as on		Production during		Capacity utilisation %	
				31-3-2001	31-3-2002	2000-01	2001-02	2000-01	2001-02
1	2	3	4	5	6	7	8	9	10
		Misc items & accessories	(Rs.Lakhs)	As required		1106	1569	..	..
12	Cannanore Spinning & Weaving Mills	Yarn in different counts	Lakh Kgs.	24800 (Spindles)	24800 (Spindles)	14.99	13.91		
13	Kerala Lakshmi Mills	Yarn	Lakh Kgs.	41328 spdls	41328 spdls	21.88	20.21		
14	Indian Rare Earths Ltd., Kollam	Ilmenite	Mt.	154440	154440	137513	138951	89.04	89.97
		Zircon	Mt.	11220	11220	14878.5	13075	132.61	116.53
		Rutile	Mt.	9900	9900	8302.5	7212.2	83.86	72.85
		Sillimanite	Mt.	7080	7080	8645.25	6759.4	122.11	95.47
		Leucoxene	Mt.	1440	1440	452.25	477.55	31.41	33.16
		Zirflor	Mt.	5000	5000	3813.4	5281.7	76.27	105.63
		Microzir	Mt.	800	800	76.52	111.62	9.57	13.95
15	Indian Rare Earths Ltd.Aluva	RE Chloride	Tone	5000	5000	1515	242.5	30.3	4.84
		Trisodium Phosphate	Tone	5600	5600	3059	424.6	54.63	7.57
		RE Fluoride	Tone	180	180	1323	95.6	735.00	53.11
		AdU	Kg.	..	..	8162	8760	..	..

Source: Report of Companies concerned

Appendix - 6.10

District wise break up of Medium and Large Scale Industries in Kerala as on 31-03-2002

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	14	1	4	60	81
2	Kollam	2	7	2	..	18	29
3	Alappuzha	1	6	..	3	24	34
4	Kottayam	1	2	2	..	22	27
5	Pathanamthitta	..	1	1	1	5	8
6	Idukki	..	..	1	1	13	15
7	Eranakulam	8	8	1	4	208	229
8	Thrissur	2	8	1	7	38	56
9	Palakkad	2	2	2	6	67	79
10	Malappuram	..	5	1	2	18	26
11	Kozhikode	..	3	1	1	23	28
12	Wayanad	..	..	..	..	5	5
13	Kannur	1	6	3	..	13	23
14	Kasargod	..	1	..	..	1	2
	TOTAL:	**19**	**63**	**16**	**29**	**515**	**642**

Source: *Kerala State Industrial Developmet Corporation (KSIDC), Thiruvananthapuram*

4/100/2003—8A

Appendix - 6.11

Units assisted by K.S.I.D.C AS ON 31-3-2002

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	38	13461	19867
2	Kollam	4	9	2890	2403
3	Alappuzha	3	27	2150	25644
4	Kottayam	1	16	644	19886
5	Pathanamthitta	..	6	..	938
6	Idukki	..	14	..	5541
7	Ernakulam	4	151	20048	181231
8	Thrissur	4	37	1927	20870
9	Palakkad	1	70	1373	79191
10	Malappuram	..	21	..	6149
11	Kozhikode	3	16	1593	5362
12	Wayanad	..	6	..	1132
13	Kannur	1	10	220	17458
14	Kasargode	1	1	87	178
	TOTAL:	**31**	**422**	**44393**	**385850**

Source : KSIDC, Thiruvananthapuram

Appendix - 6.12

Capital Invested and Employment in respect of Govt. owned Companies

Sl.No.	Name of Company	Capital Invested (Rs. in lakhs)		Employment (Nos.)	
		as on 31-3-2001	as on 31-3-2002	as on 31-3-2001	as on 31-3-2002
1	*2*	*3*	*4*	*5*	*6*
1	Kerala Electrical and Allied Engineering Co. Ltd, Kochi	5910.49*	5838.63	1356	1325
2	Kerala State Electronics Development Corporation Ltd, Thiruvananthapuram	25529.12*	27157.58	2116	1653
3	Malabar Cements Ltd, Palakkad	3047.42*	3033.74	1081	1086
4	Kerala Clays & Ceramics Products Ltd, Kannur	131.82	131.82	383	384
5	Sitaram Textiles Ltd, Thrissur	2516.02	2618.48	393	382
6	Kerala Hitech Industries Ltd, Thiruvananthapuram (KELTEC)	3151.44*	2056.8	260	256
7	Trivandrum Spinning Mills Ltd, Thiruvananthapuram **	1366.75	..	284	..
8	Autokast Ltd, Alappuzha	5446.89*	5848.27	478	466
9	Kerala Automobiles Ltd, Thiruvananthapuram	1288.43*	1227.33	394	384
10	Steel Industrials Kerala Ltd, Thrissur	6945.88*	7216.89	375	357
11	Kerala State Textile Corporation Ltd, Thiruvananthapuram	3286.47*	3543.52	1278	1213
12	Kerala Minerals and Metals Ltd, Kollam	3093.27	3093.27	1947	1328
13	Steel and Industrial Forgings Ltd, Thrissur	1461.00	1461.00	259	260
14	Scooters Kerala Ltd, Alappuzha	472.00	472.00	73	70
15	Foam Mattings India Ltd, Alappuzha	498.73	515.23	185	189
16	Kerala State Drugs and Pharmaceuticals Ltd., Alappuzha	4477.47	4772.70	..	408

Source:- Reports of Companies Concerned

* Revised

** Not working Since 22-9-98

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	
		2000-01	2001-02	2000-01	2001-02
1	*2*	*3*	*4*	*5*	*6*
1	Kerala Electrical and Allied Engineering Company Ltd, Kochi	4292.00*	3109.76	4337.87	3284.15
2	Kerala State Electronics Development Corporation Ltd, Thiruvananthapuram	4028.17*	4633.98	7160.46	6927.84
3	Malabar Cements Ltd, Palakkad	13606.54*	12867.52	13895.62	12185.62
4	Kerala Clays & Ceramics Products Ltd, Kannur	328.68*	302.75	346.96	296.29
5	Sitaram Textiles Ltd, Thrissur	951.62*	629.82	941.68*	..
6	Kerala Hitech Industries Ltd, Thiruvananthapuram	505.36	NA	694.78*	713.11
7	Trivandrum Spinning Mills Ltd, Thiruvananthapuram **	..	..	1.17	..
8	Autokast Ltd, Alappuzha	1012.46*	1193.47	1066.01	1244.36
9	Kerala Automobiles Ltd, Thiruvananthapuram	3666.32	4183.93	3715.98*	4429.51
10	Steel Industrials Kerala Ltd,Thrissur	NA	NA	1821.39	1715.84
11	Kerala State Textile Corporation Ltd, Thiruvananthapuram	4679.09*	3941.28	4661.46*	3907.46
12	The Kerala Minerals and Metals Ltd, Kollam	17162.50	17288.1	31787.20*	29797.97
13	Steel and Industrial Forgings Ltd, Thrissur	1200*	1542.00	1366.00 *	1570.00
14	Scooters Kerala Ltd, Alappuzha	157.10	75.61	155.70	114.00
15	Foam Mattings India Ltd, Alappuzha	686.90	NA	600.25*	421.54
16	Kerala State Drugs and Pharamaceuticals Ltd.Alappuzha	NA	NA	2911.78	2137.59

Source: *Reports of the Companies Concerned*

*Revised

** Not Working Since 22-9-98

Appendix - 6.14

Production and Capacity Utilization of Government Owned Companies in Kerala during 2000-01 and 2001-02

Sl. No.	Name of Company	Name of products	Unit	Installed Capacity as on		Production During		Capacity Utitlization %	
				31-3-2001	31-3-2002	2000-01	2001-02	2000-01	2001-02
1	2	3	4	5	6	7	8	9	10
1	Kerala Electrical and Allied Engineering Co. Ltd, Kochi	Distribution of Transformers	KVA	120000	120000	254071	210032	211.73	175.03
		Steel Structures	TON	1200	1200	113	415	9.42	34.58
		HRC Fuses	Nos	120000	120000	22774	..	18.98	..
		Cast Iron Specials	TON	1500	1500	..	..		
		Alternators (TL)	Nos	1500	1500	1096	455	73.07	30.33
		Electrical & Wiring Accessories	Nos	133000	133000	211117	200427	158.73	150.7
		Alternators(G.P) & D.G Sets	Nos	3000	3000	865	687	28.83	22.9
2	Kerala State Electronics Development Corporation Ltd.	Producition reported in terms of value and not in terms of quantity							
3	Malabar Cements Ltd, Palakkad	Portland Cement	M.T	420000	420000	437537*	39371.0*	104.18	93.74
4	Kerala Clays and Ceramic Products Ltd, Kannur	ChinaClay	M.T.	N.A	N.A	8890	9505	0	0
		Bricks	Nos	N.A	N.A	213419	174277	0	0
		Laterite	M.T.	N.A	N.A	27719	16323	0	0
5	Sitaram Textiles Ltd, Thrissur	Cotton Yarn	Kgs	12064 (spindles)	12064 (spindles)	593341	542775	0	0
		Fabrics	Mtrs	40000	40000	440348	44666	110.08	111.67
6	Kerala Hitech Industries Ltd,	Not Available							
7	**Trivandrum Spinning Mills Ltd, Thiruvananthapuram	Not working with effect from 22-9-1998							
8	Autokast Ltd, Alappuzha	GI Castings	MT	..	..	2075.53*	2824.32	12.89	14.41
		SGI Castings	MT	23000	23000	888.50*	489.19		
		Steel Castings	MT	..	..	..	..	..	..

1	2	3	4	5	6	7	8	9	10
9	Kerala Automobiles Ltd, Thiruvananthapuram	Autorickshaw	Nos	7200	7200	5676	6460	78.83	89.72
10	Steel Industrials Kerala Ltd, Thrissur	Structural Steel Fabrication	MT	3000	3000	270*	119.58	9.00	3.99
		Generation of ferrous scrap by breaking ships	MT	10000	10000	0	0	0	0
		Cast Iron	MT	1200	1200	447	397	37.25	33.08
11	Kerala State Textile Corporation Ltd, Thiruvananthapuram	Cotton/Blended Yarn	Spindles	86236	86236	28.16 (Kg lakh)	27.05 (Kg.lakh)	0	0
12	Kerala Minerals & Metals Ltd, Kollam	Titanium Dioxide	MT	22000	22000	25426	25612	115.57	116.42
13	Steel and Industrial Forgings Ltd, Thrissur	Steel Forgings	MT	7500	7500	1565	2063	20.87	27.51
14	Scooters Kerala Ltd, Alappuzha	Iron & Steel Products			production details not reported				
15	Foam Mattings (India) Ltd, Alappuzha	Mattings Plant	M2	523000	523000	129000	131643	24.67	25.17
		Powerloom Plant	M2	190000 (Single shift)	190000 (Single shift)	0	15168	0	7.98
		Latex backing plant	M2	1200000 (Single shift)	1200000 (Single shift)	752000	498663	62.67	41.56
		Dyeing Plant	MT	840	840	223.4	274.39	26.60	32.67
16	Kerala State Drugs & Pharmaceuticals Ltd.Alappuzha	Tablets	Lac Nos	2514	2514	2662.9	2433.2	105.92	96.78
		Powders	Lac Pkts	0	0	7.16	0	0	0
		Capsules	Lac Nos	149	149	117.32	256.84	78.74	172.38
		Liquids	Lac Ltr.	2.25	2.25	0.72	2.58	32	114.67
		Parentrals							
		1.Transfusion	Lac Nos.	4.5	4.5	0	0	0	0
		2.Vials	Lac Nos.	15	15	5.35	0.56	35.67	3.73
		3. Ampoules	Lac Nos.	60	60	37.48	51.87	62.47	86.45
		4.Vitamin A	Mmu	30	30	4.4	1.0472	14.67	3.49

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. Lakh)		Employement (Nos.)	
		as on2000-01	as on 2001-02	as on 2000-01	as on 2001-02
1	*2*	*3*	*4*	*5*	*6*
1	Traco Cable Company Ltd, Kochi	2644.63*	2677.01	717	714
2	Travancore Titanium Products Ltd, Thiruvananthapuram	176.75	176.75	1440	1380
3	The Travancore Cochin Chemicals Ltd, Kochi	6727.49*	7144.45	1070	1000
4	Keltron Electroceramics Ltd, Malappuram	501.47	502.64	101	101
5	The Travancore Cements Ltd, Kottayam	50.00	50.00	544	544
6	Keltron Counters Ltd, Thiruvananthapuram	469.84*	1614.07	279	265
7	The Metal Industries Ltd, Shoranur	235.13*	187.38	105	106
8	United Electrical Industries Ltd, Kollam	399.03	NA	884	NA
9	The Travancore Sugars and Chemicals Ltd.	238.99*	229.51	150	153
10	Forest Industries (Travancore) Ltd, Aluva	230.32	248.51	132	134
11	Keltron Magnetics Ltd, Kannur	272.36	308.84	26	29
12	Transformers and Electricals Kerala Ltd.	1107.45	NA	1452	NA
13	Keltron Resisitors Ltd, Cannanore	244.66	243.57	48	47
14	Keltron Component complex Ltd.	1681.05	1929.85	NA	334
15	Sidkel Television Ltd.		Not Functioning since 30-4-2001		
16	Keltron Crystals Ltd.,	886.24	998.13	NA	87

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.Lakh)

Sl. No.	Name of Company	Value of Production		Sales Turnover	
		2000-01	2001-02	2000-01	2001-02
1	*2*	*3*	*4*	*5*	*6*
1	Traco Cable Company Ltd, Kochi	8983.85*	3805.07	9086.42*	3430.70
2	Travancore Titanium Products Ltd, Thiruvananthapuram	11037.12*	9834.48	11086.53	9248.97
3	The Travancore Cochin Chemicals Ltd, Kochi	10431.00	10868.00	10723.36*	10988.26
4	Keltron Electroceramics Ltd, Malappuram	344.85*	278.21	541.04	378.35
5	The Travancore Cements Ltd, Kottayam	2508.89*	2807.25	2478.15	2798.25
6	Keltron Counters Ltd, Thiruvananthapuram	280.03*	425.52	349.13	486.02
7	The Metal Industries Ltd, Shoranur	141.44*	86.80	147.00*	220.00
8	United Electrical Industries Ltd, Kollam	1546.87	NA	1502.33	NA
9	The Travancore Sugars and Chemicals Ltd.	198.55	380.46	113.62	320.76
10	Forest Industries (Travancore) Ltd, Aluva	424.00*	329.00	509.44	340.78
11	Keltron Magnetics Ltd, Kannur	146.79*	161.01	178.38	183.83
12	Transformers and Electricals Kerala Ltd.	5770.48	NA	5554.71	NA
13	Keltron Resisters Ltd., Cannanore	164.75*	149.30	189.79	170.68
14	Keltron Component Complex Ltd.	2719.36	2237.55	2819.37	2693.29
15	Sidkel Television Ltd.				Not functioning
16	Keltron Crystals Ltd.	86.04	67.96	96.57	74.11

Source: Reports of companies concerned

* Revised

Appendix 6.17

Production and Capacity Utilization of Government Majority Companies in Kerala during 2000-01 and 2001-02

Sl. No.	Name of Company	Name of Products	Unit	Installed Capacity as on		Quantity of Production during		Capacity Utilization %	
				31-3-01	31-3-02	2000-01	2001-02	31-3-01	31-3-02
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*
1	Forest Industries (Travancore) Ltd, Aluva	Wooden Furntiure and Joineries	m^3	1500	1500	682.86*	530.098	45.52	35.34
2	The Travancore Cements Ltd	1.White Cement	M.T	30000	30000	19475	22355	64.92	74.52
		2.Grey Cement	M.T	0	0	117	0	0	0.00
		3.Cement paint	M.T	2500	2500	1542	1618	64	65.6
		3.Cement Primer	M.T			58	22		
		Emulsion Paint	Lts.			24685	3515	–	–
3	Keltron Counters Ltd.	Counters	Nos.	0	0	323266	336311	..	..
		Defence	Nos.	.	.	4309	1764	..	..
		Electronic Energy meters	No	0	0	8000	11930	0	0
4	Keltron Magnetics Ltd.	M.P.P. Capacitors	No	720000	720000	610713*	611702	84.82	84.96
		Servo controlled Voltage Stabilisers	"	100	100	11	6	11	6
		UPS	"	50	50	0	0	0	0
5	Travancore Titanium Products Ltd, Thiruvananthapuram	Titanium Dioxide	M.T	15000	15000	14624	13311	97.49	88.74
6	Travancore Sugars and Chemicals Ltd.	Spirit	B.L	6.21(Lakh)	6.21 (Lakh)	3.62	2.63	58.29	42.35
		I.M.F.L.	B.L.	28.20	28.2	2.30	6.92	8.16	24.54
7	Traco Cable Company Ltd, Kochi	AAC / ACSR/AAAC	IBM	1500 MT	1500.00	1529.38*	255.176	101.96	17.01
		PVC Covered Conductors	IBM	32.918364 MCM	32.918364 MCM	0.654MCM	0.606MCM	1.99	1.84
		JFTC	IBM	2.5LCKM	2.5LCKM	0.50LCKM	0.59 LCKM	20	23.6
		JFTC	TVLA	15 LCKM	15LCKM	11.91 LCKM	6.67 LCKM	79.4	44.47
8	The Metal Industries Ltd, Shoranur	1.Mammatties	MT	272	272	64.78	44.68	–	–
		2.All Axes	MT			7.50	7.41	–	–
		3.Pick Axes	MT			36.34	17.09	–	–
		4.Crow Bar	MT			13.30	8.34		
		5.Sledge Hammer	MT			103.11	43.66		
		6.Others	MT			18.35*	8.76	–	–

1	2	3	4	5	6	7	8	9	10
9	United Electrical Industries Ltd, Kollam	KWH Meters	Nos	300000	300000	355377	0	0	0
		Motor Control gears	Nos	4500	4500	1100	0	0	0
		Other products	Nos.	0	0	251	0	0	0
10	The Travancore Cochin Chemicals Ltd, Kochi	Caustic Soda Lye	MT	66000	66000	58631	54141	88.83	82.03
		Chlorine Products	MT	58476	58476	51947	47969	88.83	82.03
11	Transformers and Electricals Kerala Ltd, Ernakulam	1.Power Transformer	MVA	4500	4500	2771	0	6158	0
		2.Current and Potential Transformers	No	1000	1000	540	0	54	0
		3.Gas Circuit Breakers	No	100	100	31	0	31	0
12	Keltron Electroceramics Ltd, Malappuram	1.Ceramic Capacitors	LakhNos	1100	1100	996 &	668.02	90.62	60.73
		2. N.T.C.Thermistors	Nos	10	10	1.36	2.28	13.6	22.8
		3.Buzzers/Ringers/	Nos	5	5	2.5	0.85	50	17
		4.Metaloxide varistors	Nos	20	20	0.09	13.94	0.45	69.7
		5. Surge protector	Nos	0	0	232	111	0	0
		6.Transducer	Nos	0	0	0	559	0	0
13	Keltron Crystals Ltd., Cannanore	Piezo Electric Quartz Crystals	Nos(000)	2084	2084	335	238	16.08	11.42
		Lead Tabs for capacitors	M.Nos	240	240	88	107	36.67	44.58
14	Keltron Resistors Ltd., Cannanore	Carbon & Metal Film Resisitors	M.Nos	242	242	108	123	44.63	50.83
15	Sidkal Television Ltd.				Not functioning				
16	Keltron Component Complex Ltd.	Al.Electrolytic capacitors wheel chair & Tricycles	M.Pcs.	150	150	140.01	120.22	93.34	80.95

Source: Reports of the companies concerned

* Revised

Appendix 6.18

Sectorwise summary of Performance of Public Sector Entrerprises in Kerala : 2001-02

(Rs.in lakh)

Sl.No.	Sector	No.of Units	Total Empit.	Paid up capital	Capital Invested	Units on profit		Units on loss		Net profit/loss(-)	No.of dividend declared enterprises	Contribution to exchequer	
						No.of Units	Amount	No.of Units	Amount			Central	State
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	Development & Infrastructural	17	6102	65275.26	306627.78	10	4855.67	7	-1428.20	3427.47	4	0.13	190.00
2	Ceramics & Refractories	3	851	1347.50	1875.23	0	40.92	2	-151.65	-110.73	1	35.38	19.83
3	Chemical Industries	11	6415	9717.69	26749.68	4	11377.96	3	-1572.24	9805.72	1	11814.51	2321.90
4	Eelectrical Euipment	5	3868	9652.65	16624.91	2	556.07	3	-2271.88	-1715.81	..	2053.90	196.14
5	Electronics	9	2515	14101.21	34795.88	1	1.93	6	-4786.02	-4784.09	..	1272.75	44.35
6	Engineering	11	3256	10493.20	27219.19	4	1834.87	7	-1909.64	-74.77	1	1581.81	106.89
7	Plantation & Agro Based Units	14	10678	9250.96	14297.86	6	745.87	7	-914.72	-168.85	2	187.08	358.71
8	Textiles	4	2029	3277.97	7974.26	.	0.00	4	-994.39	-994.39	.	466.34	168.52
9	Wood Based Industries	3	575	313.80	2704.14	..	0.00	3	-187.99	-187.99		44.70	27.49
10	Traditional Industries	7	22485	21733.86	30391.37	..	0.00	6	-4002.45	-4002.45	.	48.41	44.98
11	Trading Units	3	5010	992.90	47369.63	2	1140.07	1	-5151.60	-4011.53	2	29262.49	877.19.38
12	Welfare Agencies	8	489	9333.04	18935.00	3	83.02	4	-82.40	0.62	..	0.00	0.00
13	Public Utilities	6	60327	340742.95	1107310.21	2	6329.01	4	-26531.69	-20202.68	.	0.00	0.57
14	Others*	11	61	65.79	76.17	1	2.66	..	0.00	2.66		0.00	0.00
	Total	112	124661	496298.78	1642951.31	36	26968.05	56	-49984.87	-23016.82	11	46767.50	91201.56
	Less:Statutory Bodies	9	61737	355782.74	1213714.86	2	6388.01	5	-26576.14	20188.13	.	0.00	2.73
	Companies	103	62924	140516.04	429236.45	34	20580.04	51	-23408.73	-2828.69	11	46767.50	91198.83

** The given figures are for two units that are working*

Note:- Column 3 = Column 7 + Column 9. Diferencne if any is due to information not available or units not yet commenced commercial activities

Appendix - 6.19

Details of Joint Stock Companies working in Kerala

Sl.No	Particulars	Private Limited	Public Limited	Total
1	2	3	4	5
1	Number of Joint Stock Companies in Kerala as on 31.3.2001	10730	1458	12188
2	Number of Companies newly registered during 2001-02	664	32	696
3	Number of Companies transferred from other States during 2001-02	Nil	Nil	Nil
4	Number of Companies wound up/dissolved / struck off/amalgamated during 2001-02	510	51	561
5	Number of Companies transferred to other States during 2001-02	4	2	6
6	Net addition to the total No.of Joint Stock Companies in Kerala during '2001-02 (Item (2+3)- (4+5)	179	(-)50	129
A	Number of Companies converted from public to private	0	0	40
B	Number of companies converted from Private to Public	0	0	11
7	Total No.of Joint Stock Companies in Kerala as on 31.3.'2002 (Item 1+6)	10909	1408	12317
8	Total No.of Government Companies registered in Kerala as on 31-3-2002	60	49	109
9	Total No.of Government Companies registered in Kerala during 2001-2002	Nil	Nil	Nil
10	No.of government Companies wound up during 2001-02	Nil	Nil	Nil
11	Net addition to the total No.of Government Companies in Kerala during2001-02 (Item 9-10)	Nil	Nil	Nil
12	Total No.of Government Companies in Kerala as on 31.3.02 (Item 8+11)	60	49	109
13	Name of Government Companies, newly registered in Kerala during2001-02	0	0	0
14	Name of Government Companies, wound up during 2001-02	Nil	Nil	Nil
15	No.of other major companies wound up during 2000-01	Nil	Nil	Nil

Source: Registrar of Joint Stock Companies, Kochi.

Appendix 6.20

District-wise Details of Small Scale Industrial Units Registered in Kerala during the year 2001-02

District	Number of SSI Units promoted by					Investment (Rs.in lakhs)	Value of goods and services produced (Rs.in lakhs)	Employment Provided (Number)	Total number of units commenced commercial operations
	SC	ST	Women	Others	Total				
1	2	3	4	5	6	7	8	9	10
Thiruvananthapuram	25	2	510	1343	1880	2083.13	7182.90	7119	1880
Kollam	72	0	567	1411	2050	1850.40	3269.80	4153	2050
Pathanamthitta	0	0	0	1018	1018	422.08	1536.40	2626	1018
Alappuzha	42	1	526	1106	1675	1352.03	6152.62	4596	1675
Kottayam	31	12	482	1219	1744	2327.00	3198.00	4178	1744
Idukki	21	6	115	160	302	434.44	1406.00	975	302
Ernakulam	0	0	650	1481	2131	6378.16	58540.59	9406	2131
Thrissur	9	0	589	1366	1964	2942.16	9570.48	6852	1964
Palakkad	10	0	280	1235	1525	1575.72	2364.00	3460	1525
Malappuram	33	12	153	632	830	1401.22	7554.34	3078	830
Kozhikode	19	1	170	969	1159	1830.52	7952.27	2840	1159
Wayanad	1	0	93	185	279	543.34	171.11	1067	279
Kannur	0	0	181	803	984	1845.56	10972.70	3385	984
Kasaragod	0	0	0	573	573	596.14	1739.11	1852	573
Total	**263**	**34**	**4316**	**13501**	**18114**	**25581.9**	**121612.32**	**55587**	**18114**

Source: Directorate of Industries & Commerce, Thiruvananthapuram.

Appendix - 6.21

District-wise Details of Small Scale Industrial Units Registered in Kerala as on 31st March 2002

District	Number of SSI Units promoted by ...				Total Investment (Rs. In lakhs)	Value of goods and Services Produced (Rs. In lakhs)	Employment provided (Number)
	SC/ST	Women	Others	Total			
1	2	3	4	5	6	7	8
Thiruvananthapuram	1298	5612	20625	27535	30804.73	103575.42	108410
Kollam	1831	5843	16848	24522	32206.87	80520.27	163537
Pathanamthitta	731	2421	9253	12405	11500.43	25035.61	42164
Alappuzha	754	4900	17902	23556	25972.59	93393.41	109314
Kottayam	561	4241	21656	26458	29957.54	64608.64	88212
Idukki	448	2241	4153	6842	8045.79	23784.75	24179
Ernakulam	855	4564	28208	33627	82661.25	352837.23	157483
Trissur	1201	3973	21851	27025	51380.64	151951.44	110221
Palakkad	701	3770	16122	20593	29639.89	54587.03	97611
Malappuram	874	1779	9511	12164	19016.97	66691.97	48192
Kozhikode	426	2612	15948	18987	20386.67	78284.41	81023
Wayanad	308	1563	2517	4417	5001.16	10581.44	15504
Kannur	338	1572	11276	13186	18329.49	95657.91	91110
Kasaragod	165	864	5664	6693	7739.36	19928.09	36514
Total	10491	45985	201534	258010	372643.38	1221437.62	1173474

Source: Directorate of Industries & Commerce, Trivandrum

Appendix 6.22

Working Status of Small Scale Units as on 31st March 2002

District	Total No. of Units	Number of Units identified as			Units revived by DIC during 2001-02
		Sick	Registered	Revived	
1	2	3	4	5	6
Thiruvananthapuram	27535	471	267	122	4
Kollam	24522	497	268	121	7
Pathanamthitta	12405	227	56	52	0
Alappuzha	23556	464	223	184	8
Kottayam	26458	562	307	245	10
Idukki	6842	112	48	23	0
Ernakulam	33627	1546	275	124	16
Thrissur	27025	404	146	59	1
Palakkad	20593	261	115	43	2
Malappuram	12164	217	59	3	0
Kozhikode	18987	379	251	104	0
Wayanad	4417	75	46	16	0
Kannur	13186	225	114	38	5
Kasargode	6693	86	4	5	0
Total	258010	5526	2179	1139	53

Source: Directorate of Industries and Commerce, Thiruvananthapuram.

Appendix- 6.23

Achievement under Self Employment Programme during 2001-02 (PMRY)

District	Applications sanctioned and amount disbursed during 2001-02				
	Target	Number	Sanctioned amount (Rs.in lakhs)	Number	Disbursed Amount (Rs.in lakhs)
1	2	3	4	5	6
Thiruvananthapuram	2400	1124	552.3	399	298.5
Kollam	2100	1043	509.24	596	335.33
Pathanamthitta	1000	555	332.71	321	196.94
Alappuzha	1700	925	478.78	712	378.5
Kottayam	2200	1499	840.29	788	409.2
Idukki	700	412	225.38	225	110.16
Ernakulam	2500	1417	959.42	955	552.84
Trissur	2300	1952	1148.35	955	574.01
Palakkad	2000	1651	722.97	671	294.75
Malappuram	1100	905	575.78	683	326.12
Kozhikode	1900	1205	737.81	680	330.91
Wayanad	400	285	122.8	179	74.43
Kannur	1100	720	453.93	355	223.73
Kasaragod	600	389	243.99	164	105.99
Total	**22000**	**14082**	**7903.75**	**7483**	**4213.41**

Source: Directorate of Industries and Commerce, Thiruvananthapu

Appendix- 6.24

Industrial Co-operative Societies in Kerala as on 30/6/2002

District	Industrial co-operative Societies registered during 2001-02 (7/01-6/2002)	Total Number of Industrial Cooperative Societies as on 30/6/2002				Total No.of Societies
		SC	ST	Women	Others	
1	2	3	4		5	6
Thiruvananthapuram	14	40	7	68	90	205
Kollam	8	65	7	34	40	146
Pathanamthitta	0	4	4	31	8	47
Alappuzha	10	31	4	39	43	117
Kottayam	1	8	0	38	5	51
Idukki	2	15	4	1	21	41
Ernakulam	7	10	1	55	16	82
Trissur	3	5	7	32	22	66
Palakkad	2	28	7	25	14	74
Malappuram	3	19	5	31	18	73
Kozhikode	0	16	1	13	28	58
Wayanad	12	38	3	61	63	165
Kannur	5	10	1	9	7	27
Kasaragod	3	1	0	14	27	42
Total	70	290	51	451	402	1194

Source: Directorate of Industries and Commerce, Thiruvananthapuram.

Appendix-6.25

Outstanding Credit to various sectors by Banks in Kerala

(Rs.in crores)

Year	Total Credit	Primary sector	Secondary sector	Tertiary Sector	Credit to SSI sector
1995	7797	1198	1090	1119	1090
1996	8961	1364	1224	1406	1224
1997	10565	1602	1445	1497	1445
1998	12364	1814	1558	1842	1558
1999	13995	1951	1827	2219	1827
2000	15941	2231	1991	2618	1991
2001	19180	2747	2262	3885	2262
2002	22062	3035	2540	4557	2540

Source : State Level Bankers' Committee

Appendix - 6.26

District-wise Number of Handloom Cooperative Societies in the State

Sl.No	District	No.of Societies		
		1999-2000	2000-01	2001-02
1	Thiruvananthapuram	360	360	360
2	Kollam	79	79	79
3	Pathanamthitta	9	9	9
4	Alappuzha	26	26	26
5	Kottayam	16	16	16
6	Idukki	12	12	12
7	Ernakulam	32	32	32
8	Trissur	31	31	31
9	Palakkad	46	46	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
	Total	**755**	**755**	755

Source: Directorate of Handlooms and Textiles, Thiruvananthapuram.

4/100/2003—9A

Appendix - 6.27

Production and Productivity under Handloom Industry in Kerala

Sl No.	Item	2000-01	2001-02
1	2	3	4
1	**Co-operative Sector**		
i	Number of looms	41256	41256
ii	Production of handloom cloth(M.M)	65.60	68.88
iii	Value of Production (Rs.crores)	295.20	309.96
iv	Productivity(M/L/A)	1409.00	1480
v	No.of weavers in the co-operative sector	128861.00	128861
vi	Employment generated during the period(mandays in Lakhs)	513	530
vii	No.of Women Employed	24763	24763
2	**Corporate Sector/Unorganised/Private Sector**		
i	Number of looms	2500.00	2500
ii	Production of handloom cloth(M.M)	1.87	1.87
iii	Value of Production (Rs.crores)	8.10	8.2
iv	Productivity(M/L/A)	748.00	749
v	No.of weavers	5892	5892
vi	Employment generated during the year (mandays in Lakhs)	22	22
vii	No.of Women Employed	800	800
3	**Total: Co-operative, corporate and unorganised Sector**		
i	Number of looms	43756.00	43756
ii	Production of handloom cloth(M.M)	67.47	70.75
iii	Value of Production (Rs.crores)	303.30	318.16
iv	Productivity(M/L/A)	2157.00	2229
v	Number of weavers	134753	134753
vi	Employment generated (mandays in Lakhs)	535	552
vii	No.of Women employed	25553	25553
4	**Assistance Extended by way of loan and grant for the development of Handloom Industry (Rs.lakhs)**		
a)	Loan:		
i	State Government	140.07	78.55
ii	Central Government	0	0
iii	N.C.D.C, NABARD,HUDCO	971.16	31.46
	Total(a)	**1111.23**	**110.01**

1	2	3	4
b)	Grant:		
I	State Government	379.78	874.71
ii	Central Government	148.68	315.00
iii	N.C.D.C, NABARD,HUDCO	2.90	0
	Total(b)	**531.36**	**1189.71**
c)	Amount Spent as rebate on the sale of Handloom cloth:		
	State Government	7578.9	1724.00
	Central Government(MDA) 50% CSS	69.63	66.73
	Total(c)	**7648.53**	**1790.73**
	5 **Value of unsold stock (Rs.crores)**		
a)	In the Co-operative Sector	303.08	142.08
b)	In the Corporate Sector	17.9	0.00
c)	Unorganised/ Private Sector	0	N.A.
	6 **Number of Co-operative Societies**		
(a)	Factory type:-		
	1 Working	93	93
	2 Dormant	26	26
	3 Under liquidation	11	11
	4 Not started working	5	5
	Total(a)	**135**	**135**
(b)	Cottage Type:-		
	1 Working	458	458
	2 Dormant	60	60
	3 Under liquidation	81	81
	4 Societies yet to start functioning	21	21
	Total(b)	**620**	**620**
	Total - 6 - (a+b)	**755**	**755**

Source: Directorate of Handlooms & Textiles, Thiruvananthapuram.

Appendix - 6.28

Working Results of Handloom Apex Society (HANTEX)

Sl.No.	Particulars	2000-01	2001-02
1	2	3	4
1	Sales turnover (Rs. Crores)	21.20	18.62
2	Value of cloth produced(Rs. Crores)	16.97	11.86
3	Value of Yarn Purchased(Rs. Crores)	4.68	2.86
4	Value of Yarn distributed(Rs. Crores)	4.85	3.00
5	a) Production(lakh meters)	185.50	170.25
	b) Value (Rs. crores)	16.97	11.86
6	No.of Exhibitions conducted	39	41
7	No.of primary societies registered as members(cumulative)	438	450
8	Paid up share capital(Rs.in lakhs)	1191.20	1202.27

Source: Hantex.

Appendix - 6.29

Working Results of Kerala State Handloom Development Corporation Ltd. (HANVEEV) (Rs.in lakhs)

Sl.No	Particulars	2000-2001	2001-2002
1	2	3	4
1	Paid up Capital(as at the end of the year)	1242.2	1250.48
2	Total Borrowing (as at the end of the year)	1266.43	1266.43
3	Gross Block(as at the end of the year)	2508.63	2516.91
4	Value of Production through clusters and sponsored societies (as at the end of the year)	797.00	354.00
5	Income through the sales of products(as at the end of the year)	2032.22	1688.00
6	Other Income:-		
	a) Export on Handloom cloth through KSHDC	1.66	..
	b) Grants, MDA, Interest, Processing charges etc.	241.45	228.9
7	Expenditure on Raw materials	614.33	607
	a) Yarn	26.01	18.00
	b) Dyes and Chemicals	168.09	193.00
	c) Fabrics	328.36	333.5
8	Expenditure on personal payments	21.09	20
9	Provision for Depreciation	170.08	170.00
10	Expenditure towards interest and Bank Charges	2.78	3.00
11	Other Expenses:-		
	a) Trading Expenses	180.93	112.00
	b) Administration and Selling Expenses	213.15	187.57
12	Stock differential	183.46	(-)126.00
13	Net Profit (+), Net loss (-)	(-)53.03	(-)207.17
14	Accumulated loss at the end of the year	785.48	992.65

Source: Directorate of Handlooms & Textiles, Thiruvananthapuram.

Appendix 6.30

Production and Productivity under Powerloom Industry

Sl.No.	Items	2000-01	2001-02
1	2	3	4
1	Total number of powerlooms in the state	2500	2500
2	No. of looms in the co operative sector	1037	1037
3	Percentage of 2 to 1	42	42
4	No of power loomloom co opeartive societies in the state	29	29
5	No of members in the co operative sector	6500	6500
6	No of women employed in the powerloom sector	681	681
7	Co operative sector:		
	a. Production of cloth(lakh metres)	88.15	98.15
	b. value of production(Rs lakhs)	1067.38	1088.11
	c.productivity(meter/loom)	257.63	360.81
8	Un organised/private sector	Nil	Nil
9	Total (co opeartive and Un organised/private sectors)		
	a,production of cloth(lakh metres	88.15	98.15
	b.value of production(Rs Lakhs)	1067.38	1088.11
	c.productivity(metre/loom)	257.63	360.81

Source: Directorate of Handlooms and Textiles,Thiruvananthapuram

Appendix - 6.31

Coir Co-operative Societies in Kerala

Sl.No	Type of Societies	No. of Societies as on 31-3-01	No. of Societies as on 31-3-02
1	2	3	4
1	Primary Coir Co-operative Societies		
a)	Working (Started production)	443	424
b)	New Societies which have not started working	5	5
c)	Dormant societies	86	104
	Total	534	533
2	Manufacturing Societies		
a)	Working (Started production)	54	53
b)	New Societies which have not started working	4	4
c)	Dormant societies	12	13
	Total	70	70
3	Small Scale Producers Co-operative Societies		
a)	Working (Started production)	12	12
b)	New Societies which have not started working	5	5
c)	Dormant societies	0	0
	Total	17	17
4	Husk Procurement and Distribution Societies		
a)	Working	1	1
b)	New Societies which have not started working	1	1
c)	Dormant societies	0	0
	Total	2	2
5	Fibre Societies (Defibering Mill Societies)		
a)	Working (Started production)	29	29
b)	New Societies which have not started working	39	39
c)	Dormant societies	5	6
	Total	73	74
6	Co-operative Coir Marketing Federation -1	2	2
7	Total number of coir Co-operative societies		
a)	Working	539	519
b)	New Societies which have not started production	54	54
c)	Dormant societies	103	123
d)	Societies under liquidation	130	158
	Grand total	**826**	**854**

Source: Directorate of Coir Development, Thiruvananthapuram

Appendix - 6.32

Activities of Coir Co-operative Societies

a. Yarn sector

Year	No.of Working Societies	No.of workers (1000)	Husk purchased		Fibre purchased		Yarn produced		Wages paid (Rs. lakhs)
			Number(in lakhs)	Value(Rs. in lakhs)	Qty(Tonnes)	Value(Rs. in lakhs)	Qty(Tonnes)	Value(Rs. in lakhs)	
1	2	3	4	5	6	7	8	9	13
2000-01	457	194	594	446.00	2950	597.00	3169	2151	1229.00
2001-02	443	185	245	151.00	1377	325.00	2050	1088	700.00

b.Product sector

Year	No.of working Societies	No.of workers	Value of production (Rs. in lakhs)	Wages paid (Rs.Lakhs)
2000-01	49	7755	1343.00	230.00
2001-02	51	6766	1576.00	281.00

Source: Directorate of Coir Development - Thiruvananthapuram

Appendix 6.33

District-wise details of Coir Co-op. Societies
(Position as on 31-3-2002)

Sl. No	District	Project Offices	No. of Coir Societies		
			Working & New	Dormant	Total
1	2	3	4	5	6
1	Thiruvananthapuram	Chirayinkil	54	13	67
2	Kollam	Kollam	86	41	127
3	Alappuzha	Alappuzha	108	24	132
		Kayamkulam	77	4	81
4	Kottayam	Vaikom	30	0	30
5	Idukki			0	
6	Ernakulam	North Paravoor	21	6	27
7	Thrissur	Thrissur	25	5	30
8	Malappuram	Ponnani	27	2	29
9	Palakkad			0	8
10	Kozhikode	Kozhikode	73	16	89
11	Kannur	Kannur	49	6	55
12	Kasargode				
	Total		***550***	***117***	***675***

Source: Directorate of Coir Development - Thiruvananthapuram

Appendix 6.34
Export of Coir and Coir Products from India during 2000-2001 and 2001-02

(Quantity in Tonnes & Value in Rs. Lakhs)

Sl.No.	Coir Item	2000 - QT	2001 VAL	2001 QTY	2002 VAL.
1	Curled Coir	533.57	80.33	572.53	80.63
2	Coir Fibre	1053.98	148.17	1010.3	122.15
3	Coir Rugs	2720.44	1958.64	1329.97	1039.76
4	Coir Pith	9926.97	752.79	13725.65	1014.3
5	Coir Rope	482.12	145.21	348.64	108.04
6	Coir other sorts	488.23	164.48	272.91	106.82
7	Coir Yarn	14607.3	4187.50	13206.9	3728.59
8	Geo-Textiles	1402.29	625.38	1752.05	780.13
9	Coir Mats	29159.04	18464.59	33963.91	21580.41
10	Coir Mattings	6734.08	4571.90	4697.31	3147.14
11	Reubberised Coir	385.06	267.24	454.64	350.38
	Total	**67493.08**	**31366.23**	**71334.81**	**32058.35**

Appendix - 6.35

Foreign Exchange Earnings of India from Cashew Industry

(Rs. Crore)

Year	Export Value		Total	Import Value of Cashewnuts (Rs.Crore)	Net Foreign Exchange earned
	Cashew Kernels	Cashewnut shell liquid			
1	2	3	4	5	6
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	769.60	633.67
1998-99	1630.10	4.21	1634.31	958.00	676.31
1999-2000	2569.50	3.74	2573.24	1186.20	1387.04
2000-2001	2049.60	3.89	2053.49	960.84	1092.65
2001-2002	1776.70	5.93	1782.63	949.25	833.38

Source: Cashew Export Promotion Council, Kochi.

Appendix 6.36

Import of Raw Cashewnuts into India

	Kerala		India	
Year	Quantity (M.T)	Value (Rs.crore)	Quantity M.T.	Value (Rs.crores)
1	2	3	4	5
1995-96	6292	19.13	222819	760.08
1996-97	49169	159.76	212866	687.6
1997-98	78625	261.07	247181	769.60
1998-99	109660	448.83	241161	958.03
1999-00	156488	736.63	253577	1186.16
2000-01	152516	552.74	249318	960.84
2001-02	191579	502.46	355443	949.25

Source: Cashew Export Promotion Council, Kochi.

Appendix - 6.37

Khadi & Village Industries: Production, Sales, Employment and Wages paid during 2000-01 and 2001-02

(Amount in Rs. Lakh)

Sl.No.	Schemes	Value of Production		Value of Sales		Employment		Wages Paid	
		2000-01	2001-02	2000-01	2001-02	2000-01	2001-02	2000-01	2001-02
1	2	3	4	5	6	7	8	9	10
I	**Khadi**	440.39	474.58	754.51	1066.9	5534	6556	235.02	342.92
II	**Village Industries**								
1	Cottage Match	1089.7	1016.63	1316.17	1119.8	6635	6692	404.18	397.41
2	Agarbathy	300	281.78	316.55	296.72	1456	1435	86.58	79.56
3	Village Leather	1231.49	1641.89	1287.19	1712.28	1631	1635	147.77	182.69
4	Fibre and Screwpine	758.99	579.2	762.2	681.8	60642	59888	589.16	459.06
5	Rubber based Industry	1246.42	1662.66	1281	1713.04	1880	1885	175.43	237.41
6	Hand Made paper	231.91	314.58	255.15	344	507	514	40.32	56.52
7	Village Pottery	1608.48	2148	1875.29	2508.8	21255	21262	610	816.34
8	Gurkhandasari	211.64	197	223.19	199.2	2441	2431	74.38	79.1
9	Service Industry	321.25	434.05	321.25	432.85	945	949	209.61	361.93
10	Non-Edible oil & soap	580	774.06	699	938.98	1230	1234	87.73	117.41
11	Village Oil	970.5	1020	1005.5	1060	1128	1105	117.65	155
12	Textile	076.3	1026	1086.69	1041	6178	6142	302.67	292.8
13	Palmgur	221.6	201	229.10	201.5	8502	8452	157.37	82.7
14	Bee-keeping	165.19	222.19	206.66	277.23	17958	17861	113.52	154.22
15	Processing of Cereals and Pulses	870.49	846.8	975.05	932.95	14490	14450	660.64	662.45
16	Ayurvedic Medicines	152.16	158.7	170.68	168.15	1072	1106	27.64	29.50
17	Fruits and Vegetable Preservatio	616.02	591.88	644.3	610.27	3135	3104	192.67	156.7
18	Lime	1488.14	1534.9	1709.56	1661.25	9157	9234	816.64	790.5
19	Cane & Bamboo	270.60	257.21	284.2	268.79	3158	3118	170.3	15110
20	Carpentry & Blacksmithy	1780.5	1704.05	1795.3	1783.48	6486	6531	1131.4	1134.8
21	Aluminium Industry	567.31	696.6	572.3	699.9	900	920	130.71	139.5
22	Electronics	348.56	355.5	387.44	384.4	877	880	38.17	42.4
23	Polyvastra	53.94	63.97	73.7	95.38	732	801	32.36	35.77
24	P.V.C.	121.60	128.1	140.21	134.8	201	217	22.03	24.7
	Sub Total	**16282.79**	**17856.75**	**17616.68**	**19164.07**	**172596**	**171746**	**6338.93**	**6639.57**
	Grand Total	**16723.18**	**18331.33**	**18371.19**	**20229.97**	**178130**	**178302**	**6573.95**	**6982.49**

Source: Khadi & Village Industries Board, Thiruvananthapuram

Appendix 6.38

District wise Number of Sales outlets and Sales under Khadi & Village Industries - 2001-02

Sl. No	Name of Project	No.of Sales outlets	Sales during 2001-02 (Rs.in lakhs)
1	2	3	4
1	Thiruvananthapuram	7	70.73
2	Kollam	4	53.99
3	Pathanamthitta	7	10.94
4	Alappuzha	12	4.43
5	Kottayam	12	34.45
6	Idukki	3	13.43
7	Ernakulam	8	67.63
8	Thrissur	15	32.66
9	Palakkad	13	54.09
10	Malappuram	12	14.07
11	Kozhikode	26	61.97
12	Wayanad	0	0
13	Kannur*	1	24.78
14	Payyannur Khadi Centre	40	364.72
	Total	160	847.89

Source : Khadi and Village Industries Board, Thiruvananthapuram

Appendix - 6.39

Physical Achievement under Sericulture for the year 2001-02

No	District	Mulberry Cultivation (acres)		No.of Farmers		Dfls supplied (Nos.)	Cocoon Production (in Kg.)	Silk Production (in Kg.)
		2000-01	2001-02	2000-01	2001-02			
1	2	3	4	5	6	7	8	9
1	Thiruvananthapuram	14.75	21.50	19.00	35	3850	908.52	
2	Kollam	21.75	22.25	27.00	37	4345	841.25	
3	Pathanamthitta	9.75	13.35	14.00	23	3300	430.45	
4	Alappuzha	28.25	30.00	55.00	47	6127	1266.81	906.00
5	Kottayam	20.75	18.25	23.00	26	5375	1057.05	
6	Idukki	20.00	49.00	19.00	67	20344	6623.60	
7	Ernakulam	30.50	23.75	29.00	38	5230	1333.06	
8	Thrissur	30.50	18.50	45.00	31	6798	1463.30	
9	Palakkad	Nil	11.50	Nill	16	12622	3687.96	
10	Malappuram	32.75	60.00	42.00	75	13700	3884.95	541.01
11	Kozhikode	23.13	16.90	59.00	41	5085	1238.10	
12	Wayanad	19.75	42.10	29.00	61	7795	2573.30	
13	Kannur	39.5	26.25	71.00	39	14215	3677.98	
14	Kasaragod	11.25	26.75	13.00	32	4500	948.20	1113.73
	Total	**288.35**	**380.1***	**445**	**568**	**113286**	**29934.53**	**2560.74**

Source: SERIFED, Thiruvananthapuram.

Dupicon Silk - 211.985

Total Silk Producition = 2265.86+211.985 = 2477.85 Kg.

Appendix - 6.40

Progress of Sericulture Development Programme in the State

Sl.No	Item	2001-02	2002-03(Up to Sep.02)
1	2	3	4
1	Mulberry Cultivation (in Acres) (Additional area)	380.1	
2	Number of Farmers	568	
3	Number of rearing units	979	
4	Production of cocoon (MT)	30	
5	Silk Worm seed production centres (Nos)		
	a. State Sector	–	–
	b. Co-operative Sector	–	–
	c. Private Sector	–	–
	d. Central Sector	1	1
	Total (5)	**1**	**1**
6	Cocoon purchase centres		
	a. State Sector	–	–
	b. Co-operative Sector	14	14
	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		
	b. Central Sector	1	1
	Total (8)	**1**	**1**
9	Production of Raw Silk Yarn (MT)	2.5	
10	Sericulture Co-operative Societies newly organised (Nos)	–	–

Source: SERIFED, Thiruvananthapuram.

- Under 10th work scheme of Central

Appendix - 6.41

Kerala State Industrial Development Corporation - Physical and Financial Performance - 1997-98 to 2001-2002

Sl.No.	Particulars	1997-98	1998-99	1999-2000	2000-01	2001-02
1	Projects Completed					
	a. Number of Projects	33	52	42	37	27
	b. Aggregate Cost (Rs. In crores)	138	849	243	178	128
	c. Employment (Nos.)	1949	4513	3673	2584	2097
2	Projects taken up for implementation.					
	a. Number of Projects	108	106	72	62	46
	b. Aggregate Cost (Rs. In crores)	1329	1478	1506	1397	932
	c. Employment (Nos)	8100	10753	8700	7250	4289
3	Projects cleared by KSIDC					
	a. Number of Projects	41	52	65	39	30
	b. Aggregate Cost (Rs. In crores)	244	1048	619	113	302
	c. Employment Potential (Nos.)	3100	8088	5452	2501	2035
4	Memoranda of understanding signed with private parties					
	a. Number of Projects	33	73	40	6	2
	b. Estimated Aggregate Cost (Rs. Crores)	514	348	897	1820	367
5	Financial Assistance sanctioned and disbursed (Rs.crores)					
	a. Gross Sanction	65	112	115	77	69
	b. Disbursement	37	65	78	50	45
	c. Recovery	35	49	48	55	59
	d. Operating profit	8	13	17	15	12

Source: Kerala State Industrial Development Corporation Ltd., Thiruvananthapuram.

Appendix - 6.42

Kerala Financial Corporation: Loan Operations as on 31.3.2002 (Rs. In Lakh)

Sl.No	Particulars	During the year 2001-02						Since Inception upto 31.3.2002				Total	
		S.S.I		Others		Total		S.S.I		Others			
		No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	Application pending as on 1.4.2001	47	3705.73	81	1530.5	128	5236.23	..	..	..	..	..	..
2	Application Received during 2001-02	641	11768.74	656	10997.08	1297	22765.82	27569	167486.85	17187	132417.66	44756	299904.51
3	Total application for consideration	688	15474.47	737	12527.58	1425	28002.05	28091	177260.23	17568	136628.45	45659	313888.68
4	Application withdrawn/ rejected or otherwise disposed off	125	6586.21	124	3403.11	249	9989.32	4288	27130.69	1427	16483.55	5715	43614.24
5	Application Sanctioned (gross)	537	8154.86	593	8226.97	1130	16381.83	22634	123455.35	16216	116519.33	38850	239974.68
6	A. Application cancelled/reduced out of current year sanction	12	211.84	11	140.45	23	352.29	..	..	..	..	..	..
	B. Application cancelled/reduced out of previous year sanction	18	859.71	23	770.21	41	1629.92	..	..	..	..	..	..
	C. Total cancellation/ reduction (6A+B)	30	1071.55	34	910.66	64	1982.21	3059	15316.64	1306	7706.64	4365	23023.28
7	Application sanctioned effectively (5-6A)	525	7943.02	582	8086.52	1107	16029.54	..	..	..	..	..	..
8	Net Sanctioned (5-6C)	507	7083.31	559	7316.31	1066	14399.62	19868	107938.71	14942	108912.69	34810	216851.40
9	Amount disbursed along with number of newly assisted units	1110	8496.77	885	9096.85	1995	17593.62	20393	96810.53	14401	90107.28	34794	186917.81
10	Application pending sanction as at the end of the period	26	733.4	20	897.5	46	1630.9	..	..	..	..	..	..

Source: Kerala Fianancial Corporation - Thiruvananthapuram

Appendix 6.43

District wise details of Disbursement of Loan by KFC 2001-02

(Rs. In lakh)

Particulars		Effective	Sanction	Disbursement	
		No:	Amount	No.	Amount
Backward Districts					
Category - A					
	Idukki	69	1183.16	238	1227.52
	Wayanad	27	163.35	88	352.46
Category - B					
	Alappuzha	72	790.87	211	692.13
	Malappuram	44	769.07	44	1024.42
	Kannur	78	712.33	107	770.5
	Kasargode	40	353.3	61	331.47
Category - C					
	Thiruvananthapuram	121	1372.96	325	1761.85
	Thrissur	60	1918.77	87	1839.9
	Total	**511**	**7263.81**	**1161**	**8000.25**
Non Backward Disrticts					
	Pathanamthitta	44	608.57	125	829.27
	Kollam	138	1499.79	185	1981.41
	Kottayam	66	1032.89	73	1558.71
	Ernakulam	149	3460.55	217	2747.58
	Palakkad	54	926.95	59	992.64
	Kozhikode	145	1236.98	175	1483.76
	Total	**596**	**8765.73**	**834**	**9593.37**
	Grand Total	**1107**	**16029.54**	**1995**	**17593.62**

Source: Kerala Financial Corporation, Thiruvananthapuram

4/100/2003—10

Appendix 6.44

Industry-wise Classification of Loan sanctioned and Disbursed by the Kerala Financial Corporation as on 31-3-2002 (Rs. Lakh)

Sl.No	Type of Industry	Amount Sanctioned	% of total loans sanctioned	Amount disbursed	% of total loan Disbursed
1	Mining	6581.80	2.89	5805.21	3.11
2	Crude Petroleum	252.39	0.11	107.73	0.06
3	Petroleum Refining	13.37	0.01	11.31	0.01
4	Other Food Products	18751.63	8.23	16835.02	9.01
5	Textiles	5759.01	2.53	4055.68	2.17
6	Paper & Paper Products	4773.3	2.1	4061.65	2.17
7	Leather & Leather Products	566.33	0.25	544.40	0.29
8	Rubber Products	16206.52	7.12	13209.80	7.07
9	Chemical & Chemical Products	6136.39	2.69	4925.18	2.63
10	Cement	110.20	0.05	84.07	0.04
11	Basic Metals				
	a). Iron & Steel	2657.57	1.17	1959.31	1.05
	b). Non Ferrous	773.11	0.34	603.58	0.32
12	Metal Products	5949.08	2.61	3713.72	1.99
13	Capital Goods				
	a).Non-Electrical Machinery	1642.05	0.72	1112.53	0.60
	b). Electrical Machinery	2331.09	1.02	1911.24	1.02
	c). Transport Equipment	1567.55	0.69	1031.25	0.55
14	Electricity Generation	114.04	0.05	35.24	0.02
15	Services				
	a). Hotels & Shopping Complex	45243.15	19.87	35775.75	19.14
	b.) Hospitals	7943.26	3.49	5699.58	3.05
	c).Others	41441.43	18.2	40419.42	21.62
16	Others	58910.25	25.87	45016.14	24.08
	Total	**227723.52**	**100**	**186917.81**	**100**

Source: Kerala Financial Corporation, Thiruvananthapuram.

Appendix - 6.45

Progress of the Working of Kerala Financial Corporation at a Glance

(Rs. In lakh)

Year	Loans sanctioned cumulative	Loans disbursed cumulative	Loans - outstanding	Profit before taxation	Profit after taxation
1	*2*	*3*	*4*	*5*	*6*
1995-96	95479.97	73745.32	38160.86	978.51	693.85
1996-97	114654.93	92606.32	47689.69	1453.30	1070.07
1997-98	138787.45	112550.05	58812.83	1148.22	900.66
1998-99	158218.83	131663.26	66852.52	1148.49	922.58
1999-2000	173205.8	146634.75	68229.39	719.22	553.40
2000-01	202451.76	169324.19	76660.33	1801.50	1353.99
2001-02	216851.40	186917.81	78517.40	104.81	81.67

Source: Kerala Financial Corporation, Thiruvananthapuram

Appendix 6.46

Selected Indicators of the Activities of SIDCO

	Activities	Unit	Period 2000-2001	2001-2002
1	**Raw Material Distribution**			
1.1	SSI units assisted for procurement of raw materials	Nos	2400 Units	2400Units
1.2	Quantity of Raw Materials Distributed			
(a)	Iron and Steel incldуding pig iron	Tonnes	5621.118	5898.222
(b)	Cement	Tonnes	4366.7	1967
©	Coal	Tonnes	Nil	Nil
(d)	Paraffin wax	Tonnes	1689.989	1536.105
(e)	Titanium dioxide	Tonnes	752.125	668.3
(f)	Others			
1)	Pipe	Mtrs.	9747	8176.47
2)	IPCL	M.T	1400.395	1532.872
3)	Aluminium sheet	M.T	1.963	1.15
4)	Eco Board	Nos.	170	80
5)	IOC Products			
(a)	Lubricants	Litre	69995	48973
(b)	Bitumen	M.T	614.796	138.492
©	Furnace Oil	Litre	190000	0
2	Over dues	Rs.Lakhs		
a	No.of Units	Nos.	124	124
b	Amount of over dues	Rs.lakhs	46.14	45.79
3	**Marketing of SSI products**			
3.1	SSI Units assisted in marketing of products	Nos.	254	254
3.2	Value of SSI products marketed through SIDCO	Rs.Lakhs	_	2221
(a)	Domestic		1225.43	1161.68
(b)	Export		Nil	Nil
©	**Total**		**1225.43**	**1161.68**
4	**Rehabilitation of Sick Units**			
4.1	SSI Units revised	Nos	6	6
4.2	Amount Disbursed	Rs.lakhs		
a	State Government Fund		2.2	2.2
b	SIDCO Fund		0	0
c	Other Sources (specify)-loan		9.51	9.51
	Total		11.71	11.71
5	**Industrial Estates & Infrastructure Development**			
5.1	Major Estates			
(a)	Major Estates	Nos.	17	17
(b)	Sheds available	Nos.	527	527
©	Shed occupied	Nos.	510	510
(d)	SSI Units	Nos.	752	751
I	Working	Nos.	621	616
II	Defunct, idling or closed	Nos.	131	135

Source : SIDCO, Thiruvananthapuram.

Appendix - 6.47
Small Industries Service Institute (SISI) -
Achievement during 2001-02

Sl.No	Name of Activity	Unit	Achievement
1	2	3	4
1	Units visited for providing techinical assistance	(No.)	387
2	Visitors rendered assistance at SISI premises	,,	
	a. Assistance to Prospective entrepreneurs	'	3289
	b. Assistance to existing entrepreneurs	,,	435
	c. Management and Marketing Related Assistance	,,	535
3	Preparation of State Profile	''	1
4	Preparation of Industrial Potential survey report for Kerala	No.of Districts	4
5	Project Profiles	No	34
6	Ancillary Development Programmes	,,	17
7	Motivation campaigns	,,	6
8	EDPs - 4/6 weeks duration		
	I. Courses undertaken	,,	11
	ii. Persosns trained	'	332
9	Management Development Programmes		
	I. Courses undertaken	No.	5
	ii. Persosns trained	No.	121
10	Common Facility Workshop/Lab performance		
	I. Training (including skill developement programme)	No.	21
	ii. Persons trained	,,	186
11	Export Ppackaging Training		
	I. Courses undertaken	,,	1
	Ii. Persons Training	,,	25
	PMRY Beneficiaries Training		
	1. Courses undertaken	No.	1
	ii. Persons Trained	,,	43
12	Computer Training Programme		
	I. Courses undertaken		18
	Ii. Persons Trained		65

Source:- SISI, Thrissur.

Appendix - 6.48

Small Industries Development Bank of India's Assistance to Small Scale Industries

(Rs. Crore)

Year	Sanction and Disbursement				Performance - Kerala as % of All India	
	All India		Kerala			
	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	233	188	3.84	3.92
1996-97	6485	4585	326	261	5.03	5.69
1997-98	7484	5241	392	291	5.24	5.55
1998-99	8880	6285	348	205	3.92	3.26
1999-2000	10265	6964	356	317	3.47	4.55
2000-01	10821	6441	556	389	5.14	6.04
2001-02	9026	5919	535	396	5.93	6.69
Total	**75255**	**52312**	**3397**	**2595**	**4.51**	**4.96**

Source: Small Industries Development Bank of India, Ernakulam

Appendix 6.49

Total area covered by Mining lease

Sl No	Minerals	Area (in Ha.)
1	China clay	74.1612
2	Silica Sand	29..2709
3	Bauxite	1.3739
4	Graphite	0.5909
5	Limeshell	1492.5
6	Limestone	247.5
7	Mineral sand	286.842
8	Quartz	3.2115
	Total	**2135.4504**

Appendix 6.50

Production and sales of Major minerals other than mineral sand in Kerala

Name of minerals	Production (tonnes)	Sales consumption		
	Raw	Processed	Raw	Consumption
China clay	3,45,389	14.250	1,51,378	0
Silica Sand	1,31,214	0	93,793	0
Bauxite	26.138	0	27,114	0
Graphite	50	0	50	0
Lime shell	86,702	0	56,380	30,322
Lime stone	4,16,914	0	0	4,16,914
Quartz	1,225	0	1,200	0

Source: Directorate of Mining & Geology

Appendix 6.51
Production and Sale of mineral sand in Kerala

Name of Mineral	Production 2001-02	
	Production(Tonnes)	Sale Value(Rs.crores)
Ilmenite	156151	34.48
Rutile	7667.2	12.4
Zircon	13365.2	13.35
Sillimanite	6759.4	3.54
Leucoxene	477.5	0

Source: Direcotorate of Mining & Geology

Appendix 6.52
Mineral resources of Kerala-2002

District	Name of mineral	Location	Reserve (Lakh tonnes)	Quality/Use
Thiruvananthapuram	1.China clay	Melthonnackal Pallippuram Sasthavattom Veilur Chilampil Andoorkkonam	420.000	Paper coating, Pharamaceutical & Ceramic grade
	2. Silica Sand	Pallithura Kazhakkutam Mernamkulam	4.400	Production of sheet glass, glass fibre etc.
	3.Graphite	Velland and Changa area	0.030	Crucible grade
	4.Gemstones	Neyattinkara Brimore,Nemon, Parassla, Attingal	Not estimated	
	5. Bauxite	Mangalapuram-Chilambil Sasthavattom Adichanallur Chittavattom	4.900 3.640 0.026 0.037	Aluminium Industry Manufacture of aluminium
2. Kollam	1.China Clay	Kundara Mulavana Chathannur	7.500 3.500 0.800	Paper coating, Pharmaceuticals and Ceramic grade
	2.Ball clay/Fire clay	Padappakara	112.000	Refractory
	3.Mineral sands	Marine deposits extending from Chavara to Kayamkulam	1440.000	

Appendix 6.51
Production and Sale of mineral sand in Kerala

Name of Mineral	Production 2001-02	
	Production(Tonnes)	Sale Value(Rs.crores)
Ilmenite	156151	34.48
Rutile	7667.2	12.4
Zircon	13365.2	13.35
Sillimanite	6759.4	3.54
Leucoxene	477.5	0

Source: Direcotorate of Mining & Geology

Appendix 6.52
Mineral resources of Kerala-2002

District	Name of mineral	Location	Reserve (Lakh tonnes)	Quality/Use
Thiruvananthapuram	1.China clay	Melthonnackal Pallippuram Sasthavattom Veilur Chilampil Andoorkkonam	420.000	Paper coating, Pharamaceutical & Ceramic grade
	2. Silica Sand	Pallithura	4.400	Production of sheet glass, glass fibre etc.
		Kazhakkutam		
		Mernamkulam		
	3.Graphite	Velland and Changa area	0.030	Crucible grade
	4.Gemstones	Neyattinkara	Not estimated	
		Brimore,Nemon, Parassia, Attingal		
	5. Bauxite	Mangalapuram-Chilambil	4.900	Aluminium Industry
		Sasthavattom	3.640	
		Adichanallur	0.026	Manufacture of aluminium
		Chittavattom	0.037	
2. Kollam	1.China Clay	Kundara	7.500	
		Mulavana	3.500	Paper coating, Pharmaceuticals and
		Chathannur	0.800	Ceramic grade
	2.Ball clay/Fire clay	Padappakara	112.000	Refractory
	3.Mineral sands	Marine deposits extending from Chavara to Kayamkulam	1440.000	

District	Name of mineral	Location	Reserve (Lakh tonnes)	Quality/Use
	4.Limeshell	Ashtamudi lake	1.700	
		Vembanad lake (1)	10.000	
	5. Graphite	Karuppanthodu	0.200	
		Changappara	0.530	
	6.Gemstone	Kulalthupuzha	Not estimated	
		Chenduuruni		
	7.Mica	Punalur	Not estimated	Electrical Industries, Insulators
3. Alappuzha	1. Silica Sand	Pallippuram	700.000	Production of Sheet glass, glass fibre etc.
		Thycattussery		
		Varanad		
4. Kottayam	1.Graphite	Chirakkadavu	7.060	..
5.Idukki	1.Graphite	Piralimattom(2)	0.990	Crucible grade
		Peringala	0.360	Lubricants
		Manakkad	1.970	Refractory industries
		Nagapuzha	1.500	
6.Ernakulam	1.China clay	Mulanthuruthy, Amballur	43.000	Ceramic
		Kanjiramattom		
		Thekkumbham		
Chendamangalam-Puthenvelikara	2.Limeshell	Periyar River Basin	1.350	
7.Palakkad				
Vannamada	1.Limestone 0.500	Walayar R.F.	240.000	Cement manufacturing
Mulli 0.150	2.Magnesite	Salayoor	0.225	Refractory
8. Malappuram	1.Limeshell	Ponnani area	1.900	
	2.Gold	Maruda(Primary)	5.500	
			4 gm/tonne	
		Punnapuzha	250 cbm	
		Chaliyar(Place)	0.1 gm/tonne	

District	Name of mineral	Location	Reserve (Lakh tonnes)	Quality/Use
9. Kozhikode	1.China clay	Payimbra	7.800	Ceramics
	2.Iron Ore	Cheruppa	3.200	Steel manufacture
		Eleyattimala	14.700	
		Nanminda	4.300	
		Nadurallur	6.100	
		Alampara	9.000	
		Koratimala	1.900	
	3.Mica	Kayanna	Not estimated	Electrical Industries, Insulators
10.Wayanad	1.Quartz	Puthodu	Not estimated	Silicon Carbide
		Nenmeni		Ferrosilicon
		Edavaka, Thrillisseri		
		Kannivanpatta		
11.Kannur	1.China clay	Payangadi	193.000	Ceramics
		Pattuvam		
		Cheruthazham		
		Kanapuram		
		Madayi		
	2.Limeshell	Payyannur area	4.000	
		Kannariyam	0.300	
	3.Bauxite	Kumbala area	18.300	
	4.Steatite	Koothuparamba	0.500	Micro nutrients
		Nalluru	0.900	Paints, Talk industries
		Alayad	1.050	
		Palazhi	1.050	
		Alcheri	3.740	
		Kilallur	0.200	
		Edayannur	0.200	
12.Kasargod	1.China clay	Manjeshwaram, Pudukai	137.000	Ceramic
		Nileswaram,		
		Palayi,Sithamgali,Bela	9.900	
	2.Bauxite	Nileswaram area	61.000	
		Kanjangad	7.100	

District	Name of mineral	Location	Reserve (Lakh tonnes)	Quality/Use
	4.Limeshell	Ashtamudi lake	1.700	
		Vembanad lake (1)	10.000	
	5. Graphite	Karuppanthodu	0.200	
		Changappara	0.530	
	6.Gemstone	Kulalthupuzha	Not estimated	
		Chenduuruni		
	7.Mica	Punalur	Not estimated	Electrical Industries, Insulators
3. Alappuzha	1. Silica Sand	Pallippuram	700.000	Production of Sheet glass, glass fibre etc.
		Thycattussery		
		Varanad		
4. Kottayam	1.Graphite	Chirakkadavu	7.060	
5.Idukki	1.Graphite	Piralimattom(2)	0.990	Crucible grade
		Peringala	0.360	Lubricants
		Manakkad	1.970	Refractory industries
		Nagapuzha	1.500	
6.Ernakulam	1.China clay	Mulanthuruthy, Amballur	43.000	Ceramic
		Kanjiramattom		
		Thekkumbham		
Chendamangalam-Puthenvelikara	2.Limeshell	Periyar River Basin	1.350	
7.Palakkad				
Vannamada	1.Limestone 0.500	Walayar R.F.	240.000	Cement manufacturing
Mulli 0.150	2.Magnesite	Salayoor	0.225	Refractory
8. Malappuram	1.Limeshell	Ponnani area	1.900	
	2.Gold	Maruda(Primary)	5.500	
			4 gm/tonne	
		Punnapuzha	250 cbm	
		Chaliyar(Place)	0.1 gm/tonne	

District	Name of mineral	Location	Reserve (Lakh tonnes)	Quality/Use
9. Kozhikode	1.China clay	Payimbra	7.800	Ceramics
	2.Iron Ore	Cheruppa	3.200	Steel manufacture
		Eleyattimala	14.700	
		Nanminda	4.300	
		Nadurallur	6.100	
		Alampara	9.000	
		Koratimala	1.900	
	3.Mica	Kayanna	Not estimated	Electrical Industries, Insulators
10.Wayanad	1.Quartz	Puthodu	Not estimated	Silicon Carbide
		Nenmeni		Ferrosilicon
		Edavaka, Thrillisseri		
		Kannivanpatta		
11.Kannur	1.China clay	Payangadi	193.000	Ceramics
		Pattuvam		
		Cheruthazham		
		Kanapuram		
		Madayi		
	2.Limeshell	Payyannur area	4.000	
		Kannariyam	0.300	
	3.Bauxite	Kumbala area	18.300	
	4.Steatite	Koothuparamba	0.500	Micro nutrients
		Nalluru	0.900	Paints, Talk industries
		Alayad	1.050	
		Palazhi	1.050	
		Alcheri	3.740	
		Kilallur	0.200	
		Edayannur	0.200	
12.Kasargod	1.China clay	Manjeshwaram, Pudukai	137.000	Ceramic
		Nileswaram,		
		Palayi,Sithamgali,Bela	9.900	
	2.Bauxite	Nileswaram area	61.000	
		Kanjangad	7.100	

Appendix 7.1

Foreign Tourist Arrivals at Major Tourist Generating States/UT During 2000 & 2001

State / UT	No. of Foreign Tourists		Percentage of variation
	2000	2001	
Kerala	209933	208830	-0.53
Tamil Nadu	785876	773073	-1.63
Karnataka	208000	140703	-32.35
Andhra Pradesh	78713	67147	-14.69
Goa	291709	260071	-10.85
Maharashtra	1075169	915399	-14.86
Rajasthan	623100	608283	-2.38
Uttar Pradesh	848000	795000	-6.25
Delhi	1127950	830092	-26.41

Source: Department of Tourism

Appendix: 7.2

Growth of Foreign Tourist Arrivals in India and Kerala (1995-2001)

Year	India (Nos.)	Percentage change	Kerala (Nos)	Percentage change	Kerala's share (%) in country's tourism
1995	2123683	59.68	142972	116.17	6.73
1996	2287860	7.73	176855	23.70	7.73
1997	2374094	3.77	182427	3.15	7.68
1998	2358629	-0.65	189941	4.12	8.05
1999	2481928	5.23	202173	6.44	8.15
2000	2649378	6.7	209893	3.82	8.00
2001	2537282	-4.2	208830	-0.51	8.23

Source: Department of Tourism

Appendix 7.3

Flow of domestic tourists to Kerala (1995-2001)

Year	Number of Tourists	Percentage variation over the previous year
1995	3857603	204.87
1996	4403002	12.45
1997	4953401	12.50
1998	4481714	-9.52
1999	4888287	9.07
2000	5011221	2.51
2001	5239692	4.52

Source: Department of Tourism

Appendix 7.4

Earnings from Tourism (1995-2001)

Year	Earnings (Rs.Crores)
1995	158.76
1996	196.38
1997	227.33
1998	302.08
1999	416.07
2000	525.30
2001	535.00

Source: Department of Tourism

Appendix 7.5

Details of Availability of Accommodation Facility in classified Hotels – 1999-2001

Category of Hotels	1999			2000			2001		
	No. of Hotels	No.of Rooms	No.of beds	No.of Hotels	No. of Rooms	No. of beds	No. of Hotels	No. of Rooms	No. of Beds
5 Star Deluxe	1	93	183	1	93	183	1	93	183
5 Star	4	445	843	6	594	1141	6	594	1141
4 Star	9	571	904	9	571	904	9	571	904
3 Star	24	1010	1872	39	1555	2892	46	2094	3867
2 Star	35	938	1758	36	919	1740	34	848	1604
1 Star	24	740	1312	24	728	1290	24	728	1290
Heritage Resort	7	112	290	7	112	290	7	112	290
Total	**104**	**3909**	**7162**	**122**	**4572**	**8440**	**127**	**5040**	**9279**

Source: Department of Tourism

Appendix 7.6

State Plan allocation for Tourism 1995-2003

Year	Allocation (in Crores)
1995-96	17.30
1996-97	29.20
1997-98	36.00
1998-99	37.20
1999-2000	36.00
2000-2001	46.00
2001-2002	40.00
2002-2003	80.00

Appendix 7.7

Central financial assistance for Tourism 1995-2002

Year	Allocation (in Crores)
1995-96	2.10
1996-97	2.36
1997-98	2.77
1998-99	6.99
1999-2000	9.30
2000-2001	5.93
2001-2002	4.40

Appendix 7.8

Kerala Tourism Development Corporation - performance for 2001-02

Sl.No.	UNIT NAME	Bed available	Bed Occupancy %	Domestic Tourists	Foreign Tourists	Total Income Rs. In lakhs	Operating expenditure before interest and Depreciation Rs. in lakhs	Administrative expenditure Rs. In lakhs	Total expenditure before interest depreciation Rs. in lakhs	NET INCOME Rs. in lakhs
1	MASCOT HOTEL	17520	30.94	2965	705	178.09	165.87	23.46	189.33	-11.24
2	HOTEL SAMUDRA	46720	22.6	1729	1502	224.27	190.92	10.1	201 01	23.26
3	ARANYA NIWAS, THEKKADY	26280	24.64	3560	1820	258.81	141.13	20.27	161.4	97 41
4	BOLGATTY PALACE KOCHI	18980	34.23	1365	1915	130 58	128.82	13 06	141 87	-1' 29
5	WATER SCAPE KUMARAKOM	15330	44.83	6242	696	150.89	126.21	6 51	132.72	18 17
6	TEA COUNTY MUNNAR	31390	47.44	13438	1461	211.24	145.21	13.32	158 53	52 71
7	HOTEL CHAITHRAM	53290	53.18	25616	1441	222.87	201.51	25 29	226 8	-3 93
8	PERIYAR HOUSE	32120	42.99	11564	1744	107.41	76.55	5 68	82 24	25 17
9	GARDEN HOUSE	11680	24.98	2777	12	40.14	36.46	4.67	41.13	-0 99
10	NANDANAM GURUVAYOOR	21900	27.90	8319	40	28.11	32.85	1.04	33.89	-5 78
11	MANGALYA GURUVAYOOR	13140	34.95	4590	0	52.68	45.91	4.85	50 76	1 92
12	MALABAR MANZION CALICUT	18980	43.76	3440	287	119.57	89.49	12.72	102 21	17 37
13	AGASTYA HOUSE, NEYYAR DAM	3650	24.42	882	77	24.22	20.53	3.7	24 22	0
14	ANJANAM GURUVAYOOR	12045	36.46	4388	2	3.82	1.83	1.59	3.41	0 41
15	YATRI NIVASES	59130		26076	2477	245.80	218.8	22.81	241 62	4 18
16	HOTEL ARAAMS	20440		3354	54	323.49	250.66	41.65	292 30	31.19
17	SABALA REST &BEER PARLOURS					644.19	438.86	98.89	537 75	106 44
18	MISC.GROUPS					142.60	135.93	4 09	140 02	2 58
19	HEAD OFFICE & CENTRALISED ADMINISTRATIVE EXPENDITURE					43.00		267 03	267 03	-224 03
	TOTAL	**402595**		**120305**	**14233**	**3151.78**	**2447.53**	**580.7**	**3028.23**	**123.55**
	Interest charge									131 43
	Depreciation charge									169 68
	Net profit/(-)loss									-177 56

Source: KTDC

Appendix 8.1

Growth of Transport & Communications in Kerala since 1975.

Sl. No.	Item	Unit	1975	1980	1985	1990	1995	1996	1997	1998	1999	2000	2001	2002
1	2	3		5	6	7	8	9	10	11	12	13	14	15
1	Road Length (PWD)	Kms.	14870	17408	19107	19836	22114	22863	22273	22258	21938	21731	21508	21347
2	Road Length (PWD) per sq.km.	"	0.38	0.45	0.49	0.51	0.57	0.57	0.59	0.57	0.56	0.56	0.55	0.55
3	Road Length (Panchayats)	"	54812	66158	81515	96951	106920	106920	109058	83422	77356	81790	87094	92084
4	Motor Vechicles	Nos.	119720	174704	319259	581054	1005922	1170241	1334374	1508038	1708938	1910237	2111885	2315372
5	Motor Vechicles per 100 sq.km.	"	308	450	821	1495	2588	3011	3433	3880	4397	4945	5434	5958
6	Buses & Stage Carriages	"	7828	8705	12910	20290	34862	39197	39466	55482	48884	58888	65681	71966
7	Good Vechicles	"	15875	21121	40879	61106	100252	111762	128495	139145	151082	163443	173856	184176
8	Buse owned by KSRTC	"	2212	2935	3239	3313	3005	3505	3750	3783	3928	4093	4562	4421
9	Railway route length	Kms.	896	916	914	998	1198	1198	1198	1198	1198	1119	1148	1148
10	Post Offices	Nos.	4024	4512	4751	4861	5040	5041	5046	5052	5051	5070	5071	5073
11	Telephone Exchanges	"	286	441	561	636	727	765	793	818	850	924	988	1088
12	Total Equipped Capacity	"	70410	104595	144462	246190	645283	812371	1062198	1305098	1704395	2203954	2584236	3153418
13	Public Call Offices	"	2352	2292	2766	3794	11824	14721	17852	21052	23485	27388	36926	48321

Appendix 8.2

District-wise and Category-wise Length of Roads Maintained by PWD (R&B) as on 1-4-2002

(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	180.360	704.123	899.907	80.067	1864.457
2	Kollam	131.676	1201.760	195.534	23.126	1552.096
3	Alappuzha	138.121	829.631	79.991	80.614	1128.357
4	Pathanamthitta	207.268	553.677	598.755	48.555	1408.255
5	**Kottayam**	378.006	1637.577	135.686	16.158	**2167.427**
6	Idukki	880.593	445.773	278.606	16.250	1621.222
7	Ernakulam	304.413	907.807	866.985	84.985	2164.190
8	Thrissur	322.391	1088.000	161.000	15.000	1586.391
9	Palakkad	373.079	794.026	436.910	42.390	1646.405
10	Malappuram	208.867	1230.930	198.143	131.840	1769.780
11	Kozhikode	160.833	398.547	652.105	151.060	1362.545
12	Wayanad	97.165	315.015	65.935	36.782	514.897
13	Kannur	240.899	987.897	430.751	38.675	1698.222
14	Kasaragode	227.485	310.823	277.043	47.790	863.141
	Total	**3851.156**	**11405.586**	**5277.351**	**813.292**	**21347.385**

Source : P.W.D. (R & B)

Appendix 8.3

District-wise, Surface-wise & Category-wise length of roads maintained by Kerala PWD as on 01-04-2002

(In Kms)

Sl. No.	District	State Highways				Major District Roads				Other District Roads				Village Roads				Total Roads
		CC	BT	WBM	Others	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	16	17	18	19
1	Thiruvananthapuram	--	1809.660	--	--	--	704.723	--	--	--	896.757	0.600	2.550	..	28.420	15.360	36.287	1869.457
2	Kollam	--	131.676	--	--	--	1186.317	2.393	13.050	--	186.804	7.530	1.200	..	23.126	..	--	1552.096
3	Alappuzha	--	38.121	--	--	--	743.371	16.998	69.262	--	71.787	0.270	7.934	..	37.258	12.921	30.435	1128.357
4	Pathanamthita	--	207.268	--	--	--	553.677	--	--	..	598.147	--	0.608	..	45.055	0.700	2.800	1408.255
5	Kottayam	--	368.842	6.120	3.044	--	1565.151	11.960	60.466	--	103.657	8.459	23.570	..	13.272	2.886	..	2167.427
6	Idukki	--	714.923	..	165.670		406.673	--	39.100	--	113.699	6.446	158.461	..	..	..	16.250	1621.222
7	Ernakulam	--	307.413	--		0.322	907.485	--	--	--	805.474	21.198	40.313	--	69.335	--	15.650	2164.190
8	Thrissur	3.391	319.000	--	--	--	1088.000	..	..	--	161.000	..	--	--	15.000	--	..	1586.391
9	Palakkad	--	323.479	1.250	48.350	--	794.026	--	--	--	419.610	17.300	--	--	33.590	6.060	2.800	1646.405
10	Malappuram	--	208.867	--	--	--	1220.930	10.000	--	--	198.143	--	--	--	19.355	52.795	59.690	1769.780
11	Kozhikkode	--	154.228	--	6.605	--	343.559	21.263	33.725	--	641.405	0.200	10.500	--	109.150	19.510	22.400	1362.545
12	Wayanad	--	82.625	--	12.540	--	315.015	2.000	--	--	59.935	6.000	--	--	29.982	6.800		514.897
13	Kannur	2.800	238.099	--	--	0.250	986.471	--	1.176	--	430.751	--	--	--	..	..	38.675	1698.222
14	Kasaragode	--	198.820	--	28.665	--	303.323	--	7.500	--	267.050	--	9.993	--	41.340	--	6.450	863.141
	Total	**6.191**	**3570.721**	**7.370**	**264.874**	**0.572**	**11118.121**	**64.614**	**224.279**	..	**4954.219**	**68.003**	**255.129**	..	**464.883**	**116.972**	**231.437**	**21347.385**

Source : PWD

Appendix 8.4

Surface-wise and Category-wise Length of P.W.D. Roads added during 2001-2002

(in Kms.)

Item	State Highways	Major District Roads	Other District Roads	Village Roads	Total
1	2	3	4	5	6
Cement Concrete					
Length as on 1.4.2001	6.191	0.322	0.04	0.225	6.778
Length added in 01-2002	..	0.25	-0.04	-0.225	-0.015
Length as on 1.4.2002	6.191	0.572	..	..	6.763
Black topped					
Length as on 1.4.01	1625.857	11056.456	4897.875	454.315	20034.503
Length added in 01-2002	-55.136	61.665	56.345	10.568	73.441
Length as on 1.4.2002	3570.721	11118.121	4954.219	464.883	20107.944
Water Bound Macadom					
Length as on 1.4.2001	37.772	71.089	93.159	117.318	319.338
Length added in 01-2002	-30.402	-6.475	-25.156	-0.346	-62.379
Length as on 1.4.2002	7.370	64.614	68.003	116.972	256.959
Others					
Length as on 1.4.01	257.809	347.91	312.134	303.43	1221.284
Length added in 01-2002	7.065	-123.632	-57.005	-71.993	-245.565
Length as on 1.4.2002	264.874	224.279	255.129	231.437	975.719
Total					
Length as on 1.4.01	3927.629	11475.778	5303.208	875.288	21581.093
Length added in 01-2002	-78.473	-68.192	-25.85700	-61.996	-234.518
Length as on 1.4.2002	**3849.156**	**11407.586**	**5277.351**	**813.292**	**21347.385**

Source : PWD (R&B)

Appendix 8.5

Dstrict-wise and Surface-wise Length of Roads Maintained by P.W.D. as on 1.4.2002

(in Kms.)

Sl.No	Name of District	Cement Concrete	Black Topped	Water Bound Macadom	Others	Total
1	*2*	*3*	*4*	*5*	*6*	*7*
1	Thiruvananthapuram	-	1809.660	15.960	38.837	1864.457
2	Kollam	-	1527.923	9.923	14.250	1552.096
3	Alappuzha	-	990.537	30.189	107.631	1128.357
4	Pathanamthitta	-	1404.147	0.700	3.408	1408.255
5	**Kottayam**	-	2050.922	29.425	87.080	**2167.427**
6	Idukki	-	1235.295	6.446	379.481	1621.222
7	Ernakulam	0.322	2086.707	21.198	55.963	2164.190
8	Thrissur	3.391	1583.000	..	..	1586.391
9	Palakkad	-	1570.705	24.550	51.150	1646.405
10	Malappuram	-	1647.295	62.795	59.690	1769.780
11	Kozhikode	-	1248.342	40.973	73.230	1362.545
12	Wayanad	-	487.557	14.800	12.540	514.897
13	Kannur	3.050	1655.321	0.000	39.851	1698.222
14	Kasaragode	..	810.533	0.000	52.608	863.141
	Total	**6.763**	**20107.944**	**256.959**	**975.719**	**21347.385**

Source : P.W.D. (R &B)

Appendix 8.6

No.of Bridges and Culverts in P.W.D. Roads as on 1.4.2002

Sl. No.	Item	SH	MDR	ODR	VR	Total
1	*2*	*3*	*4*	*5*	*6*	*7*
1	Total Number of bridges	624	925	409	57	2015
2	Number of unsafe bridges	77	80	29	5	191
3	Total Number of culverts	11304	21970	12381	1923	47578
4	Number of unsafe culverts	770	584	241	86	1681

Source : P.W.D. (R & B)

Appendix - 8.7

District-wise details of vehicles newly registered in the State during the year 2001-2002 (Provisional)

Sl.No	District	Goods Vehicles		Buses		Cars and Station Wagons				Three wheelers		Two Wheelers		Tractors, Trailor Articulated	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	Scooter/ Motor cycles		Tractors	Tillers	Trailers	Others	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	Thiruvananthapuram	408	764	165	675	858	-	3205	36	1361	3	-	19139		12	30	20	186	26962
2	Kollam	365	142	47	227	2522	-	120	124	1934	-	-	10806		15	48	5	26	16381
3	Pathanamthitta	144	800	36	293	1844	-	309	25	910	-	-	5351		11	16	4	86	9829
4	Alappuzha	197	314	50	372	1805	-	309	35	413	..	..	10613		5	6	55	50	14224
5	Kottayam	277	218	218	530	2621	-	389	149	843	-	-	7455		4	6	0	76	12786
6	Idukki	135	181	23	133	371	-	154	8	210	-	-	1641		6	5	0	15	2882
7	Ernakulam	583	557	119	833	5226	-	648	122	1809	-	-	26401		30	12	5	148	36493
8	Thrissur	349	544	170	387	2370	-	148	9	1123	-	-	15749		25	7	0	72	20953
9	Palakkad	441	174	168	280	563	-	179	84	1037	-	-	8198		119	38	9	38	11328
10	Malappuram	676	782	360	294	1505	-	267	157	3454	2	..	9638		45	8	6	70	17264
11	Kozhikode	626	627	152	289	1575	-	491	27	1978	-	-	12584		2	6	3	62	18422
12	Wayanad	61	22	37	0	124	-	70	41	171	-	-	1188		4	8	20	70	1816
13	Kannur	223	151	161	207	1031	-	266	122	1498	-	-	6271		4	13	68	78	10093
14	Kasargode	66	493	32	27	476	-	53	12	676	-	-	2266		0	13	0	40	4154
	Total	**4551**	**5769**	**1738**	**4547**	**22891**	**0**	**6608**	**951**	**17417**	**5**	**.**	**137300**		**282**	**216**	**195**	**1017**	**203487**

Source : Motor Vehicles Department

Appendix 8.5

Dstrict-wise and Surface-wise Length of Roads Maintained by P.W.D. as on 1.4.2002

(in Kms.)

Sl.No	Name of District	Cement Concrete	Black Topped	Water Bound Macadom	Others	Total
1	*2*	*3*	*4*	*5*	*6*	*7*
1	Thiruvananthapuram	-	1809.660	15.960	38.837	1864.457
2	Kollam	-	1527.923	9.923	14.250	1552.096
3	Alappuzha	-	990.537	30.189	107.631	1128.357
4	Pathanamthitta	-	1404.147	0.700	3.408	1408.255
5	**Kottayam**	-	2050.922	29.425	87.080	**2167.427**
6	Idukki	-	1235.295	6.446	379.481	1621.222
7	Ernakulam	0.322	2086.707	21.198	55.963	2164.190
8	Thrissur	3.391	1583.000	..	..	1586.391
9	Palakkad	-	1570.705	24.550	51.150	1646.405
10	Malappuram	-	1647.295	62.795	59.690	1769.780
11	Kozhikode	-	1248.342	40.973	73.230	1362.545
12	Wayanad	-	487.557	14.800	12.540	514.897
13	Kannur	3.050	1655.321	0.000	39.851	1698.222
14	Kasaragode	..	810.533	0.000	52.608	863.141
	Total	**6.763**	**20107.944**	**256.959**	**975.719**	**21347.385**

Source : P.W.D. (R &B)

Appendix 8.6

No.of Bridges and Culverts in P.W.D. Roads as on 1.4.2002

Sl. No.	Item	SH	MDR	ODR	VR	Total
1	*2*	*3*	*4*	*5*	*6*	*7*
1	Total Number of bridges	624	925	409	57	2015
2	Number of unsafe bridges	77	80	29	5	191
3	Total Number of culverts	11304	21970	12381	1923	47578
4	Number of unsafe culverts	770	584	241	86	1681

Source : P.W.D. (R & B)

Appendix - 8.7

District-wise details of vehicles newly registered in the State during the year 2001-2002 (Provisional)

Sl.No	District	Goods Vehicles		Buses		Cars and Station Wagons				Three wheelers		Two Wheelers		Tractors, Trailor Articulated	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	Scootor/ Motor cycles		Tractors	Tillers	Trailers	Others	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	Thiruvananthapuram	408	764	165	675	858	-	3205	36	1361	3	-	19139		12	30	20	186	26862
2	Kollam	365	142	47	227	2522	-	120	124	1934	-	-	10806		15	48	5	26	15381
3	Pathanamthitta	144	800	36	293	1844	-	309	25	910	-	-	5351		11	16	4	86	9829
4	Alappuzha	197	314	50	372	1805	-	309	35	413	..	..	10613		5	6	55	50	14224
5	Kottayam	277	218	218	530	2621	-	389	149	843	-	-	7455		4	6	0	76	12736
6	Idukki	135	181	23	133	371	-	154	8	210	-	-	1641		6	5	0	15	2882
7	**Ernakulam**	583	557	119	833	5226	-	648	122	1809	-	-	26401		30	12	5	148	**36493**
8	Thrissur	349	544	170	387	2370	-	148	9	1123	-	-	15749		25	7	0	72	20953
9	Palakkad	441	174	168	280	563	-	179	84	1037	-	-	8198		119	38	9	38	11328
10	Malappuram	676	782	360	294	1505	-	267	157	3454	2	..	9638		45	8	6	70	17284
11	Kozhikode	626	627	152	289	1575	-	491	27	1978	-	-	12584		2	6	3	62	18422
12	Wayanad	61	22	37	0	124	-	70	41	171	-	-	1188		4	8	20	70	1816
13	Kannur	223	151	161	207	1031	-	266	122	1498	-	-	6271		4	13	68	78	10093
14	Kasargode	66	493	32	27	476	-	53	12	676	-	-	2266		0	13	0	40	4154
	Total	**4551**	**5769**	**1738**	**4547**	**22891**	**0**	**6608**	**951**	**17417**	**5**	**.**	**137300**		**282**	**216**	**195**	**1017**	**203487**

Source : Motor Vehicles Department

Appendix - 8.8

Number of Motor Vehicles Having Valid Registration as on 31.3.2002

Sl.No.	District	Goods Vehicles		Buses		Four Wheelers				Three Wheelers		Two Wheelers			Tractors				Total
		Four wheelers and above	Three wheelers including Tempos	Stage Carriages	Contract Carriages / Omni Buses	Cars	Station wagons	Taxis	Jeeps	Autorickshaws	Motorised Cycle rickshaws	Motorised cycles	Scooters/ Motor cycles	Tractor Trailor Articulated	Tractors	Tillers	Trailors	Others	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	Thiruvananthapuram	12122	5535	6153	6564	38822	-	10357	6984	26744	6	0	203658		192	85	130	2709	320061
2	Kollam	10196	1621	672	2968	31907	-	3939	4317	21970	13	1110	89126		300	233	317	218	168907
3	Pathanamthitta	8500	1621	685	1521	16919	-	7258	3457	11979	0	0	53178		111	167	26	648	106070
4	Alappuzha	6352	4920	734	2812	19363	-	3113	561	11950	5	6	88360		191	108	230	846	139551
5	Kottayam	11354	2499	1771	4794	32385	-	5887	10906	25407	37	0	98339		418	102	32	2469	196400
6	Idukki	2854	334	503	565	5193	-	1108	6128	3967	0	0	14262		182	114	10	1139	36359
7	Ernakulam	29626	4776	2907	5524	55071	-	7971	1893	31243	0	3	254656		625	1283	115	9968	405661
8	Thrissur	15852	4085	3449	8973	25844	-	9381	4273	25363	0	0	140205		562	433	572	2568	241560
9	Palakkad	10539	1935	1538	2631	11822	-	5481	3148	14438	0	0	77240		3552	935	61	1534	134854
10	Malappuram	13274	5400	2906	4380	19037	-	12301	7983	36876	2	5	69235		611	501	50	1943	174504
11	Kozhikode	12504	2311	2407	1790	30181	-	5977	8137	20180	0	0	104835		278	172	69	1968	190809
12	Wayanad	2036	322	295	269	2243	-	2277	3451	5493	0	0	13220		84	230	24	1610	31553
13	Kannur	8782	1275	2263	2023	9991	-	5765	5909	18839	0	0	60080		1322	252	68	1546	118115
14	Kasaragode	2729	823	616	253	7109	-	1421	3065	11318	0	0	33641		31	364	67	531	50968
	Total	146719	37457	26899	45067	305887	0	82236	70212	265767	63	1124	1289035		8459	4979	1771	29697	2315372

Source : *Motor Vehicles Department*

Appendix -8.9

District-wise Growth of Motor Vehicles in Kerala and Their Index (Base 1990-91 =100)

Sl. No	District	1990-91		1995-96		1996-97		1997-98		1998-99		1999-00		2000-01		2001-02	
		Motor Vehicles (Nos)	Index	Motor Vehicles (Nos)	Index	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*	*15*	*16*	17	18
1	Thiruvanatha-puram	101980	100	166105	163	197296	193	210067	206	241932	237	266174	261	293199	287	320061	314
2	Kollam	57694	100	88484	153	100513	174	111363	193	124611	216	137020	237	152526	264	168907	293
3	Pathanamthitta	35555	100	55797	157	61104	172	67127	189	78662	221	86876	244	96241	271	106070	298
4	Alappuzha	39545	100	68294	173	79979	202	92861	235	95794	243	111346	282	125327	317	139551	353
5	Kottayam	39758	100	100059	252	118272	297	138280	348	159596	401	172040	433	183614	462	196400	494
6	Idukki	12812	100	20856	163	24093	188	26214	205	28690	224	31015	242	33477	261	36359	284
7	Ernakulam	105622	100	196565	186	230342	218	261375	247	297682	282	333022	315	369168	350	405661	384
8	Thrissur	70831	100	135134	191	157253	222	177265	250	183941	260	200542	283	220607	311	241560	341
9	Palakkad	37623	100	70853	188	79594	212	89103	237	100597	267	112213	298	123526	328	134854	358
10	Malappuram	30671	100	69450	226	81545	266	100286	327	111216	363	138434	451	157240	513	174504	569
11	Kozhikode	55939	100	102526	183	115742	207	115671	207	135523	242	154301	275	172387	308	190809	341
12	Wayanad	8379	100	13888	166	16175	193	18706	223	22243	265	26712	319	29737	355	31553	377
13	Kannur	36540	100	55824	153	65021	178	65060	178	90344	247	98023	268	108022	296	118115	323
14	Kasaragode	14793	100	26400	178	30896	209	34660	234	38107	258	42619	288	46814	316	50968	345
	Total	**647742**	100	**1170241**	**181**	**1357825**	**210**	**1508038**	**233**	**1708938**	**264**	**1910237**	**295**	**2111885**	**326**	**2315372**	**357**

Source : Motor Vehicles Department.

Appendix - 8.10

Category-wise Growth of Motor Vehicles in Kerala since 1990

Sl. No	Type of Vehicles	1990	1995	1996	1997	1998	1999	2000	2001	2002
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*
I	GOODS VEHICLES									
1	Four Wheelers and above	51530	88180	97714	110015	117621	126908	135058	142168	14719
2	Three Wheelers including Tempos	9576	12072	14048	18480	21524	24174	28385	31688	37457
II	BUSES									
1	Stage Carriages	15056	19988	21514	20805	21572	22809	23537	25161	26899
2	Contract Carriages/ Omni buses	5234	14874	17683	18661	33910	26075	35351	40520	45067
III	CARS AND STATION WAGONS									
1	Cars	116676	155150	171801	191587	212670	228824	257796	282996	305887
2	Station Wagons	849	0	0	0	0	0	0	0	0
3	Taxi Cars	37638	54681	59865	49177	50604	59724	71581	75628	82236
4	Jeeps	24351	37774	42256	65615	67329	82416	67497	69261	70212
IV	THREE WHEELERS									
1	Autorickshaws	58165	103465	127893	148801	164834	197595	227895	248350	265767
2	Motorised Cycle rickshaws	62	77	62 ..		1	64	58	58	163
V	TWO WHEELERS									
1	Motorised Cycle	70	63	565	597	1160	1159	1124	1124	1124
2	Scooter/ Motor Cycles	248374	496873	592123	693208	798982	904.961	1020797	1151735	1289035
VI	Tractor Trailer, Articulated	2661	3388	3903	4097	4494	4890	0	0	0
VII	Tractors	4115	5045	5296	5778	5567	5801	7782	8177	8459
VIII	Tillers	1927	4626	5140	4523	4794	5098	4763	4763	4979
IX	Trailers	580	763	760	669	563	728	1506	1576	1771
X	Others	4190	8903	9613	2361	2413	17712	27107	28680	29697
	Total	**581054**	**1005922**	**1170241**	**1334374**	**1508038**	**1708938**	**1910237**	**2111885**	**2315372**
	Per centage increase over the previous year	11.03	13.3	16.34	14.03	13.01	13.32	**12**	**10.56**	**9.63**

Source: Motor Vehicle Department

Appendix :8.11

District-wise Road Accidents in Kerala in which number of persons held during 2000-01, 2001-2002

Sl.No	Name of District	No.of Accidents		Increases / Decreases %	No.of Persons injured		Increases / Decreases %	No.of persons Killed		Increases / Decrease %
		2000-01	2001-02		2000-01	2001-02		2000-01	2001-02	
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*
1	Thiruvananthapuram	4096	4067	-0.71	4687	4650	-0.8	264	279	5.68
2	Kollam	2701	3041	12.59	3732	3902	4.56	245	263	7.35
3	Pathanamthitta	1479	1482	0.20	1796	1967	9.52	93	108	16.13
4	Alappuzha	3206	3286	2.50	3864	3909	1.16	224	227	1.34
5	Kottayam	2693	2811	4.38	3416	3610	5.68	202	143	-29.21
6	Idukki	1088	1063	-2.30	1671	1604	-4.01	61	63	3.28
7	**Ernakulam**	6895	**7349**	6.58	7718	8258	6.99	353	347	-1.36
8	Trissur	4164	4369	4.92	5436	5673	4.36	290	303	4.48
9	Palakkad	2163	2139	-1.11	3261	3266	0.15	234	213	-8.97
10	Malappuram	2309	2453	6.24	3506	3778	7.76	251	194	-22.71
11	Kozhikode	3196	3369	4.95	4316	4297	-2.72	214	251	17.29
12	Wayanad	652	544	-16.56	1154	821	-28.86	56	46	-17.86
13	Kannur	1804	1646	-8.76	3116	2734	-12.26	160	129	-19.38
14	Kasaragode	810	734	-9.38	1299	1275	-1.85	83	82	-1.20
	Total	**37256***	**38353**	**2.94**	**48972**	**49744**	**1.58**	**2730**	**2648**	**-3.00**

* Revised

Source : *Director General of Police*

Appendix - 8.12

Motor Vehicle Accidents in Kerala by Primary Causes of Accidents during 2001-2002

Sl.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	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*
1	Thiruvananthapuram	3818	4	1	1	1	94	5	0	33	110	4067
2	Kollam	2975	1	0	0	0	18	0	1	9	37	3041
3	Pathanamthitta	1462	0	0	0	0	14	0	0	3	3	1482
4	Alappuzha	3256	0	1	0	2	6	1	0	12	8	3286
5	Kottayam	2769	0	0	0	4	12	0	3	4	19	2811
6	Idukki	1024	1	1	0	0	17	1	0	5	14	1063
7	**Ernakulam**	7015	4	1	0	4	58	1	0	165	101	**7349**
8	Trissur	4364	2	0	0	0	1	0	0	2	0	4369
9	Palakkad	2127	4	0	0	1	1	1	0	2	3	2139
10	Malappuram	2443	4	0	0	0	2	2	0	1	1	2453
11	Kozhikode	3331	15	0	1	13	3	2	1	2	1	3369
12	Wayanad	540	4	0	0	0	0	0	0	0	0	544
13	Kannur	1641	0	0	0	1	1	0	0	1	2	1646
14	Kasaragode	734	0	0	0	0	0	0	0	0	0	734
	Total	**37499**	**39**	**4**	**2**	**26**	**227**	**13**	**5**	**239**	**299**	**38353**

Source : *Director General of Police*

Appendix - 8.13

Type-wise details of Motor Vehicles Involved in Road Accidents in Kerala during 2001-2002

Sl.No	District	KSRTC Buses	Other Buses	Goods Vehicles	Motor Cars	Jeeps	Autorick shaws	Two wheelers	Miscellaneous vehicles	Class not known	Total
1	2	3	4	5	6	7	8	9	10	11	12
1	Thiruvananthapuram	388	160	471	672	147	658	1409	116	46	4067
2	Kollam	160	273	348	454	190	561	972	69	14	3041
3	Pathanamthitta	65	180	143	201	133	312	374	46	28	1482
4	Alappuzha	148	202	372	575	54	429	1180	184	142	3286
5	Kottayam	86	406	245	335	206	635	712	83	103	2811
6	Idukki	26	177	72	64	214	251	222	21	16	1063
7	**Ernakulam**	185	1092	747	966	316	1005	2544	368	126	**7349**
8	Trissur	77	614	524	574	148	779	1566	50	37	4369
9	Palakkad	44	315	343	183	188	416	563	56	31	2139
10	Malappuram	44	368	222	200	251	584	516	221	47	2453
11	Kozhikode	55	679	401	308	396	566	893	32	39	3369
12	Wayanad	21	103	25	28	101	105	121	30	10	544
13	Kannur	27	333	201	150	189	391	328	17	10	1646
14	Kasaragode	25	85	74	62	78	231	155	18	6	734
	Total	**1351**	**4987**	**4188**	**4772**	**2611**	**6923**	**11555**	**1311**	**655**	**38353**
		(4.01)	**(14.15)**	**(13.00)**	**(11.74)**	**(8.87)**	**(18.67)**	**(25.34)**	**(3.26)**	**(0.98)**	**(100)**

Note: Figures in Brackets denote percentage to total
Source : Director General of Police

Appendix - 8.14

Motor Vehicle Accidents by time of day during 2001-2002

Sl.No	District	Day light	Darkness	Time not known	Total
1	*2*	*3*	*4*	*5*	*6*
1	Thiruvananthapuram	2582	840	645	4067
2	Kollam	2168	786	87	3041
3	Pathanamthitta	1085	320	77	1482
4	Alappuzha	2018	903	365	3286
5	Kottayam	1911	741	159	2811
6	Idukki	772	250	41	1063
7	**Ernakulam**	4295	1783	1271	**7349**
8	Thrissur	3168	1182	19	4369
9	Palakkad	1545	568	26	2139
10	Malappuram	1619	492	342	2453
11	Kozhikode	2361	855	153	3369
12	Wayanad	395	147	2	544
13	Kannur	1160	419	67	1646
14	Kasaragode	530	189	15	734
	Total	**25609**	**9475**	**3269**	**38353**
		66.77	**24.70**	**8.53**	**100**

Note: Figures in brackets denote percentage to total
Source : *Director General of Police*

Appendix 8.15

Age-Wise Details of Vehicles Owned by KSRTC as on 30-11-2002

Sl. No.	Age-Wise Classfication	Numbers	
		31-3-2002	30-11-2002
1	*2*	*3*	4
1	10 Years and above	*240*	652
2	Above 7 Years and below 10 Years	*1080*	977
3	Above 5 Years and below 7 Years	*930*	1078
4	Below 5 Years	*2171*	1743
	Total	***4421***	**4450**

Source : KSRTC

Appendix 8.16

Major indicators showing operational effeciency of KSRTC

Sl. No.	Items	Year		Increase / Decrease
		2000-01	2001-02	
1	*2*	*3*	*4*	*5*
1	Fleet strength (Nos)	4478	4421	(-)57
2	Gross revenue earnings (Rs. in crores)	567.25	605.31	38.06
3	Gross revenue expenditure (Rs. in crores)	683.45	712.06	28.61
4	Gross operating loss (Rs. in Crores)	116.20	106.75	(-)9.45
5	No. of schedules operated as on 31st March 2002 (Nos.)	4126	3576	550
6	Average earnings per vehicle on road per day (Rs.)	4390	4119	-271
7	Average earnings per Km. of bus operated (Paise)	1301	1204	-97
8	Average earnings per passanger (Paise)	523	512	-11
9	Average route length (Kms.)	52.10	19.00	-33.1
10	Average Kms. run per bus per day	337.00	340.00	3
11	Average number of buses held daily (Nos.)	4295	4402	107
12	Passangers carried (Lakhs)	10683.40	11087.16	403.76

Source : KSRTC

Appendix 8.17

K.S.R.T.C. Operational Statistics during 2001-02

Sl.No	Name of Transport Unit	No.of buses held as on 31.3.02	No.of schedules as on 31.3.02	No.of routes as on 31.3.02	Route Distance (kms)	Gross Kms. Operated	Effective Kms. Operated	Passengers carried	Average carrying capacity per bus
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*
1	Parassala	74	60	106	5796	6812116	6809291	9626240	55
2	Neyyattinkara+ Vellarada	125	80	243	7829	11387457	11382901	37784264	55
3	Poovar	73	57	64	2440	5968450	5729012	18055240	55
4	Vizhinjam	71	55	38	1524	5413275	5411109	17452726	55
5	Kattakada	76	62	83	2903	6166385	5919729	21837441	55
6	Thiruvananthapuram City	142	110	224	2518	7676600	7369536	34950000	44
7	Pappanamcode	121	98	197	2195	7560643	7258217	35216212	44
8	Thiruvananthapuram Central	116	79	40	11705	17657237	17654174	19469581	55
9	Vikas Bhavan	78	70	126	2873	5622037	5619781	24542226	44
10	Peroorkada	77	70	168	2703	5060259	5058134	30408812	44
11	Nedumangad+Palod+ Aryanad+Vithura	142	111	310	10275	11559389	11220476	38235069	55
12	Vellanadu	50	41	69	1472	337777	337641	14843257	44
13	Kaniyapuram	51	41	38	1472	4364829	4363083	14623137	55
14	Venjaramoodu	30	23	98	7638	2177243	2176112	8138588	55
15	Chathannur	41	36	127	4952	3676951	3675120	11185022	55
16	Attingal	81	72	71	1222	8063877	7741321	22507432	55
17	Kilimanoor+Chadaya-mangalam, Pathanapuram	117	98	218	7163	8066041	9850429	44558409	55
18	Kollam	97	82	118	6494	9891393	9495737	33664795	55
19	Kottarakkara	113	102	124	7417	11126237	11121786	29307554	55
20	Punaloor+Kulathupuzha	71	63	232	6882	6478851	6476258	25927129	55
21	Karunagapally	65	60	143	2755	6268785	6018033	21326873	55
22	Edathuva + Mallappally	42	37	23	1125	3223419	3222129	4471250	55
23	Pathanamthitta	59	52	77	4882	6139021	6136565	14798487	55
24	Adoor, Pandalam	57	52	81	4854	5049151	4847164	19521935	55
25	Thiruvalla	43	36	74	3504	3989227	3829657	9456739	55
26	Kayamkulam	72	64	112	5059	6872979	6598059	19436850	55
27	Harippad	37	33	*67*	3227	3344382	3210606	9283416	55
28	Mavelikkara	*48*	*37*	26	*1323*	*4515750*	*4513943*	*10959501*	55
29	Alappuzha	94	84	66	3098	9281394	9277681	23289190	55
30	Cherthala	97	75	26	1658	8285413	7953996	23764873	55

1	2	3	4	5	6	7	8	9	10
31	Chengannur	53	47	33	1550	5045336	5043317	19807727	55
32	Changanassery	55	43	21	1653	4497502	4317601	14338660	55
33	Kottayam	124	96	54	4915	13153545	13148283	27000614	55
34	Ponkunnam + Erumelly	40	30	78	3014	3897631	3896071	8262820	55
35	Pala	63	57	57	3693	6583164	6580530	14943830	55
36	Erattupetta	57	45	23	2969	5241820	5239723	12749483	55
37	Vaikom	36	31	16	1117	4056026	4054403	8114112	55
38	Muvattupuzha	54	45	48	2115	5197322	5195243	14235573	55
39	Thodupuzha, Moolamattom	59	45	46	4093	5625862	5400827	13379600	55
40	Kothamangalam+ Munnar	43	33	43	3897	4324070	4151106	6977340	55
41	Ernakulam	81	56	49	4634	8489083	8485687	20372534	55
42	Aluva	68	59	39	2966	6194179	6191701	17585478	55
43	Ankamaly	39	29	40	1200	3404002	3402640	10558848	55
44	North Paravoor	66	53	93	3427	5329680	5327548	14394408	55
45	Perumbavoor	47	39	22	1843	4277259	4275548	16115112	55
46	Chalakkudy	41	35	37	1249	4038065	3876542	10287082	55
47	Iringalakuda	11	11	9	372	1309540	1257188	2057400	55
48	Mala + Kodungalloor	53	44	95	3379	5383843	5168488	10023074	55
49	Thrissur + Amballur	108	89	47	3953	13184655	12657068	20239317	55
50	Puthukkad	13	10	22	726	1140392	1139935	3773817	55
51	Guruvayoor	50	36	24	4563	5936689	5934314	7753260	55
52	Ponnani	33	26	30	2448	3729939	3728447	6124427	55
53	Perinthalmanna	26	21	17	2164	3284517	3283203	4781700	55
54	Malappuaram + Nilambur	69	50	65	2047	7619329	7616280	10764450	55
55	Palakkad, Vadakkanchery, Chittoor	139	114	64	7183	18159509	17433128	44470719	55
56	Mannarkadu	19	12	19	4952	1774459	1773709	2379066	55
57	Thottilpalam	25	20	26	1566	2195182	2194002	4005480	55
58	Kozhikode, Vadakara	109	83	47	3950	12113133	12108287	19625574	55
59	Thamarassery	46	36	48	2860	4261272	4259567	9249285	55
60	Kannurr	111	85	53	6874	12040780	12035963	18956643	55
61	Payyannur	78	58	39	2556	7710642	7707557	15524293	55
62	SulthanBathery	71	59	29	2633	6276683	6274172	11856165	55
63	Kasargode	88	72	39	2756	9132245	9128592	20986492	55
64	Mananthavady	54	40	41	2513	4919137	4917169	10223206	55
65	Kalpetta	32	27	38	2114	3252278	3250977	8155792	55
	Total	**4421**	**3576**	**4840**	**232902**	**414815338**	**410732496**	**1108715629**	**3520**

Source: KSRTC

Appendix - 8.18

Fare structure of KSRTC during 2002

Sl.No	Type of service	Basic fare per KM (paise)	Minimum fare (paise)
1	*2*	*3*	*4*
1	City	35	200
2	Ordinary	35	200
3	City Fast Passenger	43	200
4	Fast Passenger	43	300
5	Super Fast	46	600
6	Express	0	0
7	Super Express	54	1000
8	Super Deluxe Service	63	2000
9	Other if any (Specify) High Tech/Luxury	75	3000

Source : *K.S.R.T.C.*

Appendix - 8.19

K.S.R.T.C Operational Ratios during 2001-02

Sl.No	Name of Transport Unit	Average No.of buses held daily	Average Kms. run per day per bus	Percentage vehicular utilisation	Average route length (Kms.)	Average earning per passengers (in Ps.)	Average distance travelled by a passenger (Kms.)	Earning per Vehicle on road per day (in PS)	Earning per km of buses operated (in Ps)
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*
1	Parassala	75	249	74	54.68	845	21.95	4020	1194
2	Neyyattinkara+ Vellarada	124	251	74	32.22	348	13.26	3832	1125
3	Poovar	77	212	69	38.13	403	14.54	3762	1120
4	Vizhinjam	72	206	69	40.10	384	13.65	3675	1240
5	Kattakada	77	219	74	34.98	454	15.53	3779	1284
6	Thiruvananthapuram City	142	148	67	11.24	288	9.66	2923	1311
7	Pappanamcode	121	171	79	11.14	253	7.51	2571	1180
8	Thiruvananthapuram Central	116	417	87	2.93	1574	49.88	6670	1388
9	Vikas Bhavan	78	197	80	22.80	273	10.08	2953	1192
10	Peroorkada	83	167	77	16.09	214	7.32	2784	1287
11	Nedumangad+Palod+Aryanad +Vithura	143	221	70	33.14	370	13.30	3817	1223
12	Vellanadu	50	185	73	21.33	307	10.01	3379	1350
13	Kaniyapuram	16	228	70	38.74	336	13.13	3730	1126
14	Venjaramoodu	31	192	65	77.93	305	11.77	3318	1131
15	Chathannur	43	234	78	38.99	370	14.46	3424	1126
16	Attingal	85	260	77	17.21	481	15.76	4563	1343
17	Kilimanoor+Chadaya-mangalam, Pathanapuram	116	250	79	32.85	276	9.93	3964	1225
18	Kollam	101	268	75	55.03	376	12.93	4560	1279
19	Kottarakkara	109	280	78	59.81	459	16.70	4561	1279
20	Punaloor+Kulathupuzha	71	249	77	29.66	309	11.00	4363	1210
21	Karunagapally	68	253	78	19.26	376	12.93	4040	1253
22	Edathuva + Mallappally	21	219	70	48.91	423	13.55	3679	1190
23	Pathanamthitta	63	267	73	63.40	485	18.25	4306	1171
24	Adoor+Pandalam	57	248	75	59.93	381	13.72	4051	1222
25	Thiruvalla	43	254	74	47.35	537	18.56	4397	1274

1	2	3	4	5	6	7	8	9	10
26	Kayamkulam	73	258	76	45.17	457	15.56	4402	1293
27	Harippad	34	270	81	48.16	466	15.85	4342	1294
28	Mavelikkara	48	258	75	50.88	497	18.13	4194	1209
29	Alappuzha	98	259	79	46.94	502	17.54	4135	1260
30	Cherthala	90	252	79	63.77	424	15.34	3887	1216
31	Chengannur	56	245	81	46.97	337	11.21	4072	1235
32	Changanassery	55	224	69	78.71	411	13.80	4289	1310
33	Kottayam	127	284	74	91.02	623	21.43	4885	1280
34	Ponkunnam + Erumelly	42	254	74	38.64	570	20.75	3984	1165
35	Pala	63	286	79	64.79	528	19.38	4332	1199
36	Erattupetta	61	235	69	129.09	499	18.09	4093	1213
37	Vaikom	42	265	75	69.81	567	21.09	3968	1135
38	Muvattupuzha	55	259	81	44.06	466	16.06	4102	1277
39	Thodupuzha, Moolamattom	59	266	72	88.98	524	18.50	4601	1257
40	Kothamangalam+ Munnar	19	288	76	90.62	754	27.27	4276	1140
41	Ernakulam	85	274	78	94.57	500	18.33	4193	1202
42	Aluva	67	253	86	76.05	409	15.50	3426	1164
43	Ankamaly	38	245	79	30.00	376	14.18	3623	1169
44	North Paravoor	60	243	77	36.85	433	16.29	3685	1172
45	Perumbavoor	49	243	77	83.77	315	11.68	3685	1189

1	2	3	4	5	6	7	8	9	10
46	Chalakkudy	41	270	80	33.76	505	21.58	4340	1289
47	Iringalakuda	11	326	81	41.33	799	28.01	5129	1257
48	Mala + Kodungalloor	53	278	78	35.57	651	23.63	4161	1210
49	Thrissur + Ambalur	108	335	80	76.45	847	31.39	5180	1185
50	Puthukkad	13	240	76	33.00	379	13.30	3993	1256
51	Guruvayoor	50	325	70	190.00	901	33.69	5470	1177
52	Ponnani	33	310	77	81.60	661	26.80	4339	1086
53	Perinthalmanna	27	333	71	127.29	777	30.22	5403	1131
54	Malappuaram + Nilambur	71	294	66	81.88	777	31.14	4941	1093
55	Palghat, Chittur, Vadakkancherry	139	358	80	112.00	477	17.97	5411	1231
56	Mannarkadu	16	304	71	242.00	841	32.82	4847	1128
57	Thottilpalam	26	231	66	60.00	632	24.11	3980	1152
58	Kozhikode, VDRA	115	288	77	84.40	697	27.16	4385	1147
59	Thamarassery	47	248	79	60.00	518	20.27	3569	1124
60	Kannurr	114	289	73	130.00	700	27.95	4384	1102
61	Payyannur	82	258	72	65.54	535	21.85	3845	1076
62	SulthanBathery	70	246	78	90.79	583	23.29	3467	1102
63	Kasargode	93	269	75	70.67	492	19.15	4053	1132
64	Mananthavady	55	245	70	61.29	549	21.17	3984	1143
65	Kalpetta	35	255	79	55.63	445	17.55	3563	1118
	Total	**4402**	**16708**	**4898**	**3959.90**	**33251**	**1208.41**	**267739**	**78241**

Source : *KSRTC*

Appendix 8.20

Category-wise Staff Position of K S R T C

Sl.No	Category	As on 1.4.2001	As on 1.4.2002	As on 31.10.2002
1	*2*	*3*	*4*	*5*
1	Administrative Staff (including watch and ward)	3288	3104	3112
2	Traffic personnel	18861	18018	17481
3	Maintenance personnel	5279	4832	4345
	Total	**27428**	**25954**	**24938**

Source : *K S R T C*

Appendix - 8.21

No. of ships called at Cochin Port during 2000-01 and 2001-2002 and their net registered tonnage (NRT)

Sl. No.	Types of Vessel	No. of ships		% Variation Increase (+) Decrease (-)	Net Registered Tonnage		% Variation Increase (+) Decrease (-)
		2000-01	2001-02		2000-01	2001-02	
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*
1	Container	348	429	(+)23.27	1749476	2494416	(+)42.58
2	Break Bulk	135	130	(-)3.70	310362	165092	(-)46.80
3	Dry Bulk	60	59	(-)1.67	417519	443253	0.0
4	Liquid Bulk	422	359	(-)14.93	5370288	4737160	0.0
5	Passenger Carriers	34	21	(-)38.24	258961	206588	(-)20.22
6	Others	101	192	(+)90.09	109873	227450	(+)107.01
	Total	**1100**	1190	**(+)8.18**	**8216479**	**8273959**	**0.7**

Appendix 8.22

Commodity - wise cargo handled at the Intermediate and Minor ports of Kerala during 2001-02.

(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*
1. Kozhikode/	Copra	805	0	805	246.5	0	246.5	255
	Empty barrel	1165.5	0	1165.5	0	0	0	1165.5
	Soda Ash	11948	0	11948	0	0	0	11948
	Wheat and wheat products	332	0	332	0	0	0	332
	Ground nut extract	0	0	0	0	0	0	0
	Coir and fiber	1	0	1	0	0	0	1
	Chalk powder	2073	0	2073	0	0	0	2073
	Fish	123	0	123	0	0	0	123
	Miscellaneous	140	0	140	412	0	412	552
	Timber	7.5	0	7.5	147.5	0	147.5	155
	Machinery and vehicles	11.5	0	11.5	38.5	0	38.5	50
	Bauxite	761.5	0	761.5	0	0	0	761.5
	Cement	41899	0	41899	6655.5	0	6655.5	48554.5
	Iron & Steel	0	0	0	645	0	645	645
	Vegitable and fruits	0	0	0	324.5	0	324.5	324.5
	provision and Stationery	0	0	0	640	0	640	640
	Granite Metal & Jelly	10	0	10	11077	0	11077	11087
	Pol. Products	0	0	0	8598.5	0	6898.5	8598.5
	Sand	0	0	0	59	0	59	59
	Food and foodgrains	4.5	0	4.5	412.5	0	412.5	417
	Furniture and house hold articles	57.5	0	57.5	369.5	0	369.5	427
	Salt	0	0	0	133	0	133	133
	Edible oil	0	0	0	93	0	93	93
	Tiles & Bricks	17.5	0	17.5	2367.5	0	2367.5	2385
	Coir and Coir items	1	0	1	0	0	0	1
	Wooden	0	0	0	0	0	0	0
	Sub Total	**58561**	**0**	**58561**	**32219.50**	**0**	**32219.50**	**90780.50**
Kasaragod	..							
Azhikkal	Black stone(baller)	0	0	0	0	0	0	0
	Copra	0	0	0	0	0	0	0
	Cement black	0	0	0	0	0	0	0
	Granite Jelly	0	0		82	0	82	82
	Sub Total	**0**	**0**	**0**	**82**	**0**	**82**	**82**
Kannur	Kannur							
	Thalassery							
	Vadakara							
	Ponnani							
3. Neendakara	Munambam							
4. Kovalam	Alapuzha							
	Ilminite							
Neendakara								
Valiyathura/								
Trivandrum								
	Ordinary cargo(Vegetables building materials, medicine, food item etc.)							
Kovalam								
Vizhinjam								
	Total	**58561**	**0**	**58561**	**32301.50**	**0**	**32301.50**	**90862.5**

Source: Directorate of Ports

Appendix 8.23

Number and Tonnage of steamers and sailing Vesels which called at the Intermediate and Minor Ports of kerala during 2001-02.

Name of Port	Coastal / Foreign	Steamers		Sailing Vessles		Total No. of Vessels	Total Tonnage
		No.	Tonnage	No.	Tonnage		
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*
Kasaragod	0	0	0	0	0	0	0
Azhikkal	0	0	0	0	0	0	0
Kannur	0	0	0	0	0	0	0
Thalassery	0	0	0	0	0	0	0
Vadakara	0	0	0	0	0	0	0
Kozhikode / Beypore	0	82	29314	212	34573	294	63887
Ponnani	0	0	0	0	0	0	0
Munambam	0	0	0	0	0	0	0
Alappuzha	0	0	0	0	0	0	0
Neendakara	0	0	0	0	0	0	0
Valiyathura	0	0	0	0	0	0	0
Kovalam / Vizhinjam	0	40	18880	25	3162	65	22042
Grand Total	**0**	**122**	**48194**	**248**	**38760.5**	**370**	**86954.5**

source: Directorate of Ports.

Appendix 8.24

Number of Harbour Crafts registered at the Intermediate and Minor Ports of Kerala during 2001-02

Name of Port	*Cargo boats including Barges*	*Canoes including boats*	*Mechanised fishing vessels*	*Others*	*Total*
1	*2*	*3*	*4*	*5*	*6*
Kasaragod	0	240	0	0	240
Azhikkal	0	0	0	0	0
Kannur	0	0	0	0	0
Thalassery	122	0	0	0	122
Vadakara	0	0	0	0	0
Kozhikode / Beypore	0	0	0	0	0
Ponnani	0	0	0	0	0
Munambam	0	0	294	0	294
Alappuzha	0	0	850	0	850
Neendakara	0	0	260	0	260
Valiyathura	0	0	0	0	0
Kovalam / Vizhinjam	0	0	0	0	0
Total	**122**	**240**	**1404**	***0***	**1766**

Source: Directorate of Ports.

Appendix 8.25

Category - wise break up of Revenue Collected at the Intermediate and Minor Ports of Kerala during 2001-02

(in Rupees)

Name of Port	Port dues	Export / Import dues	Tughire charges	Pilotage fees	Miscellaneous			Total
					Registration and other fees	Ground rent, shed rent etc.	Private dredging charges	
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*
Kasaragod	0	0	0	0	24000	415060	0	429060
Azhikkal	1477	9364	0	0	0	55475	0	66316
Kannur	7150	0	0	0	0	88923	0	96073
Thalassery	3575	0	0	0	1440	416702	0	421717
Vadakara	0	0	0	0	0	0	0	
Kozhikode			0		0		0	0
Beypore	89870	1193561	928275	25320	17937	2000181	0	4255144
Ponnani	0	0	0	0	442	30648	0	31090
Munambam	0	0	0	0	117160	270	0	117430
Alappuzha		0	0	0	340716	19305	0	360021
Neendakara	1580218	4270	1659300	0	107424	1853638	0	5204850
Valiyathura	0	0	0	0	0	65760	0	65760
Kovalam / Vizhinjam	64149	269655	0	0	0	566822	0	900626
Total	**1746439**	**1476850**	**2587575**	**25320**	**609119**	**5512784**	**0**	**11958087**

Source : Directorate of Ports

Appendix - 8.26

Operational Statistics of Inland Water Transport Agencies in Kerala

Particulars	State Water Transport Department		Kerala Shipping and Inland Navigation Corporation	
	2000-01	2001-02	2000-01	2001-02
1	2	3	4	5
No.of boats/Jhankars	81	86	12+2	12+2
Boat in operation Jhankars	54	52	10+2	10+2
No.of trips on Schedule	22995	22995	50698	45260
No.of Passengers carried (in lakhs)	214.89	216.06	66.87	65.00
Gross Route Distance (in Km)	2654280	2654280	578294	574500
Volume of Cargo carried (000 tonnes)	0	0	560	684
Total Revenue Receipts (in lakhs)	464.63	488.85	730.87	626.06
Total Revenue Expenditure (Rs.lakhs)	1267.85	1257.74	658.35	579.07
No.of Employees (Total)	1300	1300	314	319
Profit/Loss (in lakhs)	-803.22	-768.89	50.19	22.00

Appendix 8.27(A)

Details of flights operated by various agencies from Thiruvananthapuram International Airport

Sl.No.	Airlines	2000-2001				2001-2002			
		No. of Flights		No of Passengers		No. of Flights		No of Passengers	
		DOM	INT	DOM	INT	DOM	INT	DOM	INT
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*
1	Air India	..	1056	13993	146472	2	1222	385	161503
2	Indian airlines	2184	810	151964	96498	2276	756	148711	82634
3	Gulf Air	..	742	..	143896	0	732	0	134375
4	Oman Air	..	468	..	76282	0	526	0	78198
5	Air Maldives	..	..	..	..	0	..	0	
6	Kuwait Airways	...	422	..	46730	0	418	0	66082
7	Air Lanka	..	640	..	83843	0	558	0	82969
8	Qatar Airways	..	734	..	92412	0	730	0	90102
9	Jet Airways	1460	..	84764	..	1402	..	74079	
10	Chartered Flt.	..	52	..	10198	0	42	0	8897
11	Cargo Frieghters	..	189	..	..	0	194	0	..
12	Silk Air	..	290	..	30600	0	310	0	31011
13	Others	12	20	..	..	730	..	0	..
	Total	**3656**	**5423**	**250721**	**745931**	**4410**	**5488**	**223155**	**735771**

Source: Airport Authority of India

Appendix 8.27 (B)

Details of flights operated by various agencies from Kozhikode Airport

Sl.No.	Name of Operator	2000-01				2001-02			
		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	2030	1563	79896	146702	1961	1727	67567	176381
2	Air India	451	271	64086	55877	651	579	71708	95164
3	Jet Airways	724	..	53937	..	730	..	48657	..
4	Skycabs (Cargo)	..	..	..	..	..	..	..	..
5	Usbekistan Airways	..	..	..	..	..	..	..	..
6	IAC, AIC Joint Venture	..	1172	..	80771	..	1009	..	52543
7	Expo Cargo	..	..	..	..	26	..	..	..
8	Others	..	..	..	..	188	..	..	..
	Total	**3205**	**3006**	**197919**	**283350**	**3556**	**3315**	**187932**	**324088**

Source: Airport Authority of India, Kozhikode.

Appendix 8.27 (C)

Details of flights operated by various agencies from Nedumbassery international Airport

Sl.No	Airlines	2000-01				2001-02			
		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	Air India	..	1368	--	214229	--	2537	--	301131
2	Indian Airlines	4211	1086	154434	82029	3542	1359	135033	71729
3	Jet Airways	3636	--	300882	--	3628	--	278532	--
4	Oman Air	..					266		34544
5	Silk Air	..					140		10625
6	Kuwait Airways	..					6		1277
	Total	7847	2454	455316	296258	7170	4308	413565	419306

Source: Cochin International Airport

Appendix 8.28

Number of Passports issued from the Passport Offices in Kerala from 2000-01 to 2001-2002

Year	No. of Application Received				No. of Passports issued			
	Thiruvananthapuram	Kochi	Kozhikode	Total	Thiruvananthapuram	Kochi	Kozhikode	Total
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*
2000-01	84609	111974	147831	344414	76454	101356	141169	318979
2001-02	97952	134863	182604	415419	90969	130084	181880	402933

Source: Passport Offices Thiruvananthapuram Kochi and Kozhikode

Appenxi.8.29

Growth of Post Offices in Kerala During the Last Ten Years

Year	HOs	DSOs	EDSOs	EDBOs	Total
1991	50	1418	555	2882	4905
1992	51	1423	546	2985	5005
1993	51	1421	548	2989	5009
1994	51	1427	543	3014	5035
1995	51	1428	541	3020	5040
1996	51	1446	534	3010	5041
1997	51	1457	525	3013	5046
1998	51	1457	529	3015	5052
1999	51	1460	529	3025	5065
2000	51	1462	528	3028	5069
2001	51	1461	528	3031	5071
2002	51	1462	527	3033	5073

Source:- Chief Post Master General Kerala Circle

Appendix 8.30

Category - wise Offices in Postal and other Postal Services in Kerala.

Category of Office	As on Ist April	
	2001	2002
1	*2*	*3*
(a) Postal Services		
1. Head Post Offices	51	51
2. Sub Post Offices	1463	1463
ii) Extra Departmental Sub Post Offices	526	526
3. Branch Offices	3031	3033
Total (a)	**5071**	**5073**
(b) Speed Post Centres National		
National	8	8
State	40	40
Total	**48**	**48**
© Other Postal Services		
1. Head Record Office	3	3
ii) Sorting Mail Offices	28	28
iii) Sub Record Office	24	24
iv) Transist Mail Offices	8	8
v) R.M.S. Sections	19	19
vi) Press Sorting Office	2	2
vii) Parcel Sorting Office	3	3
Patrika Channel Office	1	1
Mail Motor Service Division unit	1	1
Central Stamp Depot	1	1
Total (C)	**90**	**90**

Source : CPMG, Kerala Circle, Thiruvananthapuram.

Appendix 8.31

Division-wise and Category -wise Post Offices under kerala Circle as on 1.4.2002.

Sl.No.	Name of Division	Head Offices	Sub Offices			
			SO	EDSO	EDBO	Total
1	*2*	*3*	*4*	*5*	*6*	*7*
1	Trivandrum (N)	2	75	8	112	197
2	Trivandrum (S)	2	70	15	135	222
3	Quilon	3	91	28	122	244
4	Pathanamthitta	3	77	48	183	311
5	Thiruvalla	2	63	30	62	157
6	Alappuzha	2	48	30	44	124
7	Mavelikara	2	52	22	49	125
8	Changanacherry	2	48	12	106	168
9	Idukki	2	52	13	223	290
10	Kottayam	3	79	44	131	257
11	Ernakulam	2	72	5	59	138
12	Auva	3	72	32	147	254
13	Thrissur	3	106	32	156	297
14	Irinjalakuda	2	62	22	107	193
15	Lakshadweep	0	6	3	1	10
16	Palakkad	3	85	21	126	235
17	Ottappalam	1	55	20	143	219
18	Manjeiri	2	46	21	191	260
19	Tirur	2	53	21	97	173
20	Kozhikode	3	73	14	217	307
21	Vadakara	2	41	37	146	226
22	Thalassery	1	44	8	155	208
23	Kannur	2	62	25	139	228
24	Kasaragod	2	30	16	182	230
	Total - (Kerala Circle)	**51**	**1462**	**527**	**3033**	**5073**

Source : CPMG, Kerala Circle, Thiruvananthapuram.

APPENDIX 8.32

Urban/Rural Split of Post Offices as on 1-4-2002

	Head Office		Sub Office		EDSO		EDBO		Grand Total		
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Total
TV North	0	2	43	32	7	1	93	19	143	54	197
TV South	0	2	39	31	15	0	130	5	184	38	222
Kollam	2	1	66	25	26	2	117	5	211	33	244
Pathanamthitta	0	3	69	8	46	2	177	6	292	19	311
Thiruvalla	0	2	52	11	29	1	57	5	138	19	157
	2	**10**	**269**	**107**	**123**	**6**	**574**	**40**	**968**	**163**	**1131**
Alappuzha	0	2	23	25	24	6	32	12	79	45	124
Mavelikara	0	2	45	7	22	0	46	3	113	12	125
Changanacherry	1	1	44	4	12	0	104	2	161	7	168
Kottayam	0	3	56	23	39	5	128	3	223	34	257
Idukki	1	1	48	4	13	0	221	2	283	7	290
Ernakulam	0	2	19	53	2	3	42	17	63	75	138
Aluwa	0	3	40	32	29	3	141	6	210	44	254
Thrissur	1	2	68	38	22	10	136	20	227	70	297
Irinjalakuda	0	2	38	24	20	2	89	18	147	46	193
Lakshadweep	0	0	6	0	3	0	1	0	10	0	10
	3	**18**	**387**	**210**	**186**	**29**	**940**	**83**	**1516**	**340**	**1856**
Palakkad	2	1	66	19	21	0	119	7	208	27	235
Ottappalam	0	1	44	11	18	2	133	10	195	24	219
Manjeri	0	2	38	8	20	1	178	13	236	24	260
Tirur	0	2	46	7	21	0	97	0	164	9	173
Kozhikode	0	3	20	53	10	4	176	41	206	101	307
Vadakara	1	1	36	5	33	4	143	3	213	13	226
Thalassery	0	1	15	29	2	6	126	29	143	65	208
Kannur	0	2	24	38	10	15	101	38	135	93	228
Kasargod	0	2	20	10	14	2	176	6	210	20	230
	3	**15**	**309**	**180**	149	**34**	**1249**	**147**	**1710**	**376**	**2086**
Grand Total	**8**	**43**	**965**	**497**	**458**	**69**	**2763**	**270**	**4194**	**879**	**5073**

Source: CPMG, Kerala Circle

Appendix 8.33

District - wise details of area and population served by one post office during 2001-2002

Sl.No.	Name of district	Post Office (Nos.)	Area (Sq.Km.)	Area served by One post office (Sq.Kms)	Population (2001 census)	Population served by one post office
1	*2*	*3*	*4*	*5*	*6*	*7*
1	Thiruvananthapuram	417	2192	5.25	3234707	7757
2	Kollam	386	2491	6.45	2584118	6695
3	Pathanamthitta	327	2642	8.08	1231577	3766
4	Alappuzha	298	1414	4.74	2105349	7065
5	Kottayam	409	2203	5.28	1952901	4775
6	Idukki	295	5019	17.01	1128605	3826
7	Ernakulam	403	2407	5.97	3098378	7688
8	Thirussur	490	3032	6.18	2975440	6072
9	Palakkad	335	4480	13.37	2617072	7812
10	Malappuram	386	3550	9.19	3629640	9403
11	**Kozhikode**	**626**	2344	3.74	**2878498**	4598
12	Wayanad	232	2131	3.74	786627	3391
13	Kannur	228	2966	13	2412365	10581
14	Kasaragod	233	1992	8.55	1203342	5165
	Kerala	**5065**	**38863**	**7.670**	**31838619**	**6276**

Source: CPMG Kerala Circle, Thiruvananthapuram

Appendix 8.34

District - wise details of Telephone net work during 2001-02.

Sl.No.	Name of District	No. of Exchanges	Equipped Capacity	Working connections	Area (sq.Kms.)	No. of Telephone (sq.Kms.)	No. of Telephone per 1000 Population.
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*
1	Alleppey	58	190436	166585	1414	118	7.9
2	Calicut	74	232494	193807	2344	89	6.3
3	Cannanore	97	211152	182846	2966	62	7.5
4	Ernakulam	114	435684	381390	2407	159	12.3
5	Idukki	80	97338	83131	5019	17	7.4
6	Kasaragod	52	100076	85408	1992	43	7.1
7	Kottayam	92	254797	215154	2203	98	11
8	Lakshadweep	10	11776	8638	32	270	14.2
9	Malappuram	75	220542	196728	3550	55	5.4
10	Palakkad	90	182122	139283	4480	31	5.3
11	Pathanamthitta	71	182750	168011	2642	64	13.6
12	Pondicharry (Mahe)	1	6000	5958	10	596	19.9
13	Quilon	79	244283	204368	2491	82	7.9
14	Trichur	78	348582	300835	3032	99	10.1
15	Trivandrum	88	379960	325399	2192	148	10.1
16	Wayanad	29	55426	36615	2131	17	4.7
	Total	**1088**	**3153418**	**2694156**	**38905**	**69**	**8.4**

Source : CGMT, Kerala.

Appendix - 9.1

Comparative statement showing literacy rate in India and States 1991 & 2001

Sl.No	India/States/Union Territories	Literacy rate 1991			Literacy rate 2001 *		
		Persons	Male	Female	Persons	Male	Female
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*
	India	52.21	64.13	39.29	65.38	75.85	54.16
1	Jammu & Kashmir	-	-	-	54.46	65.75	41.82
2	Himachal Pradesh	63.86	75.36	52.13	77.13	86.02	68.08
3	Punjab	58.51	65.66	50.41	69.95	75.63	63.55
4	Chandigarh	77.81	82.04	72.34	81.76	85.65	76.65
5	Utharanchal	-	-	-	72.28	84.01	60.26
6	Haryana	55.85	69.10	40.47	68.59	79.25	56.31
7	Delhi	75.29	82.01	66.99	81.82	87.37	75.00
8	Rajasthan	38.55	54.99	20.44	61.03	76.46	44.34
9	Uttar Pradesh	41.60	55.73	25.31	57.36	70.23	42.98
10	Bihar	38.48	52.49	22.89	47.53	60.32	33.57
11	Sikkim	56.94	65.74	46.69	69.68	76.73	61.46
12	Arunachal Pradesh	41.59	51.45	29.69	54.74	64.07	44.24
13	Nagaland	61.65	67.62	54.75	67.11	71.77	61.92
14	Manipur	59.89	71.63	47.60	68.87	77.87	59.70
15	Mizoram	82.27	85.61	78.60	88.49	90.69	86.13
16	Tripura	60.44	70.58	49.65	73.66	81.47	65.41
17	Meghalaya	46.10	53.12	44.85	63.31	66.14	60.41
18	Assam	52.89	61.87	43.03	64.28	71.93	56.03
19	West Bengal	57.70	67.81	46.56	69.22	77.58	60.22
20	Jharkand	-	-	-	54.13	67.94	39.38
21	Orissa	49.09	63.09	34.68	63.61	75.95	50.97
22	Chattisgarh	-	-	-	65.18	77.86	52.40
23	Madhya Pradesh	44.20	58.42	28.85	64.11	76.80	50.28
24	Gujarat	61.29	73.13	48.64	69.97	80.50	58.6
25	Daman & Diu	71.20	82.66	59.40	81.09	88.40	70.37
26	Dadra & Nagar Haveli	40.71	53.56	26.98	60.03	73.32	42.99
27	Maharashtra	64.87	76.56	52.32	77.27	86.27	67.51
28	Andhra Pradesh	44.09	55.13	32.72	61.11	70.85	51.17
29	Karnataka	56.04	67.26	44.34	67.04	76.29	57.45
30	Goa	75.51	83.64	67.09	82.32	88.88	75.51
31	Lakshadeep	81.78	90.18	72.89	87.52	93.15	81.56
32	Kerala	89.81	93.62	86.17	90.92	94.20	87.86
33	Tamil Nadu	62.66	73.75	51.33	73.47	82.33	64.55
34	Pondicherry	74.74	83.68	65.63	81.49	88.89	74.13
35	A & N Islands	73.02	78.99	65.46	81.18	86.07	75.29

* Provisional

Notes: The 1991 Census was not held in Jammu & Kashmir.

Appendix - 9.2

Literacy rate by Sex for State and Districts 1991 and 2001 - Kerala.

Sl. No	State/District	Literacy rate *					
		Persons		Males		Females	
		1991	2001 *	1991	2001 *	1991	2001 *
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*
	Kerala	89.81	90.92	93.62	94.20	86.17	87.86
1	Thiruvananthapuram	89.22	89.36	92.84	92.68	85.76	86.26
2	Kollam	90.47	91.49	94.09	94.63	87.00	88.60
3	Pathanamthitta	94.86	95.09	96.56	96.62	93.29	93.71
4	Alappuzha	93.87	93.66	96.79	96.42	91.12	91.14
5	Kottayam	95.72	95.90	97.46	97.41	94.00	94.45
6	Idukki	86.97	88.58	90.89	92.11	82.97	85.04
7	Ernakulam	92.30	93.42	95.40	95.95	89.22	90.96
8	Thrissur	90.18	92.56	93.77	95.47	86.94	89.94
9	Palakkad	81.27	84.31	87.24	89.73	75.72	79.31
10	Malappuram	87.94	88.61	92.08	91.46	84.09	85.96
11	Kozhikkode	91.10	92.45	95.58	96.30	86.79	88.86
12	Wayanad	82.73	85.52	87.69	90.28	77.69	80.80
13	Kannur	91.48	92.80	95.54	96.38	87.65	89.57
14	Kasaragod	82.51	85.17	88.97	90.84	76.29	79.80

Note: Literacy rate is the percentage of literates to population aged 7 years and above

* Provisional

Appendix - 9.3

District wise literates in Kerala 2001

Sl. No	State/District	Number of Literates *		
		Persons	Males	Females
1	2	3	4	5
	Kerala	25625698	12817963	12807735
1	Thiruvananthapuram	2572542	1287735	1284807
2	Kollam	2105396	1045009	1060387
3	Pathanamthitta	1054837	508153	546684
4	Alappuzha	1765261	869440	898821
5	Kottayam	1674592	836491	838101
6	Idukki	885166	461260	423906
7	Ernakulam	2589038	1312657	1276381
8	Thrissur	2456081	1200247	1255834
9	Palakkad	1951428	997503	953925
10	Malappuram	2745398	1363647	1381751
11	Kozhikkode	2351548	1182906	1168642
12	Wayanad	587030	308831	278199
13	Kannur	1988014	979240	1008774
14	Kasaragod	896367	464844	431523

Literacy excludes children in the group of 0-6 years who were by definition treated as illiterates in Census of India 2001.

* Provisional

Appendix - 9.4

Number of Schools in Kerala - Government Schools - 2001-02

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	826	963
1993-94	2520	898	424	959	828	967
1994-95	2520	901	386	958	837	975
1995-96	2521	902	406	960	836	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
1999-00	2552	899	436	959	838	979
2000-01	2565	898	438	960	844	985
2001-02	2565	899	439	960	846	986

Note: *Besides there are seven schools for the Handicapped and 38 T.T.Is in the State*
Source: *Directorate of Public Instruction, Thiruvananthapuram*

Appendix - 9.5

Number of Schools in Kerala- Private Aided Schools - 2001-02

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
1999-00	4035	1279	191	1873	1043	1397
2000-01	4035	1296	183	1873	1051	1412
2001-02	4031	1304	185	1874	1051	1415

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 - 9.6

Number of Schools in Kerala- Unaided Schools - 2001-02

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	68	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
1999-00	161	61	105	134	171	220
2000-01	158	56	101	124	172	218
2001-02	158	58	99	125	171	217

Note: *Besides there are 3 Anglo- Indian H.S. and 3 schools for the Hanidcapped in the State*

Source: *Directorate of Public Instruction, Thiruvananthapuram*

Appendix - 9.7

District wise Number of Schools (other than state syllabus) in Kerala 2001-02

Sl.No.	District	CBSE	ICSE	Kendriya Vidyalaya	Javahar Navodaya
1	*2*	*3*	*4*	*5*	*6*
1	Thiruvananthapuram	31	10	3	1
2	Kollam	16	9	0	1
3	Pathanamthitta	16	10	1	1
4	Alappuzha	22	11	0	1
5	Kottayam	27	4	2	1
6	Idukki	10	4	0	1
7	Ernakulam	59	11	6	1
8	Thrissur	28	3	1	1
9	Palakkad	26	3	3	1
10	Malappauram	33	1	1	1
11	Kozhikkode	20	1	2	1
12	Wayanadu	7	1	3	0
13	Kannur	24	1	2	1
14	Kasaragod	12	2	0	1
	Total	**331**	**71**	**24**	**13**

Source: Directorate of Public Instructions, Thiruvananthapuram.

Appendix - 9.8

Progress of Educational Institutions from 1961-62 to 2001-02

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
1999-00	2596	2966	6748	12310
2000-01	2615	2957	6758	12330
2001-02	2618	2959	6754	12331

Source: *DPI, Thiruvananthapuram*

Appendix - 9.9

District-wise/ Management-wise Number of Schools in Kerala -2001-02

Sl. No.	District	High Schools				U.P.Schools				L.P.Schools				H.S+U.P.S+L.P.S			
		G	PA	PUA	T	G	PA	PUA	T	G	PA	PUA	T	G	PA	PUA	T
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	Thiruvananthapuram	121	94	27	242	98	101	15	214	302	181	14	497	521	376	56	953
2	Kollam	75	126	10	211	62	139	7	208	269	189	17	475	406	454	34	894
3	Pathanamthitta	47	111	7	165	43	84	14	141	168	241	13	422	258	436	34	728
4	Alapuzha	58	127	7	192	67	78	2	147	194	198	13	405	319	403	22	744
5	Kottayam	59	166	16	241	68	128	8	204	169	273	21	463	296	567	45	908
6	Idukki	52	72	10	134	40	64	3	107	86	136	5	227	178	272	18	468
7	Ernakulam	90	176	34	300	92	102	13	207	186	278	23	487	368	556	70	994
8	Thrissur	80	153	21	254	56	164	6	226	121	391	10	522	257	708	37	1002
9	Palakkad	59	77	16	152	63	159	13	235	193	350	10	553	315	586	39	940
10	Malappuram	82	80	30	192	112	225	14	351	346	479	8	833	540	784	52	1376
11	Kozhikode	67	100	17	184	76	242	11	329	185	533	6	724	328	875	34	1237
12	Wayanad	40	23	4	67	34	39	3	76	91	53	5	149	165	115	12	292
13	Kannur	82	77	10	169	77	277	12	366	114	614	5	733	273	968	27	1268
14	Kasaragod	74	33	8	115	72	72	4	148	141	115	8	264	287	220	20	527
	TOTAL:	**986**	**1415**	**217**	**2618**	**960**	**1874**	**125**	**2959**	**2565**	**4031**	**158**	**6754**	**4511**	**7320**	**500**	**12331**

Note: G: Government, P.A Privated Aided, PUA : Private Unaided, T: Total

Besides there are 38 Govt. T.T.I's and 64 Private Aided T.T.I's (Including Anglo Indian T.T.I)

Source: *Directorate of Public Instruction, Thiruvananthapuram*

Appendix - 9.10

District - wise Details of Govt.Schools having Building Facilities - Kerala (2001)

Sl.No.	District	No.of Schools having Pucca Building				No.of Schools having Thatched Sheds				Number of Schools working in Rented Bldg.			
		L.P	U.P	H.S	Total	L.P	U.P	H.S	Total	L.P	U.P	H.S	Total
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*
1	Thiruvananthapuram	188	64	64	316	114	34	57	205	0	0	0	0
2	Kollam	224	50	72	346	45	12	3	60	2	0	0	2
3	Pathanamthitta	163	41	48	252	6	2	0	8	1	0	0	1
4	Alappuzha	177	55	41	273	17	12	17	46	0	0	0	0
5	Kottayam	156	65	55	276	13	3	4	20	0	0	0	0
6	Idukki	80	36	47	163	3	5	5	13	0	0	0	0
7	Ernakulam	186	91	90	367	1	1	1	3	2	0	0	2
8	Thrissur	107	51	77	235	13	4	3	20	22	0	1	23
9	Palakkad	181	57	48	286	13	6	11	30	64	7	2	73
10	Malappuram	314	83	60	457	32	29	22	83	120	32	2	154
11	Kozhikode	158	54	48	260	27	22	19	68	60	14	3	77
12	Wayanad	78	17	30	125	14	17	8	39	2	4	1	7
13	Kannur	100	67	53	220	14	10	28	52	36	22	4	62
14	Kasaragod	133	60	23	216	8	12	51	71	20	9	8	37
	Total:	**2245**	**791**	**756**	**3792**	**320**	**169**	**229**	**718**	**329**	**88**	**21**	**438**

Source: *Directorate of Public Instruction, Thiruvananthapuran*

Appendix - 9.11

District - wise Details of Govt. Schools having Drinking water/Latrines/Urinal Facilities in Kerala (2001)

Sl.No.	District	No. of Schools having							
		Drinking Water				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	272	83	106	461	193	69	105	367
2	Kollam	235	59	69	363	215	52	67	334
3	Pathanamthitta	135	25	46	206	60	22	46	128
4	Alappuzha	161	48	55	264	128	51	51	230
5	Kottayam	135	64	56	255	144	65	53	262
6	Idukki	78	24	30	132	71	33	43	147
7	Ernakulam	116	84	84	284	115	75	82	272
8	Thrissur	105	48	65	218	73	40	61	174
9	Palakkad	182	58	57	297	174	55	56	285
10	Malappuram	319	110	78	507	280	92	66	438
11	Kozhikode	161	72	63	296	130	61	42	233
12	Wayanad	82	33	38	153	53	29	21	103
13	Kannur	100	74	76	250	79	60	67	206
14	Kasaragod	139	68	72	279	70	31	30	131
	TOTAL:	**2220**	**850**	**895**	**3965**	**1785**	**735**	**790**	**3310**

Source: *Directorate of Public Instruction, Thiruvananthapuram*

Appendix - 9.12

Enrolment of Students in Schools in Kerala - Stage wise and Management wise (1992 - 2002)

	L.P.S				U.P.S				H.S				Total			
Year	Govt.	Aided	Unaided	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*	*15*	*16*	*17*
1992	975321	1389673	76404	2421398	687019	1200994	45067	1933080	620879	897727	33921	1552527	2283219	3468394	155392	5907005
1993	946495	1346165	79425	2372085	674867	1186376	46281	1907524	639532	913580	36015	1589127	2260894	3446121	161721	5868736
1994	916482	1322880	85692	2325054	651773	1164926	50138	1866837	643749	933364	39103	1616216	2212004	3421170	174933	5808107
1995	879101	1285774	87107	2251982	636086	1150609	52490	1839185	644388	941130	40660	1626178	2159575	3377513	180257	5717345
1996	846115	1258712	93257	2198084	619697	1137039	56039	1812775	636270	937710	42914	1616894	2102082	3333461	192210	5627753
1997	809218	1234335	96957	2140510	602692	1125677	61521	1789890	622840	932773	48211	1603824	2034750	3292785	206689	5534224
1998	776481	1200654	101072	2078207	585994	1106831	68220	1761045	611407	932877	53555	1597839	1973882	3240362	222847	5437091
1999	746711	1160898	102655	2010264	570736	1081927	73191	1725854	607921	932380	59282	1599583	1925368	3175205	235128	5335701
2000	708596	1122379	101351	1932326	555040	1072879	77083	1705002	605049	943545	63125	1611719	1868685	3138803	241559	5249047
2001	705929	1116593	110930	1933452	539367	1060575	79159	1679101	596766	942295	67438	1606499	1842062	3119463	257527	5219052
2002	675132	1090663	114307	1880102	509316	1025193	79683	1614192	586435	952227	69082	1607744	1770883	3068083	263072	5102038

Source: *Directorate of Public Instruction, Thiruvananthapuram*

Appendix - 9.13

Enrolment of Students in Government Schools- Kerala- 2001-02

	STANDARDS													
	I	II	III	IV	TOTAL	V	VI	VII	TOTAL	VIII	IX	X	TOTAL	Total (I to X)
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*	*15*
Boys	79614	84506	87679	92489	344288	82419	88480	93592	264491	111535	103998	81925	297458	906237
Girls	78393	81677	83590	87184	330844	76849	81607	86369	244825	99488	101401	88088	288977	864646
TOTAL	**158007**	**166183**	**171269**	**179673**	**675132**	**159268**	**170087**	**179961**	**509316**	**211023**	**205399**	**170013**	**586435**	**1770883**

Appendix - 9.14

Enrolment of Students in Private Aided Schools - Kerala 2001-02

	STANDARDS													
	I	II	III	IV	TOTAL	V	VI	VII	TOTAL	VIII	IX	X	TOTAL	Total (I to X)
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*	*15*
Boys	132179	137301	138736	143589	551805	164771	176150	189717	530638	181559	167226	129967	478752	1561195
Girls	131361	133684	134759	139054	538858	155625	163644	175286	494555	167103	165303	141069	473475	1506888
TOTAL	**263540**	**270985**	**273495**	**282643**	**1090663**	**320396**	**339794**	**365003**	**1025193**	**348662**	**332529**	**271036**	**952227**	**3068083**

Appendix - 9.15

Enrolment of Students in Private Unaided Schools - Kerala - 2001-02

	STANDARDS													
	I	II	III	IV	TOTAL	V	VI	VII	TOTAL	VIII	IX	X	TOTAL	Total (I to X)
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*	*15*
Boys	14795	14831	13565	13565	57371	14353	14141	13842	42336	13100	11940	10571	35611	135318
Girls	14850	14649	13956	13481	56936	12571	12550	12226	37347	11949	11258	10264	33471	127754
TOTAL	**29645**	**29480**	**27521**	**27046**	**114307**	**26924**	**26691**	**26068**	**79683**	**25049**	**23198**	**20835**	**69082**	**263072**

Source: *Directorate of Public Instruction, Thiruvananthapuram*

Appendix - 9.16

Enrolment of Students in Govt.Aided & Unaided Schools Standard wise and Management wise 2001-02

Management	I	II	III	IV	V	VI	VII	VIII	IX	X	Total
1	2	3	4	5	6	7	8	9	10	11	12
Government	158007	166183	171269	179673	159268	170087	179961	211023	205399	170013	1770883
Aided	263540	270985	273495	282643	320396	339794	365003	348662	332529	271036	3068083
Unaided	29645	29480	28136	27046	26924	26691	26068	25049	23198	20835	263072
Total	**451192**	**466648**	**472900**	**489362**	**506588**	**536572**	**571032**	**584734**	**561126**	**461884**	**5102038**

Appendix - 9.17

Enrolment of Students in Schools- District-wise and Stage-wise (2001-02)

Sl.No	Districts	L.P.S			U.P.S			HIGH SCHOOLS			TOTAL		
		Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*
1	Thiruvananthapuram	85606	87102	172708	74729	72307	147036	75499	75284	150783	235834	234693	470527
2	Kollam	69512	68084	137596	61432	57978	119410	60970	59144	120114	191914	185206	377120
3	Pathanamthitta	28864	28850	57714	28351	26231	54582	31162	29533	60695	88377	84614	172991
4	Alappuzha	49662	48945	98607	46726	43263	89989	49694	46921	96615	146082	139129	285211
5	Kottayam	50030	48992	99022	43862	40684	84546	43689	44152	87841	137581	133828	271409
6	Idukki	28676	27502	56178	25672	22587	48259	23729	22277	46006	78077	72366	150443
7	Ernakulam	73566	72891	146457	67651	62861	130512	67583	66156	133739	208800	201908	410708
8	Thrissur	91057	88411	179468	76193	70453	146646	71550	72335	143885	238800	231199	469999
9	Palakkad	87748	84908	172656	75526	70502	146028	72163	72172	144335	235437	227582	463019
10	Malappuram	152668	145635	298303	131786	120879	252665	120982	117027	238009	405436	383541	788977
11	Kozhikode	90587	86529	177116	81499	74357	155856	78073	77254	155327	250159	238140	488299
12	Wayanad	25909	24614	50523	21464	19995	41459	19109	19261	38370	66482	63870	130352
13	Kannur	76692	73081	149773	67130	61901	129031	64818	63768	128586	208640	198750	407390
14	Kasaragod	42887	41094	83981	35444	32729	68173	32800	30639	63439	111131	104462	215593
	TOTAL:	**953464**	**926638**	**1880102**	**837465**	**776727**	**1614192**	**811821**	**795923**	**1607744**	**2602750**	**2499288**	**5102038**

Source: *Directorate of Public Instruction, Thiruvananthapuram*

Appendix - 9.18

Enrolment of SC/ST Students at School Level 2002

Section	General	SC	% to Total	ST	% to Total
1	*2*	*3*	*4*	*5*	*6*
Lower Primary	1880102	201901	10.74	26835	1.43
Upper Primary	1614192	172982	10.72	18414	1.14
Secondary	1607744	164466	10.23	13610	0.85
TOTAL:	**5102038**	**539349**	**10.57**	**58859**	**1.15**

Source: *Directorate of Public Instruction, Thiruvananthapuram*

Appendix - 9.19

Standard -wise Strength of SC/ST Students - 2002

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	158007	21811	3852	263540	27612	3081	29645	974	78
II	166183	21985	3433	270985	26891	2836	29480	1023	81
III	171269	22338	3657	273495	27104	2940	28136	968	79
IV	179673	23010	3716	282643	27306	3009	27046	879	73
V	159268	19997	3420	320396	32651	3019	26924	652	79
VI	170087	21629	3112	339794	35593	2974	26691	640	84
VII	179961	22563	2958	365003	38661	2709	26068	596	59
VIII	211023	25964	3023	348662	35667	2352	25049	545	47
IX	205399	24597	2589	332529	32710	2141	23198	489	39
X	170013	19202	1919	271036	24890	1464	20835	402	36
TOTAL:	**1770883**	**223096**	**31679**	**3068083**	**309085**	**26525**	**263072**	**7168**	**655**

Source: Directorate of Public Instruction, Thiruvananthapuram

Appendix - 9.20

Strength of Pupils studying other than State Syllabus (2000-01)

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
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*
I	12441	9368	21809	2751	2108	4859	1368	1169	2537	..	..	..
II	11246	8743	19989	2776	2209	4985	1445	1174	2619	..	..	..
III	11541	8280	19821	2665	2125	4790	1427	1173	2600	..	..	..
IV	11158	8252	19410	2608	2005	4613	1388	1141	2529	..	..	..
V	11343	8057	19400	2617	1990	4607	1417	1236	2653	..	..	..
VI	11200	7797	18997	2619	2084	4703	1621	1274	2895	499	336	835
VII	9871	7089	16960	2367	1871	4238	1422	1286	2708	534	412	946
VII	8119	5935	14054	2050	1532	3582	1421	1139	2560	522	381	903
IX	6795	5021	11816	1603	1371	2974	1358	1198	2556	498	322	820
X	5429	4228	9657	1400	1179	2579	1230	1009	2239	486	314	800
TOTAL:	**99143**	**72770**	**171913**	**23456**	**18474**	**41930**	**14097**	**11799**	**25896**	**2539**	**1765**	**4304**

Source:*Directorate of Public Instruction, Thiruvananthapuram*

Appendix 9. 21

Stage-wise and Management-wise number of Teachers in Schools in Kerala - 2001

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 Techers	4712	10230	14942	7757	19147	26904	133	916	1049	12602	30293	42895
Upper Primary School Teachers	5242	9012	14254	10306	22200	32506	214	736	950	15762	31948	47710
High School Teachers	13136	21397	34533	15615	34939	50554	1153	4405	5558	29904	60741	90645
TTI	188	242	430	102	404	506	0	0	0	290	646	936
Total	**23278**	**40881**	**64159**	**33780**	**76690**	**110470**	**1500**	**6057**	**7557**	**58558**	**123628**	**182186**

Source: Directorate of Public Instructions, Thiruvananthapuram

Appendix - 9.22

Number of Teachers in Kerala (1994 - 2001)

Year	L.P.Schools			U.P. Schools			High Schools			I.T.I		
	Govt.	Private aided	Private Unaided	Govt.	Private aided	Private Unaided	Govt.	Private aided	Private Unaided	Govt.	Privarte Aided	Private Unaided
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*
1994	17425	28857	1005	15822	34074	805	37104	51224	3771	488	523	0
1995	17089	28433	1010	15703	34437	950	36950	51310	3821	484	533	0
1996	16724	28276	1025	15439	34183	762	36333	51299	3895	488	582	0
1997	16057	27868	926	14958	33907	824	35983	51668	5306	481	509	0
1998	15933	27662	1057	14852	33545	948	35490	51397	5709	442	508	0
1999	15474	27234	1038	14447	33103	956	35092	50769	5811	453	502	0
2000	15835	27188	1008	14549	32825	1126	34932	51308	5766	420	557	0
2001	14942	26904	1049	14254	32506	950	34533	50554	5558	430	506	0

Source : *Directorate of Public Instruction, Thiruvananthapuram*

Appendix - 9.23

Management wise Teachers Training Institutions, Student strength and Number of Teachers (1999-2000 & 2000-01)

Management	T.T.I						
	No.of Institutions	Student strength			No. of Teachers		
		Boys	Girls	Total	Men	Women	Total
1	2	3	4	5	6	7	8
1999-00							
Government	38	535	1946	2481	216	97	313
Aided	64	684	3339	4023	85	205	290
Unaided	0	0	0	0	0	0	0
Total	102	1219	5285	6504	301	302	603
2000-01							
Government	38	533	2218	2751	195	108	303
Aided	64	1041	3313	4354	115	228	343
Unaided	0	0	0	0	0	0	0
Total	**102**	**1574**	**5531**	**7105**	**310**	**336**	**646**

Appendix - 9.24

- **No. of Trained School Teachers during 1996-97 to 2000-01 (Stage wise)**

Year	Government				Aided			
	L.P	U.P	H.S	Total	L.P	U.P	H.S	Total
1996-97	23557	20141	22938	66636	38645	35799	36679	111123
1997-98	23525	19621	22786	65932	38702	35175	36488	110365
1998-99	22930	19146	22547	64623	37876	34678	36105	108659
1999-00	22881	19033	22665	64579	37816	34804	36779	109399
2000-01	22714	18232	22448	63394	37603	33950	36367	107920

Source: DPI, Thiruvananthapuram.

Appendix - 9.25

District-wise/Management-wise Number of Higher Secondary Schools in Kerala -2002

Sl.No.	District/Taluk	Number of Higher Secondary Schools				Number of batches			
		Govt.	Aided	Unaided	Total	Science	Humanities	Commerce	Total
1	2	3	4	5	6	7	8	9	10
1	Thiruvananthapuram	46	44	36	126	239	88	81	408
2	Kollam	35	45	19	99	177	63	57	297
3	Pathanamthitta	14	35	25	74	116	53	43	212
4	Alappuzha	26	47	14	87	170	68	55	293
5	Kottayam	29	59	23	111	212	80	59	351
6	Idukki	15	25	14	54	76	29	27	132
7	Ernakulam	34	64	43	141	230	74	98	402
8	Thrissur	42	42	35	119	170	60	73	303
9	Palakkad	34	21	21	76	105	47	36	188
10	Malappuram	36	38	43	117	147	61	59	267
11	Kozhikode	30	38	23	91	128	50	48	226
12	Wayanad	13	11	7	31	41	23	15	79
13	Kannur	43	28	19	90	139	42	52	233
14	Kasaragod	19	11	8	38	55	22	18	95
	Total	**416**	**508**	**330**	**1254**	**2005**	**760**	**721**	**3486**

NB:- Excluding batches in Unaided schools.

Appendix - 9.26

Intake of Students in Higher Secondary (plus Two) Courses - XI and XII Standard (1995-96 to 2001-02)

Year	No. of Student					
	First Year			Second Year		
	Boys	Girls	Total	Boys	Girls	Total
1	2	3	4	5	6	7
1995-96	2572	3354	5926	1947	2576	4523
1996-97	2351	3690	6041	2572	3354	5926
1997-98	8719	11373	20092	2351	3690	6041
1998-99	28184	34644	62828	8719	11373	20092
1999-00	29772	40799	70571	28184	34644	62828
2000-01	69552	96048	165600	29772	40799	70571
2001-02	70368	97042	169400	69552	96048	165600

Source: Directorate of Higher Secondary Education, Thiruvananthapuram

Appendix - 9.27

Progress of Vocational Education in Kerala - 1988-89 to 2001-02

Year	No.of Schools Sanctioned	Vocational Sections
1988-89	*100*	*200*
1989-90	50	150
1990-91	25	50
1991-92	35	100
1992-93	15	30
1993-94	10	34
1994-95	50	200
1995-96	25	50
1996-97	0	0
1997-98	0	0
1998-99	12	0
1999-00	0	0
2000-01	53	186
2001-02	0	0
Total	**375**	**1000**

Source: Directorate of VHSE, Thiruvananthapuram.

Appendix - 9.28

District-wise details of Vocational Higher Secondary Schools and Courses during 2002-03.

Sl.No.	District	No.of Schools			No. of Courses		
		Government	Aided	Total	Government	Aided	Total
1	2	3	4	5	6	7	8
1	Thiruvananthapuram	30	11	41	74	36	110
2	Kollam	20	32	52	51	109	160
3	Alappuzha	14	7	21	35	21	56
4	Pathanamthitta	10	17	27	26	51	77
5	Kottayam	21	10	31	49	26	75
6	Ernakulam	22	12	34	54	39	93
7	Idukki	11	5	16	31	15	46
8	Thrissur	26	10	36	64	32	96
9	Palakkad	17	7	24	37	20	57
10	Malappuram	23	3	26	53	7	60
11	Kozhikode	20	8	28	51	23	74
12	Wayanad	5	2	7	13	5	18
13	Kannur	15	1	16	38	2	40
14	Kasaragod	13	3	16	30	8	38
	TOTAL:	**247**	**128**	**375**	**606**	**394**	**1000**

Source: Directorate of VHSE, Thiruvananthapuram

4/100/2003—14A

Appendix - 9.29

Course wise Intake of students in VHSE 2002-03

Sl.No.	Name of Course	Sanctioned Intake
1	2	3
1	Civil Construction and Maintenance	1080
2	Maintenance and Repairs of Two Wheelers and Three Weelers	390
3	Maintenance and Repairs of Automobiles	420
4	Maintenance and Repairs of Radio & TV	2310
5	Maintenance and Repairs of Domestic Appliances	1710
6	Mechanical Servicing (Agro-machinery)	90
7	Refrigeration and Air-conditioning	570
8	Printing Technology (Pre-Press Operation)	330
9	Printing Technology (Press work & finishing)	330
10	Rubber Technology	90
11	Textile Dying and Printing	30
12	Textile Weaving	30
13	Computer Science	1320
14	Computer Application	1140
15	Agriculture (Plant Protection)	1890
16	Agriculture (Fruits and Vegetables)	750
17	Agriculture (Nursery Management and Ornamental Gardening	1560
18	Agriculture (Sericulture)	90
19	Livestock Management (Dairy Husbandary)	660
20	Livestock Management (Poultry Husbandary)	420
21	Dairying (Milk Products)	150
22	Fisheries (Aquaculture)	270
23	Fisheries (Fishing Craft and Gear Technology)	120
24	Fisheries (Maintenance and Operation of Marine Engines)	180
25	Fisheries (Fish Processing Technology)	450
26	Medical Laboratory Technician	4170
27	Maintenance and Operation of Bio Medical Equipments	870
28	ECG and Audiometric Technician	270
29	Domestic Nursing	480
30	Dental Technology	90
31	Physiotherapy	30
32	Physical Education	120
33	Clothing and Embroidery	510
34	Cosmetology and Beauty Parlour Management	150
35	Creche and Pre-school Management	90
36	Travel and Tourism	720
37	Office Secretaryship	2010
38	Accountancy and Auditing	2430
39	General Insurance	420
40	Marketing and Salesmanship	750
41	Reception, Book-keepting and Communication	150
42	Catering and Restaurant Management	90
43	Banking Assistance	270
	Total	**30000**

Source: Directorate of VHSE, Thiruvananthapuram.

Appendix - 9.30

Number of Students appeared and passed - Vocational Higher Secondary Education 1995 to 2002

Year of Examination	Number Appeared			Number Passed		
	Boys	Girls	Total	Boys	Girls	Total
1	2	3	4	5	6	7
1995 March	7222	5686	12908	2921	2036	4957
1995 September	2403	2304	4707	581	715	1296
1996 March	8104	6004	14108	3112	3102	6214
1996 September	1997	1901	3898	946	1144	2090
1997 March	10107	8108	18215	4521	4091	8612
1997 September	4127	3580	7707	1576	1508	3084
1998 March	8483	9778	18261	3184	5174	8358
1998 September	4091	2961	7052	1878	1953	3831
1999 March	8701	9864	18565	5050	7194	12244
1999 September	3559	2872	6431	1127	825	1952
2000 March	10009	11243	21252	5161	7266	12427
2000 September	3620	3461	7081	1159	1112	2271
2001 March	11905	7298	19203	8091	4960	13051
2001 September	2884	1158	4042	1632	1183	2815
2002 March	11534	11840	23374	8364	8874	17238

Source: Directorate of Vocational Higher Secondary Education, Thiruvananthpaurm.

Appendix - 9.29

Course wise Intake of students in VHSE 2002-03

Sl.No.	Name of Course	Sanctioned Intake
1	2	3
1	Civil Construction and Maintenance	1080
2	Maintenance and Repairs of Two Wheelers and Three Weelers	390
3	Maintenance and Repairs of Automobiles	420
4	Maintenance and Repairs of Radio & TV	2310
5	Maintenance and Repairs of Domestic Appliances	1710
6	Mechanical Servicing (Agro-machinery)	90
7	Refrigeration and Air-conditioning	570
8	Printing Technology (Pre-Press Operation)	330
9	Printing Technology (Press work & finishing)	330
10	Rubber Technology	90
11	Textile Dying and Printing	30
12	Textile Weaving	30
13	Computer Science	1320
14	Computer Application	1140
15	Agriculture (Plant Protection)	1890
16	Agriculture (Fruits and Vegetables)	750
17	Agriculture (Nursery Management and Ornamental Gardening	1560
18	Agriculture (Sericulture)	90
19	Livestock Management (Dairy Husbandary)	660
20	Livestock Management (Poultry Husbandary)	420
21	Dairying (Milk Products)	150
22	Fisheries (Aquaculture)	270
23	Fisheries (Fishing Craft and Gear Technology)	120
24	Fisheries (Maintenance and Operation of Marine Engines)	180
25	Fisheries (Fish Processing Technology)	450
26	Medical Laboratory Technician	4170
27	Maintenance and Operation of Bio Medical Equipments	870
28	ECG and Audiometric Technician	270
29	Domestic Nursing	480
30	Dental Technology	90
31	Physiotherapy	30
32	Physical Education	120
33	Clothing and Embroidery	510
34	Cosmetology and Beauty Parlour Management	150
35	Creche and Pre-school Management	90
36	Travel and Tourism	720
37	Office Secretaryship	2010
38	Accountancy and Auditing	2430
39	General Insurance	420
40	Marketing and Salesmanship	750
41	Reception, Book-keepting and Communication	150
42	Catering and Restaurant Management	90
43	Banking Assistance	270
	Total	**30000**

Source: Directorate of VHSE, Thiruvananthapuram.

Appendix - 9.30

Number of Students appeared and passed - Vocational Higher Secondary Education 1995 to 2002

Year of Examination	Number Appeared			Number Passed		
	Boys	Girls	Total	Boys	Girls	Total
1	2	3	4	5	6	7
1995 March	7222	5686	12908	2921	2036	4957
1995 September	2403	2304	4707	581	715	1296
1996 March	8104	6004	14108	3112	3102	6214
1996 September	1997	1901	3898	946	1144	2090
1997 March	10107	8108	18215	4521	4091	8612
1997 September	4127	3580	7707	1576	1508	3084
1998 March	8483	9778	18261	3184	5174	8358
1998 September	4091	2961	7052	1878	1953	3831
1999 March	8701	9864	18565	5050	7194	12244
1999 September	3559	2872	6431	1127	825	1952
2000 March	10009	11243	21252	5161	7266	12427
2000 September	3620	3461	7081	1159	1112	2271
2001 March	11905	7298	19203	8091	4960	13051
2001 September	2884	1158	4042	1632	1183	2815
2002 March	11534	11840	23374	8364	8874	17238

Source: Directorate of Vocational Higher Secondary Education, Thiruvananthpaurm.

Appendix - 9.31

District-wise Number of Arts & Science Colleges (Government & Private Aided) in Kerala - 2002.

Sl.No.	District	2002		
		Government	Private Aided	Total
1	Thiruvananthapuram	8	12	20
2	Kollam	1	12	13
3	Pathanamthitta	–	9	9
4	Alappuzha	–	12	12
5	Kottayam	1	20	21
6	Idukki	2	6	8
7	Ernakulam	4	21	25
8	Thrissur	3	17	20
9	Palakkad	3	7	10
10	Malappuram	3	9	12
11	Kozhikode	6	8	14
12	Wayanad	2	4	6
13	Kannur	2	9	11
14	Kasaragod	3	2	5
	TOTAL:	**38**	**148**	**186**

irectorate of Collegiate Education, Thiruvanar

Appendix - 9 .32

Enrolment in Arts & Science Colleges in Kerala - University-wise & Stage-wise - 2002

Name of University	Degree				Post Graduate				Total			
	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*
Kerala University	18431	30815	4660	271	1473	3761	554	43	19904	34576	5214	314
Calicut University	15136	23838	3426	283	1438	3388	457	37	16574	27226	3883	320
M.G.University	17334	26733	4145	260	1274	2325	425	36	18608	29058	4570	296
Kannur University	6037	7655	1316	185	495	621	94	19	6532	8276	1410	204
TOTAL:	**56938**	**89041**	**13547**	**999**	**4680**	**10095**	**1530**	**135**	**61618**	**99136**	**15077**	**1134**

Source: *Directorate of Collegiate Education, Thiruvananthapuram*

Appendix - 9.33

Details of B.A Degree Enrolment in Colleges during the year 2002-03.

Sl.No	*Subject*	*First Year*		*Second Year*		*Third Year*	
		Total	*of which girls*	*Total*	*of which girls*	*Total*	*of which girls*
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*
1	Economics	6483	4331	6132	4366	6232	5142
2	History	3432	2136	3358	2238	3243	1735
3	Sociology	982	634	901	532	742	342
4	Politics	1005	506	1031	598	942	438
5	Philosophy	518	318	680	402	515	259
6	Geography	98	43	81	28	75	36
7	Psychology	277	151	215	114	155	74
8	English	4079	2134	3912	2278	2815	1619
9	Malayalam	3051	2279	2795	1589	2639	1783
10	Hindi	916	468	854	618	610	308
11	Islamic History	296	152	218	105	170	74
12	Arabic	385	205	296	138	251	68
13	Sanskrit	245	91	186	97	171	39
14	Kannada	26	12	25	14	23	11
15	Tamil	55	21	48	13	54	26
16	Music	48	19	55	19	49	25
	TOTAL:	**21896**	**13500**	**20787**	**13149**	**18686**	**11979**

Source: *Directorate of Collegiate Educaton*

Appendix - 9.34

Details of B.Sc.Degree Enrolment in Colleges during 2002- 2003

Sl.No	Subject	First Year		Second Year		Final Year	
		Total	of which girls	Total	of which girls	Total	of which girls
1	2	3	4	5	6	7	8
1	Mathematics	5310	3335	5119	3085	4854	2616
2	Physics	4055	2515	4128	2634	4239	2524
3	Chemistry	4158	2590	4114	2348	3951	2119
4	Zoology	3892	2284	3625	2228	3426	1948
5	Botany	3119	2391	2534	2175	2516	1895
6	Statistics	292	155	222	116	154	104
7	Geology	193	176	148	84	145	93
8	Home Science	64	71	95	96	119	89
9	Bio-Chemistry	95	39	65	28	44	16
10	Polymer Chemistry	133	51	88	36	93	47
11	Biotechnology	29	14	23	24	21	8
12	Computer Science	110	48	84	48	64	24
13	Industrial Fish & Fisheris	46	15	35	16	28	11
14	B.Sc Electronics	83	38	65	16	74	25
15	Analytical Chemistry	16	8	12	9	10	6
	Total	21595	13730	20357	12943	19738	11525

Source: Directorate of Collegiate Education, Thiruvananthapuram

Appendix 9.35

Details of B.Com Degree Enrolment in Colleges 2002-2003

Year	Boys	Girls	Total
First Year	3718	4308	8026
Second Year	3760	4192	7952
Third Year	3224	3715	6939
Total	**10702**	**12215**	**22917**

Source: Directorate of Collegiate Education, Tvpm.

Appendix - 9.36

Details of Enrolment of M.A. Students in Colleges during 2002- 2003

Sl.No	Subject	First Year			Second Year		
		Boys	Girls	Total	Boys	Girls	Total
	1	2	3	4	5	6	7
1	Economics	247	652	899	342	730	1072
2	History	131	310	441	125	330	455
3	Sociology	9	8	17	9	8	17
4	Politics	72	151	223	75	157	232
5	Philosophy	16	31	47	15	34	49
6	Geography	9	28	37	12	15	27
7	Psychology	11	38	49	9	25	34
8	English	205	476	681	172	399	571
9	Malayalam	71	336	407	72	161	233
10	Hindi	65	152	217	45	202	247
11	Geology	25	19	44	15	14	29
12	Arabic	122	49	171	111	58	169
13	Sanskrit	25	48	73	35	12	47
14	Kannada	6	11	17	9	5	14
15	Islamic History	45	53	98	55	53	108
16	Tamil	8	11	19	9	12	21
	TOTAL:	**1067**	**2373**	**3440**	**1110**	**2215**	**3325**

Source: *Directorate of Collegiate Education*

Appendix - 9.37

Details of Enrolment of M.Sc. Students in Colleges during 2002 - 2003

Sl. No	Subject	First Year			Second Year		
		Boys	Girls	Total	Boys	Girls	Total
1	2	3	4	5	6	7	8
1	Mathematics	159	523	682	142	429	571
2	Statistics	102	309	411	95	243	338
3	Physics	141	340	481	141	330	471
4	Chemistry	125	342	467	121	332	453
5	Zoology	136	304	440	136	329	465
6	Botany	101	363	464	109	360	469
7	Home Science	5	8	13	4	9	13
8	Geology	14	15	29	13	11	24
9	Analytical Chemistry	5	13	18	4	12	16
10	Bio-Chemistry	1	9	10	..	..	..
	TOTAL:	**789**	**2226**	**3015**	**765**	**2055**	**2820**

Source: *Directorate of Collegiate Education*

Appendix 9.38

Details of Enrolment of M.Com Students in Colleges during 2002 - 2003

Sl.No	Category	Enrolment		
		Boys	Girls	Total
1	2	3	4	5
1	First Year	469	622	1091
2	Second Year	480	604	1084
	Total	**949**	**1226**	**2175**

Appendix- 9.39

University-wise Number of Teachers in Arts & Science Colleges (2001-2002)

Sl.No.	Name of University	Number of Teachers								
		2000			2001			2002		
		Men	Women	Total	Men	Women	Total	Men	Women	Total
1	2	3	4	5	6	7	8	9	10	11
1	Kerala	1339	2354	3690	1344	2132	3476	1799	1934	3783
2	Mahatma Gandhi	1886	2012	3898	1881	2241	4122	1354	1537	2891
3	Calicut	1782	1397	3179	1584	1408	2992	1548	1728	3276
4	Kannur	513	363	876	214	369	583	325	360	685
	TOTAL:	**5520**	**6126**	**11643**	**5023**	**6150**	**11173**	**5026**	**5559**	**10635**

Source: *Directorate of Collegiate Education, Thiruvananthapuram*

Appendix - 9.40

University-wise Number of Engineering Colleges in Kerala - 2002.

Sl. No.	*Name of University*	*No.of Colleges*
1	*2*	*3*
1	University of Kerala	16
2	University of Calicut	12
3	Mahatma Gandhi University	22
4	Kannur University	4
5	Cochin University of Science & Technology	15
6	Kerala Agricultural University	2
	Total	**71**

Appendix - 9.41

Distribution of Total Seats in Various Engineering Colleges (Branch-wise) - 2002

No. of Seats in Engineering Colleges

Sl. No.	Name of Course	TVM	TCR	KNR	KTM	TKM	MAC	NSS	MES	MDL	CHN	ADR	KSD	SCT	UCE	TRV	PKD	KKD	WAD	PTA	VDA	ASI	AJC	AIT	AWH	BMC	CML	PJR	IDK	KNP	KGR	MNR
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*	*15*	*16*	*17*	*18*	*19*	*20*	*21*	*22*	*23*	*24*	*25*	*26*	*27*	*28*	*29*	*30*	*31*	*32*	*33*
1	Civil Engineering	122	90	60	60	90	90	90	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
2	Mechanical Engineering	121	100	60	60	100	100	90	60	..	..	60	60	60	..	60	..	60	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
3	Electrical & Electronics Engineering	100	100	60	60	100	90	90	60	..	..	..	60	..	60	..	..	..	..	..	..	60	60	..	60	..	60	..	60	..	..	..
4	Electronics & Communication Engineering	60	60	60	60	50	60	90	120	90	120	120	60	120	60	60	60	..	60	60	60	60	60	60	60	60	60	60	60	45	45	60
5	Computer Science & Engineering	60	60	60	60	50	60	60	120	90	120	60	60	60	60	..	60	..	60	120	60	60	60	60	60	60	60	60	60	30	45	60
6	Applied Electronics & Instrumentation Engineering	60	..	..	..	..	..	..	60	..	..	..	..	..	..	..	..	60	..	..	..	..	..	..	..	..	..	..	..	..	..	..
7	Architecture Engineering	40	..	..	..	20	..	..	20	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
8	Industrial Engineering	30	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
9	Chemical Engineering	..	50	..	..	40	..	..	..	..	..	..	..	..	..	..	..	60	..	..	..	..	..	..	..	..	..	..	..	..	..	..
10	Production cum Plant Engineering	..	30	..	..	30	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
11	Production Engineering	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
12	Instrumentation & Control Engineering	..	..	..	..	..	..	60	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
13	Computer Engineering	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
14	Electronics Engineering	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
15	Bio Medical Engineering	..	..	..	..	..	..	..	..	40	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
16	Mechanical Engineering (automobile)	..	..	..	..	..	..	..	..	..	..	..	..	60	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
17	Mechanical Engineering (Production)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
18	Polymer Engineering	..	..	..	..	..	..	..	..	..	..	..	..	..	60	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
19	Information Technology	..	..	..	..	..	..	..	60	..	..	..	60	60	60	60	60	..	..	60	60	60	60	60	60		60	60	60	30	45	60
20	Electronics & Instrumentation	..	..	..	..	..	..	..	..	..	..	..	..	60	..	..	..	..	..	..	60	..	..	..	..	60	..	..	..	..	45	..
21	Bio Technology	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Total	**593**	**490**	**300**	**300**	**480**	**400**	**480**	**500**	**220**	**240**	**240**	**300**	**420**	**300**	**180**	**180**	**180**	**120**	**240**	**240**	**240**	**240**	**180**	**240**	**180**	**240**	**180**	**240**	**105**	**180**	**180**

Source: Directorate of Technical Education, Thiruvananthapuram

Appendix - 9.41 Contd...

No.of Seats in Engineering Colleges

Sl. No.	Name of Course	PRN	TKR	TLY	FIT	ICE	JEC	KME	LBT	YEC	IMC	MLM	MBC	KMG	MGP	MCE	MET	MCT	MZC	MUS	MEA	KMC	NCE	RET	TEC	SCM	SBC
1	*2*	*34*	*35*	*36*	*37*	*38*	*39*	*40*	*41*	*42*	*43*	*44*	*45*	*46*	*47*	*48*	*49*	*50*	*51*	*52*	*53*	*54*	*55*	*56*	*57*	*58*	*59*
1	Civil Engineering	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	60	..
2	Mechanical Engineering	..	..	60	..	..	..	..	..	..	..	..	..	60	60	..	..	..	..	..	..	60	60	..	..	60	..
3	Electrical & Electronics Engineering	60	..	..	60	60	60	..	..	..	60	60	60	60	60	..	..	..	..	60	..	..	..	..	60	60	..
4	Electronics & Communication Engineering	60	45	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
5	Computer Science & Engineering	60	45	60	60	60	60	60	60	60	60	60	60	60	..	60	60	60	60	60	60	60	60	60	60	60	60
6	Applied Electronics & Instrumentation Engineering	..	..	..	..	..	..	..	60	..	..	..	..	..	..	..	..	..	60	..	..	60	..	60	..	..	..
7	Architecture Engineering	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
8	Industrial Engineering	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
9	Chemical Engineering	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
10	Production cum Plant Engineering	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
11	Production Engineering	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
12	Instrumentation & Control Engineering	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
13	Computer Engineering	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
14	Electronics Engineering	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
15	Bio Medical Engineering	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
16	Mechanical Engineering (automobile)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	.
17	Mechanical Engineering (Production)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
18	Polymer Engineering	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
19	Information Technology	60	45	60	..	60	60	60	60	60	60	60	60	..	..	60	..	60	60	60	60	60	60	60	..	..	..
20	Electronics & Instrumentation	..	..	..	60	..	..	60	..	..	..	..	..	..	..	..	..	..	..	..	..	60	..	..	..	.	..
21	Bio Technology	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	60	60	..	..	..	..	..	.	..	.	60
	Total	**240**	**135**	**240**	**240**	**240**	**240**	**240**	**240**	**180**	**240**	**240**	**240**	**240**	**180**	**180**	**180**	**240**	**240**	**240**	**180**	**360**	**240**	**240**	**180**	**300**	**180**

*Source: Directorate o*1 Technical Education

No.of Seats in Engineering Coleges

Sl. No.	Name of Course	SNM	SJC	SHR	TKI	TOC	UCK	VMC	VJC	MBT	MCK	SHM	SNG	Total
1	*2*	*60*	*61*	*62*	*63*	*64*	*65*	*66*	*67*	*68*	*69*	*70*	*71*	72
1	Civil Engineering	..	..	..	..	..	..	..	..	..	..	..	..	662
2	Mechanical Engineering	..	60	..	..	..	..	..	60	..	60	..	..	1531
3	Electrical & Electronics Engineering	60	..	..	..	..	..	60	..	60	..	60	60	2100
4	Electronics & Communication Engineering	60	60	60	60	60	60	60	60	60	60	60	60	4325
5	Computer Science & Engineering	60	60	60	60	60	60	60	60	60	60	60	60	4100
6	Applied Electronics & Instrumentation Engineering	..	..	..	..	..	..	..	..	..	..	..	..	420
7	Architecture Engineering	..	..	..	..	..	..	..	..	..	..	..	..	80
8	Industrial Engineering	..	..	..	..	..	..	..	..	..	..	..	..	30
9	Chemical Engineering	..	..	..	..	..	..	..	..	..	..	..	..	150
10	Production cum Plant Engineering	..	..	..	..	..	..	..	..	..	..	..	..	60
11	Production Engineering	..	..	..	..	..	..	..	..	..	..	..	..	0
12	Instrumentation & Control Engineering	60	60	..	..	..	..	..	..	..	..	..	..	180
13	Computer Engineering	..	..	..	..	..	..	..	..	..	..	..	..	0
14	Electronics Engineering	..	..	..	..	..	..	..	..	..	..	..	..	0
15	Bio Medical Engineering	..	..	60	..	..	..	..	..	..	..	..	..	100
16	Mechanical Engineering (automobile)	..	..	..	..	..	..	..	..	..	..	..	..	60
17	Mechanical Engineering (Production)	..	..	..	..	..	..	..	..	..	..	..	..	0
18	Polymer Engineering	..	..	..	..	..	..	..	..	..	..	..	..	60
19	Information Technology	..	..	..	60	60	60	..	60	60	..	60	..	2520
20	Electronics & Instrumentation	..	..	..	..	..	..	..	..	..	..	..	..	405
21	Bio Technology	..	..	60	..	..	..	..	..	..	..	..	..	240
	Total	**240**	**240**	**240**	**180**	**180**	**180**	**180**	**240**	**240**	**180**	**240**	**180**	**17023**

Source Directorate o f Technical Education

Appendix - 9.42

Branch-wise Annual Intake in Government/Aided Engineering Colleges - 2002-03

Sl.No	Name of Branch	Government		Aided	
		Sanctioned Intake	Actual Intake	Sanctioned Intake	Actual Intake
1	Civil Engineering	332	332	270	270
2	Mechanical Engineering	341	341	290	290
3	Electrical Engineering	380	380	280	280
4	Electronics & Communication	480	480	200	200
5	Computer Science & Engineering	420	420	170	170
6	Applied Electronics and Engg.	120	120	..	..
7	Architecture	40	40	20	20
8	Industrial Engineering	30	30	..	..
9	Chemical Engineering	110	110	40	40
10	Production-Cum-Plant Engg.	30	30	30	30
11	Instrumentation and Control Engineering	..	..	60	60
12	Information Technology	120	120	..	..
	Total	**2403**	**2403**	**1360**	**1360**

Source: DTE, Thiruvananthapuram.

Appendix - 9.43

Course-wise Annual Intake of Students in Government Engineering Colleges at Post Graduate Level - 2002

Sl.No.	Name of Course	Annual Intake		
		2000	2001	2002
1	2	3	4	5
1	Civil Engineering	57	57	57
2	Mechanical Engineering	42	42	42
3	Electrical Engineering	41	41	41
4	Electronics Engineering	5	5	5
5	Chemical Engineering	6	6	6
6	Production-cum-Plant Engineering	..	..	..
7	Instrumentation & Control System	10	10	10
8	Production Engineering	6	6	6
9	Applied Electronics and Instrumentat	5	5	5
10	Achitecture	5	5	5
11	Industrial Engineering	5	5	5
12	Electrical Communication	..	..	..
13	Computer Science	..	..	..
14	Production & Management	..	..	..
15	M.C.A	120	120	120
16	Others (Specify)			
	TOTAL:	**302**	**302**	**302**

Source:DTE, Thiruvananthapuram.

Appendix - 9.44

Annual Intake and Students Strength in Polytechnics in Kerala - (1996-97 to 2002-03)

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*
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
1999-00	41	6	47	16291	3995	20286	7430	1280	8710
2000-01	42	6	48	20766	4003	24769	8250	1380	9630
2001-02	42	6	48	23006	4103	27109	8040	1380	9420
2002-03	42	6	48	23576	4203	27779	8000	1380	9380

Source:- Directorate of Technical Education

Appendix -9.45

Trade-wise Annual Intake of students in Polytechnics - 2002

Sl.No.	Name of Trade	Sanctioned Intake	Actual Intake
1.	Civil Engineering	980	980
2.	Mechanical Engineering	1270	1270
3.	Electrical Engineering	970	970
4.	Electronics Engineering	1710	1710
5.	Chemical Engineering	90	90
6.	Automobile Engineering	240	240
7.	Textile Technology	160	160
8.	Computer Engineering	1640	1640
9.	Instrument Technology	110	110
10.	Polymer Technology	140	140
11.	Computer Hardware Maintanance	430	430
12.	Tool & Die	50	50
13.	Electronics Production Technology	120	120
14.	Architecture	70	70
15.	Electronics & Communication	340	340
16.	Electronics & Instrumentation	260	260
17.	Wood & Paper Technology	40	40
18.	Printing Technology	70	70
19.	Commercial Practice	300	300
20.	Electronics & Avionics	50	50
21.	Computer Application & Business Management	260	260
22.	Bio Chemical Engineering	40	40
23.	Information Technology	40	40
	Total	**9380**	**9380**

Source: Directorate of Technical Education, Thiruvananthapuram.

Appendix - 9.46

Number of Students and Teachers in Polytechnics 2002

Type of Institution	Number of Students						Number of Teachers					
	2001			2002			2001			2002		
	Boys	Girls	Total	Boys	Girls	Total	Male	Female	Total	Male	Female	Total
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*
Government	14954	8052	23006	15324	8252	23576	1030	322	1352	1030	330	1360
Private	2667	1436	4103	2732	1471	4203	240	79	319	240	79	319
TOTAL:	**17621**	**9488**	**27109**	**18056**	**9723**	**27779**	**1270**	**401**	**1671**	**1270**	**409**	**1679**

Directorate of Technical Education, Thiruvananti

Appendix - 9.47

Number of SC/ST Students and SC/ST Teachers

Type of Institution	Students						Teachers					
	2001			2002			2001			2002		
	Total	SC	ST	Total	SC	ST	Total	SC	ST	Total	SC	ST
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*
Government Polytechnics / Private Aided Polytechnics	27109	2168	542	27779	2222	556	1671	99	10	1679	99	10
TOTAL:	**27109**	**2168**	**542**	**27779**	**2222**	**556**	**1671**	**99**	**10**	**1679**	**99**	**10**

Directorate of Technical Education, Thiruvananti

Appendix - 9.48

Trade-wise Annual Intake of Students in THS - 2002

Sl.No.	Name of Trade	Actual Intake
1.	Electronics	375
2.	Electro Plating	150
3.	Welding	300
4.	Fitting	300
5.	Turning	210
6.	Wheelers	150
7.	Survey	150
8.	T.V. Maintanance & Repair	150
9.	Automobile	150
10.	Electrical Wiring	150
Total		**2085**

Source: Directorate of Technical Education, Thiruvananthpuram.

Appendix - 9.49

Number of Students and Teachers in Technical High Schools - (1995-2002)

Year	Number of Students			Number of Teachers		
	Boys	Girls	Total	Men	Women	Total
1	*2*	*3*	*4*	*5*	*6*	*7*
1995	5639	616	6255	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
2000	5361	407	5768	832	183	1015
2001	5361	407	5768	832	183	1015
2002	5631	624	6255	832	183	1015

Source: *Directorate of Technical Education*

Appendix - 9.50

Details of Courses in Cochin University of Science and Technology - 2002

Sl. No.	Name of the Courses	Duration of Course	Sanctioned Intake	Actual Intake
1	2	3	4	5
1	**School of Engineering**			
	ME by Research (Part-time)			
	ME by Research (Full-time)	5 Sem.	According to availabel vacancies	
	Ph.D.			
2	**School of Env. Studies**			
	M.Sc. Environmental Technology			
	Stream I Env. Engineering	4 Sem.	6	6
	Stream II Env. Biotech.	4 Sem.	6	6
3	**Department of Foreign Languages**			
	Certificate Programmes in French/ German/Japanese/Russian (P.T)	1 Year	25 each	25 each
	Diploma Programmes in French/ German/Japanese/Russian (P.T)	1 year	10 each	10 each
	Diploma in Functional Arabic (P.T)	1 Year	20	20
	Integrated Diploma in French/ German/Japanese/Russian (PT)	1 year	20 each	20 each
	MA Translation German/Russian (F.T)	2 years	5 each	5 each
	Ph.D.			
4	**Department of Hindi**			
	MA Hindi Language & Literature (Regular)	4 Sem.	28	28
	M.Phil Hindi	2 Sem.	10	10
	Administrative Drafting and Reporting in Hindi (PT)	1 year	28	28
	Ph.D.			
5	**School of Legal Studies**			
	LLB	6 Sem.	60	60
	LLM (Regular)	4 Sem.	36	36
	Ph.D			
6	**School of Industries Fisheries**			
	M.Sc. Industrial Fisheries	4 Sem.	16	16
	Ph.D.			
7	**Department of Atmospheric Sc.**			
	M.Sc. Meteorology	4 Sem.	12	12
8	**Department of Chemical Oceanography**			
	M.Sc. Hydrochemistry	4 Sem.	12	12
	M.Phil Chemical Oceanography	2 Sem.	6	6
	Ph.D.			
9	**Department of Marine Bio, Micro Bio & Bio Chemistry**			
	M.Sc. Marine Biology	4 Sem	19	19
	M.Phil Life Science	3 Sem	6	6
	Ph.D.			
10	**Department of Marine Geology & Geophysics**			
	M.Sc. Marine Geology	4 Sem.	10	10

1	2	3	4	5
	M.Sc. Marine Geophysics	2 years	10	10
11	**Department of Physical Oceanography**			
	M.Sc. Oceanography	4 Sem.	12	12
	M.Tech. Ocean Technology	3 years	8	8
12	**Department of Applied Chemistry**			
	M.Sc. Applied Chemistry	4 Sem.	12	12
	M.Phil Chemistry	2 Sem.	9	9
	M.Tech. Ind. Catalysis	3 Sem.	10	10
	Ph.D.			
13	**Department of Biotechnology**			
	M.Sc. Biotechnology	4 Sem.	10	10
	Ph.D.			
14	**Department of Mathematics**			
	M.Sc. Mathematics	4 Sem.	20	20
	M.Sc. (Operative Res. & Comp. Applications)	4 Sem.	15	15
15	**Department of Physics**			
	M.Sc. Physics	4 Sem.	25	25
	M.Phil Physics	2 Sem.	30	30
	Ph.D.			
16	**Department of Statistics**			
	M.Sc. Statistics	4 Sem.	15	15
	M.Tech. Engineering Statistics	3 Sem.	8	8
	Ph.D.			
17	**Deparatment of Applied Economics**			
	M.Phil Applied Economics	2 Sem.	10	10
	M.B.E. Master of Business Eco.	4 Sem.	15	15
	Ph.D.			
18	**S.M.S**			
	MBA (F.T)	4 Sem.	50	50
	MBA (P.T) Evening	6 Sem.	30	30
	Master of Intl. Business (MIB)	4 Sem.	30	30
	M.Phil Commerce	2 Sem.	6	6
	Ph.D.			
19	**Department of Electronics**			
	M.Tech. Electronics (with specialisation in Digital Electronics, Microwave and Radar Electronics)	3 Sem.	20	20
	M.Sc. Electronic Sciencae (with specialisation in Artificial Intelligence Robotic Microwave Electronics & Computer Tech.)	4 Sem.	25	25
	Ph.D.			
20	**Department of Instrumentation**			
	B.Tech. Instrumentation	8 Sem.	28	28
	Ph.D.			
21	**Department of PS & RT**			
	B.Tech. PS & RT	6 Sem.	16	16
	M.Tech. Pol.Tech.	3 Sem.	10	10
	M.Tech. (PS & RT)	5 Sem.	15	15

1	2	3	4	5
	Ph.D.			
22	**Department of Ship Tech.**			
	B.Tech. Naval Arch.&Ship Bldg.	8 Sem.	20	20
	M.Tech. Computer Aided Structural Analysis & Design	3 Sem.	8	8
23	**Intl. School of Photonics**			
	M.Tech. Opto Electronics and Laser Technology	3 Sem.	10	10
	M.Phil Photonics	2 Sem.	6	6
	Ph.D.			
24	**Department of Computer Applications**			
	MCA Regular	6 Sem.	30	30
	Ph.D.			
25	**Department of Computer Science**			
	M.Tech. Computer and Information Science	3 Sem.	14	14
	M.Tech. Software Engineering	3 Sem.	13	13
	Ph.D.			
	Self Financing Courses			
1	B.Tech.	4 years	895	895
2	B.C.A.	3 years	50	50
3	M.C.A.	3 years	30	30
4	M.Sc. Software Engineering.	5 years Integrated	40	40

Appendix - 9.51

Growth of Institutions (Allopathy) 1990 - 2002

Year	Govt. Hospitals	Govt. Dispensaries and T.B.Clinics	Primary Health Centres including MCH Centre	Grant in aid institutions with beds	Others including CHCs	Total No. of institutions
1	*2*	*3*	*4*	*5*	*6*	*7*
1990	140	71	883	36	69	1199
1991	140	738	908	36	69	1226
1992	141	76	907	36	69	1229
1993	141	76	918	36	67	1204
1994	148	75	924	36	66	1249
1995	147	73	940	36	67	1263
1996	149	74	961	36	75	1295
1997	150	73	956	36	95	1310
1998	149	74	962	36	95	1316
1999	143*	74	944	36	120	1317
2000	143*	74	944	36	120	1317
2001	143*	75	943	29	120	1310
2002	143	75	941	29	122	1310

Appendix - 9.52

Growth of beds under Allopathy System in Kerala - 1990 - 2002

Year	No.of beds	Growth Index	No.of beds per lakh of population
1	*3*	*4*	*5*
1990	38223	206	128
1991	38726	209	133
1992	40496	219	137
1993	41018	221	137
1994	41651	225	137
1995	42126	227	137
1996	42569	230	137
1997	43165	233	137
1998	43672	236	137
1999	44500	240	137
2000	45684	247	139
2001	46791	253	147
2002	46800	253	147

Note : (I) No. of beds per lakh of population since 1992 based on projected population and 2001 Census

(ii)Beds related to Government Sector and Grant-in-aid institutions

Appendix - 9.53

Rural Health Infrastructure -1986-2002

Year	Primary Health		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	956	5100	80	3442	5094	..
1998	962	5253	80	3348	5094	..
1999	944	5009	105	4202	5094	..
2000	944	5009	105	4202	5094	..
2001	943	5215	105	4415	5094	
2002	941	5166	107	4503	5094	

Source: *Directorate of Health Services*

Appendix. 9.54

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		Specialities if any
						OP	IP	
1	2	3	4	5	6	7	8	9
1	Kollam Co-operative Group Hospital Co-operative Society Ltd. No. Q 494	3	6	5	100	14400	1440	Doctors in General Medicine, Gynecology, Paediatric, ENT and Surgery
2	Kollam District Co-operative Hospital Society Ltd.No. Q .952, Kollam	3	6	4	15	18000	4215	Paediatric, General Medicine
3	Kollam district Homoeo co-operative hospital society Ltd.No..Q 932	..	..	2	..	..	..	Nil
4	Vettikkavala Co-operative Hospital Society Ltd. No.461, Kollam	1	..	--	..	760	..	Nil
5	Kottarakkara taluk panchayat Co-operative hospital society Ltd.	1	2	2	..	1080	..	
6	Neduvathoor panchayat Co-operative hospital society Ltd.	..	..	..	..	..	..	..
7	Pathanamthitta District Co-operative Hospital Ltd. No.A.292, Kulanada	1	3	3	25	20032	5700	Nil
8	Kottayam District co-operative hospital K.764	2	2	20	..	..	..	Pathology, Bio-chemistry,Radiology
9	Kaduthuruthy Co-operative Hospital Ltd.No.K.379, Kottayam	5	4	2	35	34784	2102	Paediatric, Skin and V.D, ENT
10	Alappuzha District Co-operative Hospital Society Ltd No.A.805	1	3	2	10	2051	251	Nil
11	Mavelikkara Taluk hospital co-operative society A. 899	..	..	..	..	..	..	..
12	Deshabhimani T.K. Madhavan memorial co-operative hospital	..	..	..	..	..	..	..
13	Chingoli co-operative hospital A. 324	..	..	..	..	..	..	..
14	N.Sreedharan memorial co-operative hospital society A 849	..	..	..	..	..	..	..
15	Idukki District Co-operative Hospital Society Ltd.No. I. 177	9	15	13	100	38456	3819	General Medicine, General Surgery, Gynaecology, Orthopaedic, Dental Surgery, ENT,Physiotherapy, Anesthesiology and Phychiatry.

1	2	3	4	5	6	7	8	9
16	Indira Gandhi Co-operative Hospital Society Ltd. No. E. 288, Ernakulam	33	34	15	480	105029	9737	Cardiology , Neurology, Oncology, Paediatric Surgery
17	Thnkkakara Grama Panchayat Co-operatrve Hospital Ltd. NO. E. 993	18	26	5	33	20530	10400	General Medicine, Paediatric, E.N.T., General Surgery,Skin & V.D., Gynaecology, Ortho, Ophthalmology
18	Koothattukulam Co-operative Hospital Society Ltd. No. 303, Ernakulam	10	16	35	150	14363	1944	General Medicine, E.N.T., Gynaecology, Ortho. Paediatric, Anesthesia
19	Thrissur District Co-operative Hospital Ltd. No. R. 306, Thrissur	27	63	22	240	41686	8931	Cardiology , Neurology, Gastro-enterology, Urology, Plastic and Cosmetic Surgery, General Medicine, Surgery, Gynaecology, Paediatrics, Ortho, E.N.T., Skin & V.D., Physiotherapy, Opthalamology, Neuro Phsychiatry, Dental Surgery
20	Manalur Co-operative Hospital Ltd.No. R.330, Thrissur	1	..	1	..	2465	..	Nil
21	Thrissur District Mahatma Super Speciality Co-operative Hospital Ltd.No. R.816, Thrissur	5	6	2	12	1642	--	Peadiatrics, General Medicine
22	Thrissur District Ayurvedic Co-operative Hospital Society Ltd. No.814, Thrissur	8	6	12	12	5248	212	Back pain clinic and Infertility Clinic
23	Trissur district prakrithi chikitsa co-operative hospital, Ltd. No. Rs. 713, Thrissur	4	..	3	10	1318	142	Nil
24	Irinjalakuda Co-operative Hospital Society Ltd.No. R.954, Thrissur	24	52	30	50	8846	1920	General Medicine, Paediatric, Radiology, Surgery
25	Kodungallur Co-operative Hospital, Thrissur	1	1	--	--	547	--	Nil
26	Palakkad District Health Family Welfare Co-operative Hospital Society Ltd. No. P. 965, Nenmara	5	3	4	10	3000	..	E.N.T., Gynaecology, Children,Dental, Eye Care Unit
27	The Palakkad District Co-operative Hospital Ltd.No. P.878	20	24	6	100	608	6410	Dust allergy Dept., Gynaecology Orthopaedic, I.C.C. Unit, ENT, Neurology, Ultra Sound Scan unit, Skin Specialists, Ophthalmology

1	2	3	4	5	6	7	8	9
28	P.M.S.A. Memorial Malappuram District Co-operative Hospital Ltd.No. 352	12	36	12	150	38950	6820	General Medicine, Gynaecology, ENT,. Ophthalmology,Paediatrics, General Surgery, Psychiatry, Anaesthesiology, Orthopaedic, Dermatology and Super Speciality Urology
29	E.M.S. Memorial Co-operative Hospital and Research Centre Society Ltd. No. 549, Perinthalmanna	11	17	50	100	31637	5955	General Medicine, Gynaecology, Ophthalmology, Orthopaedics, Paediatrics, Psychiatry
30	Nediyiruppu Co-operative DispensaryLtd No.9, Nediyirippu	1	3	1	10	2578	28	Nil
31	Edakkara Co-operative Hospital Ltd. No.17 Edakkara	..	..	..	..	..	..	Nil
32	Kottakkal co-operative hospital Ltd.No. 594	1	2	2	5	4268	30	
33	Parappur co- operative dispensary Ltd. No.19	..	..	..	..	..	..	..
34	Nonnamukku panchayat co-operative hospital Ltd. No. 15	..	..	..	..	..	..	..
35	Tirur co-operative hospital research centreLtd. No.633	2	2	4	20	61320	12099	Nil
36	Atholi Panchayat Co-operative hospital, Kozhikode	10	15	20	60	79250	18200	Paediatrics,ENT,Ophthalmology,Gynaecology
37	Vadakara Co-operative Hospital	8	11	10	50	21000	3600	Nil
38	C.H.Muhammedkoya Memorial Co-operative Hospital Ltd. No.D.2600, Kozhikode	2	4	2	15	8439	539	ENT, Ophthalmology
39	Nadapuram Sahakarana Hospital, Kallachi, Kozhikode	1	2	..	--	5927	--	Nil
40	Chombala Co-operative Clinic and Maternity Clinic, Kozhikode	36	26	19	115	47481	4953	Gynaecology, Ophthalmology, ENT, Physiotherapy, Paediatrics, Ortho, General Surgery and General surgery
41	The Kozhikode district co-operative hospital	..	--	..	--	..	--	Nil
42	Kozhikode district ayurvedic hospital	2	..	1	..	1200	..	Nil
43	Kozhikode Co-operative Homoeo Hospital							

1	2	3	4	5	6	7	8	9
44	Elathur Co-operative Dispensary, Kozhikode	2	1	5	12	8994	742	Nil
45	Kozhikode Regional Ayurvedic Co-operative Hospital, Thiruvanbady, Kozhikode	2	--	2	3	4256	1526	Nil
46	Koyilandy Co-operative Hospital Society, Koyilandy, Kozhikode	2	4	6	20	39000	31400	Nil
47	EMS Memorial Co-operative Hospital, Perambra (Clinic not started)	..	..	..	..	..	..	..
48	Kerala state co-operative hospital for Advanced Medical Science							
49	Iritty co- operative hospital, Kannur	2	16	8	35	24000	4125	Nil
50	Cannanore Co-operative Hospital Society Ltd. No. C 834, Kannur	36	39	65	350	146085	14915	Gynaecology, Ophthalmology, ENT, Physiotherapy, Paediatrics, Ortho, Surgery, Medicine, Skin, Dental, Urology, Anesthesiology, Casualty
51	A.K.G.Memorial Co-operative Panchayat Dispensary Society, Peralasseri, Kannur	3	5	2	30	34583	1043	
52	Kolavalloor co - operative dispensary	1	1	2	12	18800	85	Nil
53	Panoor co- operative dispensary	..	..	..	..	..	..	..
54	Taliparamba co- operative hospital	10	22	15	75	28500	3800	3 specialities
55	Rajeev Gandhi memorial co-operative hospital		Not functioning					
56	Matha mangalam co-operative hospital		Not functioning					
57	Payyannur block Co-operative Hospital , Kannur	24	36	25	200	125000	32125	Nil
58	Payyanur Co-operative dispensary, Kannur	12	20	18	75	38500	4200	Nil
59	Mambaram Co-operative Hospital Society, Kannur	24	36	25	200	125000	32125	
60	Alakode Bhawaniamma Thamburan Co-operative Hospital, Kannur	1	5	6	30	15000	985	Nil
61	Payyanur Block Co-operative Hospital Society, Kannur	1	5	28	10	3550	575	Nil

1	2	3	4	5	6	7	8	9
62	**Thalassery Co-operative Hospital, Kannur**	**31**	**97**	**105**	**250**	**80395**	**12976**	Cardiology, Neurology, Neuro Surgery, Urology, Nephrology, Ortho, General Medicine, E.N.T., Ophthalmology, Paediatrics,Paediatric Surgery, Gynaecology, Anaesthesia, Physical Medicine, Radiology,
63	Kasaragod District Co-operative Hospital Society Ltd. No.S42	6	12	12	40	13690	2347	Ultra sound, Gynaecology, General medicne
64	Kasaragod District Co-operative Homeo Hospital Society Ltd. NO. S. 34	3	4	3	--	2100	--	Nil
65	Karibil Kunhikonam Memorial Co-operative Hospital Ltd. No. 943, Kasargod	1	5	2	25	6230	468	Nil
66	Kasargod district ayurvedic co-operative hospital	1	1	1	..	..	..	Nil
67	EMS Memorial Co-operative Hospital Society Ltd. No. S 290, Kasargod	1	4	2	5	6504	104	Nil
68	Mahatmaji Co-operative Integrated Medical care Society Ltd. No. S 266, Kasargod	1	2	4	20	3420	1610	Nil
69	Rajeev Gandhi Memorial Co-operative Hospital Society Ltd. No. S. 182, Kasargod	1	4	1	7	2843	76	Nil
	TOTAL	**433**	**709**	**646**	**3306**	**1363345**	**254674**	

Source:- Office of the Registrar, Co-operative Societies

Appendix - 9.55

DETAILS OF INFRASTRUCTURE IN THE DIRECTORATE OF INSURANCE MEDICAL SERVICE - District wise as on 31-3-2002

Name of District	No.of Hospitals	No. of Beds	No. of dispensaries	No.of doctors		No of other Paramedical Staff including Nurses		No.of patients treated during 1998		
				Hospital	Dispensaries	Hospital	Dispensaries	Hospital (OP)	Dispensaries (OP)	Hospital (IP)
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*
Thiruvananthapuram	1	128	11	18	22	25	31	24983	448086	2219
Kollam	3	389	30	74	98	127	167	77816	2261967	12250
Pathanamthitta	--	--	3	--	8	--	13	..	81627	--
Alappuzha	1	50	14	16	23	21	44	12560	408956	1910
Kottayam	1	50	8	17	16	22	28	24084	324829	1406
Idukki	--	--	1	--	1	--	2	--	5693	--
Ernakulam	2	220	20	47	45	59	68	70804	821088	4533
Thrissur	2	212	15	41	26	51	43	16074	335701	2908
Palakkad	1	50	7	16	9	21	15	4872	113351	999
Kozhikode	1	100	13	21	41	38	62	23153	390554	2109
Malappuram	--	--	4	--	5	--	11	--	21937	--
Kannur	1	50	9	16	12	19	27	7531	232243	653
Kasargod	--	--	1		1	--	2	--	6272	--
TOTAL:	**13**	**1249**	**136**	**266**	**307**	**383**	**513**	**261877**	**5452304**	**28987**

Source: *Directorate of Insurance Medical Services*

Appendix - 9.56

Medical Institutions and Beds in Kerala - Category-wise - 2002

District	Hospitals		PHCs including MCH Centres		Community Health Centres		Dispensaries		T.B. Clinics/Centres		Leprosy Control Clinics/ Units
	No.	Beds	No.	Beds	No.	Beds	No.	Beds	No.	Beds	
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*
Thiruvananthapuram	19	6268	77	424	10	502	7	44	1		1
Kollam	9	1500	66	254	8	347	..	..	2	..	3
Pathanamthitta	7	630	51	241	4	191	1	..	1	12	..
Alappuzha	12	3475	65	243	8	307	2	..	2	76	1
Kottayam	13	2502	61	425	8	392	..	..	2	48	..
Idukki	3	328	54	412	4	132	2	..	1	..	..
Ernakulam	22	3010	78	661	10	477	3	80	4	40	..
Thrissur	18	3518	87	425	9	323	5	6	1	..	2
Palakkad	8	1147	85	655	9	461	8	..	1	..	1
Malappuram	7	1302	96	612	9	328	6	..	2	52	3
Kozhikode	10	5168	70	233	10	356	3	..	1	..	2
Wayanad	2	331	25	216	6	264	6	..	1	..	..
Kannur	10	2293	80	222	7	244	8	56	1	..	..
Kasargode	3	433	46	143	5	179	3	..	1	..	2
TOTAL:	**143**	**31905**	**941**	**5166**	**107**	**4503**	**54**	**186**	**21**	**228**	**15**

Source: *Directorate of Health Services*

APPENDIX 9.57

District wise medical institutions and beds - Government sector

(Nos.)

Sl.No.	District	Allopathy		Ayurveda		Homoeopathy		Total		Beds per lakh of population
		Institutions	Beds	Institutions	Beds	Institutions	Beds	Institutions	Beds	
1	2	3	4	5	6	7	8	9	10	11
1	Thiruvanathapuram	118	7483	78	803	55	285	251	8571	264
2	Kollam	91	2476	60	190	40	75	191	2741	106
3	Pathanamthitta	68	1947	43	100	26	25	137	2072	168
4	Alappuzha	94	4887	65	180	44	75	203	5142	244
5	Kottayam	90	4398	50	150	47	175	187	4723	241
6	Idukki	64	872	34	160	35	50	133	1082	95
7	Ernakulam	120	5328	74	419	54	85	248	5832	188
8	Thrissur	123	4442	94	273	40	25	257	4740	159
9	Palakkad	115	2450	79	160	40	25	234	2635	101
10	Malppuram	125	2379	76	220	44	50	245	2649	72
11	Kozhikode	96	5757	59	210	49	175	204	6142	213
12	Wayanad	40	811	24	120	20	25	84	956	121
13	Kannur	106	2815	68	316	39	25	213	3156	131
14	Kasaragode	60	755	41	100	24	75	125	930	77
	TOTAL	**1310**	**46800**	**845**	**3401**	**557**	**1170**	**2712**	**51371**	**161**

NB. Including medical college hospitals

Appendix - 9.58

District-wise availability of Vechicles under DHS -2002

Sl.No	Disrtict	Vechicles in Running condition	Vechicles in repair/ workshop	Unrepairable	Total
1	*2*	*3*	*4*	*5*	*6*
1	Thiruvananthapuram	167	12	105	284
2	Kollam	45	4	22	71
3	Pathanamthitta	33	12	6	51
4	Alappuzha	50	7	23	80
5	Kottayam	50	17	3	70
6	Idukki	47	..	23	70
7	Ernakulam	44	14	16	74
8	Thrissur	52	1	24	77
9	Palakkad	69	14	33	116
10	Malappuram	69	12	31	112
11	Kozhikode	64	5	14	83
12	Wayanad	47	4	27	78
13	Kannur	52	14	..	66
14	Kasaragod	32	2	11	45
	TOTAL:	**821**	**118**	**338**	**1277**

Source: *Directorate of Health Services*

Appendix - 9 .59

Statement showing No.of attack and death due to major principal diseases during 2000

Sl.No.	Name of Diseases	Attack		Death	
		2001	2002	2001	2002
1	2	3	4	5	6
1	Acute Diarrhoeal Diseases	561354	398606	19	15
2	Diptheria	14	2	2	..
3	Acute Poliomyelitis	..	..	..	..
4	Tetanus-Others	10	4	1	1
5	Neonatal Tetanus	1	..	..	..
6	Whooping Cough	293	167	..	..
7	Measles	3234	1692		
8	Acute Respiratory Infection	686930	5784817	368	282
9	Pneumonia	24530	15652	52	47
10	Enteric Fever	7521	7040	6	4
11	Viral Hepatitis-A	4632	4341	6	5
12	Viral Hepatitis-B	597	726	6	16
13	Japanese Encephalitis	2	1	..	..
14	Menningococal Menningitis	27	48	4	2
15	Rabies	11	7	11	7
16	Syphillis	99	57	..	..
17	Gonococcal Infection	703	336	..	..
18	Pulmonary Tuberculosis	27348	18783	221	118
19	All Other Diseases	20524678	16693857	8407	5593
20	Chickenpox	8943	7185	6	3
21	Dongue Fever	74	140	..	..
22	Weils Disease	2582	2086	129	154
	Total	***21853583***	***22935547***	**9238**	**6247**

Source: *Directorate of Health Services*

4100/2003—16

APPENDIX 9.60

SECTOR WISE DETAILS OF BLOOD UNITS COLLECTED IN BLOOD BANKS - KERALA

Sl. No	Name of Category	No.of blood units collected							
		1994	1995	1996	1997	1998	1999	2000	2001
A	GOVERNMENT SECTOR								
1	Medical College Hospitals	56268	60634	62587	63844	66492	49690	50395	51583
2	General Hospitals	64	598	1347	1531	2485	3792	4524	4642
3	District Hospitals	3319	4260	4308	7145	9765	7065	8570	8609
4	Women and Children Hospitals	..	315	328	478	786			
5	Taluk Head Quarters Hospitals	1042	3671	4649	6569	6209	7762	9585	9806
6	Other Hospitals	474	324	295	240	52		73	186
	SUB TOTAL :	**61107**	**69802**	**73514**	**79807**	**91358**	**68309**	**73147**	**74826**
B	AUTONOMOUS INSTITUTIONS								
1	Regional Cancer Centre	3540	5149	4047	5302	4777			
2	Sree Chitra thirunal Institute of Science and Technology	5181	5349	5334	5563	5548	4967	4774	6326
	SUB TOTAL :	**8721**	**9798**	**9381**	**10865**	**10325**	**4967**	**4774**	**6326**
C	PRIVATE SECTOR	38360	46834	48597	62308	73337	81062	86255	88203
	TOTAL : (A+B+C)	**108208**	**126134**	**131492**	**152980**	**170956**	**154338**	**164176**	**169355**

Appendix 9.61

DETAILS OF BLOOD UNITS COLLECTED IN BLOOD BANKS - KERALA

Sl. No	Name of the Institution	No.of blood units collected							
		1994	1995	1996	1997	1998	1999	2000	2001
A	**GOVERNMENT SECTOR**								
I	*MEDICAL COLLEGE HOSPITALS*								
1	Medical College Hospital,Thiruvananthapuram	17933	19646	20266	19456	20400	22558	22492	25855
2	Medical College Hospital, Kotayam	12658	13474	12837	13016	12421	12575	12641	11184
3	Medical College Hospital, Alappuzha	4575	4641	4546	5009	5420	6321	6763	6067
4	Medical College Hospital, Thrissur	5354	5495	5548	6224	7061	6414	6299	6789
5	Medical College Hospital, Kozhikode	15708	17111	18598	19171	19778	-	-	-
6	Medical College Hospital, Pariyaram, Kannur	--	267	792	968	1412	1822	2200	1688
	SUB TOTAL :	*56228*	*60634*	*62587*	*63844*	*66492*	*49690*	*50395*	*51583*
II	*GENERAL HOSPITALS*								
1	General Hospital,Thiruvananthapuram	--	315	328	478	785			
2	General Hospital, Pathanamthitta	--	--	--	171	701	759	917	1238
3	General Hospital, Ernakulam	64	63	797	569	481	-	-	-
4	General Hospital, Kozhikode	--	220	222	313	276	-	-	-
5	General Hospital, Thalassery	--	--	--	--	242	3033	3607	3404
	SUB TOTAL :	*64*	*598*	*1347*	*1531*	*2485*	*3792*	*4524*	*4642*
III	*DISTRICT HOSPITALS*								
1	District Hospital, Kollam	2797	2739	2459	3119	3642			
2	District Hospital, Kottayam	109	213	260	80	59			
3	District Hospital, Thrissur	109	510	625	675	621	715	818	753
4	District Hospital, Palakkad	48	202	207	560	967	761	802	909
5	District Hospital, Alappuzha	--	--	--	133	274	211	216	625
6	District Hospital, Manjery	365	235	476	1071	1205	1485	1518	1246
7	District Hospital, Kannur	48	776	748	2063	2504	3188	4190	3951
8	District Hospital, Mananthavady	--	--	--	84	493	705	1026	1122
	SUB TOTAL :	*3476*	*4675*	*4775*	*7785*	*9765*	*7065*	*8570*	*8609*
IV	*WOMEN & CHILDREN HOSPITALS*								
1	Women & Children Hospital,Thiruvananthapuram	--	315	328	478	786			
	SUB TOTAL :	--	*315*	*328*	*478*	*786*			
V	*TALUK HEAD QUARTERS HOSPITAL*								
1	Taluk Head Quarters Hospital, Chirayinkil	--	--	--	35	125	65	316	395
2	Taluk Head Quarters Hospital, Aluva	--	--	--	--	67	347	1469	1494
3	Taluk Head Quarters Hospital, Perinthalmanna	1042	3671	4286	5587	6209	6377	6727	7020
4	Taluk Head Quarters Hospital, Sultanbathery	--	--	363	528	563			
5	Taluk Head Quarters Hospital,Kasargod	--	--	--	419	691	922	1005	811
6	Government Hospital, Punalur (THQH)	--	--	--	12	59	51	68	86
	SUB TOTAL :	*1042*	*3671*	*4649*	*6581*	*7714*	*7762*	*9585*	*9806*
VI	*OTHERS*								
1	INHS Sanjivai Naval Base, Kochi	474	324	295	228	52	-	73	186
	SUB TOTAL :	*474*	*324*	*295*	*228*	*52*	-	73	186
B	**AUTONOMOUS INSTITUTIONS**								
1	Regional Cancer Centre	3540	4149	4047	5302	4777	-	-	-
2	Sree Chithira Thirunal Institute of Medical Science & Technology	5181	5349	5334	5563	5548	4967	4774	6326
	SUB TOTAL :	*8721*	*9498*	*9381*	*10865*	*10325*	*4967*	*4774*	*6326*
	Total - Govt. Sector including Autonomous Institutions (A + B)	**70005**	**79715**	**83362**	**91312**	**97612**	**73276**	**77921**	**81152**
C	**PRIVATE SECTOR**								

4/100/2003—16A

1 Dr. Rao's Blood Bank, Kumarapuram, Thiruvananthapuram	2500	2670	2462	2371	2353	2350	1925	1446
2 Sree Utharadam Thirunal Hospital, Thiruvananthapuram	1643	2115	2175	2554	2426	2400	2600	2400
3 Superior Blood Bank Puthan Chantha, Thiruvananthapuram	872	*458 * Blood collected only	1457	1496	1568			
4 PNM Hospital, Kattakkada, Thiruvananthapuram	--	--	23	8	35	62	32	38
5 Holy Cross Hospital, Kottiyam, Kollam	879	880	740	710	658	599	846	859
6 Holy Cross Hospital, Adoor, Pathnamthitta	--	944	632	673	470	551	464	674
7 Sree Shanmukha Vilasam Hospital, Punalur,Pathanamthitta	--	--	2	40	61			
8 S.S.M Hospital, Kollam	--	--	--	--	537	736	881	995
9 Bishop Benziger Hospital, Kollam	711	967	1039	856	948			
10 Upasana Hospital, Kollam		294	487	437	617	-	-	475
11 St. Joseph's Hospital, Anchal, Kollam	663	701	511	398	446	513	430	363
12 Udaya Blood Bank, Thazhakara, Mavelikara, Alappuzha	--	--	--	--	391	438	555	387
13 Pushpagiri Hospital Blood Bank, Thiruvalla, Pathanamthitta	1912	1913	2001	2083	2211	2317	1846	1722
14 S.H Medical Centre Nagampadam, Kottayam	677	723	711	959	971	830	808	797
15 Holy Ghost Mission Hospital, Muttuchira, Kottayam	--	--	--	40	53	123	231	219
16 Immaculate Heart of Mary Hospital, Bharanaganam, Kottayam	423	321	288	395	387	668	214	93
17 Marian Medical Centre, Arunapuram, Palai	--	--	--	670	574	566	661	473
18 Thiruvalla Medical Mission Hospital, Pathanamthitta	649	733	714	835	741	682	905	1011
19 Mar Geevarghese Dionysius Medical Hospital, Kangazha, Kottayam	396	479	527	417	388	467	338	270
20 Dr. Nair's Hospital, Kollam	--	100	501	613	662			
21 Caritas Hospital , Thellakom, Kottayam	--	--	--	143	819	868	1265	1600
22 Morning Star Medical Centre, Adimaly, Idukki	--	--	--	234	387			
23 Alphonsa Hospital Murickassery, Idukki	--	--	--	98	153	119	128	142
24 M.M.T. Hospital, Mundakayam, Kottayam	154	217	127	96	55	85	124	104
25 Bishop Vayalil Medical Centre, Moolamattom, Idukki	--	--	--	169	271			
26 N.S.S Medical Mission Hospital, Pandalam	--	--	--	366	475	608	573	591
27 K.V.M Hospital Cherthala	--	--	--	--	214	536	455	39
28 Mar Baselios Medical Mission Hospital, Kothamangalam	--	--	--	19	483	682	789	703
29 St. Thomas Hospital, Chettipuzha, Changanachery	431	640	565	497	635	543	719	683
30 Medical Trust Hospital, Kochi	3405	3222	3139	3170	3434	3552	3355	3082
31 Deva Matha Hospital Koothattukulam, Ernakulam	--	--	213	772	925	944	476	-
32 M.A.J. Hospital Edappally, Kochi	--	--	--	245	387	527	436	433
33 Lourdes Hospital Cochin	720	773	1644	1191	1619	1524	1642	2085
34 Malankara Orthodox Syrian Chruch Medical Mission Hospital, Kolanchery	1464	2059	1488	712	2058	2254	2313	2295
35 Lisie Hospital, Cochin	1580	1853	2090	2425	2548	2357	2532	2087
36 Elite Mission Hospital, Koorkanchery, Thrissur	--	--	--	1585	2040	1682	1662	1258

37 Amala Cancer Hospital and Research Centre, Thrissur	--	--	--	1377	2093	3649	3902	4281
38 Little Flower Hospital & Research Centre, Thrissur	--	2121	2160	1988	2341	1899	1539	1916
39 St.Vincent De-Paul Hospital, Kuzhuppilly, Ayyampilly	--	--	--	161	168			
40 Bishop Alappat Mission Hospital, Karanchira, Thrissur	--	--	--	103	93	99	99	95.
41 IMA Voluntary Donor Blood Bank, Kochi	11669	14745	13986	16996	19014	17983	18033	18579
42 Trichur Heart Hospital	--	775	1195	1797	1339			
43 Mother Hospital (P) Ltd., Pullazhi, Thrissur	--	--	--	684	1340	1237	1054	1796
44 Sacred Heart Mission Ltd., Hospital,	--	--	--	125	89			
45 St. James Hospital, Chalakudy, Thrissur	1124	1062	673	895	1024	958	1257	1391
46 St. Joseph's Hospital, Choondal, Thrissur	530	413	397	371	590	1180	1365	1136
47 Unity Hospital (P) Ltd., Kunnamkulam, Thrissur	--	--	302	475	395	331	318	231
48 Royal Hospital, Kunnamkulam, Thrissur	1198	1218	618	715	651	851	1018	836
49 West Fort Hospital, Thrissur	--	--	1324	2232	2215	2053	1597	1163
50 Nirmala Hospital, Marikunnu, Kozhikode	688	470	449	401	325	436	403	490
51 Baby Memorial Hospital, Indira Gandhi Road, Kozhikode	--	--	--	182	1415			
52 Fathima Hospital, Bank Road, Kozhikode	--	--	--	610	1031	1873	1465	1508
53 Sara Memorial Medical Laboratory & Blood Bank, Fort Road, Kannur	2133	2104	1935	2768	2500	2769	3915	4321
54 Medical Diagnostic Centre and Blood Bank, Kanhangad	--	--	97	724	653			
55 St. Joseph's Hospital, Dharmagiri Central, Kothamangalam	905	744	892	920	722	561	731	911
56 Samaritan Hospital, Pazhanganand, Ernakulam	584	582	627	825	630	425	458	451
57 Edappal Hospital (P) Ltd.	--	--	--	101	261			
58 Maria Theresa Hospital, Kuzhikkattussery, Thrissur	--	--	--	166	190	174	126	126
59 Sanjoe Hospital, Perumbavoor	450	538	406	415	492			
60 St. Jude Medical Centre, Thiruvananthapuram	789	588	148	550	346	533	576	441
61 Muthoot Medical Centre, Kozhencherry	--	--	--	--	26	592	656	670
62 Amritha Institute of Medical Sciences and Research Centre, Kochi	--	--	--	--	183	9232	10875	11129
63 Indo American Hospital Brain and Spine Centre, Chemanakary, Vaikom	--	--	--	--	142	371	311	358
64 Poyanil Hospital, Kozhenchery	-	-	-	-	-	168	346	294
65 Sacred Heart General Hospital, Green Gardens, Cherthala.	-	-	-	-	-	447	677	902
66 Eloi Blood Bank, N. Paravoor	-	-	-	-	69	523	576	632
67 Co-operative Hospital, Tellicherry	-	-	-	-	-	905	1740	1820
68 St. John's Hospital, Kattappana, Idukki	-	-	-	-	-	388	760	807
69 Rotary Blood Bank, Kottayam	-	-	-	-	-	1693	3142	4441
70 The knanaya Medical Mission, Menonthottam Hospital, Angadi, P.O.	-	-	-	-	-	149	111	154
Total - Private Sector	***39149***	***46834***	***48597***	***62308***	***73337***	***81062***	***86255***	***88203***
Grand Total	**109154**	**126549**	**131959**	**153620**	**170956**	**154338**	**164176**	**169355**

Appendix - 9.62

Medical and Paramedical personnel in the Health Services Department

Sl. No.	Category	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Medical Officers	2905	3134	3251	3284	3365	3460	3474	3421	3421	3421	3421
2	Dentists	66	66	66	70	69	71	79	72	72	72	72
3	Senior Nurses	1954	1954	1954	1954	1958	1954	1969	1969	1969	1657	1657
4	Junior Nurses	4137	4137	4195	4195	4201	4707	4824	6067	6067	6290	6290
5	Lady Health Inspectors	894	923	923	923	913	912	942	942	942		935
6	Pharmacists	1681	1681	1681	1681	1680	1757	1762	1728	1728	1728	1728
7	Junior PH Nurses(ANMS)	5281	5508	5533	5911	5926	5911	5911	5591	5547	5547	5529
8	Junior Health Inspectors	4505	4505	4505	4505	4502	4505	4505	3711	3642	3642	3642
9	Health Inspectors	845	845	845	845	850	845	874	915	915	915	915
	TOTAL:	**22268**	**22753**	**22953**	**23368**	**23464**	**24122**	**24340**	**24416**	**24303**	**24214**	**24189**

Source: *Directorate of Health Services*

Appendix - 9.63

District-wise Number of Medical and Paramedical Personnel Under DHS - 2002

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	337	1052	50	216	488	362	124
Kollam	222	5	91	310	79	108	427	291	88
Pathanamthitta	149	4	27	175	44	76	266	184	42
Alappuzha	249	5	165	590	71	145	381	254	53
Kottayam	242	5	161	548	58	102	328	220	51
Idukki	113	3	24	129	58	70	316	222	54
Ernakulam	378	8	177	603	74	152	424	296	62
Thrissur	301	7	166	610	99	174	499	328	79
Palakkad	240	5	77	341	80	134	515	295	72
Malappuram	284	5	54	392	97	145	589	335	82
Kozhikode	294	7	203	884	67	166	419	270	66
Wayanad	102	2	28	138	34	47	205	126	30
Kannur	230	4	114	374	83	130	423	290	74
Kasargode	126	3	33	144	41	63	249	169	38
TOTAL:	**3421**	**72**	**1657**	**6290**	**935**	**1728**	**5529**	**3642**	**915**

Source: *Directorate of Health Services*

Appendix - 9.64

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					
	Thiruvananthapuram	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	50	--	--	--
3. B.Sc. Nursing	50	50	50	_	_	_
Sub. Total	**290**	**290**	**200**	**100**	**100**	**100**
Post Graduate Courses						
1 M Sc Nursing	16	8	--	--	--	--
2. M.D S.	18	10	--	--	--	--
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 Venerology	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	1	--	--
10. M D.Pathology	5	1	2	1	--	--
11 M D Pharmacology	3	1	--	--	--	--
12 M.D.Physiology	2	2	1	--	--	--
13 M.D.Paediatric	5	4	2	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	--	--	--
24 M O Physical Medicine	2	--	--	--	--	--
Sub - Total	**116**	**80**	**34**	**6**	**2**	0
Super Speciality course						
1 Mch.Paediatric Surgery	2	2	--	--	--	--
2. Mch.Plastic Surgery	2	2	1	--	--	--
3 Mch. Genito Urinary surgery	2	2	1	--	--	--
4. Mch. Thorasic Surgery	2	2	..	--	--	--
5 Mch. Neuro Surgery	2	1	2	--	--	--
6. D M Gastro Enterology	2	--	--	--	--	--
7 D M Neurology	1	1	..	--	--	--
8 D.M Cardiology	2	1	2	--	--	--
9. Mch.Gastro Enterology and Surgery	2	1	--	--	--	--
10. D.M.Nephrology	1	1	1	--	--	--
Sub - Total	**18**	**13**	**7**	--	--	--

1	2	3	4	5	6	7
Diploma Courses						
1. Diploma in Anaesthesia	6	4	5	2	--	--
2. Diploma in child Health	5	9	4	2	--	--
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	1	--	--
9. Diploma in Ophthalmology	2	5	3	--	--	--
10. Diploma in Orthopaedic Surgery	6	5	4	--	--	--
11. Diploma in Physical Medicine andRehabilitation	4	4	--	--	--	--
12. Diploma in Psychiatric Medicine	5	--	--	--	--	--
13.Diploma in Public Health	9	--	--	--	--	--
14. D.T.C.D	2	3	--	--	--	--
Sub - Total	***61***	***52***	***25***	**5**	**--**	**--**
Diploma / Certificate Courses.						
1. B.Pharm	28	20	--	--	--	--
2. M.Pharm	16	--	--	--	--	--
3. B.Sc. MLT	24	--	--	--	--	--
4. MLT Certificate(2 years)	40+20*	50	15	15	15+20*	
5. Diploma in Radiological Technology (2 Years)	10+30*	30	15	10	15+30*	
6. Ophthalmic Assistant Certificate(2 Years)	10+20*	20	15	5	5+20*	--
7. D.Pharm(2 years)	20+30*	50	30	35	--	--
8. Dental Mechanic Certificate course(2 years)	5+10*	10	--	--	--	--
9. Dental Hygienist Certificate Course	10	--	--	--	--	--
10. Certificate Couse in Nursing SC/St (3 Years)	30*	30*	20**	--	--	--
Sub - Total	**303**	**210**	**95**	**65**	**95**	**--**
TOTAL:	**788**	**645**	**311**	**176**	**197**	**100**

*SC/ST only, **For ST only

Source: *Directorate of Medical Education*

Appendix - 9.65

Medical College wise distribution of Hospital beds, Inpatients and Out patients treated, delivery cases attended during 2001

(No)

Medical College	Beds	IP	OP	Major operation conducted	Delivery cases attended
1	2	4	5	6	7
1. Thiruvananthapuram (Including SAT, Chest Hospital, Ophthalmic Hospital)	2457	115454	690604	21104	16790
2.Alappuzha(including Vandanam)	1031	48316	378922	3556	6322
3. Kottayam	1246	57703	689404	12000	8184
4. Thrissur(including chest hospital)	987	43349	329262	9192	4678
5 .Kozhikode(Including chest hospital and MCH)	2257	133572	574649	21295	25000
6. Pariyaram Medical College, Kannur	580	..	..	..	..
Total	**8558**	**398394**	**2662841**	**67147**	**60974**

Source: *Directorate of Medical Education*

Appendix - 9.66

Details of Personnel (Clinical/Non-clinical) in Medical Colleges -1991-2002

Sl. No.	Category	No.of Clinical/Non-Clinical Personnel											
		1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	12	13	14
	Medical Education												
1	Director and Professor	..	..	..	..	..	..	..	..	..			
2	Professor	186	188	188	190	191	198	207	233	248	202	207	207
3	Associate Professor	193	194	195	202	212	214	240	265	296	242	236	236
4	Assistant Professor	422	425	425	432	438	461	379	536	570	449	490	490
5	Tutor/Lecture	687	692	697	714	729	822	611	924	966	711	1877	1877
	Nursing Education												
6	Director	3	3	3	3	3	3	3	3	3	3	3	3
7	Professor	4	4	4	4	4	4	4	7	7	7	7	7
8	Associate Professor	16	16	16	16	16	16	15	15	16	18	17	17
9	Assistant Professor	22	22	22	22	22	22	23	23	25	27	25	25
10	Tutor	37	37	37	37	37	37	42	42	42	40	29	29
	M.L.T. Course												
11	Director	1	1	1	1	1	1	1	1	1	..	..	..
12	Assistant Professor	6	6	6	6	6	6	6	6	6	3	..	..
13	Tutor	4	4	4	4	4	14	14	14	14	5	3	5
14	Tutor Technician	14	14	14	14	14	14	14	14	14	14	..	..
	Dental												
15	Principal	–	–	–	–	–	–	2	2	2	2	3	3
16	Professor	18	19	19	19	19	19	16	16	16	16	16	16
17	Associate Professor	4	4	4	4	6	6	6	6	14	12	4	4
18	Assistant Professor	24	25	25	24	23	23	25	25	26	25	24	24
19	Tutor/Lecture	36	36	36	36	36	34	44	44	49	44	43	43
	Pharmacy												
20	Director	1	1	1	1	1	1	1	1	1	1	5	5
21	Professor	3	3	3	3	3	3	4	4	4	3	4	4
22	Associate Professor	4	4	4	4	4	4	4	5	5	7	5	5
23	Assistant Professor	10	10	11	11	11	11	11	11	13	13	12	12
24	Lecture	26	26	26	26	26	26	27	26	30	30	27	27
	TOTAL:	**1721**	**1734**	**1741**	**1773**	**1806**	**1939**	**1699**	**2223**	**2368**	**1874**	**3037**	**3039**

Source: *Directorate of Medical Education*

Appendix - 9.67

District-wise distribution of Insitutions,Beds and Patients treated under Ayurvedic system of Medicine in Kerala (2001and 2002)

Sl. No.	District	No.of Hospitals		No.of Beds		No.of Dispensaries		Total NO.of Institutions		Total No.of Patients treated in 2000		Total Number of Doctors
		2001	2002	2001	2002	2001	2002	2001	2002	Inpatients	Outpatients	
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*
1	Thiruvananthapuram	14	14	285	285	63	63	77	77	3397	463966	100
2	Kollam	9	9	190	190	51	51	60	60	2198	307984	75
3	Pathanamthitta	5	5	100	100	38	38	43	43	597	151274	47
4	Alappuzha	10	10	180	180	55	55	65	65	2446	343940	77
5	Kottayam	8	8	150	150	42	42	50	50	1400	280093	62
6	Idukki	3	3	160	160	31	31	34	34	1805	150295	50
7	Ernakulam	13	13	280	280	60	60	73	73	2605	539339	78
8	Thrissur	15	15	273	273	79	79	94	94	1764	429730	105
9	Palakkad	6	6	160	160	73	73	79	79	1859	127450	78
10	Malappuram	11	11	220	220	65	65	76	76	27982	147539	83
11	Kozhikode	7	7	210	210	52	52	59	59	2324	394070	58
12	Wayanad	3	3	120	120	21	21	24	24	1097	218210	34
13	Kannur	6	6	216	216	61	61	67	67	1637	127641	69
14	Kasargode	5	5	100	100	36	36	41	41	943	146714	46
	TOTAL:	**115**	**115**	**2644**	**2644**	**727**	**727**	**842**	**842**	**52054**	**3828245**	**962**

Source: *Directorate of Ayurveda*

Appendix - 9.68

District-wise Distribution of Institutions and Beds under Homoeopathy (2001-2002)

Sl.No.	District	No.of Hospitals		No.of Beds		No.of dispensaries		Total No.of Institutions		Total No. of Patients treated in 2001		Total Number of Doctors
		2001	2002	2001	2002	2001	2002	2001	2002	Inpatients	Outpatients	
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*
1	Thiruvananthapuram	4	4	185	185	50	50	54	54	4076	1540022	61
2	Kollam	3	3	75	75	37	37	40	40	311	503642	43
3	Pathanamthitta	1	1	25	25	25	25	26	26	NR	637880	26
4	Alappuzha	3	3	75	75	41	41	44	44	877	1319916	47
5	Kottayam	3	3	175	175	44	44	47	47	1344	2180698	52
6	Idukki	2	2	50	50	33	33	35	35	525	948326	37
7	Ernakulam	3	3	85	85	51	51	54	54	499	1627392	57
8	Thrissur	1	1	25	25	39	39	40	40	1833	1043417	41
9	Palakkad	1	1	25	25	39	39	40	40	296	956944	41
10	Malappuram	2	2	50	50	42	42	44	44	636	958800	46
11	Kozhikode	3	3	75	75	45	45	48	48	1917	1763558	51
12	Wayanad	1	1	25	25	19	19	20	20	277	294252	20
13	Kannur	1	1	25	25	38	38	39	39	118	763138	40
14	Kasargode	3	3	75	75	21	21	24	24	689	575938	26
	TOTAL:	**31**	**31**	**970**	**970**	**524**	**524**	**555**	**555**	**13398**	**15113923**	**588**

Source: *Directorate of Homoeopathy*

Appendix - 9.69

Target and achievement of Family welfare programme

Sl.No	Item	Unit	2000-01		2001-2002	
			Target	Achievement	Target	Achievement
1	2	3	4	5	6	7
I	**Family Welfare Programme**					
a)	Sterilisation(Vasectomy/Tubectomy)	Nos.	157628	151043	190285	149803
b)	I.U.D. insertion	Nos.	87337	79650	110304	73438
c)	C.C. Users	Nos.	..	127281	..	110446
d)	O.P.Users	Nos.	..	30795	..	26811
II	**M.C.H. Programme**					
a)	Immunisation Programme					
(i)	D.P.T	Dose	638873	594713	536006	559387
(ii)	Polio	Dose	638873	592775	536006	555271
(iii)	B.C.G.	Dose	638873	663189	536006	613663
(iv)	Measles	Dose	638873	550997	536006	517596
(v)	T.T for Pregnant women	Dose	601983	540891	592883	530183
(vi)	T.T. for 5 Years	Dose	494837	470421	495811	462061
(vii)	T.T. for 10 Years	Dose	495336	508849	529124	516685
(viii)	T.T. for 16 Years	Dose	494024	484682	513856	495873
b)	Prophylaxis against nutritional anaemia					
(i)	Women	Dose	596174	667235	592883	542485
(ii)	children'	Dose	..	..	..	..
c)	Prophylaxis against Blindness due to vitamin A deficiency in children	Dose	1621838	1192016	1468401	1322710

Source: *Directorate of Health Services*

Appendix 9.70
Per capita expenditure on medical and public health

Year	Population (lakhs)	Expenditrure on Health including family welfare (Rs.lakhs)	Index of growth	Expenditure per head (Rs.)	Index of growth
1985-86	274.05	12681.25	100	46.27	100
1986-87	275.06	14506.88	114	52.74	114
1987-88	288.39	15103.96	119	52.37	113
1988-89	293.58	16368.36	129	55.75	120
1989-90	298.87	19230.44	152	64.34	139
1990-91	290.11	22199.04	175	76.52	165
1991-92	294.91	23180.45	183	78.60	170
1992-93	298.88	23922.9	189	80.04	173
1993-94	302.91	29845.13	235	98.53	213
1994-95	306.99	35661.43	281	116.16	251
1995-96	311.12	41787.82	330	134.31	290
1996-97	315.31	45442.56	358	144.12	311
1997-98	319.56	53758.36	424	168.22	364
1998-99	323.87	57618.22	454	177.91	385
1999-00	328.23	73055.57	576	222.57	487
2000-01	318.38	70431.56	555	221.26	478
2001-02	318.38	74669.10(RE)	589	234.53	508
2002-03	318.38	77808.21(BE)	613	244.43	528

Appendix - 9.71

Family Welfare Programme in 1999-2000 - District -wise

District	Vascectomy	PPS	Minilap	Laproscopic	Total (3+4+5)	Cu -T	Nirodh supplied CC	Oral pills	Induced Abortion
1	*2*	*3*	*4*	*5*	*6*	*8*	*9*	*10*	*11*
Thiruvananthapuram	3	13183	1755	2753	17691	6269	1622766	32530	5115
Kollam	4	10194	776	615	11585	5652	886112	39165	3584
Alappuzha	37	6676	1818	198	8692	4737	549938	22687	3380
Pathanamthitta	5	3841	1105	935	5881	3440	318521	15334	1974
Kottayam	141	6506	379	1218	8103	10688	948105	32481	5801
Idukki	1	4543	395	878	5816	3784	318137	14245	1220
Ernakulam	179	15526	624	1668	17818	6397	547786	24693	5599
Thrissur	62	10782	1711	1121	13614	6481	987389	36507	4391
Palakkad	4	8700	614	3481	12795	9223	1471555	39935	4142
Malappuram	7	11691	574	326	12591	7326	948228	37025	1113
Kozhikode	82	12665	2435	192	15292	6494	747228	34522	4314
Wayanad	25	6233	438	-	6671	3314	426088	16525	702
Kannur	92	12329	682	130	13141	5539	258489	36956	1812
Kasargode	11	2469	474	782	3725	3799	264077	7989	221
TOTAL:	**653**	**125338**	**13780**	**14297**	**153415**	**83143**	**10294419**	**390594**	**43368**

Source: *Directorate of Health Services*

Appendix- 9.72

List of Institutions under DHS transferred to Local Bodies

Category	Grama Panchayat	Block Panchayat	Corporation Nos.	Municipality Nos.	District Panchayat	Total Nos.
1	*2*	*3*	*4*	*5*	*6*	*7*
1. Dispensaries	42		5	6	--	53
2. Primary Health Centres	--	933	1	4	--	938
3. Community Health Centres	--	98	--	7	--	105
4. Hospitals						
(a) Government Hospitals	--	37	9	17	--	63
(b) Taluk Hospitals	--	14	2	25	--	41
(c) District Hospitals	--	--	--	--	11	11
5. Maternity & Child Health units	2	--	--	--	--	2
6. M.M. Units	10	--	1	2		13
TOTAL:	**54**	**1082**	**18**	**61**	**11**	**1226**

Source: *Directorate of Health Services*

Appendix - 9.73

List of Institutions transferred to Local Bodies - Ayurveda

Sl.No.	Name of District	Grama Panchayat		Block Panchayat		Corporation/District Panchayat		Municipality		Total	
		Dispensaries (Nos)	Hospitals (Nos)	Dispensaries (Nos)	Hospitals (Nos)	Dispensaries (Nos)	Hospitals (Nos)	Dispensaries (Nos)	Hospitals (Nos)	Dispensaries (Nos)	Hospitals (Nos)
1	Thiruvananthapuram	54	10	--	--	7	2	2	1	63	13
2	Kollam	46	7	--	--	4	1	1	1	51	9
3	Pathanamthitta	37	3	--	--	--	1	1	1	38	5
4	Alappuzha	55	4	--	--	--	1	--	4	55	9
5	Kottayam	42	4	--	--	--	1	--	3	42	8
6	Idukki	31	2	--	--	--	1	--	--	31	3
7	Ernakulam	57	7	--	--	2	2	1	4	60	13
8	Thrissur	74	10	--	--	4	2	1	3	79	15
9	Palakkad	72	3	--	--	--	1	1	2	73	6
10	Malappuram	61	6	--	--	--	1	4	4	65	11
11	Kozhikode	51	5	--	--	1	1	--	1	52	7
12	Wayanad	21	1	--	1	--	1	--	1	21	3
13	Kannur	59	2	--	--	--	1	2	3	61	6
14	Kasargode	36	3	--	--	--	1	--	1	36	5
	TOTAL:	**696**	**67**	**0**	**1**	**18**	**17**	**13**	**29**	**727**	**113**

Source: *Directorate of Ayurveda*

Appendix - 9.74

LIST OF INSTITUTTIONS TRANSFERRED TO LOCAL BODIES - HOMOEOPATHY

Sl.No	District	Grama Panchayat		Block Panchayat		Corporation		Municipality		District panchayat		Total	
		Dispens-aries	Hospitals	Dispens-aries	Hospitals	Dispens-aries	Hospitals	Dispens-aries	Hospitals	Dispens-aries	Hospitals	Dispens-aries	Hospitals
1	Thiruvananthapuram	44	-	-	1	5	..	1	2	..	1	50	4
2	Kollam	32	-	-	1	4	..	1	1	..	1	37	3
3	Pathanamthitta	24	-	-	..	-	..	1	-	..	1	25	1
4	Alappuzha	41	-	-	-	-	..	-	2	..	1	41	3
5	Kottayam	44	-	-	1	-	..	-	1	..	1	44	3
6	Idukki	33	-	-	1	-	..	-	-	..	1	33	2
7	Ernakulam	46	-	-	-	4	..	1	2	..	1	51	3
8	Thrissur	36	-	-	-	1	..	2	-	..	1	39	1
9	Palakkad	39	-	-	-	-	..	..	-	..	1	39	1
10	Malappuram	41	-	-	-	-	..	1	1	..	1	42	2
11	Kozhikode	44	-	-	1	1	..	-	1	..	1	45	3
12	Wayanad	19	-	-	-	-	..	-	-	..	1	19	1
13	Kannur	36	-	-	-	-	..	2	-	..	1	38	1
14	Kasargode	20	-	-	2	-	..	1	-	..	1	21	3
	Total	***499***	***..***	***..***	***7***	***15***	***..***	***10***	***10***	***..***	***14***	***524***	***31***

Source:- Directorate of Homeopathy

Appendix - 9.75

Number of Practitioners (Numbers Cum)

Sl.No.	System	Class of Registration	2001	2002
1	2	3	4	5
1	Modern Medicine	A	30574	31619
		B	635	635
		Listed	204	204
	Sub. Total		**31413**	**32458**
2	Homoeopathy	A	6813	6968
		B	1489	1489
		Listed	279	279
	Sub. Total		**8581**	**8736**
3	Ayurveda	A	7496	7614
		B	6112	6112
		Listed	603	603
	Sub. Total		**14211**	**14329**
4	Sidha	A	140	144
		B	1218	1218
		Listed	41	41
	Sub. Total		**1399**	**1403**
5	Unani	A	5	5
		B	51	51
		Listed	5	5
	Sub. Total		**61**	**61**
	Grand. Total		**55665**	**56987**

Source: *T.C. Medical Council*

Appendix - 9.76

List of Registered Para-medical Practitioners

Sl.No.	Category	2001	2002
1	*2*	3	*4*
1	Nurse	4527	2103
2	Midwife	4296	2174
3	Nurses & Midwives(integrated)	2622	2684
4	Auxilary Nurse	248	307
5	Health Visitors	..	..
	TOTAL:	**11693**	**7268**

Source: *T.C. Medical Council*

Appendix - 9.77

District-wise details of Service connections and street taps as on 31.3.2002.

Sl. No	Name of District	Water Supply connections				Street Taps		
		Domestic	Non Domestic	Industrial	Total	Panchayat	Corpn./ Muni.	Total
1	2	3	4	5	6	7	8	9
1	Thiruvananthapuram	173251	13097	60	186408	10782	4095	14877
2	Kollam	56741	3301	91	60133	11182	3168	14350
3	Pathanamthitta	35352	2437	15	37804	8071	1433	9504
4	Alappuzha	54545	2418	40	57003	14777	4190	18967
5	Kottayam	51381	3910	29	55320	10184	2140	12324
6	Idukki	10551	1153	4	11708	4374	446	4820
7	Ernakulam	193860	14893	757	209510	18988	14764	33752
8	Thrissur	65458	2938	31	68427	18788	3170	21958
9	Palakkad	47984	3412	70	51466	14876	2771	17647
10	Malappuram	27847	2072	11	29930	6990	2788	9778
11	Kozhikkode	38752	2850	42	41644	5437	2549	7986
12	Wayanadu	4352	832	1	5185	2647	186	2833
13	Kannur	20053	3153	44	23250	3695	1325	5020
14	Kasaragod	12031	773	15	12819	3236	198	3434
	Total	**792158**	**57239**	**1210**	**850607**	**134027**	**43223**	**177250**

Source: Kerala Water Authority

Appendix - 9.78

District-wise Population covered by Rural Water Supply Scheme - 2002

Sl. No	*District*	*1992*	*1995*	*2000*	*2001*	*2002*
1	*2*	*3*	*4*	*5*	*6*	*7*
1	Thiruvananthapuram	879000	1165278	1310898	1311072	1313072
2	Kollam	807000	878900	1193965	1193965	1196965
3	Pathanamthitta	295000	418564	488726	492924	500924
4	Alappuzha	803000	917105	1086015	1086015	1097698
5	Kottayam	674000	743999	824131	839259	839759
6	Idukki	321000	379600	549907	556207	580428
7	Ernakulam	717000	1036495	1237018	1241318	1334318
8	Thrissur	1109000	1171027	1537296	1610517	1610517
9	Palakkad	1098000	1204790	1304463	1310295	1323883
10	Malappuram	591000	646570	1344416	1371672	1384872
11	Kozhikode	379000	257287	464794	478921	492921
12	Wayanad	162000	220730	302237	373836	431880
13	Kannur	220000	315043	453968	453968	476354
14	Kasaragod	281000	328458	387696	390588	390588
	Total	**8336000**	**9683846**	**12485530**	**12710557**	**12974179**

Source: Kerala Water Authority

Appendix - 9.79

District-wise Population covered by Urban Water Supply Scheme 1992 - 2002

Sl. No	District	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Thiruvananthapuram	721140	728200	728700	728700	733000	733000	733000	742900	762900	762900	762900
2	Kollam	309000	312400	312850	333490	463490	463490	463490	463490	463490	463490	464490
3	Pathanamthitta	84350	85200	85200	85200	85200	95700	105200	105200	107700	107700	107700
4	Alappuzha	489000	494700	494700	494700	494700	494700	494700	494700	494700	494700	494700
5	Kottayam	246000	248000	248250	363310	363310	363310	363310	363310	363310	363310	363310
6	Idukki	10600	38900	38900	38900	38900	53900	53900	53900	53900	53900	53900
7	Ernakulam	895600	904500	905100	905295	1060996	1071496	1071496	1107596	1135596	1135596	1165596
8	Thrissur	535400	540700	541300	542270	542270	542270	542270	575270	577870	577870	587870
9	Palakkad	230600	232800	233100	233900	256750	256750	256750	256750	256750	256750	256750
10	Malappuram	176000	177700	178050	187234	238334	256334	265634	273634	273634	273634	273634
11	Kozhikode	554000	559400	559866	560116	596850	602850	611250	659250	662050	662050	662050
12	Wayanad	11000	11500	11500	11500	11500	11500	11500	11500	11500	11500	11500
13	Kannur	485100	489200	489550	504356	577503	577503	588103	628103	631603	631603	631603
14	Kasaragod	223600	225800	225800	228850	228850	228850	228850	228850	228850	228850	232850
	Total	**4971390**	**5049000**	**5052866**	**5217821**	**5691653**	**5751653**	**5789453**	**5964453**	**6023853**	**6023853**	**6068853**

Source: Kerala Waater Authority

Appendix. 9.80

Achievements under Major Housing Schemes

Sl.No	Schemes	Up to 31-3-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95
1	2	3	4	5	6	7		8	9	10	11
1	Provision of House sites to rural landless workers	7863	5517	1869	2903	2179	2634	2585	2214	2402	3364
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
5	Middle income group Housing	4515	59	22	27	53	68	1119	603	1621	714
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	
9	Public Housing scheme	11645	613	544	488	278	276	878	822	188	2878
10	Kudikidappukar Housing	7094	212								
11	Scheduled caste/Scheduled Tribes Development Corporation	24917	2215	1916	675	1283	1249	739	1060	1683	2805
12	Tribal Welfare Department	4250	90	350	377	286	404	583	626	880	871
13	Scheduled castes Development Department	18389	159	1166	957	1131	818	985	1135	2030	1844
14	Fishermen Housing	33332	2290	3870	6143	869	2211	63	2423	1547	1023
15	Kerala State Co-Operative Housing Federation.	25612	8387	8658	6716	3502	4577	5313	5563	6231	9386
16	Rehabilitation Housing Scheme		86837	9840	22062	6497	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/ IndiraAwas Yojana(Rural development department)					22932	14225	22182	16533	16999	16283
20	Other Schemes implemented by KSHB							4755	6045	2256	11123
21	Completed/Discontinued Schemes	12308									

Sl.No	Schemes	Up to 31-3-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95
1	2	3	4	5	6	7		8	9	10	11
22	ROMHS Housing complex									996	1486
23	Agricultural Bank										
24	Sainik Welfare										
25	Police Housing										
26	LIC Housing Fianance										
27	GIC Housing Finance										
28	Kudumbasree										
29	HDFC										
30	Canfin Homes										
31	KUDFC										
32	PWD										
33	Nationalised Scheduled Bank										
	Total	**274672**	**136000**	**47201**	**59216**	**39480**	**56845**	**47172**	**43776**	**40648**	**56946**

Sl.No	Schemes	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
1	2	12	13	14	15	16	17	18
1	Provision of House sites to rural landless workers	2322	937					
2	Huts/Houses for rural workers							
3	Village Housing Project							
4	Low income group Housing	6184	1701					
5	Middle income group Housing	1018	1367					
6	Co operative housing scheme for economically weaker sections							
7	Subsidised aided self help housing scheme with co operation of voluntary agencies							
8	Rental Housing Scheme							
9	Public Housing scheme	68	449					
10	Kudikidappukar Housing							
11	Scheduled caste/Scheduled Tribes Development Corporation	2515	771	360	1584	618	311	139
12	Tribal Welfare Department	628	583	820	500	310		
13	Scheduled castes Development Department	419	173	6215	8485	7163		718
14	Fishermen Housing	2287	594	900	900	1541	994	312
15	Kerala State Co-Operative Housing Federation.	2236	8360	8228	7348	8934	11038	12311
16	Rehabilitation Housing Scheme							
17	N.R.E.P							
18	R.L.E.G.P							
19	Jawahar rozgar Yojana/ IndiraAwas Yojana(Rural development department)	29368	29952	17803	14134	24358	21705	23892
20	Other Schemes implemented by KSHB	1967	5922	38520	52163	68245	78320	16614
21	Completed/Discontinued Schemes							

Contd.

Sl.No	Schemes	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
1	2	12	13	14	15	16	17	18
22	ROMHS Housing complex	903	205					
23	Agricultural Bank			13919	10721	11038	14777	13380
24	Sainik Welfare			79	64	61	36	..
25	Police Housing			733	267	273	447	...
26	LIC Housing Fianance			1176	1105	3268	2682	2350
27	GIC Housing Finance			350	475	595	255	671
28	Kudumbasree			..	..	..	..	..
29	HDFC			5000	4575	2479	2944	2985
30	Canfin Homes			775	524	299	693	..
31	KUDFC			..	..	4021	2138	..
32	PWD			67	..	..	..	24
33	Nationalised Scheduled Bank			4600	3538	6565	10099	8686
	Total	**49915**	**51014**	**99545**	**106383**	**139768**	**146439**	**82082**

Contd.

Appendix. 9.81.

HOUSES CONSTRUCTED BY VARIOUS AGENCIES INCLUDING LSGs

Sl.No	Agency	Year					
		1997-98	1998-99	1999-00	2000-01	2001-02	2002-03 Up to October
1	2	3	4	5	6	7	8
1	Kerala State SC/ST Development Corporation	360	1584	618	311	139	27
2	SC Dev. Dept.	6215	8485	7163	...	718	1172
3	ST. Dev. Dept.	820	500	310	..	...	...
4	Fisheries Dept.	900	900	1541	994	312	...
5	Agricultural Bank	13919	10721	11038	14777	13380	4617
6	Sainik Welfare	79	64	61	36	...	...
7	Police Housing	733	267	273	447	...	184
8	LIC Housing Finance	1176	1105	3268	2682	2350	555
9	GIC Housing Finance	350	475	595	255	671	550
10	Rural Commissionerate	17803	14134	24358	21705	23892	17108
11	Kudumbasree	..	...	...	...	...	1330
12	HDFC	5000	4575	2479	2944	2985	1673
13	Canfin Homes	775	524	299	693	...	419
14	HOUSE FED	8228	7348	8934	11038	12311	4603
15	Local Bodies	45521	50000	28478	158282	...	...
16	KSHB	38520	52163	68245	78320	16614	28905
17	KUDFC	..	...	4021	2138	...	...
18	PWD	67	..	...	...	24	...
19	Nationalised Scheduled Bank	4600	3538	6565	10099	8686	10801
	TOTAL	**145066**	**156383**	**168246**	**304721**	**82082**	**71944**

Appendix.9.82

HUDCO ASSISTANCE GIVEN- HOUSING SCHEMES

Institution/Agencies assisted	Amount Sanctioned (Rs. In Lakhs)						Amount Released (Rs. In Lakhs)		
	1999-2000		2000-2001		2001-2002		1999-2000	2000-2001	2001-2002
	Units	Loan Amount	Units	Loan Amount	Units	Loan amount	Loan amount	Loan Amount	Loan Amount
1	2	3	4	5	6	7	8	9	10
BHARATSEVAK SAMAJ	.	.	250.00	100.00	..	..	..	..	..
COSTFORD	1500.00	450.00	1667.00	500.00	..	..	466.38	500.00	..
DIST. PANCHAYAT, KOLLAM	25000.00	8750.00	30000.00	10500.00	..	..		8750.00	..
DIST. PANCHAYAT, ALAPPUZHA					15000.00	5250			..
DIST. PANCHAYAT, ERNAKULAM					9600.00	3360			..
HOUSEFED	8100.00	8000.00			3147.00	2500.5	2801.44		..
KSCB			29872.00	8961.60				6721.2	1999.8
KSHB	150407.00	43727.85	53480.00	17408.25			30194.02	12779.21	
KERALA POLICE HOUSE CONSTN. CORPORATION							424.11	624.11	442.88
KERALA STATE BACKWARD CLASSES DEV. CORPORATION							130.04		
KSDC FOR SC/ST							62.87		
KERALA STATE HANDICRAFTS & APEX CO-OP.SOCIETY							20.8		
KUDFC							568.36		
PRIYA NIKETHAN			40.00	16.00					4.00
RAILWAYMEENS HBCSL							5.11		
SANTHIGIRI ASRAM							2.77		
SIDA	1645.00	539.00					294	245.00	
STATE URBAN DEV.AGENCY					1330.00	Subsidy:-266			
VANDANMEDU DEV. SOCIETY			500.00	200.00			35.01	68.74	57.87
TOTAL	**186652.00**	**61466.85**	**115809.00**	**37685.85**	**29077.00**	**11110.50 Subsidy:-266.00**	**35004.91**	**29688.26**	**2504.55**

Appendix 9.83

INTEREST RATES OF DIFFERENT FINANCIAL INSTITUTIONS ON HOUSING AS ON 11/2002

(percentage)

Sl. No.	Name of Institutions	Up to 5Years	Above 5 to 10 years	Above 10 to 15 Years	Above 15 to 20 Years
1	2	3	4	5	6
1	State Bank of India *	11.5	12	12	12.5
2	Bank of Baroda-				
	Flexible *	9.5	10	10.5	10.5
	-Fixed *	9.25	9.75	10.2	10.5
3	Stat Bank of Travancore-				
	Flexible*	9.75	10.25	10.75	10.75
	Fixed *	10	10.5	11	11
4	Syndicate Bank *	9	9.5	10	10
5	Corporation Bank *	9.25	9.75	10.25	10.25
6	HUDCO*	10	10.25	10.75	
7	HDFC-				
	Flexible *		10.25	10.75	
	Fixed *	9.5	10	10.5	10.5
8	LIC*				
	Flexible*	11	11	11	11
	Fixed*	9.5	10	10.5	
9	HSBC*	10.5	10.5	10.5	
10	Sundaram Home Finance *	9.5	10	10.5	
11	GIS *	10.25	10.75		
12	Dewan Housing Finance- *	11	11	11	11
	Flexible-Monthly*	10.75	10.75	10.75	10.75
	- Annually*	10.25	11	11.25	11.25
	Fixed- Monthly*	9.75	10.75	11	11

13	Canfin Homes- upto 2 lakhs -Above 2 lakhs	11.5(Upto 7 Yrs) 12 "		12(8 to 15 Yrs) 12.5 "	
14	Dhanalekshmi Bank- Up to Rs. 10 lakhs Above 10 lakhs	 10.5 12			
15	HOUSE -FED Upto Rs. 40000 Rs.40001 to Rs. 1,25,000 Rs. 1,25,000 to Rs. 2 lakhs Above Rs. 2 lakhs	 11.5 12.75 13 13.75			
16.	Kerala State Co-Operative Agricultural and Rural Development Bank Ltd.- **NABARD**-Upto Rs.50,000 Rs. 50001 to Rs. 1 lakhs Rs. 1 00001 to Rs. 200000 Rs. 2 lakhs to Rs. 5 lakhs Repair/Rennovation-upto 1 lakh **NHB**- Up to Rs. 1.00 lakhs Rs. 100001 to 2.00 lakhs RS. 200001 to Rs. 5 lakhs Repair/Renovation - Upto Rs. 1 lakh Up to Rs. 3 lakh	 11 11.5 12.25 13 12 11.5 12.25 13.5 12 13.5			

17.	Bank of India - Flexible Rates: Up to 10 lakhs Above 10 lakhs to 25 lakhs Above 25 lakhs	 11 11.5 12			
18.	The Kerala State Co-operative Bank Ltd- Up to Rs. 50,000 Above 1 lakh to 2 lakhs Above 2 lakhs	 12.5 13.5 13.5			
19.	**Canara Bank**: Up to Rs. 2.00 lakhs Up to Rs. 5 lakhs Up to Rs. 10 lakhs Up to Rs. 25 lakhs	 11.75 12.25 12.50 12.75			
20.	**KSHB-** **EWS**- Rs. 28,000 LIG-Up to Rs. 1.25 lakhs MIG I - Up to Rs.3 lakhs MIG II- Up to Rs. 5.00 lakhs HIG I -Up to Rs. 10 lakhs HIG II-Up to Rs. 15 lakhs	 13 13.5 14 15 15.5 16			
	MAINTENANCE LOAN				
	LIG upto Rs. 62500	13.5			
	MIG I up to Rs. 1.5 lakh	14			
	MIG II up to Rs. 2.5 lakhs	15			
	HIG up to Rs. 5.00 lakhs	15.5			

* Irrespective of Amount.

Appendix 9.84

TRENDS IN URBANIZATION, 1901-2001

Census Year	Total number of UAs/Towns	Total Population	Total Urban Population	Percentages of Urban Population	Decennial growth	
					Absolute	Per cent
1	*2*	*3*	*4*	*5*	*6*	*7*
1901	21	6396262	454499	7.11	-	-
1911	27	7147673	524661	7.34	70162	+15.44
1921	44	7802127	680900	8.73	156239	+29.78
1931	53	9507050	916330	9.64	235430	+34.58
1941	62	11031541	1195550	10.84	279220	+30.47
1951	94	13549118	1825832	13.48	630282	+52.72
1961	92	16903715	2554141	15.11	728309	+39.89
1971	88	21347375	3466449	16.24	912308	+35.72
1981	85	25453680	4771275	18.74	1304826	+37.64
1991	109	29098518	7680294	26.39	2909019	+60.97
2001	98	31838619	8267135	25.97	586841	+7.64

Source: Census of India 2001

Appendix 9.85

District-wise details of Urban Population/Urban Local Governments-2001

District	No. of local bodies		Total Population	Total Urban Population	Percent-age
	Corporations	Municipalities			
Thiruvananthapuram	1	4	3234707	1092685	33.78
Kollam	1	2	2584118	465850	18 02
Pathanamthitta	-	3	1231577	123573	10 03
Alappuzha	-	5	2105349	618113	29 35
Kottayam	-	4	1952901	299779	15 35
Idukki	-	1	1128605	57240	5 07
Ernakulam	1	8	3098378	1676488	54 11
Thrissur	1	6	2975440	839507	28.21
Palakkad	-	4	2617072	356461	13 62
Malappuram	-	5	3629640	355983	9 80
Kozhikode	1	2	2878498	1100946	38 24
Wayanad	-	1	786627	29602	3 76
Kannur	-	6	2412365	1217163	50 45
kasaragod	-	2	1203342	233745	19 42
Total	**5**	**53**	**31838619**	**8267115**	**25.97**

Source: Census 2001

Appendix. 9. 86

TRADE WISE ENROLMENT IN GOVERNMENT ITI'S AND PRIVATE ITC'S FOR VARIOUS COURSES AS ON 30.11.2002

(TWO YEAR COURSES)

Sl.No.	Name of Trade	ITI's				ITC's			
		Total	Girls	SC	ST	Total	Girls	SC	ST
1	2	3	4	5	6	7	8	9	10
1	M.R T.V.	454	..	20	12	292	..	..	..
2	D/Civil	320	30	17	..	1875	100	..	.
3	D/Mech.	101	..	3	..	35	-	..	.
4	M.R.A.C.	324	21	11	3	459	9	..	
5	Surveyor	113	40	2	-	331	60	3	-
6	Fitter	663	..	25	..	1004	-	-	-
7	Wireman	339	-	4	-	121	-	..	.
8	Electronic Mech.	518	..	8	..	1969	.	20	-
9	MMV	335	-	..	-	1202	.	10	-
10	Turner	305	-	-	-	10	-	4	-
11	Painter General	38	-	.	-	38	-	15	-
12	Instrument Mechanic	91	-	2	1	52	-	2	-
13	Electrician	531	-	2	.	2434	.	13	..
14	Machinist	338	-	-	-	25	-	-	-
15	Watch & Clock	48	9	1	-	-	-	-	-
16	Electroplater	38	..	..	-	-	-	-	-
17	M.M.Tool Maintenance	15	-	..	-	-	-	-	-
18	Agricultural Machinery	19	..	..	-	-	-	-	-
19	ESM					7	.	.	.
	Total	**4590**	**100**	**95**	**16**	**9854**	**169**	**67**	

Appendix. 9.87

TRADE WISE ENROLMENT IN GOVT. ITI's AND PVT: ITC's FOR VARIOUS COURSES AS ON 30/11/2000

(ONE YEAR COURSES)

Sl. No	Name of Trade	ITI's				ITC's			
		Total	Girls	SC	ST	Total	Girls	SC	ST
1	2	3	4	5	6	7	8	9	10
1	Plumber	368	..	11	16	625	..	10	..
2	Mech. Diesel	176	..	..	..	1380	..	50	2
3	S.P	48	20	8	..	70	30	20	1
4	COPA	420	200	42	2	1724	800	37	5
5	Cutting & Tailoring					66	50	17	4
6	Steno(English)	464	30	11	2	109	73	..	..
7	Steno(Hindi)	80	42	4	2	..	..	..	..
8	Dress Making	96	40	8	1	..	..	..	..
9	Welder	708	..	..	..	213	..	..	..
10	Hair & Skin	16	8	4	..	9	4	..	..
11	DTPO	100	25	3	..	34	28	..	..
12	Foundaryman	192	..	6	..	..	..	..	.
13	F.H.T	352	..	20	..	..	..		.
14	Upholstery	32	..	4	..	..	..	..	.
15	SMW	272	..	2	..	11	..	..	.
16	Carpenter	384	..	1	..	54	..	..	..
17	P.P.O	64	..	1	..	..	..	..	..
18	Mech Tractor	80	..	..	..	..	..	.	..
19	Photography	..	..	..	..	10	..	4	..
	TOTAL	**3852**	**365**	**125**	**23**	**4305**	**985**	**138**	**12**

Appendix. 9 88

DISTRICTWISE INDUSTRIAL INSTITUTIONS AND SEAT STRENGTH IN KERALA AS ON 30-11-02

Sl.No.	DISTRICT	GOVT.ITI/SCDD/STDD		PRIVATE ITC		TOTAL	Total Seat Strength		Total
		Total	Affiliated to N.C.V.T	Total	Affiliated to NCVT	(3+5)	Govt. ITI	Private ITC	
1	2	3	4	5	6	7	8	9	10
1	Thiruvananthapuram	5+9+1=15	5+6+0=11	51	51	66	3180	4616	7796
2	Kollam	3+3+0=6	2+3+0=5	48	48	54	1256	6072	7328
3	Pathanamthitta	1+2+0=3	1+1+0=2	33	33	36	176	3340	3516
4	Alappuzha	2+2+0=4	2+2+0=4	45	45	49	1008	5668	6676
5	Kottayam	2+4+0=6	2+2+0=4	31	31	37	1172	3640	4812
6	Iddukki	1+0+0=1	1+0+0=1	9	9	10	224	752	976
7	Ernakulam	2+1+0=3	2+0+0=2	55	55	58	912	7984	8896
8	Thrissur	3+8+0=11	3+3+0=6	36	36	47	1116	3848	4964
9	Palghat	3+3+0=6	2+2+0=4	14	14	20	960	1360	2320
10	Malappuram	2+4+0=6	1+3+0=4	12	12	18	316	1300	1616
11	Kozhikode	3+2+0=5	2+1+0=3	25	25	30	928	2316	3244
12	Wayanad	1+0+0=1	1+1+0=2	3	3	4	144	232	376
13	Kannur	2+1+0=3	2+1+0=3	26	26	29	992	1432	2424
14	Kasargod	2+2+0=4	1+2+0=3	6	6	10	196	436	632
	Total	**74**	**54**	**394**	**394**	**468**	**12580**	**42996**	**55576**

Appendix 10.1

PATTERN OF URBAN POVERTY

KOLLAM CORPORATION - BPL FAMILIES (SYNOPSIS)

Ward	Name of ward	Total houses	No Land	Diapilated House / No house	No Sanitary Latrine	No access to safe drinking water	Widow	Employment	SC/ST	No Colour TV	Mental illness	Risk score 4 and above	No Scooter (No-1)	Fishermen family (Y-1)	No member working outside (1-S,2-L3-	No of members in the family	[illegible] expenditure >Rs 372.96
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	Sakthikulangara West	1348	288	321	295	198	41	133	53	311	36	355	127	210	344	1442	124
2	Sakthikulangara Middle	1578	258	273	235	58	80	91	83	286	27	295	117	66	294	1165	74
3	Sakthikulangara North	1185	223	220	233	113	63	162	37	268	20	276	128	161	272	1118	39
4	Kavanadu	936	169	159	170	141	33	61	13	171	11	186	110	104	184	840	32
5	Kureepuzha North	1328	399	399	281	163	121	356	119	377	92	458	402	38	451	1959	145
6	Kureepuzha south	1602	146	114	66	23	49	89	44	150	20	158	136	3	157	677	68
7	Mulankadakom	1792	208	214	166	98	67	149	59	221	16	239	215	2	238	1128	51
8	Thevally	1374	271	257	219	173	86	40	68	254	13	274	260	3	269	1185	134
9	Asramam South	1490	287	282	239	29	72	99	59	279	43	296	261	10	289	1260	66
10	Asramam North	1372	460	394	340	63	114	99	31	448	100	492	477	0	472	1976	142
11	Uliyakovil West	1137	417	329	338	124	117	245	166	422	45	447	358	0	440	1843	99
12	Uliyakovil East	1676	330	318	272	38	100	17	54	331	28	340	321	1	334	1500	99
13	Kadappakada	1501	135	119	113	5	37	21	69	135	21	147	133	1	139	650	49
14	Koikkal	1324	280	287	239	153	82	43	71	282	50	308	288	1	307	1262	20
15	Kallumthazham	1409	124	110	107	88	37	42	55	126	23	150	113	0	150	638	102
16	Mangad	1256	251	346	275	227	100	168	102	375	33	382	346	24	378	1614	30
17	Arunoottimangalam	1429	319	377	379	296	114	243	130	359	34	457	389	25	450	1942	143
18	Chathinamkulam	1638	407	423	439	348	127	104	167	522	47	543	503	1	453	2426	67
19	Karikode	1522	279	338	303	189	109	98	106	384	29	390	327	20	385	1640	104
20	College Division	1491	270	285	278	218	102	97	91	335	20	349	84	1	347	1608	52
21	Palkulangara	1339	225	253	204	83	80	96	95	296	50	311	186	3	304	1267	62
22	Amman Nada	1396	142	157	153	88	38	26	44	173	22	195	83	2	194	861	51
23	Vadakkevila	1438	180	189	159	80	56	25	39	194	24	203	194	0	203	830	18
24	Pallimukku	1492	178	193	147	75	52	16	43	196	28	201	191	1	201	897	25
25	Ayathil	1510	199	186	154	152	48	17	51	198	31	210	152	2	208	912	8
26	Mulluvila	1623	323	302	310	174	93	71	76	369	36	389	371	1	387	1674	205

Appendix 10.1 Cont...

Ward	Name of ward	Total houses	No Land	Diapilated House / No house	No Sanitary Latrine	No access to safe drinking water	Widow	Employment	SC/ST	No Colour TV	Mental illness	Risk score 4 and above	No Scooter (No-1)	Fishermen family (Y-1)	No member working outside (1-S,2-I,3-N)	No of members in the family	Per capita expenditure >Rs 372.96
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
27	Kilikolloor	1497	306	364	306	284	114	165	89	379	47	430	407	1	428	1953	47
28	Palathara	1387	275	322	251	274	97	75	153	387	30	399	272	1	398	1662	37
29	Manakkad	1514	154	171	117	47	56	112	55	179	31	190	189	0	189	847	29
30	Kolloorvila	1403	112	114	37	28	32	123	11	128	33	129	126	0	141	745	20
31	Kayylakkal	1686	108	106	13	60	20	5	11	109	10	116	68	2	115	540	22
32	Valathungal	1357	76	77	51	17	29	24	6	86	20	87	81	0	89	363	22
33	Aekolil	1564	298	313	216	68	82	105	170	331	31	344	285	53	342	1524	58
34	Thekkumbhagom	1622	456	435	382	146	86	164	12	468	60	493	390	405	481	2134	271
35	Eravipuram	1622	279	304	217	156	75	198	106	326	40	351	336	14	347	1676	159
36	Bharanikavu	1520	163	153	119	50	53	83	50	182	25	193	155	1	193	835	27
37	Thekkevila	1680	279	269	189	64	90	92	130	288	66	309	298	2	307	1335	19
38	Mundakkal East	1712	560	503	508	63	135	57	157	544	120	583	513	24	577	2557	287
39	Pattathanam	1102	122	103	80	42	60	24	20	104	22	126	47	1	125	593	12
40	Cantonment	1939	382	367	235	39	108	76	206	355	40	391	282	3	388	1638	151
41	Mundakkal West	1601	321	297	218	54	101	54	80	315	132	334	319	48	327	1419	40
42	Thamarakulam	1427	120	102	91	22	44	7	13	116	23	122	98	1	120	571	55
43	Pallithottam	1580	376	355	267	147	81	30	13	342	53	378	232	225	364	1876	42
44	Beach North	1290	120	112	81	82	20	2	86	96	8	121	9	85	119	595	16
45	Cutchery	1617	190	159	136	100	59	125	52	176	29	196	185	2	194	922	19
46	Kaikulangara	1559	176	120	106	120	51	94	36	164	28	180	178	99	178	831	2
47	Thangassery	1592	197	176	115	30	51	57	43	184	65	207	189	75	200	948	20
48	Thirumullavaram	1616	348	295	327	254	103	191	154	319	71	401	306	13	385	1974	189
49	Kannimel East	1957	289	281	299	208	121	166	118	284	54	384	235	46	303	1749	36
50	Kannimel West	1724	673	733	709	545	219	376	281	764	163	892	621	144	863	3803	42
	TOTAL	74754	13148	13076	11184	6297	3905	4963	3977	14088	2100	15407	12093	1925	15023	67413	3631

Total BPL families **15407**
Total Families 75504

Appendix 10.1 Cont....

Ward	Name of ward	Annual income > Rs 21999/-	Above poverty line (code given as 2)	Outside state (Col T-1)	Outside country (Col T-2)	Scooter present (Col R - 2)	Annual expenditure > Rs 21999/-	Expenditure exceeds income (amount)	No. of families with Risk Scores 4 and above					
1	2	19	20	21	22	23	24	25	26	27	28	29	30	31
1	Sakthikulangara West	15	68	1	10	228	24	217	154	152	39	8	2	0
2	Sakthikulangara Middle	5	13	0	1	178	34	282	156	83	41	10	5	0
3	Sakthikulangara North	4	9	0	3	148	4	219	134	75	47	17	3	0
4	Kavanadu	0	9	0	1	76	1	11	65	74	38	8	0	1
5	Kureepuzha North	21	52	1	5	56	37	207	175	168	62	36	17	0
6	Kureepuzha south	4	10	0	1	22	56	133	106	44	8	0	0	0
7	Mulankadakom	7	36	0	1	23	21	141	94	68	57	15	5	0
8	Thevally	5	29	2	3	13	55	206	84	116	54	17	3	0
9	Asramam South	1	4	0	7	7	38	125	168	84	31	8	1	3
10	Asramam North	34	50	4	14	14	39	245	267	123	65	23	6	8
11	Uliyakovil West	1	39	1	6	86	8	245	89	139	146	46	21	6
12	Uliyakovil East	3	19	1	4	19	26	291	229	89	20	1	1	0
13	Kadappakada	8	27	2	6	14	35	98	94	41	9	3	0	0
14	Koikkal	3	22	0	1	20	16	72	130	100	57	17	4	0
15	Kallumthazham	4	8	0	0	37	58	126	79	28	31	10	2	0
16	Mangad	0	12	0	3	36	10	331	166	116	73	26	1	0
17	Arunoottimangalam	3	32	3	3	67	93	436	172	164	100	17	4	0
18	Chathinakulam	1	61	0	90	38	17	366	258	171	85	25	3	1
19	Karikode	2	33	0	4	63	6	241	192	130	59	9	0	0
20	College Division	0	19	1	0	265	3	34	151	115	66	15	2	0
21	Palkulangara	6	104	0	7	125	6	162	205	85	19	1	1	0
22	Amman Nada	1	111	0	1	111	39	116	101	72	17	4	1	0
23	Vadakkevila	0	6	0	0	9	1	93	113	64	17	5	4	0
24	Pallimukku	0	10	0	0	9	24	100	117	56	24	4	0	0
25	Ayathil	0	12	1	1	57	3	63	76	91	39	4	0	0
26	Mulluvila	14	11	1	1	18	87	208	205	104	54	23	2	1

Appendix 10.1 Cont....

Ward	Name of ward	Annual income > Rs 21999/-	Above poverty line (code given as 2)	Outside state (Col T-1)	Outside country (Col T-2)	Scooter present (Col R - 2)	Annual expenditure > Rs 21999/-	Expenditure exceeds income (amount)	No. of families with Risk Scores 4 and above					
1	2	19	20	21	22	23	24	25	26	27	28	29	30	31
27	Kilikolloor	1	5	1	1	21	7	40	166	156	62	40	2	4
28	Palathara	0	17	0	1	123	8	348	216	99	57	19	5	3
29	Manakkad	12	2	0	1	1	14	10	83	57	41	5	4	0
30	Kolloorvila	3	34	0	4	20	11	53	84	27	10	5	3	0
31	Kayylakkal	0	81	0	1	48	16	73	85	18	8	4	1	0
32	Valathungal	0	15	0	0	6	0	4	60	13	10	3	1	0
33	Aekolil	12	6	0	2	59	34	98	150	138	44	11	1	0
34	Thekkumbhagom	50	57	4	8	102	48	42	274	150	48	18	3	0
35	Eravipuram	4	16	0	4	14	140	337	152	114	53	23	8	1
36	Bharanikavu	1	5	0	0	38	9	46	119	45	24	3	2	0
37	Thekkevila	1	9	0	2	10	9	41	145	103	41	13	7	0
38	Mundakkal East	11	62	2	4	69	175	373	347	169	53	12	1	0
39	Pattathanam	0	45	0	1	68	3	93	67	37	15	4	2	0
40	Cantonment	52	75	0	4	110	63	230	204	145	32	8	2	0
41	Mundakkal West	6	15	3	4	15	19	57	102	115	48	7	2	0
42	Thamarakulam	11	16	0	2	24	28	55	85	29	7	1	0	0
43	Pallithottam	0	30	0	13	139	3	272	242	114	21	1	0	0
44	Beach North	0	3	0	2	111	1	26	25	35	22	34	5	0
45	Cutchery	1	18	0	2	11	2	110	58	56	60	18	4	0
46	Kaikulangara	1	3	0	2	2	6	87	73	59	34	13	1	0
47	Thangassery	0	13	0	6	15	0	30	142	42	19	4	0	0
48	Thirumullavaram	2	88	0	14	89	43	273	66	84	97	80	46	17
49	Kannimel East	0	56	1	2	146	1	238	206	95	62	15	6	0
50	Kannimel West	0	46	5	20	253	3	452	376	266	163	55	26	6
	TOTAL	310	1523	34	273	3233	1384	8156	7367	4718	2289	748	220	51
			Total family members						66026					
			Total population						361441					
			BPL %						19					

Appendix 10.2

Physical Target and Achievements of Centrally Sponsored Poverty Alleviation Schemes

Name of Scheme	Unit	Ninth Plan Target	Achievements					Tenth Plan Target	Target 2002-03	Achievements (upto 31-10-02)
			1997-98	1998-99	1999-2000	2000-01	2001-02			
1	2	3	4	5	6	7	8	9	10	11
1. Total families assisted (IRDP)	Nos.	76000	44191	39863						
2. SC/ST families assisted (IRDP)	Nos.	60000	15556	13625						
3. Women families assisted (IRDP)	Nos.	30400	22050	18594						
4. Youths trained under TRYSEM	Nos.	23400	3846	2995						
7. DWCRA - Groups organised	Nos.	4800	1355	1397						
8. Beneficiaries of SGSY	Nos.									
1. Total families assisted (SGSY)					24796	37926	31207	30 lakh famili	40128	7915
2. SC/ST families assisted (SGSY)					8589	11464	7986		1920	2378
3. Women families assisted (SGSY)					11353	20790	14367		12000	5731
II. RURAL EMPLOYMENT										
Employment generated (1) JRY (JGSY)	LMD	319	41.82	39.39	37.17	27.93	31.71			
EAS	LMD	276.2	47.26	55.75	42.94	30.49	33.11			
IAY - Houses		69750	12834	9452	18212	14692	13910	156500	18759	9841
IAY - Houses (Upgradation)					2517	4400	7462		7739	6291
MWS - Wells		28040	3976	4070						
SGRY								400 LMD	65.33	24.9
Sanitary Latrines	Nos.	126000	26424	34792	21701	14934	20941		181777	23311

Appendix 10.3

Statement Showing the Breakup of Amount Released and Utilised under Computerisation of Land Records Programme as on 31.12-2001 (Since Inception in 1989)

(Rs in Lakh)

Sl.No	Name of States/Uts	Upto 8th Plan	Finds Released During 9th Plan					Total Releases	Funds Utilised	% of Utilisation
			1997-98	1998-99	1999-2000	2000-01	2001-02			
1	Andhra Pradesh	433 00	--	829 90	174 05			1436 95	1182 68	82%
2	Arunachal Pradesh	--	--	--	--	75 30	--	75 30	--	0%
3	Assam	238 00	97 50	--	--	--	--	335 50	67 56	20%
4	Bihar	150 00	367 50	30 50	--	--	--	548 00	35 30	6%
5	Gujarat	165 00	75 00	24 61	79 68	195 80	207 06	747 15	321 28	43%
6	Goa	40 00	--	--	63 50	12 30	37 50	153 30	82 90	54%
7	Haryana	275 00	19 00	15 00	56 00	92 40	110 00	567 40	177 18	31%
8	Himachal Pradesh	205 00	--	6 60	28 60	--	--	240 20	96 75	405
9	Jammu & Kashmir	49 00	30 00	189 00	18 00	--	--	286 00	186 34	65%
10	Karnataka	311 00	69 20	342 50	501 88	590 45	59 40	1874 43	1112 57	59%
11	Kerala	325 00	69 00	79 50	102 75	--	--	576.25	535 40	93%
12	Madhya Pradesh	288 00	485 50	237 82	668 38	513 88	696 00	2889 58	1673 72	58%
13	Maharashtra	616 00	197 50	108 59	791 17	455 00	--	2168 26	919 42	42%
14	Manipur	149 88	--	--	38 35	--	--	188 23	68 07	36%
15	Meghalaya	--	--	--	14 00	--	14 00		--	0%
16	Mizoram	85 00	--	50 00	37 78	117 78	--	290 56	172 78	59%
17	Nagaland	--	--	--	25 15	60 00	25 15	110 30	25 15	0%
18	Orissa	522 50	--	20 50	171.12	387.70	657 30	1759 12	950 46	54%
19	Punjab	198 62	52 50	--	31 50	--	--	282 62	53 92	19%
20	Rajasthan	503 00	--	43 60	--	888 34	313 67	1748 61	917 37	52%
21	Sikkim	32 00	--	22 40	12 80	--	--	67 20	40 00	60%
22	Tamil Nadu	453 00	60.00	30 98	237.29	611.50	--	1392 77	1013 52	73%
23	Tripura	100 00	75 80	--	38.00	--	130 00	343 80	153 48	45%
24	Uttar Pradesh	664.00	247 50	142 50	--	278 60	--	1332 60	450 00	34%
25	West Bengal	590.00	173 00	300.78	110.00	457.40	580.17	2211.35	1375 50	62%
26	Chattisgrah	luded in MP				--	156 80	156 80	--	0%
27	D&N Haveli	12 28	--	--	--	--	--	12 38	--	0%
28	Delhi	8.03	--	--	--	--	--	8 03	--	0%
29	Pondichery	15 00	--	--	23 55	23.55	--	62 10	23 55	38%
30	Chandigrah	15 00	--	--	--	--	--	15 00	--	0%
	Total	*6443.41*	*2019.00*	*2474.78*	*3223.55*	*4760.00*	*2973.05*	*21893.79*	*11634.90*	*53%*

Source:- *Annual Report 2001-2002, Government of India, Ministry of Rural Development*

Appendix 10.4

Statement Showing the Distribution of Surplus Land as on 30th September, 2001

(Area in acres)

Sl.No	States/Uts	Area Declared Surplus	Area Taken Possession	Total Area in Litigation	Area Distributed to Indv. Benef.	Total No. of Benef.	SC Beneficiaries		ST Beneficiaries	
							No.	Area	No.	Area
1	2	3	4	5	6	7	8	9	10	11
1	Andhra Pradesh	799663	641655	147631	582319	540344	225932	231179	83688	121085
2	Assam	613400	575337	38461	545870	445848	43720	86068	42361	58985
3	Bihar *	415447	390752	NR	306964	379528	234861	182045	43050	39978
4	Gujarat	227404	160768	69764	139822	32209	14912	84459	13172	29608
5	Haryana	107487	103017	4599	102123	29228	12522	43405		
6	Himachal Pradesh	316556	304895	8072	6167	6259	3912	2727	329	245
7	Jammu & Kashmir	455575	450000	NR	450000	450000				
8	Karnataka	268478	161834	129244	122709	33410	20148	73639	1237	4307
9	Kerala	139548	96253	30353	66669	156568	67368	26151	8016	5555
10	Madhya Pradesh #	298763	260323	79475	186942	74705	21904	49542	28138	73379
11	Maharashtra	739533	670247	31605	642359	140621	42069	163576	29461	98544
12	Manipur	1830	1685	NR	1682	1258	96	128	72	97
13	Onssa	179248	167201	12993	156747	139186	47912	49903	51310	65617
14	Punjab	223115	105834	24591	104232	28574	11351	44247		
15	Rajasthan	610965	569173	79698	461300	81574	29561	144135	11573	49937
16	Tamil Nadu	200243	190751	9492	179683	142347	63811	68286	204	274
17	Tripura	1995	1944	59	1598	1424	256	217	359	448
18	Uttar Pradesh $	374125	341464	50118	258698	294062	200320	180193	699	1195
19	West Bengal	1380525	1291407	192079	1055191	2601432	965842	363326	506398	220164
20	D & N haveli	9406	9305	NR	6851	3353	30	53	3321	6795
21	Delhi	1132	394	183	394	654	495	277		
22	Pondicherry	2326	1185	1050	1046	1427	840	628		
	Total	***7366764***	***6495424***	***909467***	***5379366***	***5584011***	***2007862***	***1794184***	***823388***	***776213***

** Including Kharkhand*

 # Including Chhattisgarh

$ including Uttaranchal

NR - Not Reported

Source : Annual Report 2001-02 Government of India, Ministry of Rural Development

Appendix 10.5

Distribution of Government Wastelands as on September, 2001

Sl.No.	*Name of States/Uts*	*Area Distributed in lakh Acres*
1	Andhra Pradesh	42.02
2	Assam	5.89
3	Bihar *	13.21
4	Gujarat	13.81
5	Haryana	0.00
6	Himachal Pradesh	0.17
7	Karnataka	13.72
8	**Kerala**	**4.57**
9	Madhya Pradesh #	0.79
10	Maharashtra	10.23
11	Manipur	0.32
12	Punjab	1.10
13	Orissa	7.26
14	Tamil Nadu	2.07
15	Tripura	1.32
16	Uttar Pradesh @	24.89
17	West Bengal	4.32
18	Goa	0.05
19	Mizoram	0.74
20	Rajasthan	0 93
21	Delhi	0 06
	Total	***147.47***

Source Annual report 2001-02 Government of India ,Ministry of Rural Development

** Including Jharkhand*

 # Including Chhattisgarh

@ including Uttaranchal

Appendix 10.6

District-wise details of Urban Population/Urban Local Governments-2001

District	No. of local bodies		Total Population	Total Urban Population	Percent-age
	Corporations	Municipalities			
Thiruvananthapuram	1	4	3234707	1092685	33 78
Kollam	1	2	2584118	465850	18 02
Pathanamthitta	-	3	1231577	123573	10 03
Alappuzha	-	5	2105349	618113	29 35
Kottayam	-	4	1952901	299779	15 35
Idukki	-	1	1128605	57240	5 07
Ernakulam	1	8	3098378	1676488	54 11
Thrissur	1	6	2975440	839507	28 21
Palakkad	-	4	2617072	356461	13 62
Malappuram	-	5	3629640	355983	9 80
Kozhikode	1	2	2878498	1100946	38 24
Wayanad	-	1	786627	29602	3 76
Kannur	-	6	2412365	1217163	50 45
kasaragod	-	2	1203342	233745	19 42
Total	**5**	**53**	**31838619**	**8267115**	**25.97**

Source: Census 2001

Appendix 10.7

TRENDS IN URBANIZATION, 1901-2001

Census Year	Total number of UAs/Towns	Total Population	Total Urban Population	Percentages of Urban Population	Decennial growth	
					Absolute	Per cent
1	2	3	4	5	6	7
1901	21	6396262	454499	7 11	-	-
1911	27	7147673	524661	7 34	70162	+15 44
1921	44	7802127	680900	8 73	156239	+29 78
1931	53	9507050	916330	9.64	235430	+34 58
1941	62	11031541	1195550	10 84	279220	+30 47
1951	94	13549118	1825832	13 48	630282	+52 72
1961	92	16903715	2554141	15 11	728309	+39 89
1971	88	21347375	3466449	16.24	912308	+35 72
1981	85	25453680	4771275	18 74	1304826	+37 64
1991	109	29098518	7680294	26 39	2909019	+60.97
2001	98	31838619	8267135	25 97	586841	+7 64

Source: Census of India 2001

Appendix- 10.8

District-wise Number of beneficiaries in Welfare Institutions - 2002

Sl No	Name of Welfare Institution	Thiruvananthapura	Kollam	Alappuzha	Pathanamthitta	Kottayam	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram	Kozhikode	Wayanad	Kannur	Kasargod	Total	Sanctioned
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	Mahila Mandir	28	18	17	13	16		22	14	23	17	27		16	9	220	300
2	Home for Mentally Deficient children	48										23				71	100
3	Home for Physically Handicapped	23						16				20				59	100
4	Home for the cured mental patients (Asha Bhavan)	50							21			41				112	150
5	Care Home for Disabled		11	7					9		16			11		54	100
6	Old Age Home	100	23		24	28		41	9		20	22		17	18	302	900
7	After Care Home													15		15	300
8	Observation Home	18	10	1		11		4	12	1	4	69		3	2	135	400
9	Juvenile Homes	38	36			67			59			189				419	900
10	Government Balasadan			30												30	200
11	Rescue Home			4							20					24	300
12	Children s Home Nooranad			42												42	100
13	Special Home for Boys and Girls	7														7	200
14	After Care Home for Women		74									41				55	100
15	Orphanages	2270	2525	1077	1080	3419	1325	5058	7616	2895	6103	6040	1448	2706	866	44428	
16	Fondling Home					50		50	200	60		80				440	
17	Begger Homes	120	125			120										365	
18	Home for Aged Infirm			19			23			20	20		17			60	

Source Social Welfare Department

Appendix- 10.9

Major Pension Schemes In Kerala- District-wise Beneficiaries - 2002

Sl No	Name of Scheme	Thiruvananthapuram	Kollam	Alappuzha	Pathanamthitta	Kottayam	Idukki	Ernakulam	Thrissur	Palakkad	Malappuram	Kozhikode	Wayanad	Kannur	Kasargod	StateTotal
1	Agricultural Workers	60494	30066	54124	17580	84775	6814	25375	40633	50199	46778	54147	10442	33000	13220	527647
2	Widow/Despute Pension Scheme	18230	19835	23690	6880	10278	2495	16000	15058	17348	27311	22979	4154	15913	8274	208445
3	Special Pension for persons with disabilities	16407	12697	31921	5462	7532	2925	11000	10394	10907	14336	15206	2541	9719	4319	155906
4	Leprosy Cancer patients	1589	2018	1328	243	71	51	289	308	203	138	268	59	97	40	6702
5	Building and Construction Workers	6476	2657	2495	980	1678	896	4764	2396	2558	1796	2925	314	5045	1243	36223
6	Handloom Workers	1415	908	62	10	166		237	141	483	102	1336		2168	118	7146
7	Tailoring Workers	116	53	152		68		81	200			86			94	850
8	Second World War Veterans	856	485	851	436	401	88	713	479	294	325	530	112	796	70	6436
9	Pension to Journalists	64	37	25	1	72	4	45	46	20	4	45		20	3	386
10	Fishermen	46698	28349	41492	430	7232		23025	10422	460	23853	20622		7108	10851	220542
11	Pension to Toddy Workers	122	497	1397	466	1727		2906	2522	1557		431		1176	315	13116
12	Ration Dealers	10	11	10	4	3	1	8	2	5		1		2		57
13	Coir Workers	8954	10812	25267		3362		4923	1026		672	4572		221	114	59923
14	Abkari Wrokers	12	8	3	2	3	4	8	21	2	6	13	2	31		115
15	Cine Artists	67	1	17	5	11		13	10	5	2	5		1		157
16	Unemployment assistance	66810	62553	56606	11965	21586	12572	20499	21739	10118	18509	32401	4056	14207	5874	359495
17	Khadi Workers	16	1		2			5	41	12	3	11		40	3	134
18	Freedom Fighters	1695	1179	2042	92	110	150	470	512	345	927	1077	39	1164	195	9997
19	National Old Age Pension	9253	12528	27674	3935	9556	3508	17500	10457	16356	14145	8131	1478	17252	5495	157268

Source Different Welfare Fund Boards/Departments

Appendix - 10.10

Details of Social Security Pension Schemes in Kerala - 2002

Sl. No.	Welfare Institution	Qualifying conditon	Year	Year of Revision and Rate of assistancae					
1	2	3	4	5	6	7	8	9	10	11
1	Agricultural Workers Welfare Scheme	1 Pension - Above 60 years. Annual family income Rs 11,000	1980	Rs.40/m	Rs 45/m (1985)	Rs 60/m (1987)	Rs 70/m (1991)	Rs.80/m (1996)	Rs 100/m (1997)	Rs 120/m (2000)
		2 Retirement benefi - minimum one year membershipt	1990	Rs5000 to Rs.25000						
2	Kerala Widow Pension Scheme	Death of husband/divorsed/not remarried. Income Rs.300/m	1973	Rs 55/m	Rs.65/m (1991)	Rs 80/m (1995)	Rs 100/m (1996)	Rs 110/m (1997)		
3	Special Pension for the Disabled and Mentally Retarded Persons	40% Disability Medical Certificate. Family Income below 500/m.	1982	Rs 200/m	Rs.300/m (2000)					
4	Pension to Sportsmen	Income Rs 1100 per annum Inter District/State level paraticipation	1978	Below 60 yrs Rs 100/m	Below 60 yrs Rs 200/m (1993)	Below 60 yrs Rs 400/m (1998)				
				60 to 70 yrs Rs 150/m	60 to 70 yrs Rs 300/m	60 to 70 yrs Rs 600/m				
				70 years and above Rs 200/m	70 years and above Rs 400/m	70 years and above Rs 800/m				
5	IInd World War Veterens	Participated in the 2nd World War Non recipient of any other assistance Annual income Rs 6000	1997	Rs.200/m	Rs 300/m (2000)	.				
6	Freedom fighters Pension Scheme	Particiapted in the National Movement	1971	Rs 300/m	Rs 1000/m (1996)	Rs 1500/m (1997)	Rs 2000/m (1998)	Rs 3000/m (2000)		
7	Financial Assistance to Leprosy and Cancer Patients	Certificate from hospitals. Income Rs 200/m	1976	Rs 50/m	Rs 115/m (1991)	Rs 200/m (1997)				
8	Pension to Journalists/ Dependents	1 Living Journalist who are unemployed due to illhealth and overage	1976	Rs 300/m	Rs 500/m (1997)					
		2 Pension to journalist who retired after 10 year service	1993	Rs 1000/m	Rs 1400/m (2001)					
		3 Pension to daily workers Minimum 10 year service for full pension, 50% pension for 5 year service	2000	Rs 1000/m						
9	Welfare Fund for Cine Artists	Cine Artists in distruss Annual family income Rs 12000	1981	Rs 300/m	Rs 400/m (1997)	Rs 500/m (1998)				

Sl. No.	Welfare Institution	Qualifying conditon	Year	Year of Revision and Rate of assistancae					
1	2	3	4	5	6	7	8	9	10	11
10	Kerala Cashew Workers Welfare Schemes	1 Cashew Workers above the age of 60 Incapicity to do work	1989	Rs 75/m	Rs 100/m (1992)	Rs 125/m (1996)				
		2 Death benefit to nominees	1991	Rs 250	Rs 500 (1995)	Rs 1000 (1998)				
11	Kerala Coir Workers Welfare Scheme	1 Pension - Workers above the age of 60 years	1989	Rs 75/m	Rs 100/m (1997)					
		2 Family Pension - Death of the member worker	1989	Rs.75/m						
12	Kerala Constuction Workers Welfare Scheme	1. Pension - Workers having one year service, 60 years of age	1991	Rs 75/m	Rs 100/m (1995)	Rs 150/m (1996)	Rs 200/m (2000)			
		2. Disability pension - Medical Certificate	1993	Rs 150/m						
		3 Family Pension - Death of the Pensioner	1996	Rs 100/m						
13	Kerala Khadi Wrokers Welfare Scheme	10 years service, 60 years of age	1990	Rs.60/m	Rs 180/m (1991)	Rs 100 to Rs.300 (1999)				
14	Kerala Handloom Wrokers Welfare Scheme	1. Pension - Above the age of 60 years, atleast 3 years service	1989	Rs.75/m	Rs.100/m (1997)					
		2. Self employed person	1998	Rs.100/m						
		3. Death Benefit	1990	Rs.1000/m	Rs.5000/m (1999)					
15	Kerala Abkari Workers Welfare Scheme	1. Pension - 60 years. Completed 3 years continous service	1993	Rs.115/m	Rs.200/m (1995)					
		2. Death benefit		Rs.10000						
		3. Permanent Disability Benefit		Rs.5000						
16	Kerala Toddy Workers Welfare Scheme	1. Pension - Not lessthan 10 years membrship	1997	Rs.100/m						
		2. Assistance to Disabled workers	1988	Rs.100/m	Rs.125/m (1992)	Rs.150/m (1994)				

Sl. No.	Welfare Institution	Qualifying condition	Year	Year of Revision and Rate of assistancae					
1	2	3	4	5	6	7	8	9	10	11
17	Kerala Head Load Workers Welfare Scheme	1. Death benefit	1987	Normal death Rs.10000 Accidental death Rs.20000	Rs.15000 and Rs.30000 respectively					
		2. Invalid Pension	1990	Rs.150/m	Rs.200 to Rs. 2400 (2000)					
18	Kerala Motor Workers Welfare Scheme	1. Death benefit - 3 months continuous service	1986	Rs.5000	Rs.25000 (2000)					
		2. Retirement benefit		Rs.12000 for 5 years service and Rs.60000 for 15 years service						
19	Kerala Fishermen Welfare Scheme	1. Pension - Completed 60 years. Annual Income Rs.5000	1987	Rs.75/m	Rs.85/m (1992)	Rs.100/m (1996)	Rs.120/m (2000)			
		2. Accidental death/missing - 18 to 70 years.	1986	Rs.15000	Rs.21000 (1990)	Rs.25000 (1992)	Rs.50000 (1996)	Rs.100000 (1999)		
		3. Permanent disability	1986	Rs.7500	Rs.10500 (1990)	Rs.25000 (1992)	Rs.50000 (1996)	Rs 100000 (1999)		
20	Kerala Tailoring Wrokers Welfare Scheme	1. Pension - Completed 60 years. Minimum 9 years service.	2000	Rs.100 to Rs.430/m						
		2. Disability Pension	1997	Rs.100/m						
21	Kerala Artisans & Skilled Workers Welfare Scheme	1. 60 years and above and is a member	1986	Rs.50000 for 40 years of service. Rs 600 for 2 yrs service						
		2. Death Benefit		Rs 10000						
		3. Permanent disability		Rs.1000						
22	Financial Assistance to Widows for the marriage of their daughter	Family annual Income Rs.10000, Individual Income Rs 6000.	1978	Rs.1000	Rs 1250 (1991)	Rs.2000 (1995)	Rs.2500 (1998)	Rs.5000 (2002)		

Sl. No.	Welfare Institution	Qualifying conditon	Year	Year of Revision and Rate of assistancae					
1	2	3	4	5	6	7	8	9	10	11
23	Tree Climbers Welfare Scheme	Workers in the event of total accidents and permanent total disability followisng the accidents	1980	Rs 10000						
24	Kerala National Employment Services	1. Unemployment Assistance Passed SSLC registrant of employment exchange for more than 3 years Age limit 18-35 years Family Annual Income Rs 12000 should not be a student	1982	Rs.50/m	Rs 60/m (1987)	Rs 70/m (1991)	Rs 80/m (1996)	Rs.90/m (1997)	Rs.100/m (1998)	Rs 120/m (2000)
		2. Self Employment Scheme for the registered unemployed Persons between 21-40 years Annual Family Income Rs.24000	1999	Rs.30000 to Rs 50000/ Loan 20% loan amount subsidy						
25	National Old Age Pension Scheme	Above 65 years Annual Family Income below Rs 11000	1995	Rs 100/m	Rs 110/m (1996)					
26	Ration Dealers Welfare Fund Scheme	1 Pension - completed 65 years/ Minimum 10 years of service	2000	Rs 150/m						
		2. Death Benefit - one year minimum membership	2000	Rs 10000 to the nominee						
27	Beedi and Cigar Workers Welfare Scheme	1 Pension - Completion of 60 years/Minimum 3 years service	1997	Rs 100/m						
		2. Retirement benefit	1997	Rs 10000						
28	Pension to unmarried women	Above 50 years Annual family income below Rs 6000 Not covered under any other social security schemes	2001	Rs 110/m						

Source: Defferent Welfare Fund Boards/Departments

Appendix -10.11
ICDS PROJECTS (GENERAL) - 2002

Sl.No.	Name of Project	Year of sanctioning	Type of project	No. of AWCs	
				Sanctioned	Operational
1	2	3	4	5	6
	Thiruvananthapuram				
1	Thiruvananthapuram (Ull)	94-95	Urban	410	61
2	Thiruvananthapuram (Rural)	82-83	Rural	122	114
3	Kilimanoor	93-94	Rural	164	164
4	Nemom	82-83	Rural	115	115
5	Perumkadavila	82-83	Rural	134	134
6	Vamanapuram	86-87	Rural	219	219
	Kollam				
7	Sasthamkotta	82-83	Rural	87	87
8	Ithikkara	83-84	Rural	138	138
9	Vettikavala	82-83	Rural	179	179
10	Chittumala	85-86	Rural	123	123
11	Pathanapuram	88-89	Rural	186	166
12	Anchal	93-94	Rural	190	190
13	Kottarakkara	93-94	Rural	144	144
14	Chadayamangalam	94-95	Rural	203	201
	Pathanamthitta				
15	Pulikeezhu	85-86	Rural	121	121
16	Elanthoor	94-95	Rural	105	105
17	Ranni	93-94	Rural	208	208
18	Pandalam	93-94	Rural	244	94
19	Konni	88-89	Rural	178	178
20	Kulanada	89-90	Rural	141	85
21	Paracode	82-83	Rural	152	152
22	Mavelikkara	93-94	Rural	117	117
23	Bharanikave	93-94	Rural	183	183
24	Chengannoor	99-2000	Rural	171	171
	Kottayam				
25	Lalam	82-83	Rural	121	114
26	Pampady	82-83	Rural	122	122
27	Madappally	85-86	Rural	235	231
28	Kanjirappally	89-90	Rural	226	220
	Idukki				
29	Adimali	90-91	Rural	158	131
30	Azhudai	86-87	Rural	195	178
31	Devikulam	83-84	Rural	112	112
32	Elamdesam	79-80	Rural	110	110
33	Idukki	82-83	Rural	118	118
34	Kattappana	88-89	Rural	207	207
35	Nedumkandam	91-92	Rural	161	161
36	Thodupuzha	93-94	Rural	104	103

1	2	3	4	5	6
	Ernakulam				
37	Vadavucode	82-83	Rural	127	127
38	Mulamthuruthy	89-90	Rural	144	132
39	Vytilla	93-94	Rural	50	50
	Thrissur				
40	Anthikad	80-81	Rural	101	101
41	Chavakkad	78-79	Rural	199	195
42	Chalakudy	83-84	Rural	157	146
43	Chowannoor	94-95	Rural	176	171
44	Irinjalakuda	89-90	Rural	135	132
45	Mala	82-83	Rural	118	117
46	Mullasserry	88-89	Rural	106	96
47	Pazhayannoor	86-87	Rural	166	166
48	Thalikulam	85-86	Rural	121	109
49	Vellangallur	93-94	Rural	96	96
50	Vadakkanchery	93-94	Rural	174	174
	Palakkad				
51	Kuzhalmannam	80-81	Rural	117	84
52	Kollengode	81-82	Rural	137	103
53	Alathur	83-84	Rural	138	138
54	Sreekrishnapuram	83-84	Rural	138	137
55	Chittur	86-87	Rural	160	160
56	Ottappalam	86-87	Rural	174	173
57	Mannarkad	88-89	Rural	250	250
58	Trithala	89-90	Rural	186	186
59	Palakkad	90-91	Rural	303	228
60	Pattambi	91-92	Rural	226	226
61	Nenmara	93-94	Rural	71	71
	Malappuram				
62	Andathode	93-94	Rural	134	134
63	Manjeri	83-84	Rural	127	127
64	Kondotty	81-82	Rural	138	138
65	Kuttippuram	91-92	Rural	157	157
66	Malappuram	93-94	Rural	174	174
67	Mankada	93-94	Rural	228	227
68	Nilambur	93-94	Rural	211	211
69	Perinthalmanna	83-84	Rural	134	134
70	Vengara	75-76	Rural	135	134
71	Wandoor	90-91	Rural	253	253
	Kozhikode				
72	Balussery	89-90	Rural	244	227
73	Koduvally	82-83	Rural	158	122
74	Perambra	83-84	Rural	144	144
75	Kunnamangalam	83-84	Rural	134	134
	Wayanadu				
76	Sulthan Battery	82-83	Rural	139	138
77	Kalpatta	82-83	Rural	194	194
	Kannur				
78	Kannur (Urban)	82-83	Urban	37	34
79	Kuthuparamba	83-84	Rural	138	138
80	Peravoor	86-87	Rural	136	136
81	Irikkur	93-94	Rural	214	214
82	Edakkad	82-83	Rural	143	143
83	Iritty	93-94	Rural	163	163

1	2	3	4	5	6
	World Bank assisted strengthening Projects				
	Thiruvananthapuram				
1	Thiruvananthapuram (UI)	77-78	Urban	101	101
2	Athiyannoor	82-83	Rural	141	140
3	Chirayinkeezhu	81-82	Rural	146	146
4	Kazhakuttam	94-95	Rural	230	230
5	Varkala	93-94	Rural	130	108
	Kollam				
6	Chavara	78-79	Rural	152	152
7	Ochira	80-81	Rural	73	73
8	Anchalummood	82-83	Rural	114	114
	Alappuzha				
9	Pattanakkad	81-82	Rural	196	195
10	Thycatusery	79-80	Rural	111	105
11	Kanjikuzhy	82-83	Rural	143	143
12	Alappuzha Urban	82-83	Rural	186	147
13	Champakulam	82-83	Rural	116	116
14	Ambalappuzha	81-82	Urban	117	117
15	Harippad	82-83	Rural	117	117
16	Muthukulam	83-84	Rural	182	182
	Kottayam				
17	Vaikom	79-80	Rural	108	108
	Ernakulam				
18	Vypin	83-84	Rural	125	122
19	North Paravoor	80-81	Rural	113	113
20	Mattanchery	79-80	Rural	110	110
21	Kochi (Urban)	94-95	Urban	463	177
	Palakkad				
22	Attappady	79-80	Tribal	123	123
	Malappuram				
23	Ponnani	80-81	Rural	108	108
24	Thanur	83-84	Rural	124	124
25	Thirur	82-83	Rural	140	137
26	Thirurangadi	85-86	Rural	192	192
	Kozhikode				
27	Melady	82-83	Rural	122	80
28	Calicut (UI)	77-78	Urban	101	101
29	Calicut (UII)	83-84	Urban	111	111
30	Mananthavady	78-79	Rural	184	184
	Kannur				
31	Kannur (Rural)	93-94	Rural	158	140
32	Payyannur	93-94	Rural	342	329
33	Thaliparamba	81-82	Rural	170	170
34	Thalassery	93-94	Rural	247	239
	Kasaragod				
35	Kanhangad	80-81	Rural	195	195
36	Kasaragod	85-86	Rural	224	216
37	Manjeshwar	93-94	Rural	211	211

1	2	3	4	5	6
	World Bank Assisted Phase III Projects				
	Thiruvananthapuram				
1	Nedumangad	99-2000	Rural	147	147
2	Vellanad	2000-01	Rural	207	207
3	Parassala	2000-01	Rural	171	170
	Kollam				
4	Karunagapally	99-2000	Rural	181	145
5	Mukhathala	2000-01	Rural	254	254
6	Kollam Punalur	2000-01	Urban	186	143
	Pathanamthitta				
7	Mallappally	99-2000	Rural	115	115
8	Koipuram	2000-01	Rural	122	118
	Alappuzha				
9	Aniad	99-2000	Rural	111	111
10	Veliyanad	99-2000	Rural	90	90
	Kottayam				
11	Kaduthuruty	99-2000	Rural	156	156
12	Pallam	99-2000	Rural	234	233
13	Vazhoor	99-2000	Rural	109	108
14	Uzhavoor	2000-01	Rural	144	144
15	Ettumannur	2000-01	Rural	191	191
16	Erattupettah	2000-01	Rural	98	98
	Ernakulam				
17	Koovappady	99-2000	Rural	133	132
18	Parakkadavu	99-2000	Rural	127	126
19	Vazhakullam	99-2000	Rural	177	176
20	Pampakuda	99-2000	Rural	92	90
21	Palluruthy	2000-01	Rural	58	58
22	Alangad	2000-01	Rural	114	113
23	Angamali	2000-01	Rural	180	179
24	Kothamangalam	2000-01	Rural	178	176
25	Edappally	2000-01	Rural	87	81
26	Muvattupuzha	2000-01	Rural	137	118

1	2	3	4	5	6
	Thrissur				
27	Puzhakkal	99-2000	Rural	164	162
28	Ollukkara	99-2000	Rural	225	215
29	Cherpu	2000-01	Rural	181	125
30	Kodungallur	2000-01	Rural	94	94
31	Kodakara	2000-01	Rural	196	196
32	Mathilakam	2000-01	Rural	137	137
	Palakkad				
33	Malampuzha	99-2000	Rural	167	154
	Malappuram				
34	Malappuram (U)	2000-01	Urban	158	112
	Kozhikode				
35	Chelannur	99-2000	Rural	183	182
36	Kunnummel	99-2000	Rural	175	170
37	Pathalayani	99-2000	Rural	165	165
38	Kozhikode (Rural)	99-2000	Rural	257	248
39	Kozhikode (U - III)	83-84	Urban	167	151
40	Thodannur	2000-01	Rural	119	119
41	Thuneri	2000-01	Rural	126	121
42	Vadakara	2000-01	Rural	114	111
	Kasaragod				
43	Neeleswaram	99-2000	Rural	237	210

Appendix 10.12

DEVELOPMENT INDICATORS OF SCHEDULED CASTES IN INDIA - DEMOGRAPHY

Sl. No	STATES/UNION TERRITORIES	Population (Million – 1991)			Sex Ratio	
		Total	SCs	%	Total	SC's
1	2	3	4	5	6	7
A	**STATES**					
1	Andhra Pradesh	66.51	10.59	15.9	972	969
2	Arunachal Pradesh	0.86	4052 *	0.5	859	627
3	Assam	22.41	1.66	7.4	923	919
4	Bihar	86.37	12.57	14.6	911	914
5	Goa	1.17	0.02	2.1	967	967
6	Gujarat	41.31	3.06	7.4	934	925
7	Haryana	16.46	3.25	19.7	865	860
8	Himachal Pradesh	5.17	1.31	25.3	976	967
9	Jammu & Kashmir	7.72 @	N.A.	-	923	N.A
10	Karnataka	44.98	7.37	16.4	960	962
11	**Kerala**	**29.1**	**2.89**	**9.9**	**1036**	**1029**
12	Madhya Pradesh	66.18	9.63	14.5	931	915
13	Maharashtra	78.94	8.76	11.1	934	944
14	Manipur	1.84	0.04	2.0	958	973
15	Meghalaya	1.77	0.01	0.5	955	821
16	Mizoram	0.69	691*	0.4	921	157
17	Nagaland	1.21	..	-	886	..
18	Orissa	31.66	5.13	16.2	971	975
19	Punjab	20.28	5.74	28.3	882	873
20	Rajasthan	44.01	7.61	17.3	910	899
21	Sikkim	0.41	0.02	5.9	878	939
22	Tamil Nadu	55.86	10.71	19.2	974	978
23	Tripura	2.76	0.45	16.4	945	949
24	Uttar Pradesh	139.11	29.28	21.0	879	877
25	West Bengal	68.08	16.08	23.6	917	931
B	**UNION TERRITORIES**					
26	Andaman & Nicobar Islands	0.28	..	-	818	..
27	Chandigarh	0.64	0.10	16.5	790	810
28	Dadra and Nagar Haveli	0.14	2730*	1.9	952	925
29	Daman and Diu	0.1	3891*	3.8	968	1067
30	Delhi	9.42	1.79	19.0	827	834
31	Lakshadweep	0.05	..	-	943	..
32	Poondicherry	0.81	0.13	16.2	979	983
C	**Total - INDIA**	**846.3**	**138.22**	**16.5**	**927**	**922**

* Actual Number

@ Projected Population

N.A. Not Available

Source: 'Scheduled Castes in India' (A Data Sheet) Planning Commission, 2

Appendix 10.13

DEVELOPMENT INDICATORS OF SCHEDULED CASTES IN INDIA - LITERACY AND EDUCATION

Sl. No.	STATES/UNION TERRITORIS	Literacy Rates (1991)				Gross Enrolment Rates (1998-99)				Dropout Rates	
		Total		Female		Classes 1-V		Classes VI-VIII		Classes 1-VIII (1993-94)	
		Total	SCs	Total	SCs	Total	SCs	Total	SCs	Total	SCs
1	2	3	4	5	6	7	8	9	10	11	12
A	**STATES**										
1	Andhra Pradesh	44.1	31.6	32.7	20.9	96.8	112.1	46.0	59.1	62.8	61.1
2	Arunachal Pradesh	41.6	57.3	29.7	41.4	115.2	31.4	66.7	31.4	68.7	53.5
3	Assam	52.9	53.9	43.0	42.9	109.6	N.A.	61.1	NA	67.6	60.3
4	Bihar	38.5	19.5	22.9	7.1	78.0	67.9	33.6	44.9	78.7	84.1
5	Goa	75.5	58.7	67.1	47.5	71.3	106.9	77.7	69.6	12.3	60.7
6	Gujarat	61.3	61.1	48.6	45.5	112.2	98.3	65.4	99.1	60.0	56.5
7	Haryana	55.9	39.2	40.5	24.1	83.1	86.2	64.4	64.9	23.9	55.2
8	Himachal Pradesh	63.9	53.2	52.1	41.0	92.1	80.6	84.1	76.4	19.7	46.3
9	Jammu & Kashmir	N.A	N.A	N.A.	NA	79.9	NA	65.2	NA	56.5	31.6
10	Karnataka	56.0	38.1	44.3	25.9	107.9	92.2	66.1	77.8	63.0	69.3
11	**Kerala**	**89.8**	**79.7**	**86.2**	**74.3**	**87.9**	**88.2**	**95.2**	**97.8**	**0.9**	**3.1**
12	Madhya Pradesh	44.2	35.1	28.9	18.1	108.3	110.7	62.2	75.4	44.7	70.2
13	Maharashtra	64.9	56.5	52.3	41.5	112.7	104.8	86.4	104.6	49.8	53.9
14	Manipur	59.9	56.4	47.6	47.4	92.0	88.7	72.9	62.8	72.3	31.8
15	Meghalaya	49.1	43.3	44.9	31.2	116.3	109.2	59.5	106.1	57.7	79.7
16	Mizoram	87.3	77.9	78.6	81.2	127.1	54.9	78.2	55.3	52.4	NA
17	Nagaland	61.7	..	54.8	..	110.4	..	65.1	..	38.1	..
18	Orissa	49.1	36.8	34.7	20.7	94.9	100.4	51.3	58.2	61.2	74.5
19	Punjab	58.5	41.1	50.4	31.0	82.7	94.2	66.2	74.4	39.2	57.9
20	Rajasthan	38.6	26.3	20.4	8.3	101.8	92.9	57.6	58.7	65.4	81.4
21	Sikkim	56.9	51.0	46.7	42.8	133.9	112.6	74.6	63.9	78.4	86.1
22	Tamil Nadu	62.7	46.7	51.3	34.8	108.3	99.4	92.9	78.5	36.3	46.1
23	Tripura	60.4	56.7	49.7	45.4	107.9	97.3	61.4	59.5	68.4	73.9
24	Uttar Pradesh	41.6	26.8	25.3	10.7	63.3	70.6	38.6	41.4	37.5	55.3
25	West Bengal	57.7	42.2	46.6	28.9	93.7	87.6	50.5	50.4	46.7	81.2
B.	**UNION TERRITORIES**										
26	Andaman & Nicobar Islands	73.0	..	65.5	..	91.2	..	95.4	..	27.3	..
27	Chandigarh	77.8	55.4	72.3	43.5	65.0	104.3	62.5	83.2	0.0	31.2
28	Dadra & Nagar Haveli	40.7	77.6	26.9	86.6	121.1	105.4	57.7	96.6	62.2	50.0
29	Daman & Diu	71.2	79.2	59.4	67.6	108.9	108.6	85.1	100.7	10.8	0.0
30	Delhi	75.3	57.6	66.9	43.8	87.1	90.6	73.1	73.2	25.4	44.5
31	Lakshadweep	81.8	..	72.9	..	104.6	..	77.7	..	52.2	..
32	Pondicherry	74.7	56.3	65.6	46.3	87.0	110.7	94.7	98.4	7.5	14.5
C.	**INDIA**	**52.2**	**37.4**	**39.3**	**23.8**	**92.1**	**87.6**	**57.6**	**62.1**	**52.8**	**66.6**

N.A. - Not Available

Source: Scheduled Castes in India (A Data Sheet) Planning Commission, 2

Appendix 10.14

DEVELOPMENT INDICATORS OF SCHEDULED CASTES IN INDIA - WORK PARTICIPATION AND ECONOMIC STATUS

Sl. No	STATES/UNION TERRITORIES	WPR (Total Workers 1991)		Percentage Distribution of Main Workers (1991)										Below Poverty Line (Rural %) 1993-94	
				Primary Sector		Second- Sector		Tertiary Sector		Cultivators		Agri. Labo.			
		Total	SCs	Total	SCs	Total	SCs	Total	SCs	Total	SCs	Total	SCs	Total	SCs
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
A	**States**														
1	Andhra Pradesh	45.1	51.1	71.2	86.5	10.5	4.8	18.3	8.7	27.7	12.8	40.9	72.1	15.92	26.02
2	Arunachal Pradesh	46.2	44.3	67.4	21.7	8.7	21.2	23.9	57.1	60.4	15.1	5.1	2.6	45.01	NA
3	Assam	36.1	34.4	74.0	66.2	5.6	10.1	20.4	23.6	50.9	47.2	12.1	13.4	45.01	45.38
4	Bihar	32.2	37.4	82.4	89.8	4.6	3.5	13.0	6.7	43.6	15.6	37.1	72.3	58.21	70.66
5	Goa	35.3	38.1	32.3	22.4	22.0	36.4	45.7	41.2	14.7	3.8	9.2	11.9	5.34	NA
6	Gujarat	40.2	37.6	59.8	55.9	17.9	20.2	22.4	23.9	33.4	12.6	22.9	41.5	22.18	32.26
7	Haryana	31.0	30.9	58.8	64.8	13.2	13.7	28.0	21.5	38.8	8.1	19.0	55.1	28.02	46.56
8	Himachal Pradesh	42.8	43.4	69.3	75.2	10.0	12.2	20.7	12.6	63.3	67.7	3.3	5.5	30.34	36.89
9	Jammu & Kashmir	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	30.34	NA
10	Karnataka	42.0	44.7	67.4	78.8	13.2	10.4	19.5	10.7	34.2	23.5	28.9	49.9	29 88	46.36
11	**Kerala**	**31.4**	**41.2**	**48.0**	**69.6**	**18.2**	**13.1**	**33.8**	**17.3**	**12.2**	**3.1**	**25.5**	**53.8**	**25.76**	**36.43**
12	Madhya Pradesh	42.8	43.4	77.5	70.6	8.4	12.2	14.1	11.2	51.8	36.4	23.5	38.3	40.64	45.83
13	Maharashtra	43.0	42.8	61.5	64.1	15.8	16.2	22.7	19.8	32.8	14.4	26.8	48.1	37.93	51.64
14	Manipur	42.2	38.9	70.0	76.9	9.7	6.9	20.3	16.2	61.8	61.4	6.7	14.8	45.01	NA
15	Meghalaya	42.7	35.7	74.8	29.1	3.7	11.5	21.5	59.4	55.3	8.1	12.5	13.2	45.01	NA
16	Mizoram	48.9	79.2	66.0	8.0	5.1	10.2	28.9	81.8	63.4	4.7	3.3	3.2	45.01	NA
17	Nagaland	42.7	..	75.3	..	3.5	..	21.3	..	72.6	..	1.4	..	45.01	..
18	Orissa	37.5	39.3	75.8	78.9	7.5	7.9	16.7	13.1	44.3	28.6	28.7	46.4	49.72	48.95
19	Punjab	30.9	30.7	56.1	65.5	14.8	12.9	29.1	21.6	31.4	4.8	23.8	59.8	11.95	22.08
20	Rajasthan	38.9	39.3	71.6	73.9	9.9	12.6	18.5	13.5	58.8	49.3	10.5	21.5	26.46	38.38
21	Sikkim	41.5	38.6	68.4	64.2	11.1	21.3	20.5	14.4	57.8	52.7	7.8	8.9	45.01	NA
22	Tamil Nadu	43.3	48.4	61.8	81.6	16.2	7.7	22.0	10.8	24.8	14.6	34 6	64.3	32.48	44.05
23	Tripura	31.1	28.7	64.1	63.0	6.4	8.3	29.5	28.7	38.1	30.8	23.4	28.8	45.01	NA
24	Uttar Pradesh	32.2	35.3	73.0	82.3	9.0	7.6	18.0	10.2	53.3	42.6	18.9	38.8	42.28	58.99
25	West Bengal	32.2	33.3	56.5	72.4	17.8	12.0	25.7	15.6	28.4	27 5	24 6	41.1	40 80	45.29
B	**UNION TERRITORIES**														
26	Islands	35.2	..	34.5	..	21.1	..	40.4	..	16.0	..	5.5	.	32 48	..
27	Chandigarh	34.9	32.3	4.4	3.8	27.8	30.7	67.7	65.5	1.0	0.2	0.7	1.3	11 35	NA
28	Dadra and Nagar Haveli	53.2	38.9	71.8	48.6	16.1	19.7	12.1	31.8	59.7	24.3	10.3	22.0	51 95	NA
29	Damman & Diu	37.6	29.4	37.3	11.1	25.4	29.4	37.3	59.5	10.2	5.6	3.7	3.0	5.34	NA
30	Delhi	31.6	29.3	2.8	3.1	32.4	36.9	64.7	59.9	1.1	0.2	0 8	1.7	1 90	NA
31	Lakshadweep	26.4	..	25.0	..	25.3	..	49.7	..	..	..	..	..	25.76	..
32	Pondicherry	33.1	40.9	39.2	72.4	20.0	7.9	40.8	19 7	6.9	2.7	29.5	69.3	32 48	NA
C	**INDIA**	**37.5**	**39.3**	**67.5**	**77.0**	**12.0**	**9.8**	**20.5**	**13.2**	**38.7**	**25.4**	**26.1**	**49.1**	37.27	48.11

N.A. - Not Available

Source: 'Scheduled Castes in India' (A Data Sheet) Planning Commission, 2000

Appendix 10.15

DEVELOPMENT INDICATORS OF SCHEDULED CASTES IN INDIA - DECISION MAKING

Sl. No.	STATES/UNION TERRITORIES	Decision Makers					
		Lok Sabha (1999)		Legislative Assembly (2000)		PRIs (1995-2000)	
		Total	SCs	Total	SCs	Total	Scs
1	2	3	4	5	6	7	8
A	**STATES**						
1	Andhra Pradesh	42	6	294	39	246181	39591
2	Arunachal Pradesh	2	..	60	..	*	*
3	Assam	14	1	126	8	33736	NA
4	Bihar	54	8	324	48	*	*
5	Goa	2	..	40	1	1316	NA
6	Gujarat	26	2	182	13	128042	5075
7	Haryana	10	2	90	17	57002	12730
8	Himachal Pradesh	4	1	68	16	20177	4150
9	Jammu & Kashmir	6	..	87	7	*	*
10	Karnataka	28	4	224	33	82719	15370
11	**Kerala**	**20**	**2**	**140**	**13**	**17086#**	**1848#**
12	Madhya Pradesh	40	6	320	44	484484	70391
13	Maharashtra	48	3	288	18	308831	41381
14	Manipur	2	..	60	1	1617	36
15	Meghalaya	2	..	60	..	T	..
16	Mizoram	1	..	40	..	T	..
17	Nagaland	1	..	60	..	T	..
18	Orissa	21	3	147	22	87191	7957
19	Punjab	13	3	117	29	2712	422
20	Rajasthan	25	4	200	33	119419	18992
21	Sikkim	1	..	32	2	965	46
22	Tamil Nadu	39	7	234	42	132969	20381
23	Tripura	2	..	60	7	5687	1300
24	Uttar Pradesh	85	18	425	92	862458	111454
25	West Bengal	42	8	294	59	58461	16198
B	**UNION TERRITORIES**						
26	Andaman & Nicobar Islands	1	..	..	..	697	..
27	Chandigarh	1	..	..	..	NA	NA
28	Dadra and Nagar Haveli	1	..	..	..	151	3
29	Daman & Diu	1	..	..	..	78	2
30	Delhi	7	1	70	13	*	*
31	Lakshadweep	1	..	..	..	111	..
32	Pondicherry	1	..	30	5	136	NA
C	**INDIA**	**543**	**79**	**4072**	**562**	**2647257**	**365479**
			(14.5%)		(13.8%)		(13.8%)

* Panchayat Raj Act not yet passed

NA : Not Available

T: Traditional Tribal Councils

As on 1-10-2000

Source: "Scheduled Castes in India" (A Data Sheet) Planning Commission, 2000

Appendix 10.16

DEVELOPMENT INDICATORS OF SCHEDULED TRIBES IN INDIA - DEMOGRAPGY

Sl. No.	States/Union Territories	Population (Million - 1991)				Sex Ratio (1991)	
		Total	STs #	%	PTGs $	Total	STs
1	2	3	4	5	6	7	8
A.	**STATES**						
1	Andhra Pradesh	66.51	4.20	6.3	0.29	972	960
2	Arunachal Pradesh	0.86	0.55	63.7	..	859	998
3	Assam	22.41	2.87	12.8	..	923	967
4	Bihar	86.37	6.62	7.7	0.19	911	971
5	Goa	1.17	376 *	Neg.	..	967	889
6	Gujarat	41.31	6.16	14.9	0.08	934	967
7	Haryana	16.46	..	--	..	865	..
8	Himachal Pradesh	5.17	0.22	4.2	..	976	981
9	Jammu & Kashmir	7.72 @	NA	--	..	923	NA
10	Karnataka	44.98	1.92	4.3	0.04	960	961
11	**Kerala**	**29.10**	**0.32**	**1.1**	**0.02**	**1036**	**996**
12	Madhya Pradesh	66.18	15.40	23.3	0.61	931	985
13	Maharashtra	78.94	7.32	9.3	NA	934	968
14	Manipur	1.84	0.63	34.4	NA	958	959
15	Meghalaya	1.77	1.52	85.5	..	955	997
16	Mizoram	0.69	0.65	94.8	..	921	982
17	Nagaland	1.21	1.06	87.7	..	886	946
18	Orissa	31.66	7.03	22.2	0.06	971	1002
19	Punjab	20.28	..	--	..	882	..
20	Rajasthan	44.01	5.48	12.4	NA	910	930
21	Sikkim	0.41	0.09	22.4	..	878	914
22	Tamil Nadu	55.86	0.57	1.0	0.03	974	960
23	Tripura	2.76	0.85	30.9	NA	945	965
24	Uttar Pradesh	139.11	0.29	0.2	0.04	879	914
25	West Bengal	68.08	3.81	5.6	NA	917	964
B	**UNION TERRITORIES**						
26	Andaman & Nicobar Islands	0.28	0.03	9.5	561 *	818	947
27	Chandigarh	0.64	..	--	..	790	..
28	Dadra and Nagar Haveli	0.14	0.11	78.9	..	952	1022
29	Daman & Diu	0.10	0.01	11.5	..	969	931
30	Delhi	9.42	..	--	..	827	..
31	Lakshadweep	0.05	0.05	93.2	..	943	994
32	Pondicherry	0.81	..	--	..	979	..
C	**INDIA**	**846.30**	**67.76**	**8.1**	**1.36 (2%)**	**927**	**972**

\# Includes Population of Primitive Tribal Groups (PTGs)
* Actual Number
@ Projected Population
$ Estimates of the Ministry of Social Justice and Empowe
N.A. - Not Available
Neg. - Negligible

Source: Tribes in India (A Data Sheet) Planning Comission, Government of India, 2000

Appendix 10.17

DEVELOPMENT INDICATORS OF SCHEDULED TRIBES IN INDIA - LITERACY AND EDUCATION

Sl. No.	STATES/UNION TERRITORIES	Literacy Rates (1991)				Gross Enrolment Ratios (1997-98)				Dropout Rates	
		Total		Female		Classes 1 - V		Classes VI - VIII		Clases 1 -VIII	
		Total	STs	Total	STs	Total	STs	Total	STs	Total	STs
1	2	3	4	5	6	7	8	9	10	11	12
A.	**STATES**										
1	Andhra Pradesh	44.1	17.2	32.7	8.7	89.5	99.4	45.7	23.5	62.8	88.1
2	Arunachal Pradesh	41.6	34.5	29.7	24.9	97.2	99.2	65.8	69.2	68.7	73.6
3	Assam	52.9	49.2	43.0	38.9	109.1	NA	69.3	NA	67.6	66.3
4	Bihar	38.5	26.8	22.9	14.8	75.9	81.7	34.8	30.4	78.7	85.5
5	Goa	75.5	42.9	67.1	29.0	86.1	0.0	79.7	82.8	12.3	3.3
6	Gujarat	61.3	36.5	48.6	24.2	115.7	117.2	68.4	53.7	59.9	73.1
7	Haryana	55.9	..	40.5	..	83.9	..	65.9	..	23.9	..
8	Himachal Pradesh	63.9	47.1	52.1	31.2	90.0	93.8	78.2	72.7	19.7	43.3
9	Jammu & Kashmir	NA	NA	NA	NA	67.2	NA	64.4	NA	56.5	NA
10	Karnataka	56.0	36.0	44.3	23.6	104.6	105.8	67.6	85.7	62.9	58.0
11	**Kerala**	**89.8**	**57.2**	**86.2**	**51.1**	**90.0**	**107.5**	**95.4**	**84.5**	**0.9**	**31.4**
12	Madhya Pradesh	44.2	21.5	28.9	10.7	102.3	82.4	64.9	38.1	44.7	76.0
13	Maharashtra	64.9	36.8	52.3	24.0	112.9	112.7	86.3	62.1	49.8	70.7
14	Manipur	59.9	53.6	47.6	44.5	80.8	91.6	70.5	55.5	72.3	51.3
15	Meghalaya	49.1	46.7	44.9	43.6	93.3	86.4	52.7	48.9	57.7	84.3
16	Mizoram	87.3	82.7	78.6	78.7	113.6	113.8	70.6	73.5	52.4	71.6
17	Nagaland	61.7	60.6	54.8	54.5	94.3	97.2	65.6	73.3	38.1	67.7
18	Orissa	49.1	22.3	34.7	10.2	90.5	88.3	53.4	31.9	61.2	86.5
19	Punjab	58.5	..	50.4	..	81.6	..	65.0	..	39.2	.
20	Rajasthan	38.6	19.4	20.4	4.4	96.9	90.4	52.7	42.3	65.4	85.0
21	Sikkim	56.9	59.0	46.7	50.4	113.3	107.3	59.0	56.9	78.4	75.7
22	Tamil Nadu	62.7	27.9	51.3	20.2	108.5	96.8	93.6	70.1	36.3	71.6
23	Tripura	60.4	40.4	49.7	27.3	88.3	90.0	54.7	41.7	68.4	83.9
24	Uttar Pradesh	41.6	35.7	25.3	19.9	62.3	96.9	40.0	69.7	37.5	40 7
25	West Bengal	57.7	27.8	46.6	14.9	92.2	101.1	47.1	49.6	46.7	86.0
B	**UNION TERRITORIES**										
26	Andaman & Nicobar Islands	73.0	56.6	65.5	48.7	86.8	75.6	93 9	65.2	27.3	23.6
27	Chandigarh	77.8	..	72.3	..	79.4	..	80.8	..	0 0	.
28	Dadra and Nagar Haveli	40.7	28.2	26.9	15.9	96.1	96.7	59.1	51.9	62.2	67.8
29	Daman & Diu	71.2	52.9	59.4	41.5	99.1	109.8	69.5	71.8	**	39.3
30	Delhi	75.3	..	66.9	..	89.0	..	81.0	..	25 4	..
31	Lakshadweep	81.8	80.6	72.9	71.1	104.5	105.1	69.1	66.5	52 2	46.7
32	Pondicherry	74.7	..	65.6	..	93.5	..	93.2	..	7 5	.
C	**INDIA**	**52.2**	**29.6**	**39.3**	**18.2**	**89.7**	**90.7**	**58.5**	**43.2**	**52.8**	**77.7**

** - Included under Goa

N.A. Not Available

Source: "Tribes in India" (A Data sheet), Planning commission, Government of India, 2000

Appendix 10.18

DEVELOPMENT INDICATORS OF SCHEDULED TRIBES IN INDIA - HEALTH AND CHILD CARE

Sl. No	STATES/UNION TERRITORIES	Primary Health Centres (1996)		Health Sub Centres (1996)		ICDS Projects (1998-99)	
		Total	STs	Total	STs	Total	STs
1	2	3	4	5	6	7	8
A	**STATES**						
1	Andhra Pradesh	**1283**	**115**	**7894**	**824**	**209**	**29**
2	Arunachal Pradesh	47	42	223	236	45	39
3	Assam	619	74	5280	445	107	23
4	Bihar	2209	208	14799	1824	323	93
5	Goa	21	NA	175	NA	11	..
6	Gujarat	957	227	7284	1929	203	34
7	Haryana	397	..	2299	..	114	..
8	Himachal Pradesh	245	17	1954	99	72	8
9	Jammu & Kashmir	335	NA	1700	NA	113	3
10	Karnataka	1459	307	7993	1850	185	7
11	**Kerala**	**959**	**62**	**5094**	**268**	**120**	**1**
12	Madhya Pradesh	1376	633	11937	4959	355	129
13	Maharashtra	1695	353	9725	1873	271	50
14	Manipur	72	35	420	221	32	20
15	Meghalaya	88	88	337	355	30	29
16	Mizoram	38	56	261	261	21	19
17	Nagaland	33	65	244	213	41	41
18	Orissa	1056	349	5927	485	279	126
19	Punjab	484	..	2852	..	110	..
20	Rajasthan	1572	171	8692	934	191	30
21	Sikkim	24	3	147	19	5	NA
22	Tamil Nadu	1436	15	8681	111	432	3
23	Tripura	63	28	536	250	31	6
24	Uttar Pradesh	3761	189	20153	1376	560	10
25	West Bengal	1556	205	7873	738	294	46
B	**UNION TERRITORIES**						
26	Andaman & Nicobar Islands	17	3	96	29	5	2
27	Chandigarh	0	..	12	..	3	..
28	Dadra and Nagar Haveli	6	6	34	34	1	1
29	Daman and Diu	4	0	21	9	2	..
30	Delhi	8	..	42	..	29	..
31	Lakshadweep	7	7	14	14	1	1
32	Poondicherry	26	..	79	..	5	..
C	**Total - INDIA**	**21853**	**3258**	**132778**	**20355**	**4200**	**750**
			(14.9 %)		(15.3 %)		(17.8 %)

N.A. Not Available

Source: "Tribes in India" (A Data Sheet), Planning Commission, Government of India, 20

Appendix 10.19

DEVELOPMENT INDICATORS OF SCHEDULED TRIBES IN INDIA - WORK PARTICIPATION AND ECONOMIC STATUS

Sl. No	STATES/UNION TERRITORIES	WPR (Total Workers 1991)		Occupational Status (1991)				Below Poverty Line (Rural - %)	
				Cultivators (%)		Agri. Labo. (%)			
		Total	STs	Total	STs	Total	STs	Total	STs
1	2	3	4	5	6	7	8	9	10
A	**States**								
1	Andhra Pradesh	45.1	54.0	27.7	41.2	40.9	46.6	15.92	25.66
2	Arunachal Pradesh	46.2	45.9	60.4	85.0	5.1	1.4	45.01	NA
3	Assam	36.1	41.2	50.9	77.9	12.1	10.3	45.01	41.44
4	Bihar	32.2	45.7	43.6	63.1	37.1	25.5	58.21	69.75
5	Goa	35.3	37.8	14.7	5.7	9.2	2.1	5.34	NA
6	Gujarat	40.2	51.7	33.4	45.9	22.9	39.4	22.18	31.20
7	Haryana	31.0	..	38.8	..	19.0	..	28.02	..
8	Himachal Pradesh	42.8	49.6	63.3	72.0	3.3	2.3	30.34	63.94
9	Jammu & Kashmir	NA	NA	NA	NA	NA	NA	30.34	NA
10	Karnataka	42.0	47.8	34.2	36.8	28.9	42.9	29.88	37.33
11	**Kerala**	**31.4**	**46.0**	**12.2**	**16.7**	**25.5**	**55.5**	**25.76**	**37.34**
12	Madhya Pradesh	42.8	52.7	51.8	63.2	23.5	29.5	40.64	56.69
13	Maharashtra	43.0	52.2	32.8	37.8	26.8	47.1	37.93	50.58
14	Manipur	42.2	46.7	61.8	84.1	6.7	2.3	45.01	NA
15	Meghalaya	42.7	43.2	55.3	61.5	12.5	13.1	45.01	NA
16	Mizoram	48.9	47.6	61.4	66.7	3.3	3.3	45.01	NA
17	Nagaland	42.7	41.9	72.6	81.6	1.4	0.5	45.01	NA
18	Orissa	37.5	49.4	44.3	50.8	28.7	38.3	49.72	71.26
19	Punjab	30.9	..	31.4	..	23.8	..	11.95	..
20	Rajasthan	38.9	46.4	58.8	76.1	10.0	13.5	26.46	46.23
21	Sikkim	41.5	40.5	57.8	62.9	7.8	4.8	45.01	NA
22	Tamil Nadu	43.3	52.1	24.8	37.4	34.6	43.8	32.48	44.37
23	Tripura	31.1	35.8	38.1	57.3	23.4	29.9	45.01	NA
24	Uttar Pradesh	32.2	43.4	53.3	69.6	18.9	13.0	42.28	37.11
25	West Bengal	32.2	47.7	28.4	29.7	24.6	50.7	40.80	61.95
B	**UNION TERRITORIES**								
26	Andaman & Nicobar Islands	35.2	39.2	16.0	0.1	5.5	..	32.48	NA
27	Chandigarh	34.9	..	1.0	..	0.7	..	11.35	..
28	Dadra and Nagar Have	53.2	55.6	59.7	71.9	10.3	12.2	51.95	NA
29	Damman & Diu	37.6	47.4	10.2	8.8	3.7	18.1	5.34	NA
30	Delhi	31.6	..	1.1	..	0.8	..	1.90	..
31	Lakshadweep	26.4	24.1	..	..	..	..	25.76	NA
32	Pondicherry	33.1	..	6.9	..	29.5	..	32.48	..
C	**INDIA**	**37.5**	**49.3**	**38.7**	**54.5**	**26.1**	**32.7**	**37.27**	**51.94**

N.A. - Not Available

Source: "Tribes in India" (A Data Sheet) Planning Commission, 2000

Appendix 10.20

DEVELOPMENT INDICATORS OF SCHEDULED TRIBES IN INDIA - DECISION MAKING

Sl. No.	STATES/UNION TERRITORIES	Decision Makers					
		Lok Sabha (1999)		Legislative Assembly (2000)		PRIs (1991-1997)	
		Total	STs	Total	STs	Total	STs
1	2	3	4	5	6	7	8
A	**STATES**						
1	Andhra Pradesh	42	2	294	15	248045	16257
2	Arunachal Pradesh	2	@	60	59	7015	7015
3	Assam	14	2	126	16	28140	3607
4	Bihar	54	5	324	28	NA	NA
5	Goa	2	@	40	@	1301	.
6	Gujarat	26	4	182	26	68581	10225
7	Haryana	10	..	90	..	56880	..
8	Himachal Pradesh	4	@	68	3	20171	858
9	Jammu & Kashmir	6	@	87	@	NA	NA
10	Karnataka	28	@	224	2	82685	7094
11	**Kerala**	**20**	**@**	**140**	**1**	**17086 ***	**193***
12	Madhya Pradesh	40	9	320	75	453472	135685
13	Maharashtra	48	4	288	22	225164	20875
14	Manipur	2	1	60	19	944	325
15	Meghalaya	2	@	60	55	NA	NA
16	Mizoram	1	1	40	39	NA	NA
17	Nagaland	1	@	60	59	NA	NA
18	Orissa	21	5	147	34	87224	NA
19	Punjab	13	..	117	..	93280	.
20	Rajasthan	25	3	200	24	119151	16574
21	Sikkim	1	@	32	12	980	229
22	Tamil Nadu	39	@	234	3	47887	NA
23	Tripura	2	1	60	20	5687	448
24	Uttar Pradesh	85	@	425	1	161439	923
25	West Bengal	42	2	294	17	71578	4837
B	**UNION TERRITORIES**						
26	Andaman & Nicobar Islands	1	@	..	..	NA	NA
27	Chandigarh	1	..	..	..	NA	..
28	Dadra and Nagar Haveli	1	1	..	..	NA	NA
29	Daman & Diu	1	@	..	..	NA	NA
30	Delhi	7	..	70	..	NA	..
31	Lakshadweep	1	1	..	..	NA	NA
32	Pondicherry	1	..	30	..	NA	..
C	**INDIA**	**543**	**41** (7.5%)	**4072**	**530** (13.2%)	**1792332**	**225090** (12.6%)

@ - No ST representation

* As on 1.10.2000

Source: "Tribes in India" (A Data sheet), Planning Commission, Government of India, 2000

Appendix 10.21

District-wise Details of Enrolment of Scheduled Caste/Scheduled Tribe Students at School Level as on 01-07-2002

District	LPS			UPS			HS		
	General	SC	ST	General	SC	ST	General	SC	ST
1	2	3	4	5	6	7	8	9	10
Thiruvananthapuram	151447	24329	1412	125420	20257	1094	135440	20807	1028
Kollam	111802	20472	408	100619	16076	389	101861	15906	371
Pathanamthitta	47089	9163	437	41648	7405	228	46417	8499	260
Alappuzha	85804	10697	231	77277	9194	223	84840	9852	128
Kottayam	89661	8917	982	74178	7356	794	77579	7444	800
Idukki	43816	9373	2818	37472	7137	1899	37144	6164	1600
Ernakulam	129054	15248	799	112297	12449	599	117833	12181	493
Thrissur	152507	24092	611	123652	18358	396	123253	17303	244
Palakkad	138526	30814	3420	114706	24122	1736	119137	23218	902
Malappuram	267327	26889	934	225358	18661	812	220047	17722	338
Kozhikode	163451	12752	427	141073	10221	276	143221	10166	278
Wayanad	36701	2977	11598	30562	2234	6976	31850	2149	4374
Kannur	139586	5783	1638	118177	5010	1109	120643	4968	815
Kasaragod	73066	7268	2069	58919	5436	1700	57347	4123	1429
Total	**1629837**	**208774**	**27784**	**1381358**	**163916**	**18231**	**1416612**	**160502**	**13060**

Source: Directorate of Public Instruction, Thiruvananthapuram

Appendix 10.22

Admission Details of Scheduled Caste/Scheduled Tribe Students in Medical and Para Medical Courses

Sl. No	Course	1997-98			1998-99			1999-2000			2000-01			2001-02			2002-03		
		SC	ST	Total	SC	ST	Total	SC	ST	Total	SC	ST	Total	SC	ST	Total	SC	ST	Total
1	2	6	7	8	9	10	11	12	13	14	12	13	14	12	13	14	12	13	14
1	MBBS	43	11	54	43	10	53	50	12	62	50	12	62	57	14	71	54	13	67
2	BDS	5	1	6	5	1	6	5	1	6	5	1	6	5	1	6	5	1	6
3	B. Pharm	1	0	1	1	0	1	1	0	1	1	0	2	2	1	3	2	1	3
4	BSc Nursing (Men)	2	0	2	2	0	2	2	0	2	2	0	4	2	0	2	0	0	0
5	BSc Nursing (Women)	10	2	12	10	2	12	10	2	12	2	0	2	2	0	2	12	2	14
6	BSc (MLT)	2	0	2	2	0	2	2	0	2	2	0	2	2	0	4	2	0	2
7	ParaMedical Courses	138	2	140	138	2	140	221	16	237	133	32	165	133	32	165	207	52	259
	Total	**201**	**16**	**217**	**201**	**15**	**216**	**291**	**31**	**322**	**195**	**45**	**243**	**203**	**48**	**253**	**282**	**69**	**351**

Source. Directorate of Medical Education

Appendix 10.23

Housing Need of Primitive Tribal Groups in 1996-97
(District - Wise)

No Of PTG's Who (Families)

Sl.No	Name of Distrct	Name of community	Total families	Have No Own House	Have own house	have no god house	Have Good Houses	received Houses from Govt	Need New houses
1	2	3	4	5	6	7	8	9	10
1	Malappuram	Cholanaikar	88	26	62	26	62	62	26
		Kattunikan	247	52	195	78	169	161	88
2	Palakkad	Kurumbas	332	22	310	82	250	105	242
		Kadars	172	102	70	102	70	71	71
3	Wayanad	Kattunaikan	2885	535	2350	1419	1466	1403	1699
4	Kozhikode	Kattunaikan	30	1	29	1	29	29	1
5	Thrisure	Kadars	235	57	178	63	172	149	92
6	Kasaragode	Koragas	417	57	360	87	330	355	129
	Total		**4406**	**852**	**3554**	**1858**	**2548**	**2335**	**2348**

Source; Directorate of ST Development

Appendix - 10.24

Physical Achievements of Major Schemes for Scheduled Castes

Sl. No	Scheme	Unit	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03 (up to october)
1	2	3	4	5	6	7	8	9
1	Pre-Matric Studies	Students	565999	535910	519066	469115	365937	229888
2	Boarding Grant	"	538	524	485	469	234	256
3	Post-Matrict Hostels	"	1001	1060	1112	1064	1014	975
4	Upgradation of Performance in Sports and Games	"	64	65	52	50	68	0
5	Spcecial Incentive toTalented Students	"	1308	1812	2217	2560	2213	1877
6	Bharat Darshan	"	48	50	53	57	50	0
7	House Construction (Rehabilitation)	Families	2000	2000	2000	0	0	0
8	Housing Programme(KSHB)	"	2142	2278	4100	1968	0	0
9	Improvement of Housing Facilities	"	--	2667	2845	3115	2519	0
10	Produvvction-cum- training centres/ITCs	Students	1340	1340	1320	1356	1356	1356
11	Inter-Caste Marriage Grant	Couples	363	471	400	0	0	0
12	Assistance for Marriage and Major Treatment	Persons	3006	4479	--	0	0	0
13	Better Education	Students	231	253	241	347	424	336
14	Prevention of Atrocities Act	Persons	153	76	4	129	42	36
15	Pre- Primary Education	Students	2811	3296	3305	3038	1865	1423
16	Book Banks in Professional Colleges and Polytechnics	Institutions	64	64	69	69	85	85
17	Coaching and Allied Scheme	Students	416	724	585	567	180	166
18	Rehabilitation of Puramboke Dwellers	Families	400	402	300	0	0	0
19	Distress Relief	Persons	313	438	1325	2223	1071	0
20	Development Programme for Vulunerable Group among Scheduled Castes	Families	208	208	208	228	13	3
21	Financial Assisstance to failed SC students	Students	2354	2976	2909	3557	3268	2157
22	Information-cum-- Guidance Centre	Centre	1	1	1	1	1	1
23	Pre- Examination Training centre	"	3	3	3	3	3	3
24	Grant to Civil Service Examination Training Siciety	Students	28	30	30	24	30	30
25	Sponsored Programme in Computer& Information Technolpgy	"	0	0	0	0	0	0
26	Protection of Civil Rights	Couples	363	471	400	873	554	243
27	Development of dependants of Safai Karmacharies	Students	1475	2247	1912	1117	914	823
28	Tuition System in Pre-Matric Hostels	"	2042	2514	2525	2572	1418	538
29	Apprenticeship to ITI/ITC passed candidates	Persons	0	471	96	104	73	83
30	Land to Landless& Houseless SCs	"	0	0	0	4413	290	0
31	Housing Scheme for Houseless SC Families	Families	0	0	0	0	428	0
32	Model Residential School	Students	0	0	118	303	481	629

Appendix 10.25

Institutions under Scheduled Caste Development Department as on 31-10-2002

District	Training Institutes	Model Residential Schools	Nurseries	Pre-matric Hostels	Post-matric Hostels	Subsidised Hostels	Sports Hostels	Production cum training Centres	Pre Examination Training Centres	Civil Services Examination Training Socities
1	2	3	4	5	6	7	8	9	10	11
Thiruvananthapuram	8	-	15	6	5	2	2	-	1	1
Kollam	4	-	7	9	3	-	-	-	-	-
Pathanamthitta	2	-	8	6	-	-	-	-	-	-
Alappuzha	2	1	3	4	-	-	-	2	-	-
Kottayam	4	-	6	4	2	-	-	-	-	-
Idukki	-	1	4	5	-	-	-	-	-	-
Ernakulam	1	1	6	5	2	-	-	-	1	-
Thrissur	8	1	10	6	-	3	-	-	-	-
Palakkad	3	1	6	16	2	2	-	-	-	-
Malappuram	4	-	7	8	-	3	-	-	-	-
Kozhikode	2	-	1	8	2	1	-		1	-
Wayanad	-	-	-	1	-	1	-	-		-
Kannur	1	-	3	8	1	1	-	1	-	-
Kasaragod	2	-	6	7	1	-	-	-	-	
Total	**41**	**5**	**82**	**93**	**18**	**13**	**2**	**3**	**3**	**1**

Source. Directorate of SC Development

Appendix 10.26

District-wise Details of Institutions Under Scheduled Tribes Development Department as on 31-10-2002

District	Alloppathy/Ayurveda Hospital	Alloppathy Dispensary/ OP Clinics	Ayurveda Dispensary	Balawadies/ Nursery Schools	Pre-matric Hostels	Training Centres	Midwifery Centre	Mobile Medical Units	Mobile Exployment Exchange	Model Residential/ Ashram Schools
1	2	3	4	5	6	7	8	9	10	11
Thiruvananthapuram	-	-	2	7	2	4	-	1	-	1
Kollam	-	-	1	2	4	2	1	-	-	1
Pathanamthitta	-	-	1	1	2	4	-	-	-	1
Alappuzha	-	-	-	-	1	-	-	-	-	-
Kottayam	-	-	-	4	2	4	-	-	-	1
Idukki	-	4	6	8	14	1	-	1	1	2
Ernakulam	-	-	-	-	3	-	-	-	-	-
Thrissur	-	-	-	2	4	-	-	-	-	1
Palakkad	-	1	1	6	17	5	-	-	-	2
Malapuram	-	-	1	3	9	2	-	-	-	1
Kozhikode	-	-	-	2	4	-	-	-	-	-
Wayanad	1	-	3	17	30	5	3	-	1	5
Kannur	1	-	1	2	10	1	-	-	-	1
Kasaragod	-	-	1	4	2	-	-	-	-	1
Total	2	5	17	58	104	28	4	2	2	17

Source: Directorate of ST Development

Appendix 10.27

Physical Achievements of Major Schemes For Scheduled Tribes

Sl. No	Scheme	Unit	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03 (Up to Octo)
1	2	3	4	5	6	7	8	9
1	Tutorial Scheme	Students	1058	1197	2707	3070	2430	0
2	Special Incentive to Brilliant Students	"	342	388	677	364	476	0
3	Better Education Facilities	"	298	260	121	102	86	0
4	Bharath/ Kerala Dharshan	"	46	60	55	48	52	0
5	Incentive to Sports& Arts	Youth	103	100	42	162	47	0
6	Treatment& Sickle Cell anaemia	Persons	3272	1846	1524	1686	1839	0
7	Food Support Programme	Persons	25179	27657	12642	10542	28463	0
8	Model Residential Schools	Schools	7	11	14	16	17	18
9	Package Programme	Families	0	606	883	2411	3589	0
10	PTG Housing	Houses	0	0	221	56	66	0
11	Housing	"	487	451	538	365	37	69
12	Rehabilitation of Landless& Houseless	Land& Houses	60	100	62	0	0	0
13	District/State Yoyth Festival	Families	3	15	14	7	14	0
14	Finacial Assistance to Mahilasamajams	N0	6	6	5	0	0	0
15	Financial assistance to Marriage of ST Girls	No	128	178	153	103	58	0
16	Construction of Boys hostel	hostel	10	4	3	4	1	0
17	Construction of Girls Hostel	Hostel	12	2	1	3	1	0
18	Post-matric Scholorship	Students	2240	2098	2636	2523	2181	0
19	Vocational Training Centre	Institution	1	1	1	1	2	2
20	Upgradation of merit of ST Students	Students	0	0	0	8	6	0
21	Assistance for enrolment of Tribal Children	Children	189	1100	1417	0	0	0
22	Social Activits/Tribal Promoters	no	0	247	417	740	1000	1000

Source; Directorate of ST Development Department

Appendix 10.28

MAJOR PHYSICAL ACHIEVEMENTS UNDER SPECIAL COMPONENT PLAN AND TRIBAL SUB PLAN (POOLED FUNDS 2001-2002)

Sl.No	Item	Achievements		
		Unit	SCP	TSP
1	Rural Development	Beneficiaries (families)	7537	449
1	SGSY	Lakh Mandays	9.4	1.57
2	JGSY	No.	10325	897
3	IAY	No.	172	5
4	Power- Electrification of SC/ST colonies	Beneficiaries	45	108
6	Industrial Training	Familes/Houses	429	3978
7	Housing Schemes	Families	294	--
8	Rehabilitation of Landless and Houseless Scheduled Castes	Students	35860	--
9	General Education (Special coaching)	Familes	1071	--
10	Distressd relief	Families	--	3274
11	Solar Electrification - ANERT	No.		133
12	Construction of open wells	No.		

Source: Planning and Economic Affairs (C) Department, Secretariat

Appendix 10.29

Details of Schemes implemented by Kerala State Development Corporation for SC/ST

Sl.No.	Scheme	Achievements			
		Financial (Rs.lakh)		Beneficiaries (No.)	
		2000-01	2001-02	2000-01	2001-02
1	2	3	4	5	6
1	Agricultural Land Purchase Scheme (New)	322.84	20.15	261	16
2	Foreign Employment	4	0.75	16	3
3	Assistance to Co-operative Society	-	1.7	-	1
4	Margin Money Deposit Scheme	209.69	36.84	837	152
5	Micro Finance	12.2	29.61	125	304
6	Margin Money Loan Scheme	-	1.2	-	1
7	Beneficiary Oriented Scheme	5.92	0.54	14	1
8	Building Concrete Works	3	8.07	4	13
9	Education Loan	12	0.38	7	2
10	Housing Scheme No. VIII (New ARHS)	0.99	1.78	42	40
11	Income Generation Linked Housing Scheme	27.19	6.4	269	99
12	Milch Animal	16.2	4.94	28	9
13	Marriage Assistance	74.8	0.25	300	1
14	STD, Photocopier, DTP, Typewriter, Lamination	12.24	2.23	25	5
15	Pickup Van	5.36	14.53	5	13
16	Petrol Auto	27.96	57.04	38	79
17	Transport Scheme No. XXI (Diesel Auto)	23.68	3.06	24	3
18	Transport Scheme No. XIX Phase I (Auto)	6.76	5.69	10	8
19	Transport Scheme No. XX (TATA 407)	24.22	-	6	-
20	Transport Scheme No. XVII (Power Tiller)	3.32	1.95	3	2
21	Transport Scheme No. XXVII (Tempo Mini-Carrier)	13.43	73.02	3	18
22	Transport Scheme No. XXII (Jeep)	40.78	3.59	11	1
23	Transport Scheme No. XIII (LCV)	29.25	10.61	6	2
24	Transport Scheme No. XXVIII (3W Diesel Pickupn Van)	2.56	1.08	3	1
25	Transport Scheme No. XXV (Car)	10.8	14.58	3	4
26	Transport Scheme No. XIX Phase II	2.03	4.3	3	6
27	Tailoring Unit	5.39	2.02	9	5
28	Thattukada	2.88	0.07	15	-
29	Concrete Building Material	3.23	3.48	7	2
30	Boat Unit	3.8	-	5	-
31	Individual Scheme	10.5	6.55	3	4
32	Mobile Cloth Selling Unit	3.86	-	7	-
33	Mobile Vegetable Stall Scheme	3.91	0.07	20	1
34	Piggery	6.62	3.03	4	5
35	Ready Made Garments	6.11	10.51	5	9
36	Safai Scheme (Auto)	6.89	1.4	10	2
37	Safai Scheme (BOS)	4.52	1.58	14	6
38	ALPS (NSFDC)	5.79	8.48	6	9
39	Tyre Retrading Scheme	0.12	-	-	1
40	Training Programme	1.14	1.07	37	23
41	Advocate Office	0.43	6.85	1	9
42	Ayurvedic Clinic	-	2	-	1
43	Poultry Farm (Broiler)	0.45	6.25	2	9
44	Laterite Stone Cutting Unit	0.57	2.36	2	1
	Total	**957.43**	**360.01**	**2190**	**871**

Source: KSDC for SC/ST

Appendix 10.30

Financial and Physical Achievement of Kerala State Backward Classes Development Corporation through different sources of funds

Sl. No	Scheme	Financial Achievement (Rs. Lakh)			Physcial Achievement		
		2000-01	2001-02	2002-03(as on 31-10-02)	2000-01	2001-02	2002-03(as on 31-10-02)
1	2	3	4	5	6	7	8
I				NBCFDC Assisted Schemes			
1	Agriculture Sector	445 63	331.17	254.11	1168	998	719
2	Small Business Sector	1284.61	865.95	894.63	3480	2263	2154
3	Service Sector	190.69	211.89	204.66	445	348	454
4	Transport Sector	118.8	68.84	84.92	242	139	141
5	Education Sector	0.9	50.08	67.4	2	164	241
6	Women Self Employment	0	142.28	234.53	0	412	613
7	Micro Credit Scheme	0.55	3.76	18	15	33	180
	Sub Total I	*2041.18*	*1673.97*	*1758.25*	*5352*	*4357*	*4502*
II				NMDFC Assisted Schems			
1	Agriculture Sector	165.65	216.35	152.36	465	644	503
2	Small Business	659.93	913.4	589.61	1783	2334	1768
3	Transport Sector	64.39	57.9	186.68	132	117	82
4	Artisans and Handicrafts Sector	40.4	24.65	40.68	102	63	37
	Sub Total II	*930.37*	*1212.30*	*969.33*	*2482*	*3158*	*2390*
III	HUDCO Assisted Schemes	0	0	0	0	0	0
IV				OWN FUND			
1	Financial Assistance for Foreign Employment	12.01	11.6	21.04	61	58	72
2	Small Business Sector	0.00	0	0	0	0	0
3	Service Sector	0	0	0	0	0	0
4	Transport Sector	2.36	0	0	6	0	0
5	Marriage Loan	293.84	366.76	415.34	1496	1864	1336
6	Computer Loan to Students	14.25	7.37	13.11	21	19	32
7	Computer Loan for Schools	0	30.58	4	0	33	4
8	Land Purchase	70.62	1.38	0	302	6	0
9	Two Wheeler Loan for Employees	0	113.59	54.49	0	277	133
	Sub Total (IV)	*393.08*	*531.28*	*507.98*	*1880*	*2257*	*1577*
	Total (I-IV)	*3364.63*	*3417.55*	*3235.56*	*9714*	*9772*	*8469*

Appendix 10.31

Scheduled Castes and Scheduled Tribes
Registered in the Employment Exchanges (as on 1-10-2002)

Sl. No	*District*	*Scheduled Castes*	*Scheduled Tribes*
1	2	3	4
1	Thiruvananthapuram	70196	4060
2	Kollam	56249	379
3	Pathanamthitta	47831	689
4	Alappuzha	25655	710
5	Kottayam	30593	3720
6	Idukki	13991	5361
7	Ernakulam	50712	1218
8	Thrissur	65071	477
9	Palakkad	41414	1306
10	Malappuram	48597	503
11	Kozhikode	45822	418
12	Wayanad	4815	8129
13	Kannur	17555	1003
14	Kasargode	8129	3024
	Total	**526630**	**30997**

Appendix 10.32

Population and Literacy of Primitive Tribes as per the Primitive Tribes Survey -1996-97 (District wise)

Sl No.	Name of District	Name of Community	No. of Households	Population			Sex Ratio	Literates			Literacy Rate	0-6 age	Remarks
				Male	Female	Total		Male	Female	Total			
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	Malappuram	1. Cholanaikan	88	206	178	384	864	11	20	31	9.17	46	
		2. Kattunaikan	247	485	501	986	1033	97	111	208	23.74	110	
2	Palakkad	1. Kurumbas	332	819	783	1602	956	283	170	453	32.36	202	
		2. Kadas	172	294	302	596	1027	123	101	224	43.84	85	The survey could not cover the anticipated 5% Primitive Tribes found as disbursed mainly in the adjoining Districts of this 6 Districts were the survey has been done
3	Wayabad	1.Kattunaikan	2885	5452	5318	10770	975	1045	945	1990	20.43	1029	
4	Kozhikode	1.Kattunaikan	30	54	61	115	1130	13	17	30	27.52	6	
5	Thrissur	1. Kadadas	235	450	426	876	947	171	134	305	38.8	90	
6	Kasaragod	1. Koragas	417	672	677	1349	1007	338	340	678	54.07	95	
	Total		4406	8432	8246	16678	978	2081	1838	3919	26.1	1663	

Source: Directorate of Scheduled Tribe Development-Socio Economic Survey of Primitive Tribes-1996-97

Appendix 10. 33

DETAILS OF SC/ST STUDENTS IN HIGHER SECONDARY SCHOOLS AS ON 2002-03

Sl.No	*District*	*No.of H.S.Schools*	*Data Available*	*SC*	*ST*
1	Thiruvananthapuram	90	44	1090	67
2	Kollam	80	43	915	13
3	Pathanamthitta	49	33	652	34
4	Alappuzha	73	23	497	2
5	Kottayam	88	56	609	63
6	Idukki	40	23	245	69
7	Ernakulam	98	61	1056	35
8	Thrissur	84	52	1075	42
9	Palakkad	55	42	1121	13
10	Malappuram	74	40	1006	10
11	Kozhikode	68	42	854	17
12	Wayanad	24	12	134	102
13	Kannur	71	37	412	45
14	Kasaragod	30	17	127	62
	TOTAL	***924***	***525***	***9793***	***574***

Source:- Directorate of Higher Secondary Education

Appendix 10.34

Availability of Power (Electricity) in PTG settlements (District-wise)

Sl. No.	*Name District*	*Name of Community*	*Number of Families with Power in Settlements*	*No. of Families without Power in settlements*	*Total No. of Families*
1	2	3	4	5	6
1	Malappuram	Cholanaikan	0	88	88
		Kattunaikan	5	242	247
2	Palakkad	Kurumba	0	332	332
		Kadas	1	171	172
3	Wayanad	Kattunaikan	263	2622	2885
4	Kozhikode	Kattunaikan	30	0	30
5	Thrissur	Kadas	108	127	235
6	Kasaragod	Koragas	309	108	417
	Total		**716**	**3690**	**4406**

Source: Survey of Primitive Tribes (1996-97), Directorate of ST Development Department

Appendix10.35

Grama Panchayats with highest Primitive Tribe Groups Concentration &Population

District	Gramapanchayats	Community	No of Settlement	Population
1	2	3	4	5
Malappuram	Karulai	Cholanaikan	5	377
		Kattunaikan		
	Vazhikadavu	Cholanaikan	2	219
	Edakkara	Kattunaikan	2	209
	Chunkathara	Kattunaikan	4	208
Palakkad	Puthoor	Kurumba	15	1602
	Muthalamada	Kadar	4	425
Wayanad	Meppadi	Kattunaikan	6	199
	Muttil	Kattunaikan	8	339
	Panamaram	Kattunaikan	9	243
	Thirunelli	Kattunaikan	50	2189
	Ambalavayal	Kattunaikan	11	262
	Kidanganadu	Kattunaikan	24	978
	Meenangadi	Kattunaikan	21	567
	Mullankolli	Kattunaikan	8	622
	Nenmeeni	Kattunaikan	14	301
	Noolpuzha	Kattunaikan	34	1288
	Poothadi	Kattunaikan	33	1281
	Pulpalli	Kattunaikan	24	791
Thrisoor	Athirappally	Kadar	2	234
	Pariyaram	Kadar	5	430
Kasaragode	Badiyadka	Koraga	6	325
	Manjeeswara	Koraga	1	402
Kozhikode	Maruthonkara	Kattunaikan	1	115

Source: Survey of Primitive Tribes, 1996-97, Scheduled Tribe Development Department

Apppendix 10.36

Availability of High School Facilities in PTG Tribal Areas- District-wise (1996-97)

Sl.No	Namme of District	Name of Community	Families having highschoool facility within a radius of			
			1KM	5Km	>5Kms	Total Families
1	Malappuram	Cholanaikan	0	0	88	88
		Kattunaikan	0	0	247	247
2	Palakkad	Kurumbas	0	13	319	332
		Kadars	0	0	172	172
3	Wayanad	Kattunaikan	294	1827	1058	2885
4	Kozhikode	Kattunaikan	0	30	0	30
5	Thrissur	Kadars	0	3	232	235
6	Kasaragode	Koraga	89	380	37	417
	Total		**383**	**2253**	**2153**	**4406**

Source; Directorate of scheduled Tribes Development- Survey of Primitive tribes-1996-97

4/100/2003—21A

Appendix 10.37

Availabililty of Drinking Water in PTG Settlements (District-wise)

Sl No.	Name of District	Community	No. of Families with in Settlements	No. of families without water in Settlements	Total no. of Families	% of ST families with water Probelem
1	2	3	4	5	6	7
1	Malappuram	Cholanaikan	88	0	88	0
		Kattunaikan	217	30	247	12.15
2	Palakkad	Kurumba	199	133	332	40.06
		Kadas	93	79	172	45.93
3	Wayanad	Kattunaikan	1980	905	2885	31 37
4	Kozhikode	Kattunaikan	30	0	30	0
5	Thrissur	Kadas	94	141	235	60
6	Kasaragod	Koragas	357	60	417	14 39
	Total		**3058**	**1348**	**4406**	**30.59**

Source: Directorate ST Development

Appendix -11.1

Status of Women in India - International Comparisons

HDI Rank	Name of the Country	Gender related Development Index (GDI)		Life Expectancy at Birth (Years)		Combined Primary, Secondary and Tertiary Gross Enrolment Ratio (%)		Estimated Earned Income (PPP US$)	
		Rank	Value	Female	Male	Female	Male	Female	Male
	High Human Development								
1	Norway	1	0.937	81.3	75.4	99	95	22037	34960
2	Australia	2	0.935	81.7	76	118	114	19721	29469
3	Canada	3	0.934	81.4	75.9	98	96	20016	32607
6	United States	4	0.932	79.7	73.9	99	91	24302	39655
9	Japan	11	0.921	84.1	77.3	81	83	15187	35018
14	United Kingdom	12	0.92	80	75	112	100	16753	27611
17	Germany	15	0.916	80.6	74 3	93	95	15846	31994
	Medium Human Development								
55	Russian Federation	52	0.774	72.5	60.1	82	75	5877	9283
77	Maldives	69	0.735	65.3	66.9	77	77	3256	5531
81	Sri Lanka	70	0.732	75	69.3	71	68	2193	4305
87	China	76	0.715	72.5	68.3	73	73	2841	4350
115	India	105	0.553	63.3	62.4	49	62	1195	3236
	Low Human Development								
127	Pakistan	117	0.466	59.5	59.8	28	51	826	2787
129	Nepal	120	0.461	57.8	58.3	52	67	849	1607
130	Bhutan			62.8	60.3				
132	Bangladesh	121	0.459	59	58.9	33	41	1076	1866
158	Ethiopia	142	0.308	44.9	43.3	19	34	414	844
160	Burundi	145	0.302	41.5	39.6	16	21	472	690
161	Niger	146	0.26	45.1	44.5	12	20	561	941

Source: UNDP (2001)

Appendix11.2

District-wise female population and sex ratio in Kerala - 1991 & 2001

District	Total population (lakhs)		Female population (lakhs)		Sex ratio		Female growth rate
	1991	2001	1991	2001	1991	2001	1991-2001
1	2	3	4	5	6	7	8
Tvpm	29.47	32.35	14.99	16.63	1036	1058	10.94
Kollam	24.08	25.84	12.25	13.36	1035	1070	9.06
Pathanamthitta	11.88	12.32	6.12	6.44	1062	1094	5.23
Alappuzha	20.01	21.05	10.25	10.93	1051	1079	6.63
Kottayam	18.28	19.53	9.15	9.88	1003	1025	7.98
Idukki	10.78	11.29	5.32	5.62	975	999	5.64
Ernakulam	28.17	30.98	14.08	15.62	1000	1017	10.94
Thrissur	27.37	29.75	14.25	15.53	1085	1092	8.98
Palakkad	23.82	26.17	12.26	13.51	1061	1068	10.2
Malappuram	30.96	36.29	15.88	18.7	1053	1063	17.76
Kozhikode	26.2	28.78	13.27	14.79	1027	1058	11.45
Wayanad	6.72	7.87	3.3	3.93	966	1000	19.09
Kannur	22.52	24.12	11.53	13.58	1049	1090	9.11
Kasaragod	10.72	12.03	5.43	6.16	1025	1047	13.44
Total	**290.98**	**318.37**	**148.08**	**164.68**	**1036**	**1058**	**10.53**

Source: Census of India

Appendix. 11.3

Details of Elderly women by Districts in Kerala-1991 Census

Districts	Total female population (Lakhs)	Proportion of females			Sex ratio of widows		
		60+	70+	80+	60+	70+	80+
1	2	3	4	5	6	7	8
Thiruvananthapuram	14.99	8.96	3.44	0.93	7989	6365	5300
Kollam	12.25	9.27	3.65	1.12	7338	6280	4729
Pathanamthitta	6.12	12.11	5.29	1.78	5094	4278	3022
Alappuzha	10.25	11.77	4.55	1.28	7434	5829	4138
Kottayam	9.15	11	4.87	1.58	4915	4191	3277
Idukki	5.32	6.8	2.63	0.75	4473	3486	2514
Ernakulam	14.08	10.15	4.26	1.37	6258	4987	3708
Thrissur	14.25	10.71	4.45	1.33	8069	6172	4689
Palakkad	12.26	9.42	3.68	1.04	8588	6670	5189
Malappuram	15.88	6.81	2.46	0.68	1991	7082	4846
Kozhikode	13.27	8.88	3.41	0.97	11821	9167	6743
Wayanadu	3.3	6.3	2.23	0.58	5546	4551	3463
Kannur	11.53	8.97	3 54	0.94	10393	7678	4568
Kasaragod	5.43	7.14	2.64	0.67	9111	6809	5032
Kerala	**148.1**	**9.32**	**3.71**	**1.09**	**7628**	**5949**	**4303**

Source:-CDS

Appendix-11.4

Enrolment of Girl students in Kerala at various stages (in 000's) -1991-2002

Year	L.P.Section		U.P.Section		H.S.Section		Pree degree/ +2		Degree		Post graduate	
	Total	Female	Total	Female	Total	Female	Total	Female	Total	Female	Total	Female
1	2	3	4	5	6	7	8	9	10	11	12	13
1991	2472	1203	1929	939	1498	745	106	55	44	24	5	3
1996	2372	1157	1907	925	1589	804	146	74	45	26	5	3
1997	2140	1046	1790	867	1604	813	240	130	37	87	12	8
1998	2078	1017	1761	853	1598	808	256	141	136	77	11	8
1999	2040	985	1720	834	1599	806	288	160	131	83	12	9
2000	1932	948	1705	821	1612	809	263	150	145	93	15	11
2001	0	0	0	0	0	0	0	0	0	0	0	0
2002	1880	927	1614	777	1608	796	169	97	145	89	15	10

Source:- Department's Level Report's

Appendix-11.5

Female Infant Mortality Rates and Gender Gap-1999 (Total, Rural, Urban)

India/States	Total		Rural		Urban	
	FIMR	Gender Gap	FIMR	Gender Gap	FIMR	Gender Gap
India	70.8	1	75.2	-0.4	39.7	-7.7
Andhra Pradesh	63.5	5.4	70.6	-8.6	39.9	4.8
Assam	76.4	1.7	79.5	1.7	35.6	-0.5
Bihar	62.3	-0.9	62.8	-1.5	57.7	5.2
Gujarat	64.8	3.1	72.6	4.7	43.3	-2.4
Haryana	78.4	19.3	86.1	29.3	43.5	-25.9
Himachal Pradesh	51.1	-5.8	51.9	-6.1	34.9	-3.9
Karnataka	56.7	-1.9	65.1	-8.3	31.5	13
Kerala	**15.3**	**1.6**	**15.4**	**3**	**14.9**	**-3.1**
Madhya Pradesh	89.5	-0.1	96.8	1.9	50.7	-8.9
Maharashtra	48.5	0.7	51.9	-12.2	42.8	22.3
Orissa	96	-1.3	99.2	-2	65.5	1.7
Punjab	56.4	5.9	67.2	18.4	16.2	-40.3
Rajasthan	83.9	5	90.5	10.6	40.5	-33
Tamil Nadu	54.5	4.2	58.8	1.3	45.1	11.3
Uttar Pradesh	83.5	-1.7	89.4	3.3	49.6	-30.5
West Bengal	43	-17.7	47.1	-14.8	24	-31.1

Note: FIMR refers to Female Infant Mortality Rate. Gender Gap provides the difference between female and male IMR

Source:- SRS, 1999

Appendix-11.6

District-wise number of work seekers-as on 9-2002

Sl.No.	District	Men	Women	Total
1	2	3	4	5
1	Thiruvananthapura	225938	323316	549254
2	Kollam	181344	256606	437950
3	Alappuzha	64803	93327	158130
4	Pathanamthitta	154504	211438	365942
5	Kottayam	111051	146374	257425
6	Idukki	54968	72414	127382
7	Ernakulam	179403	217185	396588
8	Thrissur	153623	228911	382534
9	Palakkad	126409	129755	256164
10	Malappuram	123644	127375	251019
11	Kozhikode	164488	203829	368317
12	Wayanad	39072	41414	80486
13	Kannur	104103	126752	230855
14	Kasaragod	46303	47668	93971
	Total	**1729653**	**2226364**	**3956017**

Appendix - 11.7

Gender Difference in Work Participation - State-wise - 2001

Rank	States	WGAP	FLFPR-1999-2000	
			Rural	Urban
1	Daman & Due	48		20.3
2	Delhi	43	3.6	10.9
3	Chandigarh	42	12.8	15.3
4	Andaman & Nicobar Islands	41	19.3	24.9
5	Lakshadweep	36	19.9	22.1
6	West Bengal	36	16.5	12.9
7	Pondicherry	36	29.4	18.1
8	**Kerala**	**35**	27.3	25.4
9	Punjab	35	28.2	12.8
10	Goa	33	21.5	15.9
11	Uttar Pradesh	31	20.1	9.7
12	Tripura	30	7.6	8.1
13	Bihar	29	17.4	8.2
14	Assam	29	16.1	13.8
15	Jammu & Kashmir	28	33	6.8
16	Orissa	28	30.2	15.3
17	Gujarat	27	41.3	
18	Tamil Nadu	27	43.4	22.7
	INDIA	**26**	30.2	14.7
19	Karnataka	25	38.1	18.6
20	Haryana	23	20.2	10.1
21	Dadra & Nagar Haveli	23	35.4	11.2
22	Jharkhand	22		
23	Andhra Pradesh	21	48	18.4
24	Maharashtra	20	43.7	14.6
25	Uttaranchal	19		
26	Sikkim	19	24.5	22.5
27	Madhya Pradesh	19	38.3	13.6
28	Rajasthan	17	38.9	14.1
29	Arunachal Pradesh	15	31	11
30	Meghalaya	13	41.9	21.1
31	Chhatisgarh	13		
32	Himachal Pradesh	11	47.4	14.2
33	Nagaland	9	45.1	21.7
34	Mizoram	9	44.1	26.5
35	Manipur	8	25.7	22.5

Source Census 2001&CSO 2001

Appendix-11.8

District wise Number of Women Employees- 2000 & 2001

District	2000				2001			
	Public		Private		Public		Private	
	Total	Women	Total	Women	Total	Women	Total	Women
1	2	3	4	5	6	7	8	9
1. Thiruvananthapuram	132580	36855	41790	23000	133800	37152	45527	24780
2 Kollam	49353	23734	54604	41406	51682	24570	52064	38707
3 Alappuzha	33130	11570	27497	11557	32750	11558	27665	11476
4. Pathanamthitta	24980	8980	13612	6696	26365	9372	15666	7404
5. Kottayam	34631	10998	28884	9918	34282	11000	28163	9486
6. Idukki	16342	4197	73702	39355	16534	4255	75729	40527
7. Ernakulam	99111	23312	67059	22540	92982	21275	68013	22557
8. Thrissur	50238	18237	48550	24303	52527	19195	57725	27711
9. Palakkad	49361	9947	33818	12217	50223	10032	29927	11379
10. Malappuram	38201	12058	31269	14243	37956	11950	31644	14332
11.Kozhikode	46133	11621	50272	18118	45460	11577	50188	18213
12.Wayanad	12617	3106	19131	11033	12652	3107	19598	11046
13.Kannur	38122	11649	55077	22358	36832	11132	54499	23390
14.Kasaragod	19173	6303	36686	29156	20861	7336	40380	31396
Total	**643972**	**192567**	**581951**	**285900**	**644906**	**193511**	**596788**	**292404**

Source: Employment Directorate

Appendix -11.9
Womens Autonomy Levels by State

State	% not involved in any decision making	% involved in decision making on:				% who do not need permission to		% with access to money
		What to Cook	Own Health Care	Purchasing Jewellery etc.	Staying with her parents/ sibling	Go to the market	Visit friends/ relatives	
Andhra pradesh	7.4	86.2	56.1	61.4	57.7	20.1	14.6	57.7
Arunachal Pradesh	1.4	93.6	70.0	76.5	74.8	46.8	53.7	78.6
Assam	4.6	88.4	65.1	54.3	45.4	13.2	13.9	35.0
Bihar	13.5	82.4	47.6	42.9	44.0	21.7	20.5	66.7
Delhi	5.3	83.0	68.7	58.5	46.5	51.7	33.9	82 3
Goa	3.6	89.9	61.6	62.5	72.4	66.7	58.7	82.4
Gujarat	4.1	90.4	71.4	73.6	65.1	55.1	50.6	73.6
Haryana	3.4	93.5	67.2	77.8	64.5	36.7	20.8	70.8
Himachal Pradesh	0.8	95.1	80.8	93.4	91.4	32.5	31 1	80.1
Jammu & Kashmir	12.4	80.0	55.5	58.2	48.9	12.0	7.8	58.1
Karnataka	8.1	88.4	49.3	47.3	44.5	43.0	34.3	67.0
Kerala	**7.2**	**80.9**	**72.6**	**63.4**	**59.7**	**47.7**	**37.9**	**66.2**
Madhya Pradesh	12.5	81.7	36.6	44.3	38.1	21.0	19.5	49.3
Maharashtra	7.2	87.5	49.9	50.3	44.4	48.5	32.1	64.2
Manipur	3.3	87.4	43.3	66.3	63.2	28.6	28.3	76.8
Meghalaya	2.6	91.7	78.9	70.6	78.4	46.5	48.5	81.5
Mizoram	5.8	88.2	73.2	77.8	77.0	64.2	59.5	55.0
Nagaland	0.4	97.4	69.4	77.3	80.0	17.3	20.1	27.9
Orissa	10.6	86.3	38.6	54.8	48.3	18.2	15.4	46.3
Punjab	1.0	96.7	78.5	75.3	67.6	50.1	28.0	78.3
Rajasthan	13.3	82.3	40.6	42.7	39.3	19.0	17.0	40.5
Sikkin	2.7	92.1	60.2	57.9	56.7	38.2	41.6	78.9
Tamil Nadu	2.4	92.1	61.1	67.4	62.4	78.5	55.9	79.0
Uttar Pradesh	16.4	77.8	44.8	41.4	36.1	17.4	12.4	52.3
West Bengal	8.0	87.4	45.1	48.4	46.7	17.8	14.1	51.4
India	**9.4**	**85.1**	**51.6**	**52.6**	**48.1**	**31.6**	**24.4**	**59.6**

Source: National Family Health Survey-II, 1998-99

Appendix. 11.10.

Women's Representation in Panchayati Raj Institutions

States	Gram Panchayat		Panchayat Samiti		Zilla Parishad	
	Women	%	Women	%	Women	%
1	2	3	4	5	6	7
Uttar Pradesh	120591	15	13865	23	634	24
Gujarat	21351	17	1275	33	254	33
Assam	5469	18	669	26		
Tamilnadu	31548	28	2295	35	225	35
Rajasthan	33566	30	174	32	331	32
Haryana	16704	31	858	35	82	36
Himachal Pradesh	6015	33	558	34	84	33
D & N Haveli	46	34			4	25
Maharashtra	101182	33	1174	33	587	33
Orissa	27036	33	1154	33	284	33
Tripura	1809	33	67	34	24	34
Madhya Pradesh	78000	34	5420	37	363	33
Andhra Pradesh	78000	34	5420	37	363	33
A & N Islands	229	34			10	33
Goa	468	37				
Manipur	555	36			22	36
West Bengal	17883	36	2997	35	243	34
Sikkiim	326	37			28	30
Lakshadweep	30	38			8	36
Daman & Diu	25	40			5	33
Karnataka	35305	44	1343	40	335	36
Punjab	26939	36				
Total		**27**	**37071**	**29**	**3861**	**29**

Source:- Ministry of Rural Development 2000

Appendix-11.10.A

Number of seats reserved for women in LSGs in Kerala--2001

District	Grama Panchayat			Block Panchayat			District Panchayats		Municipalities	
	No. of wards	No. of Seats reserved for women	No. of Seats reserved for women presidents	No. of Wards	No. of seats reserved for women	No. of seats reserved for women president	No. of wards	No. of seats reserved for women	No. of wards	No. of seats reserved for women
1	2	3	4	5	6	7	8	9	10	11
Thiruvananthapuram	1096	394	28	129	48	5	25	9	120	42
Kollam	1030	365	27	136	52	5	24	8	56	19
Pathanamthitta	634	237	15	91	36	2	15	5	81	28
Alappuzha	935	339	22	121	48	3	21	7	162	56
Kottayam	950	344	22	116	45	3	21	7	109	38
Idukki	612	228	14	80	32	2	15	5	28	10
Ernakulam	1118	410	27	153	60	4	25	9	203	69
Thrissur	1223	441	32	173	68	5	27	9	154	53
Palakkad	1178	427	32	141	55	5	26	9	130	44
Malappuram	1460	520	37	165	61	6	30	10	178	61
Kozhikode	1090	395	27	135	51	4	25	9	78	27
Wayanad	354	128	10	36	13	2	15	5	21	7
Kannur	1049	382	24	109	40	3	23	8	211	73
Kasaragod	528	190	14	53	20	2	15	5	66	23
Total	**13255**	**4800**	**331**	**1638**	**629**	**51**	**307**	**105**	**1597**	**550**

Source:-State Election Commission

Appendix. 11.11

COMPLAINTS RECEIVED BY KERALA WOMEN'S COMMISSION - 2002 (DISTRICT WISE)

Sl.No	Item	Tvpm:	Kollam	Pathanamthitt	Alappuzha	Idukki	Kottayam	Ernakulam	Thrissur	Palakkad	Malappuram	Wayanad	Kozhikode	Kannur	Kasaragod	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	Harassment of Women	264	24	13	40	34	20	30	22	21	20	10	31	28	13	570
2	Dowry Harassment	30	16	6	30	14	12	10	2	11	6	5	10	9	4	165
3	Harassment by husband	260	40	31	80	43	30	60	13	31	14	17	36	41	14	710
4	Cheating	47	13	8	4	7	2	3	10	4	10	3	6	5	6	128
5	Divorced by husband	63	14	5	10	5	9	7	6	18	8	10	4	4	6	169
6	Suspicious death	10	6	5	2	7	..	..	5	4	5	1	11	3	4	63
7	Property related	75	24	13	30	13	15	20	7	10	9	4	12	7	4	243
8	Job related	15	8	4	2	6	1	..	5	9	5	5	8	4	3	75
9	Sexual harassment	10	12	6	20	11	18	15	16	12	28	6	10	5	3	172
10	Use of abusive language	5	20	6	40	19	17	30	5	10	4	6	14	23	10	209
11	Violence	180	98	71	20	29	7	10	40	39	1	26	16	14	8	559
12	Against Police	54	6	4	2	2	..	.	5	1	4	4	4	3	1	90
13	Nuisance of anti-social elements	..	5	6	5	22	1	2	5	6	3	4	9	9	7	84
14	To get divorce	5	2	2	4	1	..	1	4	8	6	5	2	1	2	43
15	Alimony	8	7	9	3	2	..	1	2	6	1	9	6	2	2	58
16	Economic help	2	1	..	1	3	..	.	0	0	0	2	1	2	1	13
17	Path Problems	30	7	2	5	12	7	4	2	2	4	6	5	6	2	94
18	Doctor's negligence	1	1	..	..	..	.	..	2	0	0	1	0	1	0	6
19	Child marriage	..	..	..	..	..	..	..	0	0	0	0	..	..	..	0
20	Miscellaneous	16	20	16	67	30	153	90	9	8	10	7	32	19	7	484
	Total	**1075**	**324**	**207**	**365**	**260**	**292**	**283**	**160**	**200**	**138**	**131**	**217**	**186**	**97**	**3935**

Source: Kerala Vanitha Commission

Appendix. 11.12

NO.OF SUCIDE CASES BY CAUSE IN KERALA - 1997 TO 2001

Sl.No.	Causes	1997			1998			1999			2000			2001		
		Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	Failure in examinations	48	40	88	29	41	70	24	33	57	27	44	71	34	52	86
2	Poverty	11	1	14	279	127	406	7	2	9	11	0	11	3	0	3
3	Loveaffairs	93	84	177	89	58	147	90	58	148	74	59	133	87	63	150
4	Insanity	391	203	594	472	242	714	398	253	651	558	254	812	615	339	954
5	Family Problems	1254	605	1859	1544	664	2208	1583	682	2265	1396	609	2005	1216	572	1788
6	Dispute over property	45	20	65	38	16	54	32	19	51	37	15	52	35	15	50
7	Deadful diseases	926	407	1333	931	413	1344	968	450	1418	1072	438	1510	1088	441	1529
8	Unemployment	260	39	299	162	35	197	239	68	307	153	27	180	165	27	192
9	Bankruptcy or sudden change in economic status	464	70	534	814	216	1030	991	273	1264	1058	259	1317	1184	267	1451
10	Death of dear person	18	19	37	22	30	52	36	27	63	45	31	76	49	34	83
11	Fall in social reputation	89	46	135	96	34	130	88	51	139	48	43	91	57	31	88
12	Dowry dispute	1	36	37	4	66	70	6	14	20	0	35	35	1	25	26
13	Illegitimate pregnancy	0	5	5	1	7	8	0	10	10	0	12	12	2	13	15
14	Causes not known	430	195	625	417	156	573	728	293	1021	697	327	1024	600	240	840
15	Other causes	2185	974	3159	1605	698	2303	1663	692	2355	1433	542	1975	1651	666	2317
	Total	**6215**	**2744**	**8961**	**6503**	**2803**	**9306**	**6853**	**2925**	**9778**	**6609**	**2695**	**9304**	**6787**	**2785**	**9572**

Sorce:State Crime Bureau

Appendix. 11.13

Details of Atrocities Committed Against Women-Kerala & All India

OFFENCES	Kerala					All India			
	1997	1998	1999	2000	2001	1997	1998	1999	2000
1	2	3	4	5	6	7	8	9	10
Rape	588	589	423	552	550	15330	15151	15468	16496
Molestation	1561	1773	1643	1695	2033	30764	30959	32311	32940
Kidnapping	160	130	123	89	125	15617	16351	15962	15023
Eve-teasing	70	96	50	69	86	0	0	0	0
Dowry death	25	21	31	25	24	6006	6975	6699	6995
Torture	1675	2125	2488	2418	2579	36592	41376	43823	45778
Others	3227	2739	2985	2773	2171	8633	11968	1245	14626
Total	**7306**	**7473**	**7743**	**7621**	**7568**	**112942**	**122780**	**115508**	**131858**

Sorce State Crime Bureau

Appendix. 11.14

District-wise Crime Against Women reported in Kerala 2001

	Rape	Molestation	Kidnapping	Eve-Teasing	304 (B)	Torture	Others	Total
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*
TVMC	11	135	24	0	1	128	20	319
TVMR	45	220	12	1	4	143	71	496
PTA	12	90	6	3	0	95	18	224
KLM	53	233	10	1	3	311	27	638
ALPY	21	162	6	2	1	105	9	306
IDKY	34	145	8	16	0	127	9	339
KTM	22	125	12	8	0	82	0	249
EKMC	10	44	1	3	0	62	87	207
EKMR	10	44	1	3	0	99	202	456
TSSR	40	215	9	15	2	189	313	783
PLKD	63	106	11	10	5	213	151	559
MPM	64	111	2	9	3	440	376	1005
KKDC	13	46	1	3	1	106	91	261
KKDR	28	82	5	5	1	198	185	504
WYND	35	67	3	3	0	60	124	292
KNR	42	77	8	7	0	158	286	578
KSD	28	55	1	0	0	63	202	349
RLWYS								
TOTAL	**550**	**2033**	**125**	**86**	**24**	**2579**	**2171**	**7568**

Sorce: State Crime Bureau

Appendix -11.15
Crime Rates Against Women and Ranks of States and Union Territories

Rank 1999	States/ Union Territories	Crime Rate 1998	Rank 1998	Crime Rate 1999	% Change in 1999 over 1998
1	Lakshadweep	35	3	0	0
2	Nagaland	18	1	11	-38.71
3	Meghalaya	33	2	25	-23.94
4	Manipur	39	4	29	-24.42
5	Bihar	54	7	53	-1.79
6	Sikkim	75	10	56	-24.32
7	Goa	61	8	58	-5.06
8	Punjab	53	6	66	24.65
9	Pondicherry	39	5	79	102.78
10	Daman & Due	0	0	79	0
11	Karnataka	74	9	81	8.62
12	West Bengal	89	13	90	1.88
13	Andaman & Nicobar Islands	79	11	94	19.23
14	Dadra & Nagar Haveli	89	14	94	5.88
15	Tripura	102	15	98	-3.23
16	Tamil Nadu	83	12	100	20.12
17	Uttar Pradesh	103	16	101	-1.71
18	Orissa	121	18	124	2.52
	ALL INDIA	**123**		**127**	**3.25**
19	Himachal Pradesh	134	21	135	0.64
20	Assam	130	20	138	5.59
21	Gujarat	139	22	140	0.74
22	Maharashtra	151	24	144	-5.11
23	Arunachal Pradesh	123	19	148	20.00
24	Kerala	153	26	154	0.51
25	Andhra Pradesh	143	23	161	12.34
26	Jammu & Kashmir	184	28	165	-10.23
27	Haryana	152	25	166	9.04
28	Mizoram	171	27	176	2.84
29	Chandigarh	113	17	178	57.61
30	Delhi	201	29	190	-5.59
31	Madhya Pradesh	206	30	221	7.36
32	Rajasthan	231	31	246	6.37

Source: NCRB (relevant years)

4/100/2003—22A

Appendx-12.1

Consumer Price Index (Cost of Living Index) Numbers for Agricultural and Industrial workers-Kerala : 2002

(Base 1970=100)

Sl.No	Centre	2001	2002											Variation (Oct. to Oct.)	
		Oct.	Nov.	Dec.	Jan.	Feb.	March	April	May	June	July	Augu.	Sept.	Oct.	Index	Percent
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*	*15*	*16*	*17*
1	Thiruvananthapuram	1174	1184	1184	1195	1184	1184	1184	1184	1195	1205	1216	1216	1216	42	3.5
2	Kollam	1172	1182	1182	1182	1172	1182	1182	1192	1203	1203	1213	1213	1213	41	3.5
3	Punalur	1116	1125	1125	1125	1116	1116	1116	1125	1125	1125	1125	1125	1125	9	0.8
4	Alappuzha	1170	1191	1191	1191	1181	1181	1170	1181	1181	1181	1181	1181	1181	11	0.9
5	Kottayam	1186	1196	1196	1196	1186	1186	1175	1186	1186	1196	1196	1196	1196	10	0.9
6	Mundakkayam	1133	1144	1144	1144	1133	1123	1123	1123	1133	1144	1154	1154	1154	21	1.9
7	Munnar	1143	1153	1153	1153	1143	1143	1143	1143	1153	1163	1163	1153	1153	10	0.9
8	Ernakulam	1131	1141	1141	1141	1131	1131	1121	1131	1131	1141	1141	1141	1141	10	0.9
9	Chalakudy	1198	1208	1208	1208	1198	1198	1187	1198	1198	1198	1198	1198	1198	0	0.0
10	Thrissur	1146	1156	1156	1156	1146	1146	1136	1146	1146	1146	1146	1146	1146	0	0.0
11	Palakkad	1163	1174	1174	1174	1163	1163	1163	1163	1174	1184	1195	1195	1195	32	2.8
12	Malappuram	1154	1164	1164	1174	1164	1154	1154	1154	1164	1174	1185	1174	1174	20	1.7
13	Kozhikode	1149	1159	1159	1159	1149	1139	1129	1139	1139	1139	1139	1139	1139	-10	-0.9
14	Meppady	1213	1224	1224	1224	1213	1213	1213	1213	1224	1224	1234	1224	1224	11	0.9
15	Kannur	1147	1157	1157	1157	1147	1147	1137	1147	1147	1147	1157	1147	1147	0	0.0
	Average	**1160**	**1171**	**1171**	**1172**	**1162**	**1160**	**1156**	**1162**	**1167**	**1171**	**1176**	**1173**	**1173**	**13**	**1.1**

Source :*Department of Economics and Statistics*

Appendix - 12.2
Month-end Average Retail Prices of Essential Commodities 2002

(Rupees)

Sl.	Name of Commodity	Unit	2002 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug.	Sep	Oct	Nov.	Dec
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A.	**Cereals**													
1	Rice Matta(OM)	Kg	12.23	NA	11.96	11.90	11.86	11.92	12.39	12.60	12.90	12.94	13.32	13.40
2	Rice White(OM)	Kg	12.23	NA	11.87	11.94	11.84	11.86	11.92	11.96	11.91	11.98	12.40	12.39
B.	**Pulses**													
3	Greengram	Kg	30.4	NA	30.32	30.72	31.31	31.42	31.07	30.59	30.37	30.21	30.49	30.32
4	Blackgram spilt (without husk)	Kg	34.41	NA	32.52	33.01	34.24	34.9	33.97	33.35	32.89	32.09	31.05	29.59
5	Redgram	Kg	20.26	NA	19.36	19.78	20.04	20.29	21.34	22.81	25.6	27.48	30.42	29.41
6	Dhall (Tur)	Kg	29.28	NA	28.81	29.05	29.66	30.27	30.25	30.99	31.32	31.33	31.29	31.03
C.	**Other Food Items**													
7	Sugar(OM)	Kg	15.21	NA	15.3	15.22	15.04	14.74	14.59	14.53	14.61	14.38	13.69	13.31
8	Milk (Cow's)	Ltr	13.04	NA	13.04	13.08	13.17	13	12.75	12.51	12.58	13.04	13.04	13.04
12	Egg(Hen's Nadan))	Dozen	26.75	NA	24.74	24.05	24.48	25.52	25.93	26.47	26.2	25.85	26.56	26.55
13	Egg(Hen'sWhite Legon)	Dozen	16.73	NA	14.84	14.81	15.57	17.06	16.53	14.77	14.91	14.42	16.18	16.16
D.	**Oil and Oil Seeds**													
14	Coconut oil	Kg	43.17	NA	39.85	42.81	43.61	47.19	51.79	52.26	51.15	50.63	58.95	60.53
15	Groundnut Oil	Kg	50.34	NA	50.61	51.55	52.03	51.54	53.48	54.52	56.17	56.58	58.13	59.43
16	Refined oil (Postman)	Kg	60.2	NA	60.48	62.07	62.53	63.38	64.85	67.36	64.72	65.26	73.42	76.06
17	Gingelly oil	Kg	50.88	NA	51.58	53.25	54.6	54.63	54.61	54.94	57.07	57.93	59.2	60.71
18	Coconut (without Husk)	100Nos	455.54	NA	426.19	436.34	440.79	455.06	481.88	485.57	481.26	481.52	541.93	575.27
E.	**Spices and Condiments**													
19	Corriander	Kg	37.26	NA	33.43	33.54	33.26	33.23	33.13	33	34.61	34.95	36.91	37.64
20	Chillies(dry)	Kg	42.96	NA	38.98	38.86	40.34	42.09	42.46	43.14	45.63	51.80	52.41	51.55
21	Onion (small)	Kg	11.9	NA	10.50	10.84	11.48	14.75	18.42	15.56	16.65	19.94	22.86	18.89
22	Tamarind (without seed)	Kg	24.32	NA	23.12	22.30	22.33	22.5	22.41	23.4	24.14	24.46	24.97	25.13
F.	**Tubers**													
23	Chenai (Elephant Foot)	Kg	7.39	NA	8.62	9.46	10.62	12.45	11.70	9.8	8.89	8.75	9.13	9.32
24	Tapioca(Raw)	Kg	4.81	NA	4.96	5.15	5.06	5.18	5.33	5.60	5.71	5.83	5.85	5.96
25	Potato	Kg	11.15	NA	8.81	9.52	10.30	11.52	11.75	11.90	11.6	12.07	11.6	10.28
26	Colocassia	Kg	11.88	NA	13.48	13.93	14.49	14.12	14.7	14.68	14.62	13.66	12.94	11.95

(Appendix 12.2 Contd.)

1	2	3		6		8	9	10	11	12	13	14	15
G.	**Fruits and Vegetables**												
27	Onion(Big)	Kg	7.37 NA	5.81	5.52	5.42	6.39	7.05	8.20	8.32	9.33	10.00	7.57
28	Brinjal	Kg	10.92 NA	10.14	10.57	10.39	10.57	10.55	10.6	9.89	10.04	11.37	10.64
29	Pumpkin	Kg	6.2 NA	6.12	5.86	5.96	6.61	7.46	7.88	6.89	6.75	6.89	6.04
30	Cucumber	Kg	8.02 NA	6	5.95	6.57	8.14	7.95	7.11	8.08	8.82	8.5	6.68
31	Lady's Finger	Kg	10.13 NA	12.05	10.41	10.29	11.18	11.32	12.2	10.91	11.3	10.23	10.13
32	Cabbage	Kg	8.57 NA	8.69	8.66	8.97	8.91	9.32	9.14	8.14	8.80	8.57	8.43
33	Bittergourd	Kg	11.7 NA	12.26	12.46	13.68	14.78	14.17	13.17	13.18	14.84	14.30	13.29
34	Ash gourd	Kg	6.82 NA	6.36	6.02	6.49	7.13	7.55	7.5	6.69	6.82	7.09	6.39
35	Snakegourd	Kg	9.29 NA	8.05	8.04	8.93	10.30	9.41	9.54	10.02	11.55	10.76	8.84
36	Chillies (Green)	Kg	13.14 NA	14.19	14.10	14.9	17.29	14.82	16.89	14.66	14.93	14.44	15.54
37	Banana(Green)	Kg	10.47 NA	10.49	11.26	12.04	11.39	11.44	12.74	11.71	11.18	11.09	10.78
38	Plantain(Green)	Kg	8.79 NA	8.38	8.46	8.36	8.43	8.66	9.41	9.4	8.99	9.34	8.93

Source : *Department of Economics and Statistics*

Appendix -12.3

Wholesale Price Index of Agricultural Commodities 1990-2002*

(Base: 1952-53=100)

Group	*Weight*	*1990*	*1991*	*1992*	*1993*	*1994*	*1995*	*1996*	*1997*	*1998*	*1999*	2000	2001*	2001	2002*
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*14*	*15*	16	17
Food Crops	63.5	835	936	984	1310	1384	1609	1731	1814.7	1161.9	2218.65	2329.93	2421.50	2060.97	2061.97
Rice	40.4	592	638	638	837	957	1162	1162	1161.9	2130.0	1861.75	1762.61	1815.33	1899.43	1621.30
Condiments and Spices	10.4	1098	1542	1688	1895	1779	1960	2315	2818.3	2872.4	4768.33	3161.12	2459 59	1960.19	2660.76
Fruits & Vegetables	10.7	1450	1449	1571	2434	2534	2978	3235	3182.4	3336.3	3325.68	3293.44	3052.04	2807.39	3170.66
Molasses	2.0	1082	1061	1161	1803	1781	1477	1627	2453.7	1839.5	2252.92	2610.04	2514.87	1835.20	1914.97
Non-food Crops	36.5	1365	1832	2062	1966	1679	1864	2155	2426.3	2713.2	3053.07	2330.98	1925.28	1668.74	2199.21
Oil Seeds	25.5	1562	2240	2543	2368	1915	2029	2395	3069.0	1851.4	2618.94	1460.96	1348.79	1843.33	2574.59
Plantation crops	11.0	910	888	948	1038	1134	1485	1599	1630.9	2452.8	2290.73	2068.22	1751.18	1264.79	1331.63
All Crops	**100.0**	**1028**	**1263**	**1377**	**1550**	**1492**	**1702**	**1876**	**2114.0**	**2063.5**	**2690.03**	**2412.25**	**2236.12**	**1918.03**	**2112.06**

Source : Department of Economics and Statistics

* : January to June(six months only)

Appendix - 12.4

Month-Wise Wholesale Price Index of Agricultural commodities - Kerala (2001 and 2002)

Crops	2001						2002						
	July	August	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	Average*
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*	*15*
1	Rice	1693.60	1693.60	1693.60	1693.60	1693.60	1693.60	1693.60	1693.60	1693.60	1548.99	1548.99	1548.99	1621.30
2	Molasses	2017.98	2083.46	2004.62	2255.42	2467.62	2133.48	2007.64	1966.26	1897.30	1953.97	1847.43	1817.23	1914.97
3	Condiments & Spices	2287.39	1609.05	1805.36	1621.30	1601.42	1796.41	2134.64	1974.99	2392.62	2741.87	3539.5	3180.94	2660.76
4	Fruits & Vegetables	2875.17	3034.79	3081.59	3061.62	3069.36	3056.26	2863.36	3410.90	3420.93	2937.98	3138.8	3251.96	3170.66
5	Food Crops	2000.50	1918.75	1956.34	1930.99	1935.85	1954.72	1973.23	2038.42	2105.98	1991.13	2151.67	2111.38	2061.97
6	Oil Seeds	1935.22	1980.01	1972.25	1982.15	2053.10	2481.90	2549.63	2474.83	2559.00	2496.65	2546.41	2821.02	2574.59
7	Plantation Crops	1389.91	1458.17	1452.02	1383.59	1340.77	1317.13	1240.90	1195.16	1312.89	1408.24	1416.39	1416.19	1331.63
8	Non-food Crops	1770.54	1822.41	1815.14	1801.38	1837.98	2130.14	2154.39	2088.37	2182.67	2167.95	2205.14	2396.76	2199.21
9	**All crops**	**1916.56**	**1883.71**	**1904.80**	**1883.68**	**1900.13**	**2018.75**	**2039.35**	**2056.65**	**2133.97**	**2055.67**	**2171.19**	**2215.54**	**2112.06**

Source : *Department of Economics and Statistics*

* *Average from January to June 2002(6 months)*

Appendix 12.5

Monthly Farm Prices of Principal Crops (2001-02)

(in Rs.)

Commodity	Unit	July	August	September	October	Novembe	December	January	February	March	April	May	June
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Paddy	Qtl	685.09	685.79	673.52	649.87	660.19	670.03	666.07	647.06	629.80	604.71	595.72	598.07
Tapioca	Qtl	370.6	373.16	370.81	367.65	361.68	352.39	342.63	335.53	335.37	335.03	331.89	306.72
Coconut	100 Nos.	282.65	285.99	280.89	264.17	270.49	274.50	274.90	290.44	296.83	280.27	287.82	286.96
Pepper	Qtl	19508.01	19147.34	16958.05	15129.17	12706.54	12535.42	10583.51	9941.69	9116.04	7621.41	9391.28	8557.12
Ginger (Dry)	Qtl	5854.44	5876.85	5923.15	5864.35	5839.12	5521.56	4858.67	4146.67	4070.49	3704.70	3763.24	3729.95
Cashewnut	Qtl	NA	NA	NA	NA	NA	NA	2578.57	2606.25	2810.20	2346.07	1888.75	1822.79
Arecanut	100 Nos.	66.48	55.67	44.99	36.90	37.11	35.73	34.84	35.96	37.17	39.31	43.71	41.78
Banana	100 Nos.	188.95	212.31	226.73	218.74	207.78	190.24	190.24	169.65	148.93	161.8	186.91	178.66

Source: Department of Economics and Statistics

Appendix - 12.6

Index Number of Wholesale Prices in India by Groups and Sub-Groups (Averages)

(Base: 1993-94=100)

Sl. No	Item	2001								2002			
		Weight	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	ALL COMMODITIES	**100.000**	**160.8**	**161.1**	**161.7**	**161.7**	**162.5**	**162.3**	**161.8**	**161**	**160.8**	**161.9**	**162.3**
I	**Primary Articles**	**22.025**	**169.7**	**168.6**	**169.4**	**170.2**	**170.8**	**170**	**169.3**	**166.4**	**166.7**	**167.3**	**169**
(A)	**Food Articles**	**15.402**	**176.3**	**174.5**	**176.1**	**177.3**	**179.2**	**179**	**178.3**	**174.5**	**175**	**175.8**	**177.4**
	a.Food Grains	5.009	175.7	175.6	174.1	173.3	172.9	172.4	171.2	168.9	169.7	170.7	170.1
	a1. Cereals	4.406	173.3	173.2	171.1	170.4	169.6	169.3	168.4	166.8	168.4	169.8	168.9
	a2. Pulses	0.603	193.1	192.6	196.5	194	196.6	195.9	191.7	184.5	179.4	177.9	178.4
	b.Fruits & Vegetables	2.917	185.3	180.3	187.4	197.9	204.4	210.2	204.5	184.2	178.1	181.8	190.1
	c.Milk	4.367	164.1	163.5	165.8	165.3	166.5	165.8	166.5	166.9	167.3	168.7	171.2
	d.Egg, Fish & Meat	2.208	190.2	186.9	187.9	185.5	191.2	185.1	187.1	192.1	202.1	199.8	195
	e.Condiments & Spices	0.662	190.8	190.5	189.6	191.4	186.4	184.9	189.9	191.8	192.1	186.4	186.4
	f.Other Food Articles	0.239	131.9	125.3	117.6	114	105	105.2	110.7	102.0	90.6	88.3	102.2
(B)	**Non-food Articles**	**6.138**	**157.4**	**157.6**	**156.8**	**156.5**	**153.8**	**151.4**	**150.4**	**149.3**	**149.5**	**149.9**	**151.8**
	a.Fibres	1.523	168.5	164.5	159.9	162.4	153.7	142.2	141.4	139.7	133.2	129.3	130.9
	b.Oil Seeds	2.666	141.3	143.5	144	142.7	139.7	136.1	134	132.2	135.8	138.5	142.9
	c.Other non-food Articles	1.949	170.7	171.5	171.9	170.9	173.2	179.6	179.8	180.3	181.1	181.6	180.4
(C)	**Minerals**	**0.485**	**117.5**	**117.6**	**117.8**	**118.8**	**119.9**	**120.8**	**121.9**	**121.9**	**120.9**	**120**	**118.5**
	a.Metalic minerals	0.297	122.6	122.6	122.6	122.6	122.6	122.7	123.2	123.2	122.6	121.9	121.9
	b.Other minerals	0.188	109.4	109.8	110.3	112.7	115.6	117.8	119.7	119.8	118.3	116.9	113.2
II	**Manufactured Products**	**63.749**	**144**	**144.9**	**144.6**	**144.3**	**144.4**	**144.4**	**144.2**	**144.2**	**143.9**	**144.1**	**144.9**
(A)	**Food Products**	**11.538**	**144**	**146.5**	**146.1**	**145.8**	**145.9**	**145.7**	**145.4**	**145.8**	**146.7**	**145.2**	**147.9**
(B)	**Beverages, Tobacco& Tobacco Products**	1.339	192.5	192.8	192.8	192.7	192.4	192	192.3	194.1	197.8	202	203.2
(C)	**Textiles**	**9.800**	**121**	**121.7**	**120.7**	**119.6**	**119.2**	**118.7**	**118.6**	**118**	**116.3**	**115.5**	**116.4**
(D)	**Paper& Paper Products**	**2.044**	**174.9**	**174**	**171.9**	**172.8**	**172.1**	**171.1**	**170.5**	**170.2**	**169.5**	**170.3**	**173.2**
(E)	**Leather & Leather Products**	**1.019**	**143.1**	**143.1**	**143.1**	**143.1**	**143.1**	**143.1**	**143.1**	**143.1**	**127**	**133.9**	**129.3**
(F)	**Rubber & Plastic products**	**2.388**	**126.7**	**126.8**	**126.8**	**126.8**	**126.8**	**126.6**	**125.6**	**125.1**	**125.6**	**125.5**	**125.9**
(G)	**Chemical & Chemical Products**	**11.931**	**167.9**	**169.2**	**169.5**	**169.1**	**169.7**	**169.5**	**169.0**	**168.7**	**168.9**	**171.4**	**171.8**
(H)	**Non-Metalic Mineral Products**	**2.516**	**144.7**	**145.9**	**144.8**	**141.8**	**143**	**143**	**143.6**	**144**	**142.9**	**142.1**	**141**
(I)	**Basic metals, Alloys & metal products**	**8.342**	**140.8**	**141.1**	**140.6**	**140.5**	**140.2**	**140.3**	**140.5**	**140.6**	**140.7**	**140.6**	**140.6**
(J)	**Machinery & Machine Tools**	**8.363**	**128**	**128.3**	**128.9**	**129.4**	**130**	**129.8**	**129.8**	**129.7**	**129.3**	**129.4**	**129.7**

Source : *RBI Bulletin*

Appendix 12.7

Consumer Price Index Numbers for Industrial Workers-All India and Selected Centers

(Base 1982=100)

		2001							2002				
	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	July	August
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*
All India	466	465	468	472	469	467	466	468	469	472	476	481	484
Ahmedabad	473	465	465	468	464	462	464	470	474	472	479	482	484
Alwaye	457	458	465	464	469	471	468	461	463	471	479	489	492
Bangalore	441	440	443	448	447	448	445	445	445	445	450	455	456
Mumbai	534	534	536	539	536	543	550	553	554	555	558	560	562
Culcutta	516	518	531	540	526	517	514	522	524	528	528	537	536
Coimbatore	445	442	446	452	453	449	451	455	465	471	480	477	482
Delhi	536	534	540	541	533	530	529	537	539	545	555	561	563
Hyderabad	442	443	446	447	455	460	459	462	462	466	469	468	470
Jamshedpur	425	424	424	426	425	423	417	420	420	421	425	439	442
Madras	496	491	497	502	502	500	503	502	501	508	512	515	520
Madhura	442	436	446	461	458	454	451	443	445	454	458	457	464
Mundakayam	453	447	449	455	460	456	454	454	454	457	464	476	476
Nagpur	496	488	490	493	487	486	489	491	491	495	499	493	496

Source: RBI Bulletin

Appendix - 12.8

Consumer Price Index Numbers for Agricultural Labourers - State-wise

(Base July 1986 - June 1987 = 100)

	2001				2002							
	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	13
All India	311	313	313	312	308	308	309	309	311	314	316	319
Andra pradesh	327	332	331	327	324	325	326	329	331	334	335	337
Assam	319	322	323	324	319	317	319	319	320	322	323	328
Bihar	287	294	296	296	291	290	291	292	288	290	293	296
Gujarat	324	319	320	315	312	313	316	319	321	325	329	332
Jammu&Kashmir	329	330	329	326	329	330	330	331	338	333	334	335
Karnataka	307	308	311	312	308	308	309	309	314	314	315	316
Kerala	316	317	318	322	319	322	321	321	321	325	328	328
Madhyapradesh	315	313	312	310	304	304	305	307	311	314	317	320
Maharashtra	305	307	305	304	303	303	303	303	308	314	315	319
Orissa	312	310	307	303	294	286	287	290	293	295	297	300
Panjab	329	328	328	324	322	322	320	325	325	328	332	335
Rajastan	308	305	306	305	306	308	310	311	313	318	320	323
Tamil Nadu	304	306	311	316	314	313	311	313	316	319	320	321
Uttar Pradesh	314	316	315	311	309	312	312	308	309	315	320	323
Bengal	306	311	311	307	301	299	301	299	297	299	300	305

Source : *RBI Bulletin*

Appendix - 12.9

Consumer Price Index Numbers for Urban Non-Manual Employees- All India & Selected Centress

(Base : 1984-85=100)

	2001						2002				
	Aug	*Sep*	*Oct*	*Nov*	*Dec*	*Jan*	*Feb*	*Mar*	*Apr*	*May*	*Jun*
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
All India	393	392	393	395	394	393	392	395	396	398	402
Mumbai	396	394	396	397	396	397	396	403	402	405	406
Delhi	402	401	402	405	402	399	399	400	399	401	405
Culcutta	357	355	358	359	356	352	352	354	356	358	363
Chennai	454	454	458	462	466	471	472	474	475	478	482
Hydrabad	413	410	414	413	411	412	411	413	417	420	425
Bangalore	414	413	413	416	415	415	416	416	416	419	421
Lucknow	368	367	369	373	366	365	362	367	370	373	374
Ahemadabad	356	352	351	352	352	348	348	350	352	355	362
Jaipur	391	390	390	390	391	390	390	391	395	394	401
Patna	362	366	370	370	369	361	355	353	351	354	357
Srinagar	405	395	395	398	397	397	397	396	398	400	399
Thiruvananthapuram	384	385	384	386	386	391	392	393	395	400	402
Cuttak	385	382	384	390	385	377	373	376	378	379	386
Bhopal	374	371	374	377	375	377	380	382	384	380	383
Chandigarh	467	472	465	465	463	466	469	468	467	466	472
Shillong	406	406	407	408	410	410	410	409	409	413	413

Source : RBI Bulletin

Appendix 13.1

Commodity-wise Export through Kochi Port from 1999-2000 to 2001-02 (Quantity in M.T)

Commodity	1999-2000			2000-01			20001-02		
	Quantity	% to Total	Growth rate (%)	Quantity	% to Total	Growth rate (%)	Quantity	% to Total	Growth rate (%)
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*
Tea	77342	3.5	-23.7	94839	4.5	22.6	96155	4.9	1.4
Cashew Kernels	58046	2.6	17.3	57447	2.7	-1	66104	3.3	15
Sea Foods	94594	4.3	27.6	104064	5	10	111070	5.6	6.7
Coir Products	56199	2.5	6.7	58140	2.8	3.4	60861	3.1	4.7
Spices	53183	2.4	18.8	32582	1.6	-38.7	34395	1.7	5.6
Coffee	156354	7.1	22.6	169482	8.1	8.4	146166	7.4	-13.7
Miscellaneous	1709715	77.5	-13.6	1566019	75.1	-8.4	1453613	73.8	-7.1
Total	2205433	100	-9.2	2082573	100	-5.5	1968364	100	-5.4

Appendix 13.2

Commodity-wise Import through Kochi Port from 1999-2000 to 2001-02 (Quantity in M.T)

Commodity	1999-2000			2000-01			20001-02		
	Quantity	% to Total	Growth rate (%)	Quantity	% to Total	Growth rate (%)	Quantity	% to Total	Growth rate (%)
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*
Fertilizers & Raw materials	668967	6.3	-11.4	621646	5.6	-7	645515	6.4	3.8
Foodgrains	107820	1	-63.2	7128	0.1	-93.3	9218	0.1	29.3
Iron, Steel & Machinery	132534	1.2	41.5	134948	1.2	1.8	158882	1.5	17.7
Newsprint	38787	0.3	-7.9	20413	0.2	-47.3	18312	0.2	-10.2
Cashewnut	154678	1.4	53.1	63540	0.6	-58.9	217249	2.1	241.9
Miscellaneous	9533045	89.6	6.3	10213419	92.3	7.1	9041580	89.6	-11.4
Total	10635831	100	3.7	11061094	100	3.9	10090756	100	-8.7

Appendix - 13.3

Market-wise Export of Marine Products from India

(Qty. in Tonnes & Value in Rs. Crore)

Sl.No.	Market	1999-2000				2000-01				2001-02			
		Qty.	% to total	Value	% to total	Qty.	% to total	Value	% to total	Qty.	% to total	value	% to total
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	Japan	66990	19.53	2272.78	44.42	68983	15.66	2560.39	39.74	64905	15.29	1820.69	30.56
2	USA	36645	10.68	775.35	15.15	41747	9.48	1164.4	18.07	49041	11.55	1421.38	23.86
3	European Union	65402	19.07	905.56	17.70	68827	15.63	1025.36	15.91	82895	19.53	1150.07	19.31
4	China & Hong Kong	107136	31.23	544.7	10.65	182771	41.49	827.42	12.84	134767	31.75	597.23	10.03
5	S.E. Asia	40614	11.84	370.09	7.23	40748	9.25	462.97	7.18	52424	12.35	538.75	9.04
6	Middle East	13274	3.87	115.09	2.25	17236	3.91	188.32	2.92	19159	4.51	181.06	3.04
7	Others	12970	3.78	133.1	2.60	20161	4.58	215.03	3.34	21279	5.02	247.87	4.16
	TOTAL	343031	100.00	5116.67	100.00	440473	100.00	6443.89	100.00	424470	100.00	5957.05	100.00

Source : Marine Products Export Development Authority

Appendix - 13.4

Market-wise Export of Marine Products from Kerala

(Qty. in Tonnes & Value in Rs. Crore)

Sl.No.	Market	1999-2000				2000-01				2001-02			
		Qty.	% to total	Value	% to total	Qty.	% to total	Value	% to total	Qty.	% to total	value	% to total
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	Japan	13228	14.36	260.76	22.73	9310	10.48	189.09	18.07	8939	12.29	178.2	18.75
2	USA	15465	16.78	248.72	21.69	13384	15.06	230.86	22.06	10435	14.34	166.3	17.50
3	European Union	35413	38.43	419.93	36.61	29228	32.9	369.38	35.30	32456	44.61	405.53	42.65
4	China & Hong Kong	15438	16.75	89.09	7.77	24123	27.15	126.92	12.13	5550	7.63	63.66	6.70
5	S.E. Asia	5463	5.93	51.94	4.53	6364	7.16	51.48	4.92	8773	12.06	61.78	6.50
6	Middle East	2573	2.79	30.94	2.70	2110	2.37	30.38	2.90	2191	3.01	27.02	2.84
7	Others	4568	4.96	45.58	3.97	4333	4.88	48.36	4.62	4412	6.06	48.06	5.06
	TOTAL	92148	100.00	1146.96	100.00	88852	100.00	1046.47	100.00	72756	100.00	950.55	100.00

Source : Marine Products Export Development Authority

Appendix - 13.5

Kerala's Share in the Export of Marine Products from India

(Qty. in Tonnes & Value in Rs. Crore)

Year	India		Kerala		Kerala's Share (%)	
	Quantity	Value	Quantity	Value	Quantity	Value
1	2	3	4	5	6	7
1990-91	139419	893.37	50997	313.79	36.58	35.12
1991-92	171820	1375.89	58743	444.47	34.19	32.3
1992-93	209025	1768.56	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
1999-2000	343031	5116.67	92148	1146.96	26.86	22.42
2000-01	440473	6443.89	88852	1046.47	20.17	16.24
2001-02	424470	5957.05	72756	950.55	17.14	15.96

Source : Marine Products Export Development Authority

Appendix 13.6
Item-wise Export of Marine Products from India
Q: Quantity in MT, V:Value in Rs. Crore

Item	% share to total		April-March 2001-02	April-March 2000-01	Variation	%
Frozen Shrip	30.09	Q	127709	111874	15835	14.15
	69.5	V	4139.92	4481.51	-341.59	-7.62
Frozen Fin Fish	41.22	Q	174976	212903	-37927	-17.81
	11.97	V	713.11	874.68	-161.57	-18.47
Frozen Cuttlefish	7.2	Q	30568	33677	-3109	-9.23
	4.7	V	280.07	288.99	-8.92	-3.09
Dried Squid	9.37	Q	39790	37628	2162	5.75
	5.53	V	329.67	324.43	5.24	1.62
Dried Items	1.65	Q	7020	7511	-491	-6.54
	1.01	V	60.19	70.03	-9.84	-14.05
Live Items	0.38	Q	1628	1844	-216	-11.71
	0.68	V	40.57	39.88	0.69	1.73
Chilled Items	0.77	Q	3284	3820	-536	-14.03
	1.07	V	63.66	71.63	-7.97	-11.13
Others	9.31	Q	39495	31216	8279	26.52
	5.54	V	329.86	292.74	37.12	12.68
Total	100	Q	424470	440473	-16003	-3.63
	100	V	5957.05	6443.89	-486.84	-7.56

Source: Marine Products Export Development Authority

Appendix - 13.7

Item-wise Export of Marine Products from Kerala

(Qty. in M.T., Value in Rs. Crore)

Sl. No.	Item	1999-2000				2000-01				2001-02			
		Quantity	% to Total	Value	% to total	Quantity	% to Total	Value	% to Total	Quantity	% to Total	Value	% to Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	Frozen Shrimp	35710	38.75	705.61	61.52	28300	31.85	596.76	57.03	28023	38.52	549.48	57.81
2	Frozen Fish	13281	14.41	52.56	4.58	24956	28.09	97.8	9.35	11200	15.39	55.38	5.83
3	Frozen Cuttle Fish	19438	21.09	187.72	16.37	14475	16.29	154.74	14.79	13818	18.99	153.21	16.12
4	Frozen Squid	16050	17.42	140.46	12.25	14915	16.79	139.01	13.28	12319	16.93	115.18	12.12
5	Others	7669	8.33	60.61	5.28	6206	6.98	58.16	5.55	7396	10.17	77 30	8.12
	TOTAL	92148	100.00	1146.96	100.00	88852	100.00	1146.47	100.00	72756	100.00	950.55	100.00

Source : Marine Products Export Development Authority

Appendix 13.8

ITEM-WISE EXPORT OF SPICES FROM INDIA (QTY IN M.T.: VALUE IN Rs. LAKHS)

Item	1997-98		1998-99(P)		1999-2000(P)		2000-01(E)		2001-02(E)	
	QTY	Value	QTY	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE
Pepper	35582	49489.49	35109	63479.88	42803	88482.88	19250	32632.75	24000	21192.5
Cardamom (small	370	1266.78	476	2525.27	646	3201.84	1100	5654.7	900	5586.25
Cardamom (large	1648	1264.46	1288	1269.46	1,211	1696.89	1645	2768.75	1250	2038
Chilli	51779	15890.02	68019	25287.26	64,776	25065.89	61000	19523.5	75000	25584
Ginger	28268	7262.73	8683	4058.32	8,773	3060.15	6580	2295.4	8000	2503.5
Turmeric	28875	8306.50	37298	12914.49	35556	12168.69	34500	9106	35000	8462.5
Coriander	23734	6434.69	21044	4547.06	13,973	3496.77	11700	2742.5	15000	4504.5
Cumin	16281	8135.53	10595	5980.91	6,145	3428.17	13800	11743.5	14000	12334.5
Celery	3317	799.20	4038	957.26	3,497	1059.55	5250	1700.5	4500	1357
Fennel	12368	3581.83	5296	1541.56	2,953	1441.53	4000	1778	4000	1628
Fenugreek	6006	987.14	10221	1920.23	10,901	2095.41	9050	1787.5	6000	1510
Other Seeds (1)	4056	934.50	2178	822.95	2,349	1026.46	2425	896.25	5000	1767
Garli	3975	797.56	3978	597.01	8,542	1326.87	11000	1040.3	1100	387.05
Other Spices (2)	15243	5712.22	20395	7646.06	22,015	8855.64	35000	14490	37000	18220
Curry Powder	5132	2972.91	5213	3597.9	5,814	3460.60	6200	3997	6250	4048
Mint Oil	3018	9693.12	4279	12377.55	2,820	10310.71	3875	12645	3600	12764.2
Spice Oils and Oleoresins	2419	23152.92	2752	30086.6	3,368	32330.58	3625	36405	4400	38648
Total	*242071*	*146681.60*	*240862*	*179609.77*	*236142.00*	*202508.63*	*230000.00*	*161206.65*	*245000.00*	*162535.00*
Value in Milln.US$		**394.45**		**428.77**		**468.12**		**352.13**		**341.6**

(P)PROVISIONAL;(E)ESTIMATE

(1) Include Bishops Weed (Ajwanseed), Dill Seed, Poppy Seed, Aniseed, Mustard etc

(2) Include Tamarind, Asafoetida, Cinnamon, Cassia, Nutmeg & Mace, Manila, Saffron etc.

Source: Spices Board.

Appendix - 13.9

State-wise Production of Raw Cashewnuts from 1994-95 to 2001-02

(Qty. in M.T.)

State	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
Kerala	119200	140000	134000	100000	130000	100000	76000	84300
Karnataka	26400	37600	52000	35000	40000	60000	42000	43000
Andhra Pradesh	58700	71700	60000	50000	80000	100000	75000	103800
Tamil Nadu	22000	30930	30000	30000	35000	45000	59000	48900
Goa	16960	17800	20000	25000	20000	30000	25000	25500
Maharashtra	37600	69000	80000	60000	85000	125000	98000	109900
Orissa	37200	43000	40000	45000	50000	40000	59000	77200
West Bangal	3280	6960	6000	6000	10000	8000	N A	8000
Other States	300	840	8000	9000	10000	12000	16000	8000
TOTAL	**321640**	**417830**	**430000**	**360000**	**460000**	**520000**	**450000**	**508600**

Source . The Cashew Export Promotion Council of India

Appendix - 13.10

Export of Cashew Kernels : Kerala and India (1990-91 to 2001-02)

(Quantity in MT - Value in Rs. Crore)

Year	Kerala		India		Share of Kerala (%)	
	Quantity	Value	Quantity	Value	Quantity	Value
1	2	3	4	5	6	7
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	1046.00	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	43676	940.68	77076	1630.10	57	57.7
1999-2000	50022	1342.10	96805	2569.50	52	52.2
2000-01	49874	1152.36	89155	2049.60	56	56.2
2001-02	54330	964.49	97550	1776.70	56	54.3

Source:The Cashew Export Promotion Council of India

Appendix - 13.11

Export of Cashewnut Shell Liquid : Kerala and India

(Quantity in MT and Value in Rs.Crore)

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	1185	1.81	1572	3.26
1999-2000	1040	1.54	1930	3.74
2000-01	907	1.31	2246	3.89
2001-02 **	3335	4.56	4148	5.93

* - Export through Kochi Port

** Various Custom Houses

Source : The Cashew Export Promotion Council of India

Appendix - 13.12

Import of Raw Cashewnut : Kerala and India

(1990-91 to 2001-02)

(Quantity in MT and Value in Rs. Crore)

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	109660	448.83	241161	958.03
1999-2000	156488	736.63	253577	1186.16
2000-01	152516	552.74	249318	960.84
2001-02 **	191579	502.46	355443	949.25

* Import through Cochin Port

** Various Custom Houses

Source : The Cashew Export Promotion Council of India

Appendix - 13.13

Export of Cashew Kernels from India during 1999-2000 to 2001-02

Country	1999-2000				2000-01				20001-02 (P)			
	QTY.MT	% to Total Qty.	Value (Rs. Cr.)	% to Total Value	QTY.MT	% to Total Qty.	Value (Rs. Cr.)	% to Total Value	QTY.MT	% to Total Qty.	Value (Rs. Cr.)	% to Total Value
1	2	3	4	5	6	7	8	9	10	11	12	13
U.S.A.	47190	48.75	1232.8	47.98	40392	45.31	923.6	45.06	48161	49.37	884	49.75
Netherlaand	18668	19.28	502.6	19.56	16069	18.02	380.1	18.55	13915	14.26	254	14.29
U.K.	7016	7.25	195.8	7.62	6416	7.2	148.7	7.25	6849	7.02	125	7.04
Japan	5003	5.17	137.5	5.35	5370	6.02	122	5.95	4166	4.27	78.1	4.4
U.A.E	3200	3.31	84.4	3.28	3688	4.14	83.65	4.08	3273	3.36	61.8	3.48
France	1866	1.93	47.4	1.84	2343	2.63	55.3	2.7	2810	2.88	58.9	3.31
Canada	1547	1.6	41.0	1.60	1463	1.64	32.5	1.59	2370	2.43	35.2	1.98
Soudi Arabia	1093	1.13	29.1	1.13	1630	1.83	37.7	1.84	1609	1.65	28.5	1.61
Ssingapore	1088	1.12	27.7	1.08	1297	1.45	24.2	1.18.	1590	1.63	24.1	1.36
Spain	776	0.8	21.3	0.83	1058	1.19	24.8	1.21	1219	1.25	24.5	1.38
Israel	1088	1.12	31.3	1.22	1205	1.35	29.2	1.43	1167	1.2	24.4	1.37
Italy	986	1.02	26.6	1.04	1106	1.24	26.2	1.28	1143	1.17	21.9	1.23
Germany	560	0.58	15.1	0.59	922	1.03	20	0.98	1138	1.17	17.8	1.00
Australia	1696	1.75	45.9	1.79	762	0.85	17.3	0.84	968	0.99	14.7	0.83
Norway	16	0.02	0.4	0.02	175	0.2	4.2	0.2	586	0.60	9.6	0.54
Hong Kong	652	0.67	18.5	0.72	627	0.7	15.6	0.76	575	0.59	11.5	0.65
Lebanon	270	0.28	7.9	0.31	245	0.27	4.6	0.23	575	0.59	8.9	0.5
Russia	363	0.37	7.4	0.29	352	0.39	5.8	0.28	547	0.56	5.8	0.33
Greece	434	0.45	12.0	0.47	585	0.66	13.9	0.68	522	0.54	9.6	0.54
New Zealand	531	0.55	14.4	0.56	229	0.26	5.5	0.27	411	0.42	6.9	0.39
Kuwait	351	0.36	9.8	0.38	230	0.26	5.7	0.28	376	0.39	7.8	0.44
Bahrain	286	0.30	7.4	0.29	454	0.51	9.5	0.46	287	0.29	4.4	0.25
Korea Rep.	176	0.18	2.2	0.09	80	0.09	2.1	0.1	176	0.18	2.9	0.16
Malaysia	66	0.07	1.7	0.07	111	0.12	2	0.1	132	0.14	1.9	0.11
Chinese Taipei	103	0.11	2.7	0.11	127	0.14	3	0.15	98	0.1	1.6	0.09
Others	1780	1.84	46.6	1.81	2219	2.49	52.6	2.57	2887	2.96	53	2.98
Total	**96805**	**100**	**2569.5**	**100**	**89155**	**100**	**2049.6**	**100**	**97550**	**100**	**1776.7**	**100**

P: Provisional

Source : The Cashew Export Promotion Council of India

Appendix - 13.14

Export of Coir and Coir Products from India during 1997-98 to 2001-02

[Quantity in tonnes, Value in Rs.lakh]

Product Name	1997-98		1998-99		1999-2000		2000-01		2001-02	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Coir Fibre	243.25	27.93	645.76	91.46	809.88	117.15	1053.98	148.17	1010.3	122.15
Coir Yarn	15888.94	4123.65	16538.78	4827.41	13052.58	3738.40	14607.3	4187.5	13206.9	3728.59
Coir Mats	21039.12	12467.03	21943.25	14878.52	26903.24	17181.63	29159.04	18464.59	33963.91	21580.41
Coir Mattings	7106.92	4650.02	6571.28	4729.86	6769.93	4733.60	6734.08	4591.9	4697.31	3147.14
Coir Rugs & Carpets	1956.74	1441.55	2934.37	2300.56	2889.64	2259.62	2720.44	1958.64	1329.97	1039.76
Coir Rope	92.07	24.51	211.2	59.25	286.63	73.41	482.12	145.21	348.64	108.04
Rubberised Coir	287.9	234.12	573.15	427.01	522.88	387.52	385.06	267.24	454.64	350.38
Curled Coir	641.62	80.33	445.13	76.38	657.28	114.57	533.57	80.33	572.53	80.63
Coir Geo Textiles	739.44	313.31	1207.55	546.91	1711.25	808.41	1402.29	625.38	1752.05	780.13
Coir Other Sorts	1098.78	442.69	2204.15	1030.26	925.99	328.29	488.23	164.48	272.91	106.82
Coir Pith	754.99	87.76	2215.39	251.26	6501.59	562.77	9926.97	752.79	13725.65	1014.3
Total	**49849.77**	**23892.90**	**55490.01**	**29218.88**	**61030.89**	**30305.37**	**67493.08**	**31366.23**	**71334.81**	**32058.35**

Source : Coir Board

Appendix - 13.15

Leading Export Market for Coir Products during 2001-02

Sl.No.	Countries	Quantity (M.Tonnes)	Value (Rs.Lakhs)
1	U.S.A.	19414.53	11727.48
2	United Kingdom	6991.39	3941.49
3	Germany	4577.58	2290.46
4	Itlay	5785.38	2283.99
5	Netherlands	12021.57	2214.64
6	France	3357.52	1406.62
7	Australia	2170.16	912.79
8	Belgium	2444.62	1232.01
9	Portugal	667.03	256.43
10	Canada	996.14	620.54
11	Greece	463.54	290.02
12	Irish Republic	96.45	65.54
13	Spain	2609.26	960.47
14	Denmark	271.65	165.53
15	UAE	667.03	256.43
16	Japan	716.11	390.73
17	Sweeden	702.87	453.73
18	Israel	296.33	162.59
19	Saudi Arabia	467.03	162.59
20	New Zealand	330.28	184.04
21	Other Countries	6288.34	2080.23
	Total	**71334.81**	**32058.35**

Source : Coir Board

Appendix 14.1

State wise Financial Assistance Disbursed by NABARD and NCDC during 2001-2002

(Rs.Crore)

Sl.no	States	NABARD	%ToTotal	NCDC	%ToTotal	Grand Total	%ToTotal
1	2	3	4	5	6	7	8
1.	Andhra Pradesh	602.14	9.01	34.02	4.72	636.16	8.59
2.	Assam	48.58	0.73	0.03	0.00	48.61	0.66
3.	Bihar	97.31	1.46	19.77	2.75	117.08	1.58
4.	Gujarat	314.44	4.71	15.11	2.10	329.55	4.45
5.	Haryana	403.66	6.04	11.87	1.65	415.53	5.61
6.	Karnataka	343.25	5.14	67.57	9.38	410.82	5.55
7.	Kerala	373.29	5.59	51.61	7.17	424.90	5.74
8.	Madhya Pradesh	343.91	5.15	9.23	1.28	353.14	4.77
9.	Maharashtra	741.35	11.09	306.76	42.60	1048.11	14 16
10.	Orissa	320.16	4.79	4.27	0.59	324.43	4.38
11.	Punjab	437.42	6.55	0.00	0.00	437.42	5.91
12.	Rajasthan	405.37	6.07	10.39	1.44	415.76	5.62
13.	Tamil Nadu	538.99	8.07	94.62	13.14	633.61	8.56
14.	Uttar Pradesh	1027.44	15.37	6.69	0.93	1034.13	13.97
15.	West Bengal	324.59	4.86	46.95	6.52	371.54	5.02
Total		6321.90	94.60	678.89	94.29	7000.79	94.57
All India	Total	6682.91	100.00	720.02	100.00	7402.93	100.00

Source: Annual Report ,NABARD 2001-2002 /NCDC

Appendix 14.2

State wise Financial Assistance Disbursed by NABARD and NCDC as at the end of March 2002

(Rs.Crore)

Sl.no	States	NABARD	%ToTotal	NCDC	%ToTotal	Grand Total	%ToTotal
1	2	3	4	5	6	7	8
1.	Andhra Pradesh	5948.23	94.09	326.25	48.06	6274.48	89.63
2.	Assam	786.50	12.44	85.95	12.66	872.45	12.46
3.	Bihar	2187.62	34.60	139.60	20.56	2327.22	33.24
4.	Gujarat	3113.16	49.24	201.14	29.63	3314.30	47.34
5.	Haryana	3307.23	52.31	105.43	15.53	3412.66	48.75
6.	Karnataka	4127.26	65.29	500.11	73.67	4627.37	66.10
7.	Kerala	2477.84	39.19	494.30	72.81	2972.14	42.45
8.	Madhya Pradesh	3201.36	50.64	500.34	73.70	3701.70	52.88
9.	Maharashtra	5887.17	93.12	1631.76	240.36	7518.93	107.40
10.	Orissa	1978.59	31.30	120.57	17.76	2099.16	29.98
11.	Punjab	4190.98	66.29	291.42	42.93	4482.40	64.03
12.	Rajasthan	3453.61	54.63	312.71	46.06	3766.32	53.80
13.	Tamil Nadu	4285.33	67.79	485.17	71.47	4770.50	68.14
14.	Uttar Pradesh	8789.48	139.03	587.44	86.53	9376.92	133.94
15.	West Bengal	2200.85	34.81	298.25	43.93	2499.10	35.70
Total		55935.21	884.78	6080.44	895.64	62015.65	885.84
All India	Total	57564.94	910.56	6582.19	969.55	64147.13	916.28

Source: Annual Report 2001-02 NABARD /NCDC.

Appendix 14.3

State -wise Financial Assistance Disbursed by All India Financial Institutions During 1999-2000.

State	IDBI	% to total	IFCI	% to total	ICICI	% to total	UTI	% to total	GIC	% to total	LIC	% to total	NABARD	% to total	NCDC	% to total	Grand Total	% to total
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Andhra Pradesh	1692.6	10.4	303.4	9.3	1275.6	4.9	48	0.9	20.8	2.7	112	2.0	497.7	9.5	16.6	3.6	3966.7	6.4
Assam	29.9	0.2	5.6	0.2	102.1	0.4	0	0.0	0.1	0.0	0.4	0.0	66.2	1.3	6	1.3	210.3	0.3
Bihar	317.4	2.0	2.7	0.1	512.5	2.0	25	0.5	0.0	0.0	5	0.1	175.9	3.4	18	3.9	1056.5	1.7
Gujarat	2457.5	15.2	416.8	12.8	3680	14.2	605	11.9	154.7	20.1	508.1	9.1	320	6.1	23.6	5.1	8165.7	13.1
Haryana	385.2	2.4	46.4	1.4	734.6	2.8	0	0.0	2.0	0.3	0	0.0	296.7	5.7	1.8	0.4	1466.7	2.3
Karnataka	955.6	5.9	177	5.4	2178.7	8.4	45	0.9	21.5	2.8	61	1.1	341.1	6.5	40.9	8.8	3820.8	6 1
Kerala	118	0.7	1.3	0.0	173.2	0.7	20	0.4	0.0	0.0	120	2.1	212.8	4.1	56.1	12.1	701.4	1.1
Madhya Pradesh	659	4.1	101.2	3.1	284.6	1.1	18	0.4	0.0	0.0	69	1.2	242	4.6	47.7	10.3	1421.5	2.3
Maharashtra	3563.5	22.0	1104.2	33.8	6419.3	24.8	245	4.8	427.7	55.7	2718	48.4	498.5	9.6	130.8	28.3	15106.6	24 2
Orissa	202.9	1.3	0	0.0	484.8	1.9	95	1.9	2.0	0.3	23.4	0.4	200.5	3.8	1	0.2	1009.6	1.6
Punjab	560	3.5	99.9	3.1	264.6	1.0	100	2.0	0.0	0.0	29.1	0.5	441.4	8.5	3	0 6	1498.0	2.4
Rajasthan	680.1	4.2	47.6	1.5	278.8	1.1	85	1.7	0.0	0.0	70.3	1.3	386.1	7.4	6.6	1.4	1554.5	2.5
Tamil Nadu	1213.5	7.5	157.4	4.8	1922.4	7.4	141	2.8	22.9	3.0	187.3	3.3	394.2	7.6	12.8	2.8	4051.5	6.5
Uttar Pradesh	814.6	5.0	468.4	14.4	968.1	3.7	5.3	0.1	7.1	0.9	15.4	0.3	773.3	14.8	30.5	6.6	3082.7	4.9
West Bengal	627.7	3.9	97.5	3.0	1733.8	6.7	50	1.0	68.0	8.9	303.9	5.4	193.8	3.7	34.4	7.4	3109 1	5.0
Total	**14277.5**	**88.1**	**3029.4**	**92.9**	**21013.1**	**81.3**	**1482.3**	**29.2**	**726.8**	**94.7**	**4223**	**75.2**	**5040.2**	**96.6**	**429.8**	**92.8**	**50221.6**	**80.4**
All India Total	**16211.5**	**100.0**	**3262.3**	**100.0**	**25835.7**	**100.0**	**5069.9**	**100.0**	**767.8**	**100.0**	**5611**	**100.0**	**5215.3**	**100.0**	**463**	**100.0**	**62436.9**	**100.0**

Source: Report on Development Banking 1999-'00.

Appendix 14.4

State-wise Financial Assistance Disbursed by All India Financial Institutions During 2000-2001.

(Rs.Crore)

Sl.no	States	IDBI	%To Total	IFCI	%To Total	ICICI	%To Total	UTI	%To Total	GIC	%To Total	LIC	%To Total	NABARD	%To Total	NCDC	%To Total	Grand Total	%To Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1.Andhra Pradesh		1473.7	8.8	490.7	23.1	842.3	2.6	2.5	0.1	12.1	2.8	196.4	2.8	620.0	10.1	20.8	3.2	3658.5	5.2
2.Assam		32.7	0.2	8.1	0.4	122.9	0.4	15.0	0.3			0.4	0.0	76.1	1.2	0.0105	0.0	255.3	0.4
3.Bihar		29.2	0.2	4.7	0.2	58.0	0.2							191.1	3.1	5.0	0.8	288 0	0.4
4.Gujarat		844.1	5.0	186.1	8.8	2324.6	7.3	174.0	3.8	34.8	8.0	423.4	6.0	310.8	5.0	5.9	0.9	4303.7	6.2
5. Haryana		615.7	3.7	24.8	1.2	818.8	2.6	2.6	0.1	6.0	1.4	10.0	0.1	374.9	6.1	2.1	0.3	1854.9	2.7
6.Karnataka		1545.1	9.2	143.2	6.8	1969.5	6.2	381.0	8.3	22.8	5.3	296.4	4.2	392.4	6.4	83.7	12.9	4834.1	6.9
7.Kerala		177.0	1.1	20.0	0.9	104.5	0.3					210.0	3.0	236.7	3.8	69.0	10.7	817.2	1.2
8.Madhya Pradesh		357.3	2.1	33.3	1.6	461.6	1.4			8.5	2.0	20.0	0.3	322.2	5.2	36.6	5.6	1239 5	1.8
9.Maharashtra		4218.0	25.2	288.5	13.6	8996.5	28.1	5.8	0.1	295	67.8	3919.1	55.3	616.0	10 0	230.5	35.6	18568.9	26.6
10.Orissa		204.6	1.2	38.1	1.8	531.1	1.7			4.7	1.1	29.7	0.4	265.9	4.3	2.0	0.3	1076.1	1 5
11.Punjab		803.1	4.8	27.9	1.3	637.0	2.0	2.6	0.1			90.6	1.3	451.4	7.3	80.3	12.4	2092.9	3.0
12.Rajasthan		636.0	3.8	5.0	0.2	630.3	2.0	10.0	0.2			80.3	1.1	423.1	6.9	9.1	1.4	1793.8	2.6
13.Tamil Nadu		1201.2	7.2	94.2	4.4	2135.6	6.7	15.0	0.3	22.1	5.1	386.9	5.5	464.1	7.5	23.6	3.6	4342 7	6.2
14.Uttar Pradesh		617.9	3.7	81.6	3.8	1485.3	4.6	9.1	0.2	7.3	1.7	39.9	0.6	926.0	15.0	10.9	1.7	3178.0	4.6
15.West Bengal		849.2	5.1	184.6	8.7	2040.4	6.4			5.5	1.3	265.4	3.7	251.1	4.1	39.6	6.1	3635.8	5 2
Total		**13605**	**81.4**	**1631**	**76.9**	**23158**	**72.5**	**617.6**	**13.4**	**418**	**96.4**	**5968.5**	**84.2**	**5921.7**	**96.2**	**619.1**	**95.6**	**51939.2**	**74.5**
All India Total		**16724**	**100.0**	**2121**	**100.0**	**31965**	**100.0**	**4592**	**100.0**	**434**	**100.0**	**7090.0**	**100.0**	**6158.1**	**100.0**	**647.8**	**100.0**	**69731.0**	**100.0**

Source : Report on Development Banking 2000-01 /NCDC / Annual Report NABARD.

Appendix 14.5

State wise Financial Assistance Disbursed by all India Financial Institutions as at the end of March 2000.

(Rs.Crore)

State	IDBI	% to total	IFCI	% 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
Andhra Pradesh	11967.4	9.2	2952.4	7.6	6876.1	6.0	517	1.3	995.3	3.8	4729.1	10.6	271.4	5.4	28308.7	7.1
Assam	582.3	0.4	297.1	0.8	417.8	0.4	35.2	0.1	32.4	0.1	661.7	1.5	85.9	1.7	2112.4	0.5
Bihar	2055.2	1.6	240	0.6	2111.6	1.8	189.5	0.5	355.7	1.4	1899.2	4.2	114.8	2.3	6966	1.7
Gujarat	19948.6	15.4	6252.7	16.0	19650	17.2	2537.1	6.4	2554.9	9.8	2487.9	5.6	180.2	3.6	53611.7	13.5
Haryana	3427.2	2.6	1085.6	2.8	2631.7	2.3	76.8	0.2	82.3	0.3	2528.7	5.7	91.4	1.8	9923.7	2.5
Karnataka	8900.4	6.9	2358.7	6.0	7883.7	6.9	618	1.6	695.3	2.7	3391.7	7.6	348.8	7.0	24196.6	6.1
Kerala	2112.8	1.6	324	0.8	951.7	0.8	56.3	0.1	259.8	1.0	1867.9	4.2	373.6	7.5	5946.1	1.5
Madhya Pradesh	7160.3	5.5	2691.3	6.9	3686.2	3.2	364.3	0.9	355.2	1.4	2535.3	5.7	454.5	9.1	17247.1	4.3
Maharashtra	24227.2	18.7	6964.2	17.9	33575	29.4	6526.1	16.4	11096.7	42.6	4529.8	10.1	1094.5	21.9	88013.8	22.1
Orissa	2638.4	2.0	881.8	2.3	1444.8	1.3	188.7	0.5	294	1.1	1392.6	3.1	114.3	2.3	6954.6	1.7
Punjab	3585.1	2.8	1974.5	5.1	1284.9	1.1	211.3	0.5	142.4	0.5	3302.2	7.4	211.1	4.2	10711.5	2.7
Rajasthan	6514.2	5.0	1695.4	4.3	3368.6	2.9	288.6	0.7	335.7	1.3	2625.1	5.9	293.2	5.9	15120.8	3.8
Tamil Nadu	11940.5	9.2	3143	8.1	9644.7	8.4	664.8	1.7	890.6	3.4	3282.2	7.3	366.9	7.3	29932.7	7.5
Uttar Pradesh	10102.9	7.8	4450	11.4	5408.3	4.7	847.7	2.1	553.1	2.1	6836.1	15.3	569.8	11.4	28767.9	7.2
West Bengal	5587.7	4.3	1301.3	3.3	5843	5.1	489.5	1.2	1155.7	4.4	1625.1	3.6	211.7	4.2	16214	4.1
Total	**120750**	**93.0**	**36612**	**93.9**	**104779**	**91.8**	**13610.9**	**34.3**	**19799.1**	**76.0**	**43694.6**	**97.7**	**4782.1**	**95.5**	**344027.6**	**86.3**
All India Total	**129824**	**100.0**	**39004.2**	**100.0**	**114199**	**100.0**	**39727.4**	**100.0**	**26053.7**	**100.0**	**44723.9**	**100.0**	**5007.8**	**100.0**	**398539.4**	**100.0**

Source: Report on Development Banking 1999-2000

Appendix 14.6

State wise Financial Assistance Disbursed by All India Financial Institutions as at the end of March 2001.

States	IDBI	%To total	IFCI	%To total	ICICI	%To total	UTI	%To total	LIC	%To total	NABARD	%To total	NCDC	%To total	Grant Total	%To total
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1.Andhra Pradesh	13299	9.1	3444.0	8.4	7718.4	5.3	519.6	1.2	1191.8	3.6	5346.1	10.5	29223.3	5.0	60741.8	5.8
2.Assam	615.0	0.4	305.6	0.7	540.7	0.4	50.2	0.1	32.8	0.1	737.9	1.5	8593.4	1.5	10875.6	1.0
3.Bihar	1056.1	0.7	103.8	0.3	427.9	0.3	189.5	0.4	355.7	1.1	2090.3	4.1	11983.3	2.0	16206.6	1.5
4.Gujarat	20890	14.3	6440.2	15.7	21979	15.0	2711.1	6.1	2978.3	9.0	2798.7	5.5	18603.3	3.2	76399.7	7.3
5. Haryana	59.4	0.0	1112.3	2.7	3430.5	2.3	79.4	0.2	92.4	0.3	2903.6	5.7	9356.4	1.6	17034.0	1.6
6.Karnataka	10507	7.2	2502.2	6.1	9853.2	6.7	999.0	2.3	991.7	3.0	3784.0	7.4	43253.7	7.4	71890.4	6.9
7.Kerala	2287.6	1.6	344.0	0.8	1056.2	0.7	56.3	0.1	469.8	1.4	2104.6	4.1	44268.4	7.6	50586.9	4.8
8.Madhya Pradesh	6721.5	4.6	2112.0	5.1	3699.9	2.5	364.3	0.8	375.3	1.1	2857.5	5.6	49111.2	8.4	65241.7	6.2
9.Maharashtra	28281	19.3	7257.7	17.6	42562	29.1	6531.9	14.7	15016	45.3	5145.8	10.1	132499.7	22.6	237294.0	22.6
10.Orissa	2858.5	2.0	920.0	2.2	1975.9	1.4	188.7	0.4	323.7	1.0	1658.4	3.3	11629.5	2.0	19554.7	1.9
11.Punjab	4415.8	3.0	2002.3	4.9	1912.8	1.3	213.9	0.5	233.0	0.7	3753.6	7.4	29141.6	5.0	41673.0	4.0
12.Rajasthan	7175.0	4.9	1700.4	4.1	3999.0	2.7	298.6	0.7	416.0	1.3	3048.2	6.0	30231.8	5.2	46869.0	4.5
13.Tamil Nadu	13206	9.0	3237.3	7.9	11780	8.1	679.8	1.5	1277.5	3.9	3746.3	7.4	39054.4	6.7	72981.9	7.0
14.Uttar Pradesh	10432	7.1	4351.1	10.6	6653.7	4.6	856.8	1.9	593.1	1.8	7762.0	15.3	58074.3	9.9	88722.9	8.5
15.West Bengal	6430.5	4.4	1485.9	3.6	7883.4	5.4	489.5	1.1	1421.1	4.3	1876.3	3.7	25129.5	4.3	44716.2	4.3
Total	**128234**	**87.5**	**37318.8**	**90.7**	**125472**	**85.8**	**14229**	**32.1**	**25768**	**77.7**	**49613.2**	**97.5**	**540163.8**	**92.1**	**920788.3**	**87.8**
All India Total	**146539**	**100.0**	**41129.8**	**100.0**	**146167**	**100.0**	**44319**	**100.0**	**33144**	**100.0**	**50882.0**	**100.0**	**586217.0**	**100.0**	**1048397.6**	**100.0**

Source: Report on Development Banking-2000-01 / NCDC Report 2000-01 / NABARD Annual Report 2000-01

Appendix 14.5

State wise Financial Assistance Disbursed by all India Financial Institutions as at the end of March 2000.

(Rs.Crore)

State	IDBI	% to total	IFCI	% 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
Andhra Pradesh	11967.4	9.2	2952.4	7.6	6876.1	6.0	517	1.3	995.3	3.8	4729.1	10.6	271.4	5.4	28308.7	7.1
Assam	582.3	0.4	297.1	0.8	417.8	0.4	35.2	0.1	32.4	0.1	661.7	1.5	85.9	1.7	2112.4	0.5
Bihar	2055.2	1.6	240	0.6	2111.6	1.8	189.5	0.5	355.7	1.4	1899.2	4.2	114.8	2.3	6966	1.7
Gujarat	19948.6	15.4	6252.7	16.0	19650	17.2	2537.1	6.4	2554.9	9.8	2487.9	5.6	180.2	3.6	53611.7	13.5
Haryana	3427.2	2.6	1085.6	2.8	2631.7	2.3	76.8	0.2	82.3	0.3	2528.7	5.7	91.4	1.8	9923.7	2.5
Karnataka	8900.4	6.9	2358.7	6.0	7883.7	6.9	618	1.6	695.3	2.7	3391.7	7.6	348.8	7.0	24196.6	6.1
Kerala	2112.8	1.6	324	0.8	951.7	0.8	56.3	0.1	259.8	1.0	1867.9	4.2	373.6	7.5	5946.1	1.5
Madhya Pradesh	7160.3	5.5	2691.3	6.9	3686.2	3.2	364.3	0.9	355.2	1.4	2535.3	5.7	454.5	9.1	17247.1	4.3
Maharashtra	24227.2	18.7	6964.2	17.9	33575	29.4	6526.1	16.4	11096.7	42.6	4529.8	10.1	1094.5	21.9	88013.8	22.1
Orissa	2638.4	2.0	881.8	2.3	1444.8	1.3	188.7	0.5	294	1.1	1392.6	3.1	114.3	2.3	6954.6	1.7
Punjab	3585.1	2.8	1974.5	5.1	1284.9	1.1	211.3	0.5	142.4	0.5	3302.2	7.4	211.1	4.2	10711.5	2.7
Rajasthan	6514.2	5.0	1695.4	4.3	3368.6	2.9	288.6	0.7	335.7	1.3	2625.1	5.9	293.2	5.9	15120.8	3.8
Tamil Nadu	11940.5	9.2	3143	8.1	9644.7	8.4	664.8	1.7	890.6	3.4	3282.2	7.3	366.9	7.3	29932.7	7.5
Uttar Pradesh	10102.9	7.8	4450	11.4	5408.3	4.7	847.7	2.1	553.1	2.1	6836.1	15.3	569.8	11.4	28767.9	7.2
West Bengal	5587.7	4.3	1301.3	3.3	5843	5.1	489.5	1.2	1155.7	4.4	1625.1	3.6	211.7	4.2	16214	4.1
Total	**120750**	**93.0**	**36612**	**93.9**	**104779**	**91.8**	**13610.9**	**34.3**	**19799.1**	**76.0**	**43694.6**	**97.7**	**4782.1**	**95.5**	**344027.6**	**86.3**
All India Total	**129824**	**100.0**	**39004.2**	**100.0**	**114199**	**100.0**	**39727.4**	**100.0**	**26053.7**	**100.0**	**44723.9**	**100.0**	**5007.8**	**100.0**	**398539.4**	**100.0**

Source: Report on Development Banking 1999-2000

Appendix 14.6

State wise Financial Assistance Disbursed by All India Financial Institutions as at the end of March 2001.

States	IDBI	%To total	IFCI	%To total	ICICI	%To total	UTI	%To total	LIC	%To total	NABARD	%To total	NCDC	%To total	Grant Total	%To total
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1.Andhra Pradesh	13299	9.1	3444.0	8.4	7718.4	5.3	519.6	1.2	1191.8	3.6	5346.1	10.5	29223.3	5.0	60741.8	5.8
2.Assam	615.0	0.4	305.6	0.7	540.7	0.4	50.2	0.1	32.8	0.1	737.9	1.5	8593.4	1.5	10875.6	1.0
3.Bihar	1056.1	0.7	103.8	0.3	427.9	0.3	189.5	0.4	355.7	1.1	2090.3	4.1	11983.3	2.0	16206.6	1.5
4.Gujarat	20890	14.3	6440.2	15.7	21979	15.0	2711.1	6.1	2978.3	9.0	2798.7	5.5	18603.3	3.2	76399.7	7.3
5. Haryana	59.4	0.0	1112.3	2.7	3430.5	2.3	79.4	0.2	92.4	0.3	2903.6	5.7	9356.4	1.6	17034.0	1.6
6.Karnataka	10507	7.2	2502.2	6.1	9853.2	6.7	999.0	2.3	991.7	3.0	3784.0	7.4	43253.7	7.4	71890.4	6.9
7.Kerala	2287.6	1.6	344.0	0.8	1056.2	0.7	56.3	0.1	469.8	1.4	2104.6	4.1	44268.4	7.6	50586.9	4.8
8.Madhya Pradesh	6721.5	4.6	2112.0	5.1	3699.9	2.5	364.3	0.8	375.3	1.1	2857.5	5.6	49111.2	8.4	65241.7	6.2
9.Maharashtra	28281	19.3	7257.7	17.6	42562	29.1	6531.9	14.7	15016	45.3	5145.8	10.1	132499.7	22.6	237294.0	22.6
10.Orissa	2858.5	2.0	920.0	2.2	1975.9	1.4	188.7	0.4	323.7	1.0	1658.4	3.3	11629.5	2.0	19554.7	1.9
11.Punjab	4415.8	3.0	2002.3	4.9	1912.8	1.3	213.9	0.5	233.0	0.7	3753.6	7.4	29141.6	5.0	41673.0	4.0
12.Rajasthan	7175.0	4.9	1700.4	4.1	3999.0	2.7	298.6	0.7	416.0	1.3	3048.2	6.0	30231.8	5.2	46869.0	4.5
13.Tamil Nadu	13206	9.0	3237.3	7.9	11780	8.1	679.8	1.5	1277.5	3.9	3746.3	7.4	39054.4	6.7	72981.9	7.0
14.Uttar Pradesh	10432	7.1	4351.1	10.6	6653.7	4.6	856.8	1.9	593.1	1.8	7762.0	15.3	58074.3	9.9	88722.9	8.5
15.West Bengal	6430.5	4.4	1485.9	3.6	7883.4	5.4	489.5	1.1	1421.1	4.3	1876.3	3.7	25129.5	4.3	44716.2	4.3
Total	**128234**	**87.5**	**37318.8**	**90.7**	**125472**	**85.8**	**14229**	**32.1**	**25768**	**77.7**	**49613.2**	**97.5**	**540163.8**	**92.1**	**920788.3**	**87.8**
All India Total	**146539**	**100.0**	**41129.8**	**100.0**	**146167**	**100.0**	**44319**	**100.0**	**33144**	**100.0**	**50882.0**	**100.0**	**586217.0**	**100.0**	**1048397.6**	**100.0**

Source: Report on Development Banking-2000-01 / NCDC Report 2000-01 / NABARD Annual Report 2000-01

Appendix 14.7

State-wise Percapita Assistance Disbursed by All India Financial Institutions During 1998-99 to 2000-2001.

(Amount.Rs)

	IDBI			IFCI			ICICI			LIC			UTI			GIC			TOTAL		
States	1998-99	1999-'00	2000-'01	1998-99	1999-'00	2000-'01	1998-99	1999-'00	2000-'01	1998-99	1999-'00	2000-'01	1998-99	1999-'00	2000-'01	1998-99	1999-'00	2000-'01	1998-99	1999-'00	2000-'01
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1 Andhra Pradesh	167.2	224.7	194 6	44 3	40.3	64 8	86 4	169 3	111 2	37 0	14 9	25.9		6 4	0 3	1 7	2.8	1 6	336 6	458.4	398 4
2.Assam	8.6	11 1	12.3	2 3	2 1	3 0	9 5	37 9	46 1		0 1	0.1			5.6				20 4	51 2	67 1
3 Bihar	13 5	30.6	3 5	0 8	0.3	0 6	45 3	49.4	7 0		0.5			2 4					59 6	83 2	11.1
4.Gujarat	512.4	530.6	186.8	152.7	90 0	36 8	679 9	794 5	459 4	37 1	109 7	83 7	31 0	130 6	34.4	26.7	33 4	6.9	1439 8	1688.8	788.0
5. Haryana	186 9	205.6	2842 0	60 6	24.7	11 7	267 4	392 1	388 4	15.7		4.7			1.2	7.2	1.1	2 8	517.8	623.5	3250.8
6 Karnataka	257.1	187 2	293 0	95 4	34.7	27 2	218 6	426 7	373 5	11 6	11 9	56.2		8 8	72.3	7.9	4 2	4 3	590 6	673.5	826 5
7 Kerala	54.2	36 1	55 6	14 8	0 4	6 3	36 9	53 0	32 8	18 8	36 7	66.0	3 4	6 1		0 1			128 2	132 3	160 7
8 Madhya Pradesh	99 7	86 2	59.2	65.6	13 2	5 5	72 7	37 2	76 4	1 0	9 0	2 5		2 4				1 0	239 0	148 0	144 6
9 Maharashtra	304 7	396 5	436 0	92 4	122 9	29 8	824 6	714 3	929 9	330 9	302 4	405.1		27.3	0.6	36 0	47 6	30 4	1588 6	1611 0	1831 8
10 Orissa	65.6	56.1	55 7	48 8		10 4	108.3	134 2	144 7	30 3	6 5	8 1	9 6	26.3		0.3	0 6	1 3	262 9	223 7	220 2
11.Punjab	221 5	250.7	330.6	91.6	44 7	11 5	88 8	118.5	262 2	2 7	13.0	37.3	2.0	44 8	1 1				406 6	471 7	642 7
12.Rajasthan	161.4	125.5	112.6	29.5	8.8	0 9	42.7	51.4	111.6	1 3	13 0	14 2	1.7	15.7	1.8	0 3			236 9	214 4	241 1
13 Tamil Nadu	229.0	196.3	193.4	69.3	25.5	15.2	240.3	311 0	343.8	6	30 3	62 3		22.8	2.4	2 7	3 7	3 6	547 3	589 6	620 7
14 Uttar Pradesh	51 3	49.1	37.2	17 1	28 2	4 9	27.4	58.4	89.4	1 8	0 9	2.3		0.3	0.5	3 4	0.4	0 4	101 0	137 3	134 7
15.West Bengal	87.4	87.4	105.9	17.5	12 6	23 0	191 4	224.1	254.3	18 7	39 3	33.1		6.5		12 2	12 2	0 7	327 2	382 1	417 0
All India Total	148.1	165.0	162 8	49 1	32.2	20 7	198.6	263 0	311.2	49 8	57.1	69.0	35.5	51.6	44.7	7.5	7 8	4 2	488 6	576 7	612 6

Source : Report on Development Banking in India, 2000-01

Appendix 14.8

State wise distribution of commercial bank branches and population per bank office.

States	Number of Banks as at the end of						Percentage to total number of offices					
	Jun-69	Mar-01	Mar-02	Jun-00	Jun-01	Jun-02	Jun-69	Mar-01	Mar-02	Jun-00	Jun-01	Jun-02
1	2	3	4	5	6	7	8	9	10	11	12	13
1.Andhra Pradesh	567	5149	5208	5112	5171	5207	6.9	7.8	7.9	7.8	7.8	7.8
2.Assam	74	1239	1232	1234	1237	1223	0.9	1.9	1.9	1.9	1.9	1.8
3.Bihar	273	3562	3565	5008	3561	3564	3.3	5.4	5.4	7.6	5.4	5.4
4.Gujarat	852	3672	3648	3642	3670	3657	10.3	5.6	5.5	5.6	5.6	5.5
5.Haryana	172	1508	1549	1494	1516	1551	2.1	2.3	2.3	2.3	2.3	2.3
6.Karnataka	756	4758	4776	4720	4761	4779	9.2	7.2	7.2	7.2	7.2	7.2
7.Kerala	601	3279	3315	3255	3298	3334	7.3	5.0	5.0	5.0	5.0	5.0
8.Madhya Pradesh	343	3449	3451	4497	3456	3458	4.2	5.2	5.2	6.9	5.2	5.2
9.Maharashtra	1118	6275	6306	6224	6294	6320	13.5	9.5	9.5	9.5	9.5	9.5
10.Orissa	100	2212	2226	2218	2220	2227	1.2	3.4	3.4	3.4	3.4	3.4
11.Punjab	346	2523	2559	2508	2534	2573	4.2	3.8	3.9	3.8	3.8	3.9
12.Rajasthan	364	3316	3329	3321	3323	3336	4.4	5.0	5.0	5.1	5.0	5.0
13.Tamil Nadu	1060	4776	4751	4767	4785	4748	12.8	7.2	7.2	7.3	7.2	7.2
14.Uttar Pradesh	747	8096	8178	8909	8155	8169	9.0	12.3	12.3	13.6	12.3	12.3
15.West Bengal	504	4407	4429	4394	4424	4430	6.1	6.7	6.7	6.7	6.7	6.7
TOTAL	**7877**	**58221**	**58522**	**61303**	**58405**	**58576**	**95.3**	**88.3**	**88.3**	**93.4**	**88.3**	**88.3**
All India Total	**8262**	**65908**	**66276**	**65621**	**66119**	**66355**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

(Appendix 14.8 Contd.....)

Average population per bank branch(in ' 000s) as at the end of

States	Jun-69	Mar-01	Mar-02	Jun-00	Jun-01	Jun-02
1	14	15	16	17	18	19
1.Andhra Pradesh	74	NA	NA	15	15	15
2.Assam	193	NA	NA	21	22	22
3.Bihar	207	NA	NA	20	21	21
4.Gujarat	34	NA	NA	13	13	14
5.Haryana	97	NA	NA	13	13	13
6.Karnataka	37	NA	NA	11	11	11
7.Kerala	34	NA	NA	10	10	10
8.Madhya Pradesh	116	NA	NA	18	18	18
9.Maharashtra	43	NA	NA	15	15	15
10.Orissa	211	NA	NA	16	16	16
11.Punjab	42	NA	NA	9	9	9
12.Rajasthan	68	NA	NA	16	17	17
13.Tamil Nadu	37	NA	NA	13	13	13
14.Uttar Pradesh	114	NA	NA	19	20	20
15.West Bengal	85	NA	NA	18	18	18
TOTAL						
All India Total	**65**	**NA**	**NA**	**15**	**15**	**16**

Source; Report on Currency & Finance 1997-98 Vol .II / Economic Survey 2000 / Banking Statistics Qyarterly Handout (various issues) /Rreport on Trend & Progress of Banking in India 2001-02.

4/10/2003—24

Appendix 14.9

District-wise Distribution of Number of branches , aggregate deposits, gross bank credit and CD ratio of Scheduled Commercial Banks in Kerala - June 2002

(Rs. Lakh)

State/ District	Public sector banks				Regional Rural Banks				All Scheduled Commercial Banks			
	Offices	Deposit	Credit	C-D Ratio	Offices	Deposit	Credit	C-D Ratio	Offices	Deposit	Credit	C-D Ratio
1	2	3	4	5	6	7	8	9	10	11	12	13
1.Alappuzha	133	255538	88168	34.5					217	385951	123778	32.1
2.Kannur	107	228175	59557	26.1	75	24800	22319	90.0	214	292092	102908	35.2
3.E rnakulam	294	498150	347719	69.8	7	2082	240	11.5	488	892798	537872	60.2
4.Idukki	66	36592	28543	78.0					98	52584	45493	86.5
5.Kasaragod	60	73369	22501	30.7	48	13393	14598	109.0	125	96075	45096	46.9
6.Kollam	129	226809	109460	48.3					188	324768	154036	47.4
7.Kottayam	159	261437	107317	41.0	8	1670	167	10.0	271	407687	155211	38.1
8.Kozhikode	118	188399	81777	43.4	68	23117	24229	104.8	254	274213	154765	56.4
9.Malappuram	81	179528	34398	19.2	80	27906	26686	95.6	214	262526	82644	31.5
10.Palakkad	132	179290	74030	41.3	14	2257	1975	87.5	257	247111	107901	43.7
11.Pathanamthitta	135	386357	56675	14.7					225	577053	87786	15.2
12.Thiruvananthapura	258	546656	299821	54.8					344	791077	371284	46.9
13.Thrissur	152	347081	95760	27.6	16	4163	2187	52.5	366	670563	189307	28.2
14.Wayanad	35	15303	24254	158.5	28	4617	14560	315.4	73	24617	43965	178.6

Source: Banking Statistics Quarterly Handout June 2002 (RBI)

Appendix - 14.10
Banking Statistics of Kerala – 1990-2002.

(Rs.Crore)

	State Bank Group				Other Nationalised Banks				Gramin Banks			
Ending March	Total Deposit	Of which NRE Deposits	Total Advance	CD Ratio	Total Deposit	Of which NRE Deposits	Total Advance	CD Ratio	Total Deposit	Of which NRE Deposits	Total Advance	CD Ratio
1	2	3	4	5	6	7	8	9	10	11	12	13
1990	2406.71	800.3	1551.12	64.45	2718.06	832.34	1595.29	58.69	87.74	Nil	179.83	204.96
1991	2854.66	949.58	1797.91	62.98	3205.41	997.48	1749.2	54.57	109.78	Nil	195.81	178.37
1992	3410.27	1196.69	1850.95	54.28	3865.81	1262.86	1830.93	47.36	142.3	Nil	213.37	149.94
1993	4285.29	1779.54	2146.1	50.08	4743.08	1815.06	2064.89	43.53	171.56	Nil	232.16	135.32
1994	5312.22	2369.6	2404.91	45.27	5753.17	2418.4	2126.1	36.96	211.59	Nil	262.75	124.18
1995	6154.52	2696.96	2934.99	47.69	6516.3	2806.37	2387.69	36.64	260.7	Nil	313.9	120.41
1996	6935.66	3059.13	3135.42	45.21	7261.92	3140.39	2890.17	39.8	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	4131.4	46.08	9728.35	4763.39	4084.84	41.99	404.99	Nil	515.73	127.34
1999	10498.17	5299.59	4670	44.48	10141.59	4491.7	4082.02	40.25	510.72	Nil	613.52	120.13
2000	12617.34	6755.85	5580.48	44.23	13536.21	6708.45	5192.63	38.36	649	Nil	755.89	116.47
2001	14663.45	7588.28	6508.93	44.39	15175.61	7786.79	5868.13	38.67	796.85	21.53	967.16	121.37
2002	16894.74	8874.44	7660.15	45.34	17080.96	8032.07	6973.01	40.82	1000.14	70.36	1086.68	108.65
2002Sept	17811.47	9427.06	7937.47	44.56	17900.28	8761.3	7356	41.09	1144.67	96.76	1139.8	99.57

(Appendix - 14.10 Contd....)

Ending March	Total Public Sector Banks				Private Banks			
	Total Deposit	Of which NRE Deposits	Total Advance	CD Ratio	Total Deposit	Of which NRE Deposits	Total Advance	CD Ratio
1	14	15	16	17	18	19	20	21
1990	5212.51	1632.64	3326.24	63.81	1407.58	286.09	791.92	56.26
1991	6169.85	1947.06	3742.92	60.66	1687.81	357.29	895.27	53.04
1992	7418.38	2459.55	3895.25	52.51	2252.55	579.33	1107.71	49 18
1993	9199.93	3594.6	4443.15	48.3	2912.31	904.31	1374.84	47.21
1994	11276.98	4788	4793.76	42.51	3664.17	1226.63	1647.79	44.97
1995	12931.52	5503.33	5636.58	43.59	4526.39	1382.71	2159.94	47 72
1996	14460.97	6199.52	6377.3	44.1	5710.33	1903.88	2583.61	45.24
1997	16452.17	7521.76	7306.32	44.41	6576.22	2434.92	3175.5	48 29
1998	19098.77	9074.17	8731.97	45.72	8065.02	3385.64	3542.4	43.92
1999	21150.48	9791.29	9365.54	44.28	9914.39	3204.45	4107.97	41 43
2000	26802.55	13464.3	11529	43.01	11442.39	4948.17	4312.79	37.69
2001	30635.91	15396.6	13344.22	43.56	13848.15	5791.53	5741.5	41.46
2002	34975.84	16976.87	15719.84	44.94	16302.23	7329.28	6248 91	38 33
2002Sept	36856.42	18285.12	16433.27	44.59	17346.21	7489.23	7146.73	41.2

(Appendix - 14.10 Contd....)

Ending March	Foreign Banks				Grand Total			
	Total Deposit	Of which NRE Deposits	Total Advance	CD Ratio	Total Deposit	Of which NRE Deposits	Total Advance	CD Ratio
1	22	23	24	25	26	27	28	29
1990	39.47	14.19	68.97	174.74	6659.56	1932.92	4187.13	62.87
1991	77.12	12.25	77.15	100.04	7934.78	2316.6	4715.34	59.43
1992	115.82	77.12	90.43	78.08	9786.75	3116	5093.39	52.04
1993	149.2	100.48	42.52	28.5	12261.44	4599.39	5860.51	47.8
1994	197.19	137.73	43.31	21.96	15138.34	6152.36	6484.86	42 84
1995	236.39	157.67	46.04	19.48	17694.3	7043.71	7842.56	44.32
1996	247.66	152.93	45.75	18.47	20418.96	8256.33	9006.66	44.11
1997	324.48	221.41	83.28	25.67	23352.87	10178.09	10565.1	45.24
1998	408.27	275.17	89.87	22.01	27572.06	12734.98	12364.24	44.84
1999	466.97	332.79	103.16	22.09	31531.84	13328.53	13576.67	43.06
2000	373.9	311.14	99.07	26.5	38618.84	18723.61	15940.86	41.28
2001	366.09	242.7	94.55	25.83	44850.15	21430.83	19180.27	42.77
2002	377.71	227.56	93.19	24.67	51655.78	24533.71	22061.94	42.71
2002Sept	382.02	226.99	112.7	29.5	54584.65	26001.34	23692.7	43.41

Source:Banking Statistics of Kerala, Reported by State Level Bankers' Committee.

Appendix - 14.11

Details of Agency wise Broad Sector wise Flow of Ground Level Credit (GLC)

(Rs. Crore)

No.	Praticulars- Agency/ Type of loans	2000-01 Target	2000-01 Ach.	2000-01 % of Ach.	2001-02 Target	2001-02 Ach.	2001-02 % of Ach.	Projected Target for Current Year 2002-03.
1	2	3	4	5	6	7	8	9
1	Crop Loan							
	CBs	736.51	1136.94	154.37%	862.53	1126.77	130.64	981.99
	SCB/CCBs	722.52	777.83	107.66%	863.70	793.96	91.93	1013.63
	SCARDB	0.00	1.21		1.59	3.65	229.56	0.35
	RRBs	280.67	395.90	141.06%	355.84	385.84	108.43	420.92
	Other Agences	0.00	0.12		0.00	0.65		0.34
	Sub Total	1739.70	2312.00	132.90%	2083.96	2310.96	110.89	2417.23
2	Term Loan(MT+LT)							
	CBs	838.19	399.07	47.61	368.51	336.00	91.18	394.85
	SCB/CCBs	623.39	62.50	10.03	177.39	64.09	36.13	198.30
	SCARDB	179.83	106.99	59.50	165.55	123.61	74.67	170.93
	RRBs	179.74	25.91	14.42	32.34	26.68	82.50	33.31
	Other Agences	0.00	0.00		0.00	0.00		0.00
	Sub Total	1821.14	594.47	32.64	743.79	550.38	74.00	797.39
3	Total Agricultural Credit(1+2)							
	CBs	1574.70	1536.01	97.54	1231.04	1462.77	118.82	1376.84
	SCB/CCBs	1345.91	840.33	62.44	1041.09	858.05	82.42	1211.93
	SCARDB	179.83	108.20	60.17	167.14	127.26	76.14	171.28
	RRBs	460.41	421.81	91.62	388.18	412.61	106.29	454.23
	Other Agences	0.00	0.00		,0.00	0.00		0.34
	Total Agricultural Credit(	3560.85	2906.35	81.62	2827.45	2860.69	101.18	3214.62
4	Non Farm Sector @							
	CBs	789.53	1083.68	137.26	808.75	1416.18	175.11	968.89
	SCB/CCBs	115.45	41.01	35.52	102.63	63.04	61.42	143.29
	SCARDB	75.96	56.43	74.29	89.63	63.01	70.30	86.11
	RRBs	27.60	17.42	63.12	34.35	18.71	54.47	33.77
	Other Agences	154.19	76.98	49.93	166.62	65.47	39.29	187.86
	Sub Total	1162.73	1275.52	109.70	1201.98	1626.41	135.31	1419.92
5	Other Priority Sector							
	CBs	1334.58	1595.73	119.57	1659.02	2002.10	120.68	2050.24
	SCB/CCBs	1084.29	1058.17	97.59	1401.94	1348.76	96.21	1717.95
	SCARDB	156.32	95.15	60.87	155.34	97.34	62.66	130.71
	RRBs	251.84	243.86	96.83	320.80	253.29	78.96	344.66
	Other Agences	81.35	71.35	87.71	92.30	54.02	58.53	101.83
	Sub Total	2908.38	3064.26	105.36	3629.40	3755.51	103.47	4345.39
	Grand Total (3+4+5)	7631.96	7246.13	94.94	7658.83	8242.41	107.62	8979.93

Source: Potential Linked Credit Plan ,State Focus Paper 2003-04 , NABARD.

Appendix - 14.12

District wise / Sector wise PLP Projections / SAP Targets /GLC (SAP) achievements during 2000-01 to 2002-03 .

Sl .No.	Sector / Sub -Sector- Other Priority Sector.									(Rs. Lakh)
	District	2000-01			2001-02			2002-03(Estimate)		
		PLP projections (Financial)	SAP target	SAP ach.	PLP projections(Financial)	SAP target	SAP ach.	PLP projections(Financial)	SAP target	SAP ach.
1	Thiruvananthapuram	24039.96	23735.77	35763.21	30843.05	29505.63	36868.66	43469.22	39771.49	43469.22
2	Kollam	18480.00	22715.49	20462.35	22520.00	31876.83	30655.81	28637.60	35633.79	25280.00
3	Alappuzha	14330.17	12516.84	13132.09	18924.00	16120.37	19970.75	24064.00	22030.69	23,820.26
4	Pathanamthitta	12608.21	28279.27	29087.57	15657.51	31054.11	14373.25	21200.00	19631.59	19200.00
5	Idukki	7927.80	11114.86	11135.44	11311.08	14375.06	15016.95	15793.91	16634.83	15300.00
6	Kottayam	25115.00	29526.00	27534.00	33290.00	36518.82	32169.68	38400.00	40527.37	36000.00
7	Ernakulam	44656.00	33578.67	36383.83	54509.00	42454.43	62005.89	59400.00	57566.87	50000.00
8	Thrissur	22227.00	23543.47	30581.96	33940.00	29959.63	35761.22	40724 00	37630.54	40724.00
9	Palakkad	17106.20	17626.93	21760.74	21188.20	22818.08	21416.39	26100.00	25353.64	22500.00
10	Malappuram	13600.00	18125.85	18952.38	21102.50	21913.74	21954.60	24550.00	26478.78	22932.36
11	Kozhikode	18900.00	17312.59	14540.38	22650.00	21547.84	17395.07	22650.00	23241.72	15262.00
12	Wayanad	3131.33	8770.02	30383.95	6445.07	31205.87	6769.27	7247.75	8738.82	6378.33
13	Kannur	40275.00	48565.97	47089.67	45769.00	59423.21	51642.69	66040.00	67010.50	64000.00
14	Kasaragod	3305.00	10372.57	10332.00	12646.02	12006.73	9552.35	14051.64	14288.50	11632.68
	Total	265701.67	305784.3	347139.57	350795.43	400780.35	375552.58	432328.12	434539.13	396498.85

source :Potential Linkded Credit Plan ,State Focus Paper 2003-04; NABARD.

Appendix - 14.13

Sub-Sector-wise Details of Ground Level Credit (GLC) disbursements under Agriculture and Allied Activities by all Agencies During 2000-2001 to 2002-03

(Rs. Lakh)

Sl. No	Particulars Agencies/Activities	2000-2001					2001-2002					2002-2003 -Lim-Sanctioned/ Allocations				
I	ST Production Credit - Crop Loan	CBs	Coops	RRBs	Other Agencies	Total	CBs	Coops	RRBs	Other Agencies	Total	CBs	Coops	RRBs	Other Agencies	Total
II	Term loans (MT+LT)-Agri. & Allied	113693.72	77903.36	39589.67	12.20	231198 95	112677.07	79761.82	38593.05	65.26	231097.20	98198.58	101398.14	42092.03	34 00	241722 75
	b MI	1395 20	3066.92	166.41	0 80	4629.33	910.77	3359 65	68 91	0.00	4339.33	3807 67	6465 54	741 80	0.00	11015.01
	c LD	4048.41	3453.16	175.00	66 75	7743.32	3753.31	3896.23	126.18	0.00	7775.72	3435 49	5567.55	443 14	0.00	9446.18
	d FM	1372.37	253.04	113.13	0 00	1738.54	864.11	220.73	58.77	0.00	1143.61	4543 73	1392 67	275.90	0 00	6212 30
	e P & H	19566.22	6183.74	1643.61	0.00	27393.57	15874.58	7201.78	1724.55	0.00	24800.91	12281.98	12333.29	836.09	0.00	25451.36
	f DD	3161.16	1920.95	191.38	6.39	5279.88	3,189.46	1658.57	183.91	0.00	5031 94	7579 04	6262.41	530 26	0 00	14371 71
	g Poultry	446.41	585.82	14.57	0.00	1046.80	231.98	498.84	12.62	0.00	743.44	924.61	1413 82	85 08	0 00	2423 51
	h S/G/P	335 10	297.68	29.01	0.00	661 79	741.53	264.09	20.76	0.00	1026.38	767 82	1294.50	78 71	0.00	2141 03
	I Fisheries	2340.61	296.63	60.10	0.00	2697.34	1556.56	646 97	74.54	0.00	2278.07	3260 86	974.69	204.54	0.00	4440 09
	j F/W/D	718.31	284.82	41.29	54.60	1099.02	221 83	346.28	249.43	0.00	817.54	15.40	171.15	12.00	0.00	198 55
	k SMY	163.94	59.04	51.66	0.00	274.64	126.06	43.76	37.75	0.00	207.57	533.72	274 15	63.60	0.00	871 47
	l BG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0 00
	m Sericulture	0 00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Others (please specify)	6359.76	546.39	105.11	0.00	7011.26	6130.13	633.80	110.76	0.00	6874.69	2335.11	774.17	59.68	0.00	3168.96
	Sub-Total	39907.49	16948.19	2591.27	128.54	59575.49	33600.32	18770.70	2668.18	0.00	55039.20	39485.43	36923.94	3330.80	0.00	79740.17
III	Total Agricultural Credit (I+II)	153601.21	94851.55	42180.94	140.74	290774.44	146277.39	98532.52	41261.23	65.26	286136.40	137684.01	138322.08	45422.83	34.00	321462.92
IV	Non Farm Sector	108367.32	9744.27	1741.53	7697.62	127550.74	141618.18	12604.01	1870.80	6546.85	162639.84	96889.27	22939.94	3376.94	18786.10	141992.25
	Other Priority Sectors	159573.09	115331.75	24385.86	7135.01	306425.71	200210.48	144610.18	25329.45	5402.47	375552.58	205024.18	184865.79	34465.91	10183.25	434539 13
	GRAND TOTAL (I+II+III+IV)	421541.62	219927.57	68308.33	14973.37	724750.89	488106.05	255746.71	68461.48	12014.58	824328.82	439597.46	346127.81	83265.68	29003 35	897994.30

Source: Potential Linked Credit Plan- Stata Focus Paper Kerala-2003-2004 ,Prepared by NABARD.

Appendix 16.1

Selected Physical Achievements of Local Governments in Annual Plan 1997-98 (State Total)

Sl. No.	Items	Units	GE	SCP	TSP	Total
1	Additional area under cultivation (Gross)	Acre	96515	8051	5510	110076
2	Beneficiaries of seeds/ fertilizers/pesticides	No	1660971	136802	12835	1810608
3	Tillers/Tractors supplied	,,	1828	320	161	2309
4	Cattles distributed	,,	108974	55563	4015	168552
5	Poultry distributed	,,	1076080	237831	14414	1328325
6	Cattle sheds	,,	16151	3939	254	20344
7	Sewing machines	,,	26802	12750	344	39896
8	Persons trained	,,	14269	5888	404	20561
9	House sites allotted	,,	1041	3291	197	4529
10	Houses constructed	,,	26755	24631	3324	54710
11	Houses repaired	,,	18470	24318	1867	44655
12	Toilets constructed	,,	97015	35598	3497	136110
13	Houses wired	,,	17933	19892	1637	39462
14	Wells dug	,,	18180	6407	344	24931
15	Water taps installed	,,	7314	1691	251	9256
16	Ponds desilted	,,	8392	163	80	8635
17	Pump-sets supplied	,,	14709	2086	178	16973
18	Roads Constructed	,,	4879	1084	209	6172
19	Length of roads	KM	3641	873	230	4744
20	Culverts constructed	No	880	75	34	989
21	Bridges constructed	,,	312	109	31	452
22	Co-operative formed	,,	1406	50	14	1470
23	New schools built (area)	M.sq	23729	862	3112	27703
24	Hospital buildings (area)	M.sq	24154	1063	550	25767
25	Offices built (area)	M.sq	23403	357	130	23890
26	Marketing complexes built (area)	M.sq	6261	0	7	6268

Appendix 16.2

Selected Physical Achievements of Local Governments in Annual Plan 1998-99 (State Total)

Sl. No.	Items	Units	GE	SCP	TSP	Total
1	Additional area under cultivation (Gross)	Acre	85924	6914	3076	95914
2	Beneficiaries of seeds/ fertilizers/pesticides	No	862656	70769	13991	947416
3	Tillers/Tractors supplied	,,	1127	107	62	1296
4	Cattles distributed	,,	45619	23930	5088	74637
5	Poultry distributed	,,	269790	50179	7844	327813
6	Cattle sheds	,,	25456	5051	560	31067
7	Sewing machines	,,	7182	2545	333	10060
8	Persons trained	,,	22290	6962	590	29842
9	House sites allotted	,,	1316	2675	175	4166
10	Houses constructed	,,	48677	28355	4707	81739
11	Houses repaired	,,	18512	11424	2577	32513
12	Toilets constructed	,,	106358	26231	3356	135945
13	Houses wired	,,	22803	13427	1967	38197
14	Wells dug	,,	22811	7069	793	30673
15	Water taps installed	,,	8071	2153	437	10661
16	Ponds desilted	,,	12870	254	89	13213
17	Pump-sets supplied	,,	19582	2718	351	22651
18	Roads Constructed	,,	6886	1315	203	8404
19	Length of roads	KM	5061	881	931	6873
20	Culverts constructed	No	1313	109	38	1460
21	Bridges constructed	,,	772	45	17	834
22	Co-operative formed	,,	1057	156	15	1228
23	New schools built (area)	M.sq	34076	414	629	35119
24	Hospital buildings (area)	M.sq	29307	157	1282	30746
25	Offices built (area)	M.sq	47804	1605	951	50360
26	Marketing complexes built (area)	M.sq	14666	5880	0	20546

Appendix 16.3

Selected Physical Achievements of Local Governments in Annual Plan 1999-2000 (State Total)

Sl. No.	Items	Units	GE	SCP	TSP	Total
1	Additional area under cultivation (Gross)	Acre	101601	5618	2673	109892
2	Beneficiaries of seeds/ fertilizers/pesticides	No	744744	53983	15913	814640
3	Tillers/Tractors supplied	,,	810	16	0	826
4	Cattles distributed	,,	22667	7299	1417	31383
5	Poultry distributed	,,	186689	22643	2047	211379
6	Cattle sheds	,,	20412	2580	233	23225
7	Sewing machines	,,	2992	469	55	3516
8	Persons trained	,,	27202	6953	359	34514
9	House sites allotted	,,	1948	4113	343	6404
10	Houses constructed	,,	113683	50052	6102	169837
11	Houses repaired	,,	22892	15769	2190	40851
12	Toilets constructed	,,	119293	19112	2714	141119
13	Houses wired	,,	21266	7819	973	30058
14	Wells dug	,,	25315	6161	511	31987
15	Water taps installed	,,	9555	2588	443	12586
16	Ponds desilted	,,	5363	186	46	5595
17	Pump-sets supplied	,,	17753	1496	338	19587
18	Roads Constructed	,,	7858	1267	253	9378
19	Length of roads	KM	4532	786	253	5571
20	Culverts constructed	No	1373	130	58	1561
21	Bridges constructed	,,	381	46	13	440
22	Co-operative formed	,,	958	134	14	1106
23	New schools built (area)	M.sq	29916	390	421	30727
24	Hospital buildings (area)	M.sq	33052	147	310	33509
25	Offices built (area)	M.sq	35828	1109	613	37550
26	Marketing complexes built (area)	M.sq	29403	111	1	29515

Appendix 16.4

Selected Physical Achievements of Local Governments in Annual Plan 2000-01 (State Total)

Sl. No.	Items	Units	GE	SCP	TSP	Total
1	Additional area under cultivation (Gross)	Acre	111639	5764	2152	119555
2	Beneficiaries of seeds/ fertilizers/pesticides	No	711436	71711	7279	790426
3	Tillers/Tractors supplied	,,	1538	100	2	1640
4	Cattles distributed	,,	20034	3641	465	24140
5	Poultry distributed	,,	154268	8068	402	162738
6	Cattle sheds	,,	13976	4168	188	18332
7	Sewing machines	,,	2606	453	100	3159
8	Persons trained	,,	24739	11229	1420	37388
9	House sites allotted	,,	110034	43294	4954	158282
10	Houses constructed	,,	2920	5450	527	8897
11	Houses repaired	,,	18431	16004	1530	35965
12	Toilets constructed	,,	70999	11708	1304	84011
13	Houses wired	,,	17469	8816	1883	28168
14	Wells dug	,,	17464	4358	429	22251
15	Water taps installed	,,	11912	3494	368	15774
16	Ponds desilted	,,	2008	181	73	2262
17	Pump-sets supplied	,,	13188	923	174	14285
18	Roads Constructed	,,	8163	932	241	9336
19	Length of roads	KM	48252	1245	899	50396
20	Culverts constructed	No	1737	116	55	1908
21	Bridges constructed	,,	825	33	11	869
22	Co-operative formed	,,	2394	693	425	3512
23	New schools built (area)	M.sq	38147	321	90	38558
24	Hospital buildings (area)	M.sq	23208	1500	0	24708
25	Offices built (area)	M.sq	92451	385	2	92838
26	Marketing complexes built (area)	M.sq	40568	1501	1	42070

Appendix 16. 5
Selected Physical Achievements of Local Governments in Annual Plan 2001-02
(State Total)

Sl. No.	Items	Units	GE	SCP	TSP	Total
1	Additional area under cultivation (Gross)	Acre	112586	3994	582	117162
2	Beneficiaries of seeds/ fertilizers/ pesticides	No	883862	105823	3705	993390
3	Tillers/Tractors supplied	,,	68668	408	1	69077
4	Cattles distributed	,,	18682	5870	502	25054
5	Poultry distributed	,,	101599	21105	225	122929
6	Cattle sheds	,,	11477	1677	159	13313
7	Sewing machines	,,	3094	1422	83	4599
8	Persons trained	,,	39020	12546	527	52093
9	House sites allotted	,,	2603	4906	342	7851
10	Houses constructed	,,	74008	29201	2805	106014
11	Houses repaired	,,	14753	16711	956	32420
12	Toilets constructed	,,	55867	16986	1107	73960
13	Houses wired	,,	15423	9162	1135	25720
14	Wells dug	,,	14038	4645	350	19033
15	Water taps installed	,,	44263	4938	415	49616
16	Ponds desilted	,,	4387	163	15	4565
17	Pump-sets supplied	,,	10872	756	277	11905
18	Roads Constructed	,,	13108	2081	256	15445
19	Length of roads	KM	102738	13459	1332	117529
20	Culverts constructed	No	6199	110	44	6353
21	Bridges constructed	,,	1740	36	12	1788
22	Co-operative formed	,,	0	0	0	0
23	New schools built (area)	M.sq	48055	221	297	48573
24	Hospital buildings (area)	M.sq	23854	26	2061	25941
25	Offices built (area)	M.sq	43796	658	63	44517
26	Marketing complexes built (area)	M.sq	34233	825	22	35080
27	Assistance to the removal of diseased coconut	No	894715	7648	1655	904018
28	Layer Chick Units	No	9227	1050	1	10278
29	Broiler Units	No	206	50	1	257
30	Fresh water fish farming (farm)	hect.	620	102	0	722
31	Newly started industrial units	No	3081	560	49	3690
32	Newly inducted industrial labourers	No	13178	2499	117	15794
33	Smokeless chulahs	No	3825	2537	343	6705
34	Assistance to Co-operative Societies	No	1647	102	19	1768
35	Anganwadi building	No	1714	60	12	1786
36	Land acquired (area)	Acre	1003	41	25	1069
37	Instruments given to physically and mentally challenged peoples	No	20	0	0	20
38	Cretches, Walker etc.	No	30	1	0	31
39	Wheel chair, Try cycle, Motorized three wheelers	No	93	2	0	95
40	Hearing aids	No	30	0	0	30
41	Braillie insturments, study materials etc.	No	11864	20	0	11884

Appendix 16.6

PERFORMANCE OF LOCAL GOVERNMENTS IN ANNUAL PLAN 2001-2002
Plan Expenditure (Provisional)

(Rs Crore)

Sl No	Local Government	Total Amount Available				Expenditure (as on 31.03.2002)				Closing Balance			
		General	SCP	TSP	Total	General	SCP	TSP	Total	General	SCP	TSP	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1	Grama Panchayats	416.20	114.92	8.01	539.13	284.14	53.17	3.68	340.99	132.06	61.75	4.33	198.14
2	Block Panchayats	83.46	44.43	4.22	132.11	60.01	19.88	2.30	82.18	23.45	24.55	1.92	49.92
3	District Panchayats	85.07	44.25	7.06	136.39	45.97	17.08	3.66	66.72	39.10	27.17	3.40	69.67
4	Municipalities	66.71	12.41	0.28	79.40	43.00	4.41	0.07	47.48	23.72	8.00	0.20	31.92
5	Corporations	48.50	11.07	0.02	59.59	27.72	2.18	0.00	29.90	20.78	8.89	0.02	29.69
	Total	**699.94**	**227.08**	**19.59**	**946.62**	**460.84**	**96.72**	**9.71**	**567.27**	**239.11**	**130.36**	**9.87**	**379.34**
Percentage of Expenditure						65.83	45.59	49.56	59.92				

Appendix 16.7

PERFORMANCE OF LOCAL GOVERNMENTS IN ANNUAL PLAN 2001-2002
Sources of Funds and Expenditure (Provisional)

(Rs Crore)

Sl. No	*Item*	*Plan Grant*	*Own Fund*	*State Sponsored*	*Centrally Sponsored*	*Loan*		*Voluntary Contribut-ions*	*Beneficiary Contribution*	*Others*	*Total*
						Financial Institution	*Co-operatives*				
Grama Panchayats											
	Sources of Funds	539.13	460.11	53.90	75.37	0.71	2.48	5.81	37.65	21.75	1196.91
	Expenditure	340.99	62.70	44.68	33.95	0.77	2.30	5.12	33.72	10.23	534.46
Block Panchayats											
	Sources of Funds	132.11	0.08	17.48	121.68	2.15	25.78	0.55	1.34	4.75	305.90
	Expenditure	82.18	0.06	9.61	68.83	2.25	23.95	0.57	1.28	3.01	191.73
District Panchayats											
	Sources of Funds	136.39	0.08	30.14	25.95	0.00	0.07	4.06	0.30	4.89	201.88
	Expenditure	66.72	0.08	20.95	8.25	0.05	0.07	0.22	0.66	4.56	101.56
Municipalities											
	Sources of Funds	79.40	15.56	10.95	9.79	0.06	1.60	0.29	3.71	1.66	123.01
	Expenditure	47.48	11.20	4.57	5.71	0.05	1.23	0.27	3.89	1.82	76.21
Corporations											
	Sources of Funds	59.59	13.63	3.36	7.48	0.00	0.28	0.00	0.02	0.00	84.35
	Expenditure	29.90	9.42	2.02	6.37	0.00	0.09	0.02	5.39	0.01	53.21
Total											
	Sources of Funds	**946.62**	**489.46**	**115.83**	**240.67**	**2.92**	**30.21**	**10.71**	**43.02**	**33.05**	**1912.05**
	Expenditure	**567.27**	**83.46**	**81.83**	**123.11**	**3.12**	**27.64**	**6.20**	**44.94**	**19.63**	**957.17**
Percentage of Expenditure		59.92	17.05	70.64	51.15	106.84	91.49	57.88	104.46	59.39	50.05

Appendix 16.8

PERFORMANCE OF LOCAL GOVERNMENTS IN ANNUAL PLAN 2001-2002
Sector wise Allocation and Expenditure of Plan Grant (Provisional)

(Rs Crore)

Sl. No	Local Government	Productive Sector				Service Sector				Infrastructure Sector				Total			
		General	SCP	TSP	Total	General	SCP	TSP	Total	General	SCP	TSP	Total	General	SCP	TSP	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
1	Grama Panchayats																
	a. Plan Fund	213.08	17.27	2.50	232.85	177.54	89.65	11.01	278.20	99.04	27.72	5.35	132.11	489.66	134.64	18.86	643.16
	b.Expenditure	95.42	3.58	0.55	99.55	102.55	30.09	3.67	136.31	57.48	9.72	0.86	68.06	255.45	43.39	5.09	303.32
2	Block Panchayats																
	a. Plan Fund	41.29	8.32	1.49	51.10	41.81	35.23	6.61	83.65	21.35	9.98	2.18	33.51	104.46	53.53	10.28	168.26
	b.Expenditure	17.32	2.13	0.32	19.77	24.08	13.14	1.39	38.61	12.49	4.25	0.45	17.19	53.89	19.51	2.16	75.57
3	District Panchayats																
	a. Plan Fund	39.14	7.73	3.33	50.20	39.48	31.79	6.06	77.33	21.01	10.33	2.85	34.19	99.36	49.84	12.24	161.72
	b.Expenditure	37.71	2.30	0.58	40.59	17.41	9.98	1.86	29.25	15.47	4.77	1.12	21.36	70.59	17.05	3.56	91.20
4	Municipalities																
	a. Plan Fund	15.84	1.31	0.01	17.16	31.02	10.30	0.49	41.81	22.48	2.29	0.21	24.98	69.35	13.91	0.71	83.95
	b.Expenditure	4.19	0.34	0.00	4.53	17.89	3.36	0.06	21.31	17.72	0.78	0.01	18.51	39.80	4.47	0.07	44.35
5	Corporations																
	a. Plan Fund	11.31	0.81	0.00	12.12	23.89	9.34	0.02	33.25	27.33	4.85	0.00	32.18	62.53	15.00	0.02	77.55
	b.Expenditure	2.06	0.07	0.00	2.13	7.65	1.62	0.00	9.27	15.45	0.26	0.00	15.71	25.16	1.94	0.00	27.11
	Total																
	a. Plan Fund	320.66	35.44	7.33	363.43	313.74	176.31	24.19	514.24	191.21	55.17	10.59	256.97	825.36	266.92	42.11	1134.64
	b.Expenditure	156.70	8.42	1.45	166.57	169.58	58.19	6.98	234.75	118.61	19.78	2.44	140.83	444.89	86.36	10.88	541.55
Percentage to total Expenditure					30.66				43.34				26.00				100.00

Appendix 16.9

PERFORMANCE OF LOCAL GOVERNMENTS IN ANNUAL PLAN 2001-2002

Allocation and Expenditure of Plan Grant for Housing, Drinking Water and Women Component Plan (Provisional)

(Rs Crore)

Sl. No	Local Governments	Allocation				Expenditure			
		Productive Sector	Service Sector	Infrastructure	Total	Productive Sector	Service Sector	Infrastructure	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
				HOUSING					
1	Grama Panchayats	2.66	98.98	0.37	102.01	1.23	49.86	0.15	51.25
2	Block Panchayats	0.27	30.15	0.63	31.06	0.03	13.37	0.11	13.52
3	District Panchayats	0.62	21.38	2.33	24.33	0.48	8.68	0.00	9.16
4	Municipalities	0.89	12.23	0.00	13.13	0.00	5.99	0.00	5.99
5	Corporations	0.10	8.67	0.00	8.78	0.07	2.36	0.00	2.44
	Total	**4.54**	**171.41**	**3.33**	**179.31**	**1.81**	**80.26**	**0.26**	**82.36**
				DRINKING WATER					
1	Grama Panchayats	1.13	35.77	0.21	37.10	0.46	12.58	0.02	13.06
2	Block Panchayats	0.15	12.27	0.20	12.62	0.03	3.64	0.08	3.75
3	District Panchayats	0.96	8.75	0.50	10.21	0.24	3.62	0.00	3.87
4	Municipalities	0.17	3.60	0.00	3.77	0.01	1.88	0.00	1.89
5	Corporations	0.00	2.44	0.00	2.44	0.00	0.46	0.00	0.46
	Total	**2.41**	**62.83**	**0.91**	**66.14**	**0.74**	**22.18**	**0.10**	**23.03**
				WOMEN COMPONENT PLAN					
1	Grama Panchayats	40.28	47.00	1.20	88.48	10.23	14.95	0.31	25.49
2	Block Panchayats	8.64	11.95	0.42	21.01	2.24	3.83	0.16	6.23
3	District Panchayats	6.58	11.84	1.54	19.96	2.17	4.20	0.00	6.37
4	Municipalities	3.60	6.39	0.39	10.38	0.81	2.37	0.00	3.17
5	Corporations	4.37	2.65	0.40	7.43	0.23	0.33	0.00	0.56
	Total	**63.47**	**79.83**	**3.95**	**147.26**	**15.68**	**25.68**	**0.47**	**41.82**

Appendix 16.10

PERFORMANCE OF LOCAL GOVERNMENTS IN ANNUAL PLAN 2001-2002
Details of Deposit Works (Provisional)

(Amount in Rs Crore)

Sl. No.	*Agency*	*Number of Projects Entrusted for Execution*	*Amount of Deposit*	*Outstanding Balance as on 31.3.2002*
	Grama Panchayats			
1	Kerala State Electricity Board	1094	7.92	6.75
2	Kerala State Housing Board	15	0.87	0.64
3	Kerala Water Authority	118	1.94	1.45
4	Others	1181	8.66	7.56
	Sub Total	2408	19.40	16.40
	Block Panchayats			
1	Kerala State Electricity Board	252	2.01	1.19
2	Kerala State Housing Board	2	0.12	0.12
3	Kerala Water Authority	31	0.34	0.39
4	Others	240	1.84	1.56
	Sub Total	525	4.30	3.25
	District Panchayats			
1	Kerala State Electricity Board	34	1.18	1.17
2	Kerala State Housing Board			
3	Kerala Water Authority	4	0.40	0.40
4	Others	80	3.38	3.29
	Sub Total	118	4.96	4.85
	Municipalities			
1	Kerala State Electricity Board	100	1.31	1.03
2	Kerala State Housing Board			
3	Kerala Water Authority	17	0.78	0.60
4	Others	31	0.91	0.71
	Sub Total	148	3.00	2.34
	Corporations			
1	Kerala State Electricity Board	20	0.90	0.50
2	Kerala State Housing Board			
3	Kerala Water Authority			
4	Others	10	0.55	0.54
	Sub Total	30	1.45	1.04
	All Local Governments			
1	Kerala State Electricity Board	1500	13.32	10.64
2	Kerala State Housing Board	17	0.99	0.76
3	Kerala Water Authority	170	3.46	2.84
4	Others	1542	15.34	13.66
	Grant Total	**3229**	**33.11**	**27.88**

Appendix 16.11

PERFORMANCE OF LOCAL GOVERNMENTS IN ANNUAL PLAN 2001-2002

Agency wise details of Projects for which Plan Grant was given as advance (Provisional)

(Rs Lakh)

Sl. No	*Local Governments*	*Parent Teacher Association*	*Padasekhara Samiti*	*Kera Vikasana Samiti*	*Community Development Society*	*Area Development Society*	*Nirmiti Kendra*	*Costford*	*Habitat*	*Socio-Economic Unit*	*Ooralunkal Labour Society*	*Kunnathukal Labour Society*	*Others*	*Total*
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(14)
	Number of Projects Entrusted for Execution													
1	Grama Panchayats	15	1	14	72	17	37	11	3	3	23	63	13596	13855
2	Block Panchayats	2	1		6	1	3	1	2		1	6	2943	2966
3	District Panchayats	1		2	2	5	2	1		1	1	2	532	549
4	Municipalities	3					1	1					658	663
5	Corporations												194	194
	Total	**21**	**2**	**16**	**80**	**23**	**43**	**14**	**5**	**4**	**25**	**71**	**17923**	**18227**
	Total Amount of Advance													
1	Grama Panchayats	2.40	0.04	5.16	16.29	2.51	6.57	8.37	0.85	0.68	6.05	16.47	3165.55	3230.93
2	Block Panchayats	0.66	0.05		2.62	0.26	1.12	0.13	0.24		0.25	11.35	1149.67	1166.34
3	District Panchayats	0.95		1.77	2.00	5.30	1.37	0.50		1.00	1.00	2.00	557.01	572.90
4	Municipalities	1.50					1.00	1.00					211.22	214.72
5	Corporations												95.79	95.79
	Total	**6.26**	**0.09**	**6.93**	**20.91**	**8.07**	**10.06**	**10.00**	**1.09**	**1.68**	**7.30**	**29.82**	**5179.24**	**5280.68**

Appendix 16.12

PERFORMANCE OF LOCAL GOVERNMENTS IN NINTH PLAN (1997-2002)

Year wise Receipts of Plan Grant (Provisional)

(Rs Crore)

Sl. No	Local Government	Carry Over Amount				Plan Grant Received				Total Plan Grant			
		General	SCP	TSP	Total	General	SCP	TSP	Total	General	SCP	TSP	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
						1997-1998							
1	Grama Panchayats	0.00	0.00	0.00	0.00	301.56	105.40	9.26	416.22	301.56	105.40	9.26	416.22
2	Block Panchayats	0.00	0.00	0.00	0.00	64.69	35.97	5.71	106.36	64.69	35.97	5.71	106.36
3	District Panchayats	0.00	0.00	0.00	0.00	65.59	35.49	22.85	123.94	65.59	35.49	22.85	123.94
4	Municipalities	0.00	0.00	0.00	0.00	46.43	13.71	0.61	60.75	46.43	13.71	0.61	60.75
5	Corporations	0.00	0.00	0.00	0.00	34.44	6.07	0.25	40.75	34.44	6.07	0.25	40.75
	Total	**0.00**	**0.00**	**0.00**	**0.00**	**512.71**	**196.64**	**38.68**	**748.02**	**512.71**	**196.64**	**38.68**	**748.02**
						1998-1999							
1	Grama Panchayats	15.66	7.82	0.96	24.44	392.31	106.47	14.96	513.74	407.98	114.29	15.92	538.19
2	Block Panchayats	4.49	3.17	0.70	8.35	86.83	36.43	5.62	128.89	91.32	39.60	6.32	137.24
3	District Panchayats	5.94	1.86	1.45	9.25	89.98	35.87	15.21	141.06	95.92	37.74	16.66	150.31
4	Municipalities	1.41	0.64	0.08	2.13	63.60	9.77	0.53	73.91	65.00	10.42	0.62	76.03
5	Corporations	1.41	0.40	0.11	1.92	44.60	6.05	0.19	50.83	46.01	6.45	0.30	52.76
	Total	**28.91**	**13.89**	**3.30**	**46.09**	**677.32**	**194.59**	**36.51**	**908.43**	**706.23**	**208.50**	**39.82**	**954.53**
						1999-2000							
1	Grama Panchayats	147.71	87.85	8.05	243.61	391.68	86.11	14.55	492.34	539.39	173.96	22.60	735.95
2	Block Panchayats	33.99	17.36	3.63	54.97	85.11	31.69	6.01	122.82	199.10	49.05	9.64	257.79
3	District Panchayats	37.44	18.22	8.13	63.79	71.48	29.36	10.65	111.48	108.92	47.58	18.77	175.27
4	Municipalities	21.34	3.88	0.36	25.57	63.18	9.35	0.24	72.78	84.52	13.23	0.60	98.35
5	Corporations	13.08	2.75	0.14	15.96	44.21	5.79	0.00	50.00	57.29	8.54	0.14	65.97
	Total	**253.56**	**130.06**	**20.31**	**403.90**	**655.66**	**162.30**	**31.45**	**849.42**	**989.22**	**292.36**	**51.75**	**1333.33**
						2000-2001							
1	Grama Panchayats	102.94	34.81	6.32	144.08	340.88	79.64	13.52	434.04	443.82	114.45	19.84	578.12
2	Block Panchayats	24.70	15.19	3.66	43.54	81.06	30.24	6.52	117.82	105.75	45.43	10.18	161.36
3	District Panchayats	19.54	11.64	4.92	36.10	115.89	29.96	10.10	155.95	135.43	41.60	15.02	192.05
4	Municipalities	15.72	3.82	0.22	19.76	54.35	7.82	0.20	62.37	70.07	11.64	0.41	82.13
5	Corporations	10.47	3.17	0.03	13.67	42.38	6.50	0.00	48.88	52.85	9.67	0.03	62.55
	Total	**173.37**	**68.63**	**15.15**	**257.15**	**634.56**	**154.16**	**30.34**	**819.06**	**807.92**	**222.79**	**45.48**	**1076.21**
						2001-2002							
1	Grama Panchayats	99.09	52.17	7.51	158.76	287.03	65.67	0.00	352.70	386.12	117.84	7.51	511.47
2	Block Panchayats	20.76	19.18	2.97	42.91	98.41	27.02	0.00	125.43	119.17	46.20	2.97	168.34
3	District Panchayats	24.00	19.56	7.06	50.62	61.76	24.69	0.00	86.45	85.76	44.25	7.06	137.08
4	Municipalities	13.52	5.17	0.27	18.96	48.55	7.86	0.00	56.41	62.07	13.03	0.27	75.37
5	Corporations	8.33	5.10	0.02	13.46	39.89	6.24	0.00	46.14	48.23	11.35	0.02	59.59
	Total	**165.70**	**101.18**	**17.83**	**284.71**	**535.64**	**131.48**	**0.00**	**667.13**	**701.35**	**232.67**	**17.83**	**951.85**

PERFORMANCE OF LOCAL GOVERNMENTS IN NINTH PLAN (1997-2002)

Year wise Expenditure of Plan Grant (Provisional)

(Rs Crore)

Sl. No	Local Government	Total Plan Grant				Expenditure of Plan Grant				Closing Balance of Plan Grant			
		General	SCP	TSP	Total	General	SCP	TSP	Total	General	SCP	TSP	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
						1997-1998							
1	Grama Panchayats	301.56	105.40	9.26	416.22	289.09	98.26	7.57	394.91	12.47	7.14	9.26	21.31
2	Block Panchayats	64.69	35.97	5.71	106.36	60.08	37.63	9.20	106.91	4.61	-1.67	5.71	-0.54
3	District Panchayats	65.59	35.49	22.85	123.94	60.06	33.69	21.42	115.17	5.53	1.81	1.43	8.77
4	Municipalities	46.43	13.71	0.61	60.75	56.09	11.08	0.53	67.71	-9.66	2.62	0.61	-6.96
5	Corporations	34.44	6.07	0.25	40.75	32.99	6.79	0.14	39.92	1.45	-0.72	0.25	0.83
	Total	**512.71**	**196.64**	**38.68**	**748.02**	**498.31**	**187.45**	**38.86**	**724.62**	**14.40**	**9.18**	**17.26**	**23.41**
						1998-1999							
1	Grama Panchayats	407.98	114.29	15.92	538.19	302.01	68.31	8.06	378.38	105.97	45.99	15.92	167.88
2	Block Panchayats	91.32	39.60	6.32	137.24	56.89	21.65	3.64	82.19	34.42	17.95	6.32	58.69
3	District Panchayats	95.92	37.74	16.66	150.31	57.99	19.51	8.43	85.94	37.93	18.22	16.66	72.81
4	Municipalities	65.00	10.42	0.62	76.03	45.10	6.47	0.25	51.82	19.90	3.94	0.62	24.46
5	Corporations	46.01	6.45	0.30	52.76	32.93	3.70	0.16	36.79	13.08	2.75	0.30	16.13
	Total	**706.23**	**208.50**	**39.82**	**954.53**	**494.92**	**119.64**	**20.54**	**635.12**	**211.30**	**88.85**	**39.82**	**339.97**
						1999-2000							
1	Grama Panchayats	539.39	173.96	22.60	735.95	428.12	100.90	15.39	544.41	111.27	73.06	22.60	206.93
2	Block Panchayats	199.10	49.05	9.64	257.79	95.55	39.01	6.09	134.64	23.55	16.05	9.64	49.24
3	District Panchayats	108.92	47.58	18.77	175.27	89.44	35.94	13.85	139.23	19.48	11.64	18.77	49.89
4	Municipalities	84.52	13.23	0.60	98.35	69.89	9.54	0.40	79.83	14.62	3.68	0.60	18.90
5	Corporations	57.29	8.54	0.14	65.97	47.07	5.37	0.08	52.52	10.23	3.17	0.14	13.54
	Total	**989.22**	**292.36**	**51.75**	**1333.33**	**730.07**	**184.76**	**35.81**	**950.63**	**179.15**	**107.60**	**51.75**	**338.50**
						2000-2001							
1	Grama Panchayats	443.82	114.45	19.84	578.12	379.33	73.27	12.45	465.05	64.49	41.19	19.84	125.52
2	Block Panchayats	105.75	45.43	10.18	161.36	74.69	26.27	7.38	108.33	31.07	19.16	10.18	60.41
3	District Panchayats	135.43	41.60	15.02	192.05	63.96	22.04	7.97	93.96	71.47	19.56	15.02	106.03
4	Municipalities	70.07	11.64	0.41	82.13	59.38	6.81	0.13	66.12	10.69	5.03	0.41	16.13
5	Corporations	52.85	9.67	0.03	62.55	44.52	4.57	0.01	49.10	8.33	5.10	0.03	13.46
	Total	**807.92**	**222.79**	**45.48**	**1076.21**	**621.88**	**132.76**	**27.94**	**782.56**	**186.05**	**90.04**	**45.48**	**321.57**
						2001-2002							
1	Grama Panchayats	386.12	117.84	7.51	511.47	224.22	42.41	3.36	269.99	161.90	75.43	7.51	244.84
2	Block Panchayats	119.17	46.20	2.97	168.34	50.74	21.34	1.76	73.83	68.44	24.86	2.97	96.27
3	District Panchayats	85.76	44.25	7.06	137.08	45.97	17.08	3.66	66.72	39.79	27.17	7.06	74.02
4	Municipalities	62.07	13.03	0.27	75.37	42.98	4.37	0.07	47.42	19.09	8.66	0.27	28.02
5	Corporations	48.23	11.35	0.02	59.59	27.72	2.18	0.00	29.90	20.51	9.16	0.02	29.69
	Total	701.35	232.67	17.83	951.85	391.63	87.38	8.85	487.86	309.73	145.28	17.83	472.84

Appendix 16.14
PERFORMANCE OF LOCAL GOVERNMENTS IN NINTH PLAN (1997-2002)
Receipts and Expenditure under State Sponsored Schemes (Provisional)

(Rs Crore)

Sl. No	*Local Governments*	*1997-1998*		*1998-1999*		*1999-2000*		*2000-2001*		*2001-2002*	
		Receipts	*Expenditure*	*Receipts*	*Expenditure*	*Receipts*	*Expenditure*	*Receipts*	*Expenditure*	*Receipts*	*Expenditure*
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1	Grama Panchayats	87.30	52.77	117.99	67.70	95.23	78.24	43.42	72.24	86.83	60.00
2	Block Panchayats	35.41	19.73	33.61	25.14	32.50	20.98	20.09	18.26	15.36	11.29
3	District Panchayats	57.19	52.60	50.88	30.43	45.30	41.14	41.25	40.50	37.76	29.81
4	Municipalities	17.22	9.61	13.56	7.40	12.31	7.18	12.93	6.34	12.87	6.22
5	Corporations	8.42	4.07	5.05	3.38	3.59	3.01	4.84	2.48	4.80	3.01
	Total	**205.54**	**138.78**	**221.09**	**134.05**	**188.93**	**150.55**	**122.53**	**139.82**	**157.62**	**110.33**
	Percentage of Expenditure		67		60		79		114		70

Appendix 16.15
PERFORMANCE OF LOCAL GOVERNMENTS IN NINTH PLAN (1997-2002)
Receipts and Expenditure under Centrally Sponsored Schemes (Provisional)

(Rs Crore)

Sl. No	*Local Governments*	*1997-1998*		*1998-1999*		*1999-2000*		*2000-2001*		*2001-2002*	
		Receipts	*Expenditure*	*Receipts*	*Expenditure*	*Receipts*	*Expenditure*	*Receipts*	*Expenditure*	*Receipts*	*Expenditure*
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1	Grama Panchayats	35.76	28.94	36.47	27.20	48.55	32.81	53.97	37.50	50.31	35.19
2	Block Panchayats	92.40	67.66	113.47	97.45	112.22	101.23	98.11	79.93	100.80	69.89
3	District Panchayats	3.52	0.79	6.97	5.73	9.99	6.58	12.79	9.68	14.01	9.25
4	Municipalities	3.43	0.82	9.32	5.26	11.81	11.11	10.14	10.30	10.35	7.26
5	Corporations	0.93	0.47	3.37	1.29	6.67	4.10	4.47	4.48	7.44	6.62
	Total	**136.04**	**98.68**	**169.60**	**136.93**	**189.24**	**155.83**	**179.48**	**141.89**	**182.91**	**128.21**
Percentage of Expenditure			72.53		80.73		82.34		79.06		70.09

Appendix 16.17

Analysis of Local Self Governments Annual Plan 2002-03
Sectoral Investment Pattern

District : Kollam

Items	Number of Projects	% of Plan Grant	% of Gross Outlay
1 2	3	4	5
Productive Sector			
1.1 Paddy	222	2.60	3.21
1.2 Other Crops	372	3.49	3.10
1.3 Other Agricultural Programmes	347	2.25	1.53
1.4 Animal Husbandry	681	5.34	5.65
1.5 Fisheries	196	1.18	1.11
1.6 Afforestation	7	0.02	0.02
2.1 Soil and Water Conservation	408	3.25	2.47
2.2 Minor Irrigation	343	1.71	1.99
2.3 Flood Control	20	0.11	0.06
3.1 Small Scale Industries	327	3.71	4.10
3.2 Handicrafts	9	0.04	0.03
3.4 Coir	13	0.30	0.26
3.5 Khadi	6	0.13	0.13
3.6 Sericulture	7	0.04	0.10
3.7 Electronic and Electrical Industries	13	0.31	0.16
3.8 Other Industries	25	0.23	0.20
3.9 Co-op. Societies in Industrial Sector	11	0.21	0.18
13.1 Computerisation	102	0.54	0.30
Productive Sector - Total	***3109***	***25.45***	***24.57***

Contd.

Appendix 16.17 (Contd.)

Analysis of Local Self Governments Annual Plan 2002-03

Sectoral Investment Pattern

District : Kollam

1	2	3	4	5
	Service Sector			
4.1	Environment Protection	9	0.07	0 03
5.1	Pre-Primary Education	89	1.32	0 78
5.2	Primary Education	322	1 03	1 61
5.3	High School Education	44	0.51	0.61
5.4	Education - Infrastructure Development	270	1.02	0 99
5.5	Higher Education	26	0.3	0 72
5.6	Technical Education	26	0.25	0 14
5.7	Youth Welfare	70	0.29	0.21
5.8	Arts and Culture	259	0.61	0 63
6.1	Health	500	2.32	2 09
6.2	Drinking Water	501	7.34	18 13
6.3	Sanitation	284	2.48	2 79
7.1	Housing Development	771	15.41	14 02
7.2	Slum Development	228	2.55	1.44
7.3	Housing Co-operative Societies	2	0.02	0 01
8.1	Women and Children Welfare	546	4.23	2.58
8.2	Food and Nutrition Programmes	132	4.38	2 68
8.3	Employment and Labour Welfare	171	0.77	1.02
9.1	Tourism	13	0.32	0.14
9.2	Public Distribution	38	0.38	0.32
9.3	Burial Ground	9	0.09	0.04
9.4	Surveys and Studies	28	0.07	0.03
9.5	Plan Monitoring and Evaluation	120	0.47	0.21
7.4	Electrification	102	0.62	0 28
14.1	Administrative Modifications	3	0.01	0.01
14.2	Women Welfare Programmes	12	0.09	0.06
14.3	Old Age Welfare Programmes	17	0.12	0.05
14.4	Special Children Welfare Programmes	7	0.07	0.03
14.5	Handicapped and Mentally Retarded Welfare Programmes	26	0.18	0.1
14.6	Complete Sanitation Programme	8	0.13	0.12
	Total	***4633***	***47.45***	***51.89***
	Infrastructure Sector			
10.1	Electrification	301	1.68	0.92
10.2	Non-Conventional Energy	17	0.12	0.07
10.3	Energy Conservation	9	0.02	0.02
11.1	Transport and Infrastructure Facilities	4522	22.51	18.01
11.2	Waiting Sheds/Bus Stands	25	0.28	0.29
11.3	Inland Transport	2	0.01	0.01
11.4	Other Modes of Transport	4	0.13	0.06
12.1	Public Buildings	361	2.14	4.17
	Total	***5241***	***26.90***	***23.54***
	Grand Total	**12983**	**100.00**	**100.00**

Appendix 16.18

Analysis of Local Self Governments Annual Plan 2002-03
Sectoral Investment Pattern

District : Palakkad

Items	Number of Projects	% of Plan Grant	% of Gross Outlay
1	2	3	4	5
Productive Sector			
1.1 Paddy	244	3.89	4.59
1.2 Other Crops	318	1.65	2.18
1.3 Other Agricultural Programmes	323	2.78	2.58
1.4 Animal Husbandry	503	2.60	4.88
1.5 Fisheries	97	0.31	0.51
1.6 Afforestation	15	0.02	0.05
2.1 Soil and Water Conservation	439	2.24	2.70
2.2 Minor Irrigation	956	6.40	5.36
2.3 Flood Control	8	0.02	0.03
3.1 Small Scale Industries	349	3.38	3.32
3.2 Handicrafts	9	0.02	0.02
3.3 Handloom	4	0.02	0.04
3.4 Coir	1	0.00	0.00
3.5 Khadi	13	0.18	0.13
3.6 Sericulture	5	0.07	0.11
3.8 Other Industries	50	0.62	0.62
3.9 Co-op. Societies in Industrial Sector	5	0.10	0.06
3.1 Production of Energy	1	0.02	0.01
66 Computerisation	66	0.18	0.13
Total	***3406***	***24.48***	***27.34***

Contd.

Appendix 16.18 (Contd.)
Analysis of Local Self Governments Annual Plan 2002-03
Sectoral Investment Pattern

District : Palakkad

1	2	3	4	5
	Service Sector			
4.1	Environment Protection	7	0.01	0.00
5.1	Pre-Primary Education	56	0.16	0.14
5.2	Primary Education	207	0.47	0.40
5.3	High School Education	77	0.27	0.22
5.4	Education - Infrastructure Development	209	2.25	1.74
5.5	Higher Education	13	0.12	0.08
5.6	Technical Education	17	0.09	0.07
5.7	Youth Welfare	41	0.07	0.10
5.8	Arts and Culture	165	0.56	0.44
6.1	Health	543	2.63	2.22
6.2	Drinking Water	2265	7.89	7.67
6.3	Sanitation	378	1.70	1.73
7.1	Housing Development	1304	17.92	18.01
7.2	Slum Development	212	6.61	5.22
7.3	Housing Co-operative Societies	1	0.03	0.02
8.1	Women and Children Welfare	713	2.47	2.19
8.2	Food and Nutrition Programmes	155	3.69	3.71
8.3	Employment and Labour Welfare	190	0.93	1.66
9.1	Tourism	3	0.02	0.01
9.2	Public Distribution	7	0.03	0.02
9.3	Burial Ground	24	0.14	0.11
9.4	Surveys and Studies	28	0.06	0.10
9.5	Plan Monitoring and Evaluation	183	0.59	0.40
7.4	Electrification	242	0.70	0.57
14.1	Administrative Modifications	5	0.01	0.00
14.2	Women Welfare Programmes	4	0.01	0.00
14.3	Old Age Welfare Programmes	27	0.51	0.35
14.4	Special Children Welfare Programmes	21	0.09	0.06
14.5	Handicapped and Mentally Retarded Welfare Programmes	40	0.21	0.17
14.6	Complete Sanitation Programme	1	0.00	0.00
	Total	***7138***	***50.22***	***47.42***
	Infrastructure Sector			
10.1	Electrification	564	1.93	1.53
10.2	Non-Conventional Energy	2	0.01	0.01
10.3	Energy Conservation	10	0.01	0.01
11.1	Transport and Infrastructure Facilities	5804	19.92	19.87
11.2	Waiting Sheds/Bus Stands	64	0.33	0.58
11.4	Other Modes of Transport	7	0.02	0.02
12.1	Public Buildings	419	3.08	3.23
	Total	***6870***	***25.30***	***25.24***
	Grand Total	**17414**	**100**	**100**

Appendix 16.19

Analysis of Local Self Governments Annual Plan 2002-03
Sectoral Investment Pattern

District : Kasaragod

Items	Number of Projects	% of Plan Grant	% of Gross Outlay
1	2	3	4	5
Productive Sector			
1.1 Paddy	96	2.76	1.96
1.2 Other Crops	191	3.60	3.14
1.3 Other Agricultural Programmes	183	3.14	7.18
1.4 Animal Husbandry	237	2.78	2.33
1.5 Fisheries	52	1.04	1.29
1.6 Afforestation	1	0.00	0.00
2.1 Soil and Water Conservation	154	2.53	1.71
2.2 Minor Irrigation	267	4.67	2.74
2.3 Flood Control	6	0.11	0.05
3.1 Small Scale Industries	136	3.33	2.19
3.2 Handicrafts	2	0.01	0.00
3.3 Handloom	1	0.01	0.01
3.5 Khadi	4	0.13	0.06
3.6 Sericulture	10	0.12	0.29
3.7 Electronic and Electrical Industries	3	0.02	0.01
3.8 Other Industries	22	0.34	0.53
3.9 Co-op. Societies in Industrial Sector	1	0.05	0.04
13.1 Computerisation	22	0.32	0.12
Productive Sector - Total	***1388***	***24.99***	***23.67***

Contd.

Appendix 16.19 (Contd.)

Analysis of Local Self Governments Annual Plan 2002-03

Sectoral Investment Pattern

District : Kasaragod

1	2	3	4	5
	Service Sector			
5.1	Pre-Primary Education	11	0.13	0.06
5.2	Primary Education	139	0.83	0.81
5.3	High School Education	19	0.41	0.23
5.4	Education - Infrastructure Development	245	4.62	3.48
5.5	Higher Education	5	0.04	0.02
5.6	Technical Education	7	0.06	0.02
5.7	Youth Welfare	26	0.24	0.16
5.8	Arts and Culture	119	1.05	0.68
6.1	Health	366	3.27	1.75
6.2	Drinking Water	381	5.42	18.12
6.3	Sanitation	127	2.57	3.15
7.1	Housing Development	293	14.78	10.31
7.2	Slum Development	59	1.85	0.98
7.3	Housing Co-operative Societies	2	0.05	0.02
8.1	Women and Children Welfare	341	4.27	2.51
8.2	Food and Nutrition Programmes	55	4.88	2.63
8.3	Employment and Labour Welfare	88	0.81	0.81
9.2	Public Distribution	3	0.03	0.01
9.3	Burial Ground	18	0.19	0.08
9.4	Surveys and Studies	20	0.1	0.04
9.5	Plan Monitoring and Evaluation	56	0.69	0.30
7.4	Electrification	72	0.97	0.44
14.1	Administrative Modifications	5	0.06	0.02
14.2	Women Welfare Programmes	8	0.15	0.14
14.3	Old Age Welfare Programmes	14	0.18	0.07
14.4	Special Children Welfare Programmes	14	0.19	0.07
14.5	Handicapped and Mentally Retarded Welfare Programmes	11	0.1	0.05
14.6	Complete Sanitation Programme	1	0.02	0.01
	Total	***2505***	***47.97***	***46.98***
	Infrastructure Sector			
10.1	Electrification	222	2.33	1.06
10.2	Non-Conventional Energy	2	0.05	0.02
10.3	Energy Conservation	2	0.01	0.01
11.1	Transport and Infrastructure Facilities	1844	20.63	21.58
11.2	Waiting Sheds/Bus Stands	38	0.28	0.20
11.3	Inland Transport	3	0.00	0.00
11.4	Other Modes of Transport	6	0.03	0.02
12.1	Public Buildings	170	3.72	6.46
	Total	***2287***	***27.04***	***29.35***
	Grand Total	**6180**	**100**	**100**