

GOVERNMENT OF KERALA

ECONOMIC REVIEW  
1992

STATE PLANNING BOARD  
THIRUVANANTHAPURAM

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## CHAPTER 1

### GENERAL REVIEW

#### *National Scene*

Despite the many setbacks that marred the year that has gone by, the development process of the economy was not hampered, and the overall economic situation registered a marked improvement. As against a rate of growth of only 1.2 per cent during 1991-92, the growth rate of the economy for the year 1992-93 is provisionally estimated to be 4.2 per cent. According to the latest Economic Survey of the Government of India, but for the riots in December 1992 and January 1993 and the irregularities in securities trading in some banks damaging confidence in the capital market, the performance of the economy during the year under review would have been even much better both in terms of output and employment. Agricultural production is estimated to have shown an increase of 5.7 per cent as compared with a negative growth of (-) 2.8 per cent in 1991-92. Production of foodgrains during 1992-93 touched a level of 176.7 million tonnes as against the level of 167.1 million tonnes attained during the previous year. However, industrial production is estimated to have grown only at a rate of 3.8 per cent, though as compared with a virtual stagnation during 1991-92, the performance during 1992-93 represented a distinct improvement.

1.2 A notable achievement of the year was the control of inflationary pressures in the economy. The rate of inflation which stood at a peak of 16.7 per cent in August 1991, declined to 13.6 per cent at the end of March 1992 and showed a further sharp decline to 6.9 per cent at the end of January, 1993. The moderation in inflationary pressure in 1992-93 has been partly due to the good performance in agriculture, but it is in a large part due to the reduction in central government fiscal deficit, which has been a key element in the strategy for macro-economic management and control of inflation. The progress achieved in reducing the fiscal deficit in the past two years has been substantial. The gross fiscal deficit of the Centre was reduced from 8.4 per cent of GDP in 1990-91 to 6.2 per cent in 1991-92 and it is estimated to be lower at 5 per cent during 1992-93. This massive fiscal correction, maintains the Economic Survey, has been a major disinflationary influence in the period. The deceleration in inflation is a major achievement of economic management in the past year.

1.3 On the whole, while the results achieved on the economic front have so far been satisfactory as a result of a combination of measures aimed at stabilisation of the economy

as well as structural reform, the situation should not give room for any complacency. Eventhough the foreign exchange reserves stand at a comfortable level of nearly Rs. 14,000 crores, the balance of payments position has to be kept under strict watch as the export performance has not been upto the expectations. The average growth rate of exports has been adversely affected by a decline of exports of 12.5 per cent in December 1992, reflecting the disturbed conditions prevailing in that month. Figures for January 1993 were also not encouraging mainly due to the riots that rocked Bombay. There are important uncertainties in the balance of payments situation. The full impact of the disturbances in December 1992 and January 1993 on the country's foreign trade is yet to be correctly assessed. Receipts from tourism would have been much less than anticipated. The inflow of NRI deposits has not been of any sizeable magnitude and the inflow of external assistance is also subject to some uncertainties, consequent upon the constraints that affect the rate of utilisation. All these uncertainties would justify a measure of caution in assessing prospects. According to the Economic Survey, the current deficit in the balance of payments is still too high and needs to be reduced from 2.8 per cent in 1992-93 to less than 1 per cent of the GDP in 1995-96. An all out drive would, therefore, be called for to boost exports in the coming years since that would be the only effective solution to the country's balance of payments problem.

1.4 A major reform in the financial sector carried out in the course of the year 1992-93 has been the freeing of financial institutions from compulsory investment in government securities. A large part of the commercial bank funds has in the past been pre-empted by government borrowing at below market rates. Such pre-emptions have been having adverse effect on the profits of the banking industry. They also limit the ability of bank to pay attractive rates of interest on deposits and at the same time force them to charge very high interest rates on the commercial part of their portfolio. This is a major distortion of the financial system and such distortions were atleast in part responsible for creating practices in the financial system which were deliberately misused by unscrupulous persons. The Central Government has already initiated action to gradually reduce the extent of the present pre-emptions substantially and also to encourage the development of a wider market for debt instruments. As the profitability of banks improves, it would help in reducing the costs of banking and enable the banking system to become more efficient.

1.5 Another notable reform introduced during 1992-93 was the Liberalised Exchange Rate Management System (LERMS) whereby licensing control could be eliminated to a large extent and the country's exchange rate was allowed to reflect the scarcity of foreign exchange. The system of partial convertibility of the rupees has worked satisfactorily without any undue pressure on the exchange rate. The reduction in the difference between the free market rate and the illegal rate has been an important factor moderating the diversion of foreign exchange into illegal channels. This has given ground for confidence in eliminating the dual rate, and the Rupee has since been made fully convertible.

1.6 On the industrial policy front, the delicensing of industries which was started in 1991 was further intensified which has helped to impart dynamism to Indian industry. The sale of shares of some public enterprises has also

brought a new dimension into their strategic thinking and made them more conscious of profitability and long-term growth. Several initiatives have also been taken to promote foreign investment such as automatic permission for foreign equity holdings, expeditious facilities for portfolio investment by foreign investment institutions and permission to reputed Indian companies to float equity abroad. The total volume of foreign investment approvals at Rs. 42.9 billion granted under the automatic and non-automatic route during August 1991 to December 1992 is more than three times the Rs. 12.7 billion of foreign investment approved in the last decade.

1.7 On the whole, the revival of investment activity, especially in the latter half of 1992-93, has been an important feature of the economic situation and it should augur well for a faster growth of the economy in the ensuing year. Some of the key indicators of the national economy are presented in Table 1.1.

TABLE 1.1

Key indicators

	1987-88	1988-89	1989-90	1990-91	1991-92 (P)	1992-93 (P)	1987-88	1988-89	1989-90	1990-91	1991-92 (P)	1992-93 (P)
	Absolute Values						Per centage Change Over Previous year					
<b>Gross National Product@</b> (Rs. thousand crore)												
At current prices	292.2	349.0	400.1	465.8	535.1†	610.0*	13.2	19.4	14.6	16.4	14.9†	14.0*
At 1980-81 prices	168.1	185.7	196.1	206.3	209.3†	218.2‡	4.1	10.5	5.6	5.2	1.4†	4.2‡
<b>Gross Domestic Product</b> (Rs. thousand crore)												
At current prices	333.2	396.6	454.0	530.9	609.5	694.8*	13.7	19.0	14.5	16.9	14.8	14.0*
At (1980-81) prices@	170.3	188.9	199.5	209.8	212.3†	221.2‡	4.3	10.9	5.6	5.2	1.2†	4.2‡
Agricultural production	151.3	183.2 (P)	187.0 (P)	192.0 (P)	186.6 (P)	195.9*	-0.8	21.0	2.1	2.7	-2.8	5.0*
Foodgrain production (Million tonnes)	140.4	169.9	171.0	176.4	167.1	176.7*	-2.1	21.0	0.6	3.2	-5.3	5.7*
Industrial production (2)	166.4	180.9	196.4	212.6	212.4	208.3(3)	7.3	8.7	8.6	8.3	-0.1	3.8(3)
Electricity generated (KWH)	202.1	221.4	245.4	264.6	286.7	221.3(8)	7.7	9.5	10.8	7.8	8.4	4.6(8)
Whole sale price index (4)	148.5	156.9	171.1	191.8	217.8	231.0(5)	10.7	5.7	9.1	12.1	13.6	7.8(5)
Consumer price index for Industrial workers (6)	153.0	166.0	177.0	201.0	229.0	244.0(7)	10.9	8.5	6.6	13.6	13.9	8.4(7)
Money supply (M3) (Rs. thousand crore)	164.3	193.5	231.0	265.8	315.1	350.2(8)	16.0	17.8	19.4	15.1	18.5	11.2(8)
Import at current prices (Rs. crore)	22244	28235	35416	43193	47851	47480(8)	10.7	26.9	23.4	22.0	10.8	38.7(8)
Export at current prices (Rs. crore)	15671	20232	27681	32553	44042	37529(8)	23.9	29.1	36.8	17.6	33.3	23.1(8)
Foreign currency assets (Rs. crore)	7287	6605	5787	4388	14578	13688(9)	-1.7	-9.4	-12.4	-24.2	232.2	40.2(9)

\*Anticipated (P) Provisional †Quick estimates @at factor cost \$Advance estimates

1. Index of agricultural production with base triennium ending 1969-70=100.

2. Index of industrial production 1980-81=100

3. April-October 1992

4. Index with 1981-82=100.

5. As in end December, 1992

6. Index with 1982=100.

7. As in November 1992.

8. April-December, 1992.

9. As on January 31, 1993 for 1992-93 and at the end of March for previous years.

Source: Economic Survey 1992-93

*Kerala's Economic Scene:*

1.8 The year 1992-93 has a special significance in that it marks the beginning of a new development phase for the economy with the launching of the eighth five year plan (1992-97). The approach adopted in the eighth plan represents a departure from that pursued in the earlier plans in terms of its strategies and priorities. Hitherto, the emphasis has been mainly on the development of social service sectors to the subordination of the commodity producing sectors. While no doubt, there have been notable achievements in the past by way of high literacy and health standards as compared with other parts of the country, the economic development of the State continued to remain sluggish giving rise to low per capita income of the masses and high rate of unemployment. In order to bring about a change in such a development experience of the State, the new plan has accorded high investment priorities in respect of agriculture, industry and power which are all crucial sectors from the point of view increasing output and employment. In the matter of investment allocations, a rational approach has been adopted by giving priorities to schemes and projects which are in an advanced stage of completion.

1.9 The change in development emphasis has already started yielding some results. For the first time, some of the major irrigation projects which have been under implementation over the last three decades are expected to be completed by the end of the year. In the structural profile of State income as estimated for 1992-93, there has been a marginal shift in favour of the commodity producing sectors even though the service sector continued to maintain its dominance.

1.10 At a time when the State Government has been experiencing continuous financial strain, finding it difficult to push up the pace of implementation of development plans, nature played its havoc by causing unprecedented floods which took a heavy toll of human lives and property. The entire administrative machinery of the State had to be pressed into service for providing prompt relief to the affected victims. The relief and rehabilitation measures involved substantial expenditures causing severe strain to the already slender resources position of the State Government.

1.11 These setbacks to the economy did not, however, dampen the State's development effort during the year. Certain innovative policies have been initiated whose full beneficial impact is expected to be felt in the next couple of years. For the first time, the State Government formulated a comprehensive agricultural development policy which aims at imparting a new dynamism to the agricultural sector. Similarly,

the new Industrial Policy is expected to give a boost to the future industrialisation of the State with accent on small scale industries which could also create large scale employment opportunities. The State Government also announced a new Water Policy aimed at scientific management of the available water resources of the State. Long-term and short-term action plans are on the anvil to control floods and regulate the run off. In the Power Sector, a major breakthrough has been achieved in sorting out the funding problem of the Kayamkulam Super Thermal Power Plant with Government of India's offer of financial assistance from the Overseas Economic Co-operation Fund.

1.12 It is also noteworthy that a new experiment has been initiated in decentralised development through the introduction of the self-reliant village scheme. The objective of the scheme is accelerated development of rural areas with people's participation in a time-bound manner. To begin with, 113 village panchayats have been selected under this scheme and for the first time specific action plans have been drawn up at the grass-root level with people's participation.

1.13 If the tempo of development is to be stepped up in the coming years so that the initiatives taken by the State Government so far yield results, it would be necessary to put the state finances in order. As matters stand now, it has not been possible to generate budgetary savings for purposes of plan investment. On the contrary, resources raised in the name of the plan are being diverted for meeting the ever increasing non-plan expenditures of the State which has been facing continuous revenue deficits since 1983-84. What is more disturbing is the fact that these deficits have been showing big increases from year to year. As a percentage of total revenue expenditure, the ratio increased from 5.05 per cent in 1985-86 to 17.26 per cent in 1992-93. Unless this calamitous trend is put an end to, it would be impossible for the State Government to achieve its goal of planned development. It is also important to underline the fact that the high physical quality of life achieved by the State cannot be sustained in the long run unless there is a commensurate growth in the productive sectors of the economy.

1.14 To tackle these problems, it is necessary to chalk out well thought out policies to take the economy on the path of higher growth. Bold measures and innovative policies are necessary to contain expenditure, raise resources and also increase the efficiency of resource use. If this is not done, it would be difficult to translate the State's development policies into programmes of action. The report drawn up by the Resources Commission has formulated a number of recommendations aimed at strengthening and consolidating the finances of the State Government. Decisions have to be taken early in the financial year, so that the full benefit is

available during the year in terms of additional resources. The fiscal and development imbalances in the State have reached such proportions by now that basic correctives could not be postponed any more if the economy of the State is to be put on the path of rapid progress and effective solutions are to be found to the problems of the poor and unemployed in the

State. As regards the role of government, public ownership and control and management of enterprises and utilities, the old mind-set has to give way to a new one and the policies and approaches of the State Government have to be brought fully in line with those at the national level. Selected indicators of the State's economy are presented in Table 1.2.

TABLE 1.2  
Important Indicators of the State Economy

Item	1970-71	1980-81	1985-86	1988-89	1989-90	1990-91	1991-92	1992-93
1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. State Income (At current prices) Rs. crores	1255	3829	6436	9182	10165	12062(P)	13543(Q)	15207(A)
2. State Income (1980-81 prices) Rs. crores	1255*	3829	4042	4584	5468	5193(P)	5533(Q)	5899(A)
3. Per capita Income (At current prices) Rs.	594	1513	2395	3251	3730	4168(P)	4626(Q)	5136(A)
4. Out-put of Important commodities								
(a) Rice-lakh tonnes	12.98	12.72	11.73	10.13	11.41	10.87	10.60	..
(b) Coconut-Million nuts	3981	3008	3377	4215	4958	4232	4206	..
(c) Arecanut-Million nuts	12738	10905	10664	11450	11964	13074	12572	..
(d) Pepper-1000 tonnes	25.03	28.52	33.12	43.24	54.14	46.80	41.56	..
(e) Rubber "	78.73	140.33	184.70	238.41	275.40	307.52	343.11	..
(f) Tea "	41.45	50.72	52.63	65.77	57.08	63.42	68.38	..
(g) Coffee "	12.57	36.48	23.55	47.43	23.80	35.70	34.00	..
5. Prices								
(a) Wholesale price Index of agricultural commodities (Base 1952-53=100)	222	551	688	957	906	1028	1263*	1377
(b) Consumer price index Number Base 1970=100 @/	264	202	314	395	413	435	497	551
6. Plan outlay (Rs. crores) (Accounts)	59.35	311.31	411.95	543.13	620.28	662.70	669.42	913(BE)

\*At 1970-71 prices P: Provisional Q: Quick Estimate A: Anticipated

@/ Relates to calendar years from 1980 onwards and for 11 months average for 1992.

### State Income

1.15 According to Quick Estimates, the State income of Kerala for 1992-93 at current prices is placed at Rs. 15207 crores representing an increase of 12.29 per cent over Rs. 13543 crores in 1991-92. In 1980-81 prices the State Income is estimated at Rs. 5899 crores for 1992-93 as against Rs. 5533 crores for 1991-92. This represents a growth rate of 6.61 per cent in 1992-93 compared to the growth rate of 6.55 per cent during the previous year. The per capita State income at current prices works out to Rs. 5136 for 1992-93 as compared to Rs. 4626 in 1991-92. In 1980-81 prices, per capita income increased from Rs. 1890 in 1991-92 to Rs. 1992 in 1992-93, an increase of 5.40 per cent.

1.16 The share of the secondary sector in State income, has increased, though marginally, to 27.55 per cent in 1992-93, from 26.97 per cent in 1991-92. The tertiary sector continues to dominate the structural profile of State income though there has been a marginal shift in favour of the commodity producing sectors.

### Employment Situation

1.17 Chronic unemployment and under-employment, especially of the educated youth, continue to be the major problems faced by the State. At the end of September 1992, there were 40 lakh job seekers on the live registers of the Employment Exchanges in the State. The number at the beginning of the year was 36 lakhs. Of these, those who had qualifications of SSLC and above were 25.79 lakhs.



1.18 The total number of professional and technical job seekers increased from 38,205 in 1980 to 1,19,719 in September 1992.

1.19 Of the total employment of 11.80 lakhs in the organised sector as on 31-3-1992, the Public sector accounted for 6.54 lakhs and the private sector 5.28 lakhs.

1.20 Under the unemployment assistance scheme the disbursement during 1991-92 was Rs. 16.20 crores and the number of beneficiaries was 2.60 lakhs.

#### *Price Situation*

1.21 The all India wholesale price index for all the commodities rose by 16.7 per cent on a point to point basis upto August 1991 compared to 7 per cent in the corresponding period last year. This has since come down to 13.6% by end of March 1992 and showed a further decline to 6.9 per cent at the end of January 1993. The wholesale price index for agricultural commodities in Kerala rose by 114 points, from 1,263.1 in 1991 to 1337.1 in 1992. The consumer price index in Kerala rose from 497 in 1991 to 551 in 1992, an increase of 14.25 per cent over the previous year.

#### *Agriculture*

1.22 The relatively favourable weather conditions since 1988 have helped to sustain agricultural growth in the State in recent years. However, the fact remains that production of food crops in general continues to stagnate or decline. Rice production which appeared to look up in the previous year declined in 1991-92. The Group Farming programme launched a couple of years ago has failed to make any major impact. In view of the various problems besetting food crop production, particularly rice, the State Government announced a policy statement in March 1992 outlining a number of bold initiatives with stress on supporting the interest of small and marginal farmers. It is hoped that this would help to restore the vitality and dynamism of agriculture in the State through a judicious utilisation of land, water and human resources.

1.23 While production of some of the crops like Pulses, Ginger, Turmeric and Banana increased, production of major crops like rice, pepper, cardamom and coconut declined. While rubber and tea production has increased, coffee and tapioca registered decline. Rice production decreased from 10.86 lakh tonnes in 1990-91 to 10.60 lakhs in 1991-92 and coconut from 4232 m. nuts to 4206 m nuts during the same period.

1.24 Significant increase in production of coconut has been a redeeming feature in the last few years. But the trend could not be sustained in 1991-92. Decline in productivity and fall in area were responsible for this production fall. Introduction of Group Management in coconut cultivation and timely market intervention through KERAFED, helped, to some extent, in creating a favourable impact on coconut  
37/791/93/MC.

production. But the production performance in 1991-92 points to the fact that these efforts will have to be spruced up further to ensure sustained increase in production. The support price offered for the last season was Rs. 1,700 per quintal of copra.

1.25 Production of cashew, a most important export oriented crop of Kerala, continued to decline. As against a production of 1.03 lakh tonnes in 1990-91 the production in 1991-92 declined to 98,000 tonnes. Similarly pepper also declined from 46,800 tonnes in 1990-91 to 41,556 tonnes in 1991-92.

#### *Livestock*

1.26 Kerala has the record of having the highest percentage of cross bred cattle in the State. The total number of artificial inseminations administered declined marginally from 15.15 lakhs in 1990-91 to 15.12 lakhs in 1991-92. Milk production increased from 16.10 lakh tonnes in 1990-91 to 17.85 tonnes in 1991-92. Egg production increased from 1550 million in 1990-91 to 1605 million in 1991-92. The formation of Amul Pattern of Co-operative Societies in the State has progressed satisfactorily; 1472 societies had been registered upto November 1992. These societies have made a major impact on the Dairy sector in the State in respect to production, procurement and marketing of milk.

#### *Fisheries*

1.27 The total fish production declined to 6.04 lakh tonnes in 1991-92 from 6.99 lakh tonnes in 1990-91. The contribution of marine fish products from Kerala during 1991-92 was 564,161 tonnes compared to 662,890 tonnes in the previous year. In value terms, export of marine products in 1991-92 amounted to Rs. 444.47 crores, which would work out to about 32.30 per cent of the total value of fish exports from the country. There were 9.75 lakh fishermen in the State.

#### *Irrigation*

1.28 The total investment in Irrigation, major medium and minor schemes, till the end of 1991-92 amounted to Rs. 1,049 crores. The total area brought under irrigation is 3.39 lakh hectares (net) or 5.69 lakh ha. (gross). The share of major and medium irrigation schemes is 1.91 lakh ha. (net) or 3.95 lakh ha. (gross) achieved through ten completed schemes and partial commissioning of 7 ongoing schemes. Of the total investment of Rs. 1,049 crores, the amount invested on major and medium irrigation was Rs. 859 crores.

1.29 Of the total area irrigated, the share of minor irrigation schemes is 1.47 lakh ha. (net) or 1.74 lakh ha. (gross) with a total investment of Rs. 190 crores.

#### *Power*

1.30 Power generation during 1991-92 decreased to 5,324 MU from 5,491 MU in the previous year. The quantum of power imported increased from 1304 MU in 1990-91 to 1856 MU in 1991-92.

1.31 The installed capacity as at the end of 1991-92 was 1,476.6 MW. No new project was completed during the year under review. The per capita consumption of power in the State stood at 193 Kwh in 1991-92. This was still considerably below the all India per capita consumption of 238 Kwh.

#### Industry

1.32 The total number of registered factories stood at 13,457 in 1991 compared to 12,813 in 1990. The number of workers employed in the factory sector decreased from 519,781 in 1990 to 368,772 in 1991. Some of the major employing industries were cashew industry, general engineering, cotton textiles, chemical industry, rubber, tiles and automobile repairing.

1.33 The number of joint stock companies functioning in Kerala increased to 4,643 by 1991-92 from 4,257 during 1990-91. The number of companies newly registered during 1991-92 was 448. Of this, 403 were private limited companies and 45 public limited companies. The total number of Government companies has increased to 103.

1.34 Around two-thirds of the 45 State Public Sector Industrial Units reviewed were working on loss during 1991-92. Only 16 out of 45 units reviewed were having profit during the year. These 16 units together earned a profit of Rs. 32.34 crores of which about 60 per cent was contributed by four chemical industries viz. Travancore Titanium Products Limited, Travancore Cochin Chemicals Limited, Travancore Cements Limited and Malabar Cements Limited. Twenty nine units, for which data are available, have together incurred a total loss of Rs. 50.10 crores. All the subsidiary companies of the Kerala State Industrial Enterprises Limited were working on loss during 1991-92. Out of the 45 units reviewed, 23 units had accumulated loss amounting to a total of Rs. 385.64 crores as on March 31, 1992 against the total paid up capital of Rs. 141 crores for all these units put together as on that date. Kerala Minerals and Metals Limited, with a loss of Rs. 99.22 crores, Transformers and Electricals Kerala Limited, with Rs. 45.26 crores, Kerala State Cashew Development Corporation Limited with Rs. 58.94 crores and Autokast Limited with Rs. 32.67 crores top the list of loss making State Public Sector Industrial Units.

1.35 Three Electronic Technology parks are planned to be set up in the State. Out of this, work on setting up the first technology park at Thiruvananthapuram is progressing well. Till October, 1992, 45 companies took registration for starting their units in the Techno park.

1.36 The total number of small scale units in the State, as at the end of 1991-92, was 84,440, out of which 10,918 were started in 1991-92. New units started in 1991-92 are estimated to have provided fresh employment to 52,797 persons, out of which 780 units were run by women entrepreneurs. It is estimated that the small scale sector provided employment to 5.00 lakh persons in the State during 1991-92.

1.37 The major promotional agencies attending to small scale industries are Kerala Financial Corporation (KFC) and Small Industries Development Corporation (SIDCO). The latter is engaged in the procurement and distribution of scarce raw materials, development and administration of industrial estates, management of production units and service centres, marketing of small scale industrial products etc. KFC provides long term loans to small and medium industries. It sanctioned loans amounting to Rs. 72.35 crores in 1991-92. The disbursements during the year amounted to Rs. 60.58 crores. The aggregate amount of loan disbursed by KFC as on 31-3-1992 amounted to Rs. 388.79 crores.

1.38 The State's traditional industries, cashew, handloom and coir, continued to face various problems. Production of handloom cloth increased, from 54.60 million metres in 1990-91 to 55.28 million metres in 1991-92. But the handloom industry face the twin problem of hike in the cost of raw materials and severe competition from the mill sector and handloom sector in the neighbouring states. Non-availability of adequate quantity of husk at a reasonable price, inadequacy of working capital with the coir co-operative societies, dwindling domestic and external markets were the major problems facing the coir industry.

1.39 Cashew industry continue to face the problem of non-availability of adequate quantities of raw cashewnuts, resulting in low capacity utilisation and large scale under employment of workers engaged in the industry. The monopoly procurement of raw cashew introduced in 1988 continued during 1992. Export of cashew in 1991-92 increased by 30 per cent over 1990-91, which went upto 64,692 tonnes in 1991-92 from 44,874 tonnes in 1990-91. The value of the nuts exported increased by 51 per cent from Rs. 442 crores in 1990-91 to Rs. 668 crores in 1991-92. During 1991-92 import of raw cashew was 106,080 tonnes compared to 82,634 tonnes in the previous year. In accordance with the provisions contained in the New Industrial Policy of the State, traditional industries are being revitalised by restructuring the Co-operative sector. The financial base of the co-operative societies in the traditional industries is being restructured by strengthening the share capital base, converting outstanding loans into share capital. It is proposed to modernise coir industry, following the recommendations of the Special Task Force on Coir Industry and introduce mechanisation in a phased manner in order to make coir products competitive.

1.40 Sericulture, identified as an activity with high employment potential in rural areas, has been declared as a village industry. A total area of 2700 acres was brought under mulberry cultivation by the end of 1989-90. During 1990-91 and 1991-92 10,300 acres, and during the first nine months upto December 1992, 4165 acres have been brought under mulberry cultivation. A target of 50,000 acres covering all the districts in the State has been fixed for mulberry cultivation in the Eighth Five Year Plan.

1.41 Central sector investment in Kerala in terms of gross block, amounted to Rs. 1,853 crores at the end of March 1991. Kerala's Share of Central investment has been steadily declining over the last few years. The share came down from 3.24 per cent in 1975 to 1.43 per cent in 1991. As compared with many other States, this is one of the lowest ratios.

#### Transport

1.42 Kerala has a fairly well developed transport infrastructure. The total road length in the State increased by 3,287 km. from 132,541 km. in 1990-91 to 135,828 km. in 1991-92. About 75 per cent of the road length comes under panchayats.

1.43 As regards coverage, Kerala has a road length of 350 km. per hundred sq. km. of area and 468 km. per lakh of population (1991 census). The total number of motor vehicles registered in the State stood at 7.08 lakhs in 1991-92 as against 6.48 lakhs in 1990-91. Kerala had 2441 vehicles per lakh of population (1991 census) and 1822 vehicles per hundred sq. km. of area.

1.44 The Kerala State Road Transport Corporation (KSRTC) the only public sector agency for passenger transport by road in the State, accounts for only 24 per cent of the total stage carriage. In recent years, efforts to replace the overaged buses have been intensified. The Corporation which showed some signs of improvement in 1989, went down hill by 1990-91 and the slide continued in 1992-93, when it is becoming increasingly difficult to maintain its operations.

#### Tourism

1.45 The Tourism Department and the Kerala Tourism Development Corporation (KTDC) are the two official agencies engaged in the promotion of tourism in the State. Tourism Promotion Councils have been organised in almost all the districts. The KTDC runs a chain of twelve hotels, eight motels and two restaurants within the State. Over 90,000 foreign tourists are estimated to have visited the State during 1991-92.

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

#### Education

1.47 According to 1991 census Kerala achieved a literacy rate of 90.60% as against 52.11% for the country. Male literacy rate stood at 94.50% while the female literacy was 87%.

1.48 During 1990-91 there were 12,190 schools in the State comprising 6,783 L. P. Schools, 2,934 U. P. Schools and 2,472 High Schools. Of the total number of schools 4,488 were in Government sector, 3,330 private aided schools and 372 private unaided schools. The total student strength during 1991-92 was 59.07 lakhs.

1.49 Out of the total student strength of 59.07 lakhs, the number of girl students came to 49 per cent. The overall coverage was 101.5 per cent in the 5-14 age group.

1.50 The total number of teachers stood at 1.91 lakhs in 1992, of whom 1.19 lakhs were in private sector, and 71,989 were in Government. The teacher-pupil ratio during 1991-92 was 1:31 compared to the all India ratio of 1:35. The vocational higher secondary education was implemented in 214 schools. During 1991-92 the total intake in vocational education stood at 12,150 and 12,000 in 1992-93.

1.51 A phenomenon witnessed in the State in recent years is the rise in the number of uneconomic schools; schools with strength of less than 25 students per standard. The total number of such schools stood at 1,170 in 1992, out of which 475 are Government schools, the rest private aided schools. Similarly in 1991 there were 2,051 protected teachers in the State. There is no justification in continuing these in the present form especially when the State Government is facing severe constraint in resources. With a view to conserve resources for more efficient use elsewhere, it is necessary to take speedy action to close down all the uneconomic schools and reduce the protected teachers and absorb all of them in future vacancies in a time bound manner.

1.52 Higher Secondary Course (plus two course) is offered in 86 schools in 1992-93, out of which 49 were Government Schools. The annual intake is 8,292 students.

1.53 As regards higher education, a new college was started in 1992-93, taking the total number of Arts and Science Colleges to 173, consisting of 40 Government Colleges and 133 private colleges. The student strength at the University level was 3.75 lakhs during 1991-92. The number of teachers in the Arts and Science Colleges in 1991-92 was 13,419.

1.54 The technical education institutions in the State during 1990-91 consisted of nine Engineering Colleges, 32 Polytechnics, 51 Technical High Schools and 19 pre-vocational training centres, one Fine Arts College, 2 Fine Arts Institutes, 7 Food Craft Institutes and 49 Vocational Training Centres. The intake in Engineering Colleges during the year was 2,901. Of the 32 polytechnics, 26 were in the Government sector and the rest in private sector. The total student strength in polytechnics stood at 15,236 in 1991-92. Intake in polytechnics was 4,241 in 1991-92.

1.55 The total expenditure on Education in 1991-92 as per revised estimates was Rs. 793.27 crores. Of this, 50 per cent was incurred on primary education, 29 per cent on secondary education. The per capita government expenditure on education stood at Rs. 268 during 1991-92.

## Health

1.56 The health standards achieved by Kerala are comparable to some of the developed countries, as reflected in the achievements in respect of birth rate, death rate and infant mortality rate. The birth rate per thousand population was 19.8, death rate 5.8 and infant mortality rate 17 in 1991.

1.57 The State's health infrastructure under Allopathy, comprised of 141 hospitals, 907 primary health centres, 51 dispensaries, 22 T. B. Centres, 15 leprosy control units, 54 community health centres, 77 subsidiary health centres and 36 grant-in-aid institutions, all in the Government sector. In addition, there were private hospitals, clinics etc. According to provisional data, the number of hospital beds per lakh of population in 1991-92 was 171.

1.58 There were also 106 Ayurveda hospitals and 527 Ayurveda dispensaries at the end of the year 1991-92.

1.59 The number of homoeopathic hospitals was 30 and the number of dispensaries increased to 338 in 1991-92 from 312 in the previous year.

1.60 The Government expenditure on Medical and Public Health excluding Family Welfare amounted to Rs. 197 crores during 1991-92. The per capita expenditure on Medical and Public Health stood at Rs. 84 in 1991-92.

1.61 The Family Welfare Programme in the State is administered through a net work of 907 Primary Health Centres and 5 094 sub centres. The achievement by the State in this regard is way ahead of those in the other States. The couple protection rate had reached 67, as against 45 for all India.

## Housing

1.60 Several Government agencies in the State are engaged in implementing housing programmes. The major agencies are Kerala State Housing Board, Kerala State Housing Co-operative Federation and Kerala State Corporation for Scheduled Castes and Scheduled Tribes. The main thrust of the Government's housing programmes is directed towards the benefit of the economically weaker sections. According to 1991 Census (Provisional figures) there were 52.1 lakh residential buildings and 54 lakh households in the State. The existing demand for housing at the beginning of 1991 was about 11 lakh houses out of which 1.90 lakh is the numerical shortage, 6 lakh huts which are not fit for dwelling and 3 lakhs required to be demolished and reconstructed.

1.63 Under the rehabilitation housing programmes 1,60,086 houses were constructed upto 1991-92, the Kerala State Development Corporation for Scheduled Castes and Scheduled Tribes had extended financial assistance for the construction of 3295 houses. The Kerala State Co-operative Housing Federation Ltd. had disbursed an amount of Rs. 14,114 crores as on March 31 1991. 41,515 houses were completed till 31-3-1991 with assistance from the Co-operative Housing Federation.

1.64 The major programmes of the State Housing Board are the public housing scheme and cash loan scheme. Under the former land is acquired and developed, and then allotted either as plots or after house construction, depending on the category of the programme included.

1.65 The Board of Revenue, the major Government department engaged in housing activity distributed 2342 house sites for landless laborers in 1991-92. Of these 1171 beneficiaries belonged to Scheduled Castes and Scheduled Tribes. In addition 336 families including 176 from SC/ST were also given financial assistance for construction of houses.

## Water Supply and Sanitation

1.66 According to latest estimates over 70 per cent of the urban population and 40 per cent of the rural population could be provided with protected drinking water. In the three cities the coverage is nearly 90 per cent. Out of the total number of 1592 ongoing rural water supply schemes 83 schemes were completed during 1991-92.

## Institutional Finance

1.67 Kerala's share of assistance extended by the All India Financial Institutions has remained low at 2.75 per cent as at the end of March 1991. The other Southern States have been able to derive comparatively much larger benefits from these institutions. The share of Andhra Pradesh at the end of 1990-91 was 9.07 per cent and for Karnataka and Tamil Nadu the respective shares were 6.71 per cent and 9.12 per cent. Implementation of the State's Eighth Plan would necessitate a much greater flow of assistance into the State from the all India Financial Institutions.

1.68 As far as the banking sector is concerned, there has been a phenomenal increase in the growth of deposits of commercial banks in Kerala. The average annual increase in the last five years (1987-92) was 15.28 per cent. During 1991-92 alone the increase was as high as 23.07 per cent over the previous year. However when it comes to a question of credit disbursement by banks one finds a sharp decline in the rate of increase from 18.77 per cent in 1988-89 to 12.62 per cent in 1990-91 and further to 7.87 per cent in 1991-92. The credit deposit ratio consequently showed a significant decline over the last few years. At present the bank deposits in Kerala have crossed the Rupees Ten thousand crore mark, the distinguishing feature of which is the significant proportion of NRI deposits which account for as much as 35 per cent of the total deposits. However the credit-deposit ratio is only just about 50 per cent which again is much lower as compared with the other Southern States all of which have a credit deposit ratio of over 85 percent.

## Plan Outlay

1.69 The State budget for 1992-93 provided for a plan outlay of Rs. 913 crores. However owing to the serious resource constraints experienced during the year the State Government may not find it feasible to expend the outlay in full. It has, however, to be ensured that the anticipated shortfall in outlay does not adversely affect investments in core sectors of the economy and the achievement of the major physical targets set in the plan.

1.70 For the Annual Plan 1993-94, an outlay of Rs. 1000 crores has been approved by the Planning Commission. This represents an increase of 9.5 per cent over the approved outlay for 1992-93. The main focus of the plan is on consolidating the progress already achieved with emphasis on qualitative improvement in all areas. Top priority has also been given for poverty alleviation and employment generation.

## CHAPTER 2

### INCOME AND EMPLOYMENT

#### National Income

According to the quick estimates of the Central Statistical Organisation, national income at current prices has gone up by 14.3 per cent from Rs. 4,13,943 crores in 1990-91 to Rs. 4,73,246 crores in 1991-92. This rate of growth of income is not quite satisfactory as the rate of inflation prevailed during the period was slightly over 13 per cent. As a result, in real terms (at 1980-81 prices) the national income has grown only marginally by 0.9 per cent from Rs. 1,84,460 crores in 1990-91 to Rs. 1,86,135 in 1991-92 as compared to the rate of growth of 5.2 per cent during the previous year (see Table 2.1).

2.2 The national per capita income in real terms (at 1980-81 prices) is estimated at Rs. 2,174 for 1991-92 as against Rs. 2,199 for 1990-91, showing a decline of 1.1 per cent. The per capita income at current price is estimated at Rs. 5,529 in 1991-92 as against Rs. 4,934 for the previous year.

#### State Income

2.3 The state income of Kerala during the year 1991-92 is estimated at Rs. 13,543 crores at

current prices, 12.3 per cent higher than the estimated income of Rs. 12,062 crores for the year 1990-91. At constant prices, the state income has gone up from Rs. 5,193 crores in 1990-91 to Rs. 5,533 crores in 1991-92, registering a growth rate of 6.55 per cent.

2.4 The state economy is likely to sustain the tempo of growth during the year under review. The anticipated state income for 1992-93 is estimated in real terms at Rs. 5,899 crores showing a growth rate of 6.61 per cent. At current prices the anticipated state income for 1992-93 is Rs. 15,207 crores.

2.5 The per capita state income continues to be lower than that of the national average and the difference had been widening for quite some time. However, due to the accelerated growth of the state income in relation to the national income in recent years and also due to the relatively low rate of growth of the state's population, the gap between the national per capita income and the state income has been considerably narrowed down in recent years. At constant prices the difference at present is Rs. 284. The total and per capita income of India and Kerala are given in Table 2.1.

TABLE 2.1

*National Income and State Income (New Services)*

Item	1980-81	1990-91 (P)	Growth Rate (%)	1991-92 (Q)	Growth Rate (%)	1992-93 (A)	Growth Rate (%)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<b>National Income (Rs. Crores)</b>							
At Current Prices	110685	413943	16.8	473246	14.3		
At Constant Prices	110685	184460	5.2	186135	0.9		
<b>State income (Rs. Crores)</b>							
At Current Prices	3823	12062	13.09	13543	12.28	15207	12.29
At Constant Prices	3823	5193	6.22	5533	6.55	5899	6.61
<b>Per Capita National Income (Rs.)</b>							
At Current Prices	1630	4934	14.4	5529	12.1	..	..
At Constant Prices	1630	2199	3.00	2174	(-)1.1	..	..
<b>Per Capita State Income (Rs.)</b>							
At Current Prices	1514	4168	11.74	4626	10.99	5136	11.02
At Constant Prices	1514	1795	4.97	1890	5.29	1992	5.40

Note: 1. Constant prices refer to 1980-81 as base.

2. P—Provisional; Q: Quick Estimate; A—Anticipated

Source: (i) Department of Economics & Statistics

(ii) Central Statistical Organisation

### Sectoral Distribution of Income

2.6 Agriculture continues to be the major sector accounting for a share of about 31.4 per cent of the state income in real terms followed by manufacturing (18.1%) trade, hotels and restaurants (13.4%), banking and insurance (8.5%) and construction (7.3%). All the sectors except forestry and

logging have shown growing trends at constant prices during the year under review.

2.7 The share of industrial sector in the state income has been steadily increasing though marginally since 1990-91 at the cost of the primary and tertiary sectors. The yearly movement of the sectoral shares of the state income at current and constant prices is given in Table 2.2.

TABLE 2.2

*Sectoral Contribution of Net Domestic Product—Kerala (Per cent)*

Sector	Current				Constant			
	1980-81	1990-91	1991-92	1992-93	1980-81	1990-91	1991-92	1992-93
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Primary	39.23	32.12	31.32	30.55	39.23	33.49	33.32	33.14
Secondary	24.37	28.22	29.30	30.36	24.37	26.31	26.97	27.55
Tertiary	36.40	39.66	39.38	39.09	36.40	40.20	39.71	39.31
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

### Regional Distribution of Income

2.8 The regional distribution of state income at current and constant prices for 1980-81, 1990-91 and 1991-92 is given in Appendix 2.3.

2.9 Per capita income, to some extent, indicate the level of regional disparities in economic growths. Ernakulam district has the highest per capita income

in 1991-92 both in terms of current and constant prices maintaining its lead followed by Idukki. Malappuram district continues to have the lowest per capita income both at current and constant prices. The details of relative performance of the districts in terms of per capita income at current and constant prices for 1980-81, 1990-91 and 1991-92 are given in Table 2.3 (a).

TABLE 2.3(a)

*Per capita Income at Current and Constant Prices 1980-81, 1990-91 and 1991-92*

Sl. No.	District	(Rs.)											
		Constant Prices						Current Prices					
		1980-81	1990-91	1991-92	1980-81	1990-91	1991-92	1980-81	1990-91	1991-92	1980-81	1990-91	1991-92
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1.	Ernakulam	2029	(1)	2613	(1)	2868	(1)	2029	(1)	6190	(1)	7212	(1)
2.	Idukki	2007	(2)	2358	(2)	2572	(2)	2007	(2)	5350	(2)	6122	(2)
3.	Wayanad	..		2116	(3)	2097	(3)	..		4664	(3)	4841	(3)
4.	Kottayam	1462	(8)	1835	(4)	2049	(4)	1462	(8)	4069	(8)	4775	(5)
5.	Pathanamthitta	..		1819	(5)	2040	(5)	..		4058	(9)	4782	(4)
6.	Thiruvananthapuram	1493	(6)	1803	(7)	1911	(6)	1493	(6)	4104	(7)	4567	(10)
7.	Alappuzha	1319	(9)	1676	(12)	1883	(7)	1319	(9)	3971	(11)	4725	(6)
8.	Thrissur	1471	(7)	1743	(9)	1868	(8)	1471	(7)	4122	(6)	4660	(7)
9.	Kollam	1545	(5)	1682	(11)	1852	(9)	1545	(5)	3989	(10)	4613	(8)
10.	Kozhikode	1597	(3)	1780	(8)	1832	(10)	1597	(3)	4238	(4)	4609	(9)
11.	Kasargode	..		1812	(6)	1766	(11)	..		4180	(5)	4273	(11)
12.	Kannur	1580	(4)	1693	(10)	1734	(12)	1580	(4)	3926	(12)	4239	(12)
13.	Palakkad	1315	(10)	1507	(13)	1546	(13)	1315	(10)	3385	(13)	3663	(13)
14.	Malappuram	1051	(11)	1162	(14)	1068	(14)	1051	(11)	2790	(14)	2688	(14)
	State	1517		1795		1890		1517		4168		4626	

### Sectoral Growth Rates

2.10 The Sectoral growth rate of income in all the districts during 1991-92 at constant prices is given in table 2.3(b)

TABLE 2.3(b)  
Growth Rate of District income during 1991-92  
at 1980-81 prices

Sl. No.	District	(Per cent)			
		Primary	Secondary	Tertiary	Total
(1)	(2)	(3)	(4)	(5)	(6)
1.	Thiruvananthapuram	6.15	7.98	5.88	6.47
2.	Kollam	6.25	9.66	5.61	6.88
3.	Pathanamthitta	5.25	9.40	6.20	6.63
4.	Alappuzha	6.58	9.08	4.97	6.62
5.	Kottayam	6.04	10.18	5.37	6.40
6.	Idukki	5.42	11.36	4.61	7.29
7.	Ernakulam	6.46	10.53	6.21	7.93
8.	Thrissur	6.10	9.08	5.20	6.52
9.	Palakkad	5.89	7.44	4.95	5.87
10.	Malappuram	5.00	6.36	4.28	4.86
11.	Kozhikode	6.30	9.01	4.43	6.35
12.	Wayanad	5.53	9.44	4.94	6.13
13.	Kannur	6.12	7.65	4.39	5.74
14.	Kasargode	6.39	7.60	4.43	5.88
	State	5.99	9.23	5.24	6.54

2.11 Among the districts, Ernakulam has recorded the highest growth rate of 7.9 per cent followed by Idukki (7.3%) and Kollam (6.9%). The State average has gone up by 6.5 per cent during the period. District with low level of per capita income continue to grow at rates lower than the State average widening the disparities in income among the districts.

2.12 As for sectoral growth rates of income, the primary sector shows only marginal variation across the districts. However, there is considerable variation in the growth rates of secondary and tertiary sectors among the districts as can be seen from table 2.3(b)

### Unemployment

2.13 Kerala continues to face the severe problem of unemployment, especially among the educated youth. The live register figures of employment exchanges indicate the magnitude and structure of unemployment in the State, especially among the educated youth. By the end of December 1981, there were about 19 lakh job seekers in the Live Register which rose to 36 lakhs by the end of December 1991. The number of registrants as on 30-9-1992 is nearly 40 lakhs. The District-wise distribution of work seekers is given in Table 2.4.

TABLE 2.4  
District-wise Distribution of Works Seekers  
as on 30-9-1992

Sl. No.	District	No.
(1)	(2)	(3)
1.	Thiruvananthapuram	737411
2.	Kollam	403195

(1)	(2)	(3)
3.	Alappuzha	356981
4.	Pathanamthitta	171386
5.	Kottayam	323818
6.	Idukki	128194
7.	Ernakulam	444765
8.	Thrissur	321467
9.	Palakkad	241904
10.	Malappuram	200680
11.	Kozhikode	281376
12.	Wayanad	60908
13.	Kannur	221268
14.	Kasaragol	76828
	Total	3964101

Source: Directorate of Employment & Training

### Distribution of Work seekers by Educational Levels

2.14 The proportion of the educated work seekers (S.S.L.C. & above) has been steadily increasing over the years. The educated work seekers which constituted 48.5 per cent of the total registrants in 1981 rose to 63.8 per cent in 1991. This is mainly due to the educational development in the State which is rapid and varied. There are about 25.79 lakh job seekers having qualification S.S.L.C. and above as at the end of September 1992. This consists of 2.94 lakh matriculates, 2.93 lakh P.D.C. holders, 1.63 lakh graduates and 28,862 post graduates. The distribution of work seekers in Kerala is given in Appendix 2.5

2.15 There is also a significant increase in the number of technical and professional work seekers during the year under review. By the end of December 1991, there were 1,00,861 registrants having technical or professional qualifications. This figure rose to 1,19,719 by the end of September, 1992, showing an absolute increase of 18,858 registrants. The technical and professional category seeking employment consists of 2,873 medical graduates, 7,920 engineering graduates, 27,126 diploma holders, 81,556 certificate holders and 244 agricultural and veterinary graduates. The details are given in Appendix 2.7.

### Employment in the Organised Sector

2.16 The details of Employment in the public Sector and in the Organized public sector is given in Appendix 2.7

The employment in the organized sector remained more or less stagnant during the eighties. A marginal increase in the employment in the organised sector, both under private and government, is visible in recent years. Organised employment in the State is 11.8 lakhs as on March 1992 consisting of 6.53 lakhs under the public sector and 5.28 lakhs under the private sector. The share of the public sector in the organised sector employment has gone up from 41.7 per cent in 1970 to 48.5 per cent in 1980 and further to 55 per cent in 1990.

### Placement through Employment Exchanges

2.17 The placement through the employment exchanges continues to be insignificant compared to the number of job seekers registered with the employment exchanges. During the first half of 1992-93, only

about 8,700 persons could be given placements through the employment exchanges as against a total number of about 40 lakh job seekers registered with the employment exchanges.

TABLE 2.5

*Placement through Employment Exchanges*

Year	No. of Placements
(1)	(2)
1985-86	13700
1986-87	15571
1987-88	13869
1988-89	15504
1989-90	14280
1990-91	15640
1991-92	16748
1992-93*	8653

\*Upto September 1992.

*Placement through ODEPC*

2.18 Overseas Development and Employment Promotion Consultants Limited (ODEPC) is a government agency providing placement services on behalf of the overseas employers. During 1991, this agency managed to secure job opportunities for 321 persons under different categories of skills in two countries- Saudi Arabia and Singapore. However, during 1992 ODEPC could secure employment for only 137 persons in foreign countries. This declining trend is attributed to the declining job opportunities especially after the Gulf crisis. Category-wise deployment of personnel by ODEPC is given in Appendix 2.9.

*Self Employment Scheme*

2.19 Till the end of March 1992 about 1.28 lakh persons were benefited by this scheme. While about one lakh persons availed lumpsum assistance of Rs. 600,27,718 persons used bank loan facilities. The banks have advanced Rs. 904.34 lakhs and a sum

of Rs. 764.55 lakhs were paid as seed money/lumpsum assistance upto March 1992. The year-wise details of the number of beneficiaries and amount disbursed under this scheme are given in Table 2.6.

TABLE 2.6

*Self Employment Assistance Scheme*

Year	Application received	No. of beneficiaries	Amount disbursed (Rs. in lakhs)
1987-88	18241	1042	6.25
1988-89	13556	13248	79.48
1989-90	10042	4965	29.79
1990-91	10127	4665	27.99
1991-92	10279	2653	15.92

*Unemployment Assistance Scheme*

2.20 Under the unemployment assistance scheme 260,196 persons were benefited during 1991-92 as against 264,314 persons during 1990-91. The corresponding amount disbursed declined from Rs. 19.35 crores in 1990-91 to 16.20 crores in 1991-92. Year-wise details of the scheme are given in Appendix 2.8

*Birth Rate, Death Rate and Infant Mortality Rate*

2.21 The estimated birth, death and infant mortality rates for Kerala and India are given in Appendix 2.11. During 1991 the estimated birth and death rates for the state are 18.1 and 6.0 (per 1000 population) respectively. The above table gives the signal performance achieved by the state in controlling the birth rates, death rates and infant mortality during the decade 1981-91. The estimated birth and death rates in different states for 1991 are given in Appendix 2.12 and 2.13 respectively.

2.22 The infant mortality rate estimated to Kerala is 17 as against 80 for the country during 1991. The State-wise details on infant mortality is given in Appendix 2.14.



## CHAPTER 3

### PRICES, COST OF LIVING AND WAGES

#### Wholesale Prices

The wholesale price index of agricultural commodities in Kerala (base 1952-53=100) registered a moderate increase of 9.03 per cent in 1992 i.e. from 1263.1 in 1991 to 1377.1 in 1992, as compared with an increase of 22.82 per cent in the previous year (See Table 3.1). The price indices of food crops and nonfood crops rose by 5.07 per cent and 12.53 per cent respectively during the year. While in 1991, the wholesale price indices of fruits and vegetables, molasses and plantation crops moved down marginally by 0.03 per cent, 1.90 per cent and 2.37 per cent respectively, they showed an upward trend in 1992 registering increase of 8.36%, 9.40% and 6.76% respectively over the previous year.

3.2 The month-wise wholesale price index of agricultural commodities in Kerala during the year 1992 is given in Appendix 3.1. The price index of rice remained constant at same level as in the previous year at 638.1. The price index of molasses which stood at 1037.3 in January 1992 touched the peak of 1482.6 in November 1992, registering an increase of 42.9 per cent. The price index of condiments and spices reached an alltime high of 2030.1 in June 1992 from 1524.2 in January 1992, representing an increase of 33.19 per cent. When the price index of rice remained unchanged throughout the year, the price indices of oilseeds, condiments and spices and fruits and vegetables showed an erratic trend.

#### Retail Prices of Essential Commodities

3.3 The average retail prices of 22 items of essential commodities at the end of 1990, 1991 and 1992 are given in Table 3.2. Compared to 1991, the rate of increase of prices of consumer items was generally less in 1992, in some cases the prices have in fact fallen. The exceptions were those of green gram, Tapioca, Milk, Egg, Onion, sugar and Firewood, in which case, the prices sharply increased.

3.4 While the open market price of rice steeply rose at 33.14 per cent in 1991, in 1992 the increase was 10.01 per cent. At the end of December 1992, the average price of rice in the open market was Rs. 7.69 per Kg. as against Rs. 6.99 per Kg. at the end of 1991 and Rs. 5.25 per Kg. at the end of 1990.

3.5 The price of green gram showed an upward trend in 1991 and 1992. While the rate of increase at the end of 1991 was 13.22 per cent, at the end of 1992 it was 18.43 per cent. The price of chillies came down to Rs. 45.48 per Kg. at the end of 1992, from Rs. 54.14 at the end of 1991. Similarly the prices of Dhall, Coconut Oil, Groundnut oil, Refined oil and potato also came down from the levels prevalent in 1991. The month wise details showing the state average of retail prices of essential commodities is given in Appendix 3.2.

TABLE 3.1

*Wholesale Price Index of Agricultural Commodities 1992*

(Base 1952-53=100)

Crops	Weight	Whole Sale Price Index			% change over the Previous year	
		1990	1991	1992	1991	1992
(1)	(2)	(3)	(4)	(5)	(6)	(7)
A. Food Crops	63.5	834.8	936.1	983.6	12.13	5.07
Rice	40.4	591.7	638.1	638.1	7.84	..
Condiments and Spices	10.4	1097.5	1542.4	1688.4	40.54	9.47
Fruits and Vegetables	10.7	1449.8	1449.3	1570.5	(-)0.03	8.36
Molasses	2.0	1081.8	1061.2	1161.0	(-)1.90	9.40
B. Non-Food Crops	36.5	1365.1	1832.0	2061.6	34.20	12.53
Oil Seeds	25.5	1562.1	2240.1	2543.3	43.42	13.52
Plantation Crops	11.0	909.7	888.1	948.1	(-)2.37	6.76
C. All Crops	100.0	1028.4	1263.1	1377.1	22.82	9.03

Source: Department of Economics and Statistics.

TABLE 3.2

*Average Retail Prices of Essential Commodities*

Commodities	Unit	Price as at the end of December			% of variation	
		1990	1991	1992	1991 over 1990	1992 over 1991
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Rice	Kg.	5.25	6.99	7.69	33.14	10.01
2. Greengram	"	10.59	11.99	14.20	13.22	18.43
3. Blackgram	"	12.44	13.85	13.89	11.33	0.29
4. Redgram	"	7.73	9.34	10.25	20.83	9.74
5. Dhall	"	14.30	20.28	19.53	41.82	(-)-3.70
6. Coconut Oil	"	30.56	56.04	51.94	83.38	(-)-7.32
7. Groundnut Oil	"	32.72	44.46	40.61	35.88	(-)-8.66
8. Refined Oil	"	47.30	65.18	62.27	37.80	(-)-3.46
9. Tapioca	"	2.05	2.16	2.71	5.37	25.46
10. Banana (Green)	"	5.56	6.64	6.90	19.42	3.92
11. Milk (Cow)	Litre	5.40	6.75	7.68	25.00	13.78
12. Egg (hen)	Doren	8.10	10.57	13.02	30.49	23.18
13. Potato	Kg.	3.95	5.79	4.55	46.58	(-)-21.42
14. Corriander	"	12.81	17.61	18.39	37.47	4.43
15. Chillies (dry)	"	17.12	54.14	45.48	216.24	(-)-16.00
16. Onion	"	4.65	4.26	6.99	(-)-8.39	64.08
17. Sugar	"	8.37	8.46	9.66	1.08	14.18
18. Coconut (without husk)	100	283.76	472.14	478.49	66.39	1.34
19. Firewood (Local Split)	Quintal	66.14	72.50	84.29	9.62	16.26
20. Washing Soap (Sunlight)	Each	3.78	4.48	5.00	18.52	11.61
21. Electric Bulb	"	6.70	8.21	8.95	22.54	9.01
22. Baby Food	Kg.	59.93	74.08	81.50	23.61	10.02

Source: Department of Economics and Statistics.

### Consumer Price Index

3.6 The consumer price index (cost of living index) numbers for Agriculture and Industrial Workers in the State during the year under review witnessed less than 12 per cent increase in all the selected centres as compared with more than 12 per cent increase a year ago (see Table 3.3)

3.7 The percentage variation in the State average consumer price index during 1992 was 10.87 per cent as against 14.25 per cent in 1991. This shows that the rate of inflation was less during 1992 compared to that in 1991.

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

### Parity Index

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

3.10 The price parity index in 1992 was relatively less favourable to farmers compared to that in 1991. While the parity index showed 8 point increase in 1991 over 1990, it declined by one point in 1992 over 1991.

TABLE 3.3

Annual Average Consumer price Index Numbers in Selected Centres of Kerala

(Base 1970=100)

Centres	Annual Average Index Numbers			% Variation	
	1990	1991	1992*	1991 over 1990	1992 over 1991
(1)	(2)	(3)	(4)	(5)	(6)
1. Thiruvananthapuram	439	498	530	13.44	10.44
2. Kollam	459	515	569	12.20	10.49
3. Punalur	427	488	542	14.29	11.07
4. Alappuzha	429	493	550	14.92	11.56
5. Kottayam	440	500	553	13.64	10.60
6. Mundakayam	434	487	550	14.52	10.66
7. Munnar	420	487	538	15.95	10.47
8. Ernakulam	420	481	538	14.82	11.85
9. Chalakudy	435	499	557	14.71	11.62
10. Thrissur	423	482	537	13.95	11.41
11. Palakkad	429	486	541	13.29	11.32
12. Malappuram	451	516	570	14.41	10.47
13. Kozhikode	441	501	551	13.61	9.98
14. Meppady	449	513	568	14.25	9.75
15. Kannur	436	499	552	14.45	10.62
State Average	435	497	551	14.25	10.87

\*11 months average

Source: Department of Economics and Statistics.

TABLE 3.4

Index Number of Prices Received and Prices Paid by the Farmers

(Base 1952-53=100)

Year	Prices Received by Farmers	Farm cultivation Cost	Domestic Expenditure	Prices Paid by Farmers	Parity as Col. (2) to Col. (5)
(1)	(2)	(3)	(4)	(5)	(6)
1986	921	1299	745	984	93
1987	1063	1413	804	1066	100
1988	1044	1520	860	1143	91
1989	1017	1604	897	1200	95
1990	1072	1728	945	1277	84
1991	1315	1910	1078	1435	29
1992	1468	2211	1188	1621	91

Source: Department of Economics and Statistics

*Farm Commodity Prices*

3.11 The average farm prices of important commodities, particularly those produced in the small farm sector, showed an upward trend during 1991-92. The highest increase was in respect of cashewnut (50.84%), followed by paddy (28.83%), Arecanut (17.13%), Coconut (16.61%) and Banana (10.11%). Pepper, Ginger and Sugarcane are among the few commodities which have registered negative growth in prices during the period.

3.12 The price of Coconut has touched an all time high of Rs. 408.9 per hundred nuts during the year. The annual average wholesale price of Copra (Rs. 2845 per qtl.) recorded an increase of 42 percent compared to 1990-91. The support price announced by Government of India for the year was Rs. 1700 per qtl. As the market price ruled much above this level market intervention of any sort was not warranted.

3.13 As in the previous year, Cashew was under monopoly procurement operation. The price fixed by Government for 1991-92 was in the range of Rs. 21 to 23 which was higher than Rs. 14.50 to Rs. 16 per Kg. fixed for 1990-91.

3.14 The slump in the market price of pepper from Rs. 32.88 per Kg. to Rs. 26.25 per Kg. was mainly because of the fall in exports consequent to the disintegration of U.S.S.R. which was the major importing country for Indian pepper. Government of India have subsequently initiated a number of measures for boosting up the export, which include provision of technical credit for export, withdrawal of export cess etc.

3.15 The price of dry Ginger was also not attractive during 1991-92. It was only Rs. 22.25 per Kg. against Rs. 23.33 prevailed during 1990-91. Consequently the price of wet Ginger has come down considerably in Kerala markets. Government of India operated a market intervention programme for

wet ginger during the year announcing a support price of Rs. 3 per Kg.

3.16 In the plantation sector the price situation was not very comfortable during 1991-92. The average wholesale price of ungraded rubber which was Rs. 1986 per qtl. in 1990-91 declined to Rs. 1962. Procurement operations were carried out by STC from February to April 1991 and from October 1991 to March 1992 @ Rs. 21.45 per kg. and Rs. 21.95 for RMA 4 & 6 grades. The Government of Kerala also undertake procurement operation for ungraded natural rubber announcing a procurement price of Rs. 19.50 per Kg.

3.17 Trend of prices of important commodities are given in table 3.5

TABLE 3.5

## Average Farm Price of Principal Crops

(in Rs.)

Commodity	Unit	1987	1988	1989	1990	1991	1992*	Changes over 1991	Percentage Change
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Paddy	Qtl.	249.41	277.43	302.79	286.93	324.54	418.10	93.56	28.83
Tapioca	Qtl.	105.54	96.86	118.07	147.14	150.87	168.52	17.65	11.70
Coconut	100 Nos.	261.25	284.32	213.92	246.84	353.69	408.90	55.21	15.61
Pepper	Qtl.	5262.07	3546.83	4227.00	3010.41	3288.36	2622.88	-665.48	-20.24
Ginger	Qtl.	1395.04	1537.96	1929.08	2557.36	2333.80	2225.98	-107.82	-4.62
Cashewnut	Qtl.	1364.35	1093.84	1156.40	1180.40	1408.59	2124.75	716.16	50.84
Sugarcane	(MT)	249.08	301.64	306.57	365.69	388.09	347.34	-40.72	-10.49
Arecanut	100 Nos.	9.81	12.29	11.89	19.91	29.30	34.92	5.02	17.13
Banana	100 Nos.	68.83	61.36	65.38	74.13	76.96	84.74	7.78	10.11

\*Average Upto 10/92

**Public Distribution System**

3.18 The intervention in food grain distribution constitutes a major plank of the State's policy to ensure the availability of essential commodities at reasonable prices. The public distribution system in Kerala reaches all the households in the State through a well-designed network of ration shops. Besides ensuring the availability of essential commodities, the system plays a crucial role in regulating the open market prices. This is quite important for a state like Kerala which is deficit in food to the extent of about 60 per cent.

3.19 At present there are 13,143 authorised retail outlets for the distribution of rationed articles.

Wherever necessary new outlets are being opened taking into account the geographical location and the needs of the people. On an average, there is an outlet for every 405 households covering an average ration population of about 2131. There are 5,322,115 ration cards as on 30-11-1992 covering a population of 2,80,10,194 consisting of 2,25,99,317 adults and 54,10,877 non-adults.

3.20 During the year 1992, the distribution of rice through PDS increased from 16,71,398 tonnes in 1991 to 18,04,212 tonnes indicating a growth rate of 7.94 per cent. The distribution of wheat, however, marginally declined from 332,706 tonnes in 1991 to 271,505 tonnes in 1992 as seen from the Table 3.7.

TABLE 3.6

*Public Distribution System in Kerala—A Profile: 1988 to 1992*

Sl. No.	Item	Unit	1988	1989	1990	1991	1992
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	No. of ration cards and permits as on 1-11-1992						
	(a) Ration cards for families	No.	4807111	4907648	4997944	5056936	5922115
	(b) Ration permits for institutions	No.	6873	7523	8193	8542	10108
2.	No. of FOI Sub Depots as on 1st April	No.	15	19	20	19	20
3.	No. of wholesale Shops as on 1-4-1992						
	(a) Co-operatives	No.	48	47	47	50	49
	(b) Others	No.	249	247	262	248	249
	(c) Total Wholesale Shops	No.	297	294	309	298	..
4.	No. of Retail Shops as on 1-4-1992						
	(a) Co-operatives	No.	1251	1252	1234	1183	1160
	(b) Others	No.	11577	11658	11745	11831	11983
	(c) Total Retail shops	No.	12828	12905	12979	13014	13143
5.	Quantity of Coarse cloth (allotted)		133				
6.	Sugar (allotted)	M.T.	140858	148353	150853	144507	152153
7.	Palm Oil "	M.T.	64950	30500	71000	2900	—
8.	Kerosine "	K.L.	307386	321575	338462	334446	341086

Sources: Directorate of Civil Supplies

3.21 The allotment of rice, wheat, sugar and kerosine from the Central pool for the public distribution system in the State for the year 1992 is given in Table 3.8.

3.22 Though the Government of India increased the issue price of rice and wheat with effect from 28-12-1991, State Government has subsidised the price increase so as not to pass on the burden of price increase to the customers. However, subsequently on account of the increased budget strain the State Government has reviewed the matter and decided to target the subsidy to the poor section of the population. As a result the commitment is likely to be reduced to below 50 percent with effect from 1-4-1993. The subsidy on rice issued to customers amounted to Rs. 41.52 crores during 1991-92 and Rs. 93.65 crores during 1992-93 (as on 9-1-1993).

37/191/93/M.C.

#### *Kerala State Civil Supplies Corporation*

3.23 Kerala State Civil Supplies Corporation is also engaged in the distribution of essential commodities at reasonable prices throughout the State to supplement the public distribution system by operating 7 Supermarkets, 2 Mini Super Markets, 552 Maveli Stores, 18 Mobile Maveli Stores, 15 Vegetable Depots, 9 Petrol Bunks and 2 LPG Outlets besides extending its assistance to 1501 Sahakarana Maveli Stores run by co-operative societies, 34 maveli stores run by Matsyafed, 15 mobile maveli stores run by local bodies and 1171 selected authorised ration depots.

3.24 Festival bazaars and fairs are also being organised by the Corporation in all urban and rural areas during Onam and other festival seasons to control prices. Essential commodities worth Rs. 1,674 lakhs were distributed during the three festival seasons in the State in 1992 as against Rs. 549 lakhs in 1991.

TABLE 3.7

*Distribution of Rice & Wheat through the Public Distribution System 1988-92*

(Tonnes)

Month	Rice distributed					Wheat distributed				
	1988	1989	1990	1991	1992	1988	1989	1990	1991	1992
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
January	142586	125000	199950	183509	198058	9013	14691	19900	28564	20241
February	134808	99989	125000	125622	157474	10819	15960	19679	19950	23752
March	124886	100000	123809	135850	154953	8812	15659	18911	23722	17096
April	125000	100000	121983	136108	135277	10517	14891	15269	28966	22682
May	124226	100000	124999	105786	153477	11345	14868	19200	28632	20840
June	124970	100000	125000	133584	154506	13554	14999	19718	28409	28519
July	124994	100000	134616	139959	166985	14824	15000	20000	28140	26167
August	144997	100000	154997	162013	175579	14789	15000	19974	29480	25431
September	125000	120000	132382	149840	171574	14778	19044	19838	29993	16930
October	125000	100000	136665	149520	138772	14743	24847	19931	29983	27980
November	125000	124986	139014	150000	132226	13931	24879	19970	29994	24404
December	124990	100000	130858	149607	130331	13331	20000	19942	26873	17463
<b>Total</b>	<b>1546264</b>	<b>1269985</b>	<b>1649273</b>	<b>1671998</b>	<b>1804212</b>	<b>150450</b>	<b>209238</b>	<b>232332</b>	<b>332706</b>	<b>271505</b>

Source: Directorate of Civil Supplies

TABLE 3.8

*Allotment of Rice, Wheat, Sugar and Kerosine Oil for 1992 (in tonnes)*

(in tonnes)

Month	Rice	Wheat	Sugar	Kerosine Oil K.Lrs.
January	150000	30000	12559.0	28378
February	150000	30000	13157.0	28378
March	150000	30000	12559.0	28378
April	150000	25000	11961.0	28378
May	150000	25000	13157.0	28378
June	150000	25000	12559.0	28378
July	150000	25000	12559.0	28378
August	150000	25000	10969.0	28378
September	150000	25000	16134.5	28378
October	150000	25000	12557.5	28378
November	137000	25000	11413.5	28378
December	135000	25000	12557.5	28378
<b>Total</b>	<b>1792000</b>	<b>315000</b>	<b>152143.0</b>	<b>340536</b>

Source: Directorate of Civil Supplies

*Wages*

3.25 With the increase in the wholesale price index of agricultural commodities and cost of living index, the wages, too, had shown an upward trend. The average daily wage rate of skilled workers in agricultural sector increased by 8 per cent in 1991-92 (See Table 3.9). The daily wage of carpenter increased from Rs.54.47 in 1990-91 to Rs.59 in 1991-92 and that of Mason from Rs. 53.98 to Rs.58.55 during the same period. The average daily wage rate of unskilled workers in agricultural sector increased by 19 per cent in 1991-92 (See Table 3.10).

3.26. A similar upward trend was noticed in the wage rates of skilled and unskilled workers in the construction sector. Details are given in Table 3.11 and 3.12.

TABLE 3.9

*Average Daily Wage Rates of Skilled Workers in the Agricultural Sector*

Year	Average Daily Wage rates (in Rs.)		% of variation over the previous year	
	Carpenter	Mason	Carpenter	Mason
	(2)	(3)	(4)	(5)
1980-1981	19.82	19.78	..	..
1981-1982	22.42	22.50	13.12	13.75
1982-1983	23.40	23.52	4.37	4.53
1983-1984	26.11	26.22	11.84	11.48
1984-1985	38.74	38.69	48.03	47.56
1985-1986	42.84	42.80	10.58	10.62
1986-1987	45.93	45.93	7.21	7.31
1987-1988	47.50	47.21	3.42	2.79
1988-1989	49.80	49.55	4.84	4.96
1989-1990	51.82	51.45	4.05	3.83
1990-1991	54.47	53.98	5.11	4.92
1991-1992	59.00	58.55	8.32	8.47

Source:- Department of Economics and Statistics.

TABLE 3.10

*Average Daily Wage rates of unskilled Workers in the Agricultural sector*

Year	Average daily wage Rates of Paddy Field Workers (Rs.)		% Variation Over the Previous year	
	Male	Female	Male	Female
	(2)	(3)	(4)	(5)
1980-1981	11.13	7.91	..	..
1981-1982	12.74	8.83	14.47	11.63
1982-1983	13.29	9.55	4.32	8.15
1983-1984	15.86	11.02	19.34	15.39
1984-1985	23.60	11.89	48.80	7.89
1985-1986	26.06	13.10	10.51	27.00
1986-1987	28.36	16.39	8.74	8.54
1987-1988	30.36	17.68	7.05	7.87
1988-1989	31.95	18.59	5.24	5.15
1989-1990	33.31	19.63	4.26	5.59
1990-1991	35.77	21.11	7.39	7.54
1991-1992	41.38	26.30	15.68	24.59

Source : Department of Economics & Statistics.

TABLE 3.11

*Average Daily Wages of Skilled Workers in the Construction Sector*

Year	Daily wages of skilled workers (Rs.)			
	Carpenter		Mason	
	Rural	Urban	Rural	Urban
(1)	(2)	(3)	(4)	(5)
1980-1981	18.66	19.33	18.75	19.36
1981-1982	22.52	22.87	22.66	23.01
1982-1983	27.99	30.68	28.13	30.80
1983-1984	33.43	35.00	33.29	35.12
1984-1985	36.71	37.97	36.65	38.03
1985-1986	40.91	40.67	41.10	42.01
1986-1987	43.90	45.39	44.24	45.91
1987-1988	49.30	50.08	49.32	50.04
1988-1989	51.08	51.92	51.17	52.00
1989-1990	53.30	53.66	53.23	53.87
1990-1991	57.00	56.00	56.00	56.00
1991-1992	60.00	61.00	59.00	61.00

Source: Department of Economics & Statistics.

TABLE 3.12

*Average Daily Wages of Unskilled Workers in the Construction Sector*

Year	Wages of unskilled workers (Rs.)			
	Men		Women	
	Rural	Urban	Rural	Urban
(1)	(2)	(3)	(4)	(5)
1980-81	12.30	13.07	9.62	10.22
1981-82	15.22	15.94	11.40	12.22
1982-83	17.85	19.09	13.53	14.44
1983-84	20.29	21.18	14.81	16.10
1984-85	21.90	22.80	16.37	17.38
1985-86	25.31	25.70	19.08	19.42
1986-87	27.66	28.42	21.05	21.93
1987-88	31.31	32.23	23.26	25.34
1988-89	32.92	33.55	25.32	26.79
1989-90	34.15	34.94	26.88	28.26
1990-91	37.00	37.00	30.00	28.78
1991-92	39.71	41.63	31.64	34.32

Source: Department of Economics & Statistics

## AGRICULTURE

Agriculture in the State during the last one and a half decade, particularly the eighties witnessed a structural transformation in favour of commercial crops. Food crops largely in the small farm sector, unable to withstand the domination of commercial/plantation crops, naturally lost the prime of place it once enjoyed, has become less remunerative compared to the more patronised commercial crops. Though this could be justified by the increase in agricultural income in general achieved from such a change, its inevitable consequence of having to compromise on the welfare angle cannot be lost sight of. Therefore, it is inevitable to maintain certain balance between the general agriculture growth on the one hand and sustaining a certain minimum levels of food crops production on the other. It is critically important for fulfilling the socio-economic and environmental objectives. It is in recognition of such an objective, the State Government has come out with a policy statement in March 1992 on the development of Agriculture in Kerala outlining a number of bold initiatives for supporting the interest of small and marginal farmers as well as the rural agriculture labour force. The policy statement emphasises the need for recognising and developing agriculture as a worthwhile occupation capable of ensuring a decent living with dignity and social status to the farmers. The intention is to restore and regain the vitality and dynamism of Kerala Agriculture through judicious utilization of the land, water and human resources with focus on improving their productivity in a planned manner.

*Rainfall*

4.2 The rainfall pattern in Kerala which was showing perpetual deficiency during the last decade has staged a remarkable recovery during 1992. The average rainfall received during the year was 3353 m.m. which is about 10 percent higher than the normal. The intensity of rainfall followed more or less the decadal trend during the Summer season with a deficiency of around 37% from its normal distribution. During 1991-92, the South West and North East monsoons recorded excess rainfall of 15% and 35% respectively with almost 75% of this occurring during the North East monsoon, causing heavy floods in October and November. In its spatial spread also the rainfall pattern and the flood havoc reveal considerable variation. Even though the total rainfall received by the Southern districts for the year as a whole is relatively less than the Northern districts, the intensity in the months of October and November in the districts of Thiruvananthapuram, Kollam, Pathanamthitta, Kottayam and Idukki was significantly higher than the rest of the State. Consequently these districts suffered extensive crop damages including land slides of a serious nature. Data relating to the season-wise departure from normal, its monthly distribution trend and district-wise and month-wise distribution as well as the weekly intensity in different districts during the South West and North East Monsoon seasons are given in tables 4.1 to 4.5.

4.3 Never before in the history of the State the farmers suffered such extensive crop damages, and that too one after another in quick succession in October and November 1992. The total area affected by the flood in October 1992 is reported to be 1.04 lakh ha. with an estimated crop loss of 121 crores, while the flood in November was much more severe affecting nearly 1.24 lakh ha. causing a crop loss of Rs. 229.83 crores.

*Land Use*

4.4 Data on land use pattern in the State for the year 1991-92 are yet to be finalised. Latest estimates available for the year 1990-91 are presented in table 4.6. The overall trend of land use in Kerala at 57.82 percent of the geographical area in 1990-91 under agriculture was very encouraging. Along with the forest cover of 27.83% the percentage of land use for agricultural purpose works out to 85.65. In cropping intensity also the State is maintaining a commanding position compared to rest of the regions in the country. As at the end of 1990-91, the cropping intensity achieved by the State works out to 135.44 which is marginally higher than the level achieved in the previous year (135.25). Other positive features of land use revealed by the land use statistics include considerable increases in the net area sown (14656 ha.) and area sown more than once (9369 ha.), reduction in the extent of land under the categories of barren and uncultivated land (7686 ha.), cultivable (12754 ha.) waste and marginal reductions in the areas under current fallow as well as fallows other than current fallows.

*Agricultural Income*

4.5 The trend of crop production during the latter half of eighties reveals signs of a strong recovery from the stagnating trend in the production of some of the important cash crops of Kerala. While the performance of the food crop continues to be disappointing with declining trend in area, small holder commercial crops like coconut, pepper and cashewnut has performed remarkably well during the period. Consequently the agricultural income which was stagnating around Rs. 1340 crores in 1980-81 prices for several years has shown steady and continuous improvement during the last 4 years. Relevant data are furnished in table 4.7.



TABLE 4.7  
*Growth of Agricultural Income in Kerala*

(Rs. in Crores)

Year	Agricultural income in 1980-81 prices	Rate of growth	Percentage Contribution
1985-86	1379.24	4.50	34.12
1986-87	1309.49	-5.05	33.25
1987-88	1366.01	4.31	33.75
1988-89	1568.04	14.81	34.22
1989-90	2126.12	35.56	38.88
1990-91	2211.16	3.99	38.36
1991-92 (Provisional)	2299.61	4.00	37.73

4.6 The performance of the agricultural sector in the recent past suggests that the farm front continues to hold the key for a faster economic growth in Kerala.

#### *Area Under Crops*

4.7 Out of a total cropped area of 30.43 lakh ha. food grain crops occupied 5.75 lakh ha. in 1991-92 which accounts for 18.9 percent. The declining trend in the area under food grains particularly rice continued during 1991-92 as well, with a reduction of over 18000 ha. Compared to the gross cropped area of 8.01 lakh ha. under paddy in 1980-81, the coverage during 1991-92 was less by 2.60 lakh ha. in the case of tapioca which is the major supplementary food crop also, a similar trend is discernable. The decline in area under the crop since 1980-81 works out to more than 1 lakh ha. and the trend continued during 1991-92 also with a reduction of over 5000 ha. Among the commercial crops are under coconut was 8.46 lakh ha. But the provisional figures for the year indicate a decline of over 23000 ha. under the crop. The correct position and the reasons will be known only when the actual figures become available. On the other hand increases in area have been noticed in the case of a number of other commercial crops which include pulses (+1319 ha.), sugarcane (455 ha.), pepper (1159 ha.), ginger (689 ha.), turmeric (188 ha.), cashewnut (1769 ha.), Groundnut (654 ha.), sesamum (1244 ha.), etc. Apart from coconut, cardamom and Arecanut are the two other major crops which have recorded negative growth in area during the year.

#### *Production of Major Crops*

4.8 Despite marginal improvement in productivity the production of major food crops namely rice and tapioca could not be sustained because of the steep fall in their area under cultivation. This is a matter of serious concern particularly in the context of ever growing dependence of the State on external sources for meeting her food requirements. The Commercial Crops present a mixed trend in production.

The production performance of the small holder crops in general is not very encouraging with almost all the major crops like coconut, pepper, cashew, cardamom etc. recording decline in production despite increase in area under most of these crops. Considering the magnitude of coverage by these crops and the profound influence they have on vast majority of the rural households urgent measures are needed for revitalising their production. Annual crops like Ginger, Turmeric and Banana are among the few small holder crops which could improve their production performance during 1991-92. Similarly the plantation crops in general and tea and rubber in particular maintained their impressive trend in production during 1991-92 as well. The production of 3.43 lakh tonnes estimated for rubber is the highest ever recorded in Kerala. Eventhough Coffee could not escape the biennial nature of depression the drop in production during 1991-92 is not so sharp as in the previous years.

#### *Productivity of Principal crops in Kerala*

4.9 Eventhough the unit value realisation from ha. of cropped area is relatively high the productivity in physical terms in respect of almost all important crops is considerably less than other producing regions of these crops in the country. Eventhough the State is well set with all the basic requirements such as favourable weather, productive soil educated manpower, widespread input delivery systems and extension net work etc. for a highly productive and efficient agriculture they appear to have failed to create the desired impact in improving the productivity of major crops. Rubber is perhaps the only exception, the productivity of which has been reasonably high. Productivity of all the important small holder crops like coconut, pepper and cashewnut has not only been low but also highly fluctuating. Productivity of coconut which has somewhat improved during 1990-91 with 5239 nuts per ha. has again slipped down to 4969 nuts per ha. during 1991-92. Similar is the trend in the case of pepper with productivity declining to 244 kg. per ha. from 278 Kg. The productivity of cardamom also declined from 52 to 44 kg./ha. and that of cashewnut from 888 kg. to 834 kg.

4.10 Data pertaining to area, production and productivity of important crops in Kerala for the years 1990-91 and 1991-92 are given in Table 4.8.

#### *Overall Trend in the performance of different categories of crops*

4.11 The indices of area, production and productivity of major categories of crops for the last 12 years are given in Table 4.9. The index of overall production which was 100.17 for the triennium ending 1978-79 is in a declining trend touching its trough point of 84.47 during 1991-92. The production index for 1991-92 is 84.47 against 98.02 and 85.31 recorded for 1989-90 and 1990-91 respectively. The poor physical performance in the crop sector is explained by the deceleration in the land use as well as slump in productivity under major crops. Both these indices also declined during the year. The productivity index is not only on the decline but also far below the base level index which is a pointer to the enormous potential for productivity improvement remaining untapped in the farm front.

4.12 Among the different categories food crops in general are losing considerably in their area coverage which is glaringly evident from the sharp decline of the index concerned from 102.55 to 67.54 over the last decade. The productivity index on the contrary has been on a continuously increasing trend from 96.22 for the triennium ending 1978-79 to 122.49. It appears that the cultivation of food crops is getting stabilized in relatively more productive areas. Unlike cereals, pulses as a group gained substantially in area as well as productivity during 1991-92.

4.13 The indices in respect of area, production and productivity of non-food grains as a category presents disparate picture during 1991-92. The area index, which was all along been increasing has come down from 119.24 in 1990-91 to 117.57 mainly because of the decline in area reported under coconut as well as the steep fall in area under tapioca. The productivity index though much below the base level, on the other hand, has marginally increased from 71.66 to 72.15 which was facilitated by the positive performance on the categories of oil seeds, plantation crops, as well as miscellaneous crops.

#### *Performance of major crops*

##### (a) *Rice*

4.14 Despite steady and significant improvement in productivity, sustainability of rice cultivation continues to face serious difficulties in many parts of the State particularly in the unirrigated tract. The production of rice which was on a continuous declining trend during the last decade showed a sudden recovery during 1989-90, through a total reversal of the negative trend, both in area coverage and production. Rice production increased from 10.12 lakh tonnes to 17.40 lakh tonnes during the year. As this impressive performance coincided with the launching of the group farming programme by the State Government, it was believed that group farming would help the State for bolstering the rice economy and for regaining the lost ground. Unfortunately the subsequent trend in the rice production scenario as given in table 4.10 does not corroborate this view. The programme did not appear to have made positive impact on either arresting the shift in area from rice crop or in attaining any significant improvement in the coverage under high yielding varieties. The package of services rendered under the scheme therefore needs closer examination with a view to making it more effective. The financial assistance provided under the scheme has to be directed against the most important constraint that restricts the scope of promoting rice production in each of the padasekharams. Economic rationality suggests that the programme needs to be concentrated in relatively better endowed regions having potential for further improvement in productivity. The declining trend in area under cultivation and production of rice is bound to have its adverse impact on the food security, availability of straw for feeding cattle, employment opportunities for agricultural labourers particularly women and the ecological balance.

4.15 Season-wise area, production and productivity of rice during the last two years are given in table 4.11. The decline in area is noticeable in Autumn and Winter season while there was a marginal increase

during the Summer season. However, the Summer crop accounts for only 12.6% of the gross cropped area under rice. Eventhough autumn crop covers the largest area under rice the productivity has declined from 1961 Kg. to 1835 Kg. per ha. during 1991-92. The productivity during the Summer season remained stagnant at 2205 Kg. per ha. The overall improvement in productivity from 1942 Kg. to 1959 Kg. attained by the crop in general during the year is thus contributed by the Mundakan season the productivity of which has increased from 1960 Kg. to 1998 Kgs. per ha. during the year.

4.16 The district wise performance in respect of rice production also reveals a highly varying trend. The crop has recorded increase in area in the districts of Ernakulam, Palakkad and Kannur while the districts of Idukki, Ernakulam, Thrissur, Palakkad, Malappuram, Wayand and Kasargode could put up positive performance in productivity. The coastal districts south of Ernakulam show declining trend in respect of both area and productivity. Relevant data is given in table 4.12.

4.17 The season-wise variation in coverage of high yielding varieties and their yield levels continue to persist. Maximum coverage was during the virippu season (44%) followed by Mundakan (29%) and Punja (26%). Relevant data is given in table 4.13. It is a paradox that the coverage under high yielding varieties of rice is maximum in Autumn season which has the lowest productivity per ha. among all the three seasons. The productivity of high yielding varieties during Autumn season in 1991-92 was 1721 Kg. per ha. while it was much higher in Winter (2440 Kg.) and Summer seasons (2463 Kg.) The overall average of productivity of HYV for all the three seasons during 1991-92 was 2129 Kg/ha. which was only marginally higher than the productivity recorded by the crop (1959 Kg/ha) including local varieties. The relevant data reveals that the incremental yield realisable for high yielding varieties at the farm level is not attractive enough to motivate the rice growers for bringing more area under these varieties. There is wide gap between the potential yield for these varieties as established in the experimental farms and those realised under field conditions.

4.18 The vignette of rice scenario in Kerala is very clear in the sense that the State had to rely more and more on external sources even for maintaining the present level of supplies. The disparity in net income per unit area in respect of rice vis-a-vis the competing crops is getting widened day by day making it very difficult to sustain even the current area under the crop. The problem has to be tackled from a long term perspective of improving the economics of paddy based farming systems through a judicious combination of technological improvements like appropriate mechanisation, introduction of stable and multi-resistant varieties with potential for better biomass production and popularisation of Summer cultivation in all rice fallows with catch crops like pulses, sunflower etc. to supplement the income. The group farming samithis have to be transformed into institutions capable of operationalising these measures.

##### *Coconut*

4.19 Coconut continues to hold its dominant position in coverage of area as well as contribution to agri-

cultural income. As per the latest estimates (1991-92) the crop covers more than 38 per cent of the net cropped area in Kerala, supporting nearly 10 million people. The emerging trend of coconut production in Kerala rises high hopes for building a better and stable coconut economy. The climatic condition and the price situation prevailed during the last two to three years have helped the crop to stage a remarkable recovery from the perpetual stagnation it was facing during the late seventies and early eighties. However constant attention need to be given for stabilising the achievements during the last three years. Data relating to the recent trend in area, production and productivity of coconut are given in table 4.14.

TABLE 4.14

*Trend of area production and productivity of Coconut in Kerala*

Year	Area (000 ha.)	Production (Million nuts)	Productivity (nuts/ha.)
(1)	(2)	(3)	(4)
1980-81	651.37	3008	4618
1985-86	704.68	3377	4792
1989-90	832.17	4358	5017
1990-91	870.02	4232	5239
1991-92	840.28	4206	4969

4.20 The productivity of the crop continues to be low and unstable. The situation could be improved only by launching a major rehabilitation programme, combining irrigation, replanting of old and senile palms, and scientific management of the remaining palms and implementing the same on an area-wide basis covering the major coconut producing panchayats in an organised manner.

#### Pepper

4.21 As in the case of Coconut, Pepper is also confronting problems like disease, senility, and poor management. The rapid spread of the quick wilt disease in an endemic form in some of the important pepper producing pockets in Kannur, Wayanad and Idukki districts is posing a very serious threat for sustaining the impressive performance in production achieved in later eighties. Data on area production and productivity of pepper in the recent past is given in table 4.15.

TABLE 4.15

*Area, Production and Productivity of Pepper in Kerala*

Sl. No.	Year	Area (000 ha.)	Production (000 T)	Productivity (kg./ha.)
(1)	(2)	(6)	(4)	(5)
1.	1980-81	108.07	28.52	264
2.	1985-86	121.56	33.12	272
3.	1989-90	167.10	54.13	249
4.	1990-91	168.51	51.97	278
5.	1991-92	169.66	54.70	244

4.22 Export of pepper suffered a serious set back following the disintegration of U.S.S.R., which was even otherwise fluctuating widely in the recent past. The new initiatives taken by Government of India by providing technical credit for export and the recent trade agreement with Russia are likely to improve the situation, which is still lingering at its lowest ebb.

#### Cashew

4.23 The area under Cashew, which was more or less steady around 1.40 lakh ha. in early eighties, has shown declining trend in late eighties touching a level of 1.5 lakh ha. in 1990-91. Eventhough the coverage during 1991-92 is marginally better the need for further expanding the area under the crop is keenly felt. On the production side of the peak level 1.08 lakh tonnes during 1988-89 achieved could not be sustained in the subsequent years mainly because of the fluctuations in area and productivity. The productivity declined from 888 kg. ha. in 1990-91 to 834 in 1991-92. Trends in area, and production and productivity for the last decade is given in Table 4.16.

TABLE 4.16

*Area, Production and Productivity of Cashewnut in Kerala*

Year	Area (000 ha.)	Production ('000 Tonnes)	Productivity (kg/ha.)
(1)	(2)	(3)	(4)
1980-81	141.27	81.90	580
1985-86	137.74	80.20	582
1989-90	123.66	106.25	877
1990-91	115.62	102.77	888
1991-92	117.39	97.91	834

#### Oil Palm

4.24 Kerala has a total planted area of 3645 ha. under oil palm, owned by the Oil Palm India Ltd. The production of oil has already commenced, though not stabilized yet. Year-wise production and sale of crude palm oil over the last five years is given in table 4.17.

TABLE 4.17

*Production and Sale of Crude Palm Oil in Kerala*

Year	Quantity of oil produced	Quantity sold by Oil Palm India Ltd. (Tonnes)	Revenue (Rs. in lakhs)
(1)	(2)	(3)	(4)
1986-87	1263	1303	99.77
1987-88	1105	960	131.12
1988-89	2035	2196	314.56
1989-90	2108	1986	307.06
1990-91	2335	2478	377.11
1991-92	2323	2482	485.21

### *Plantation Crops*

4.25 As regards plantation crops the out look is extremely good. Perhaps the best tidings are from rubber which is having impressive records in area expansion as well as production. The indications are that the production of natural rubber in the country is likely to scale a new peak of 4 lakh tonnes by the end of 1992-93. It has already attained 3.66 lakh tonnes in 1991-92 against 3.29 lakh tonnes for 1990-91. Out of this Kerala's contribution is 3.43 and 3.07 lakh tonnes respectively. This is against the estimated consumption of 3.80 lakh tonnes of natural rubber in the country during 1991-92. Thus it was possible to reduce the import from 59835 tonnes in 1988-89 to 14500 in 1991-92. In the wake of sustained increase in production it would be possible to become self sufficient in rubber, and if the present trend continues the possibility of India becoming an exporter of rubber would soon be realised. In fact in the first half of 1992, Government of India has lifted the ban on export of rubber in January 1992 and STC was permitted to export 5834 tonnes during March 1992 and 5988 tonnes during April/June 1992. STC was also directed to carry out support price operations in October 1991 to March 1992 to circumvent the glut situation.

4.26 The Rubber Board is vigorously pursuing its promotional programmes for rubber production which include grant of financial and technical assistance for new planting and replanting, distribution of high yielding planting materials, popularising ringbanded tapping, spraying against pests and diseases etc. Rubber Board also continue to promote village level producers' societies (RPS) for supporting the production efforts with the specialised services like processing, marketing etc. About 1300 such societies have been organised so far.

Production, Consumption and Price Statistics pertaining to Rubber are given in tables 4.18, 4.19 and 4.20.

4.27 While the production performance of Coffee during 1991-92 at the national level was in contrast to its binneal nature of blossom by presenting an increasing trend for two years in succession, Kerala could not totally evade the binneal dip in production. Coffee production has marginally declined from 35700 tonnes to 34000 tonnes. The area statistics for the crop for 1991-92 is yet to become available. The marketing problems arising from the repeal of the International Coffee Agreement continued to persist during 1991-92 as well. The international community is yet to arrive any consensus in working out a proper system. However exports of coffee during 1991-92 has improved marginally from around 1 lakh tonnes to 1.10 lakh tonnes. The release for internal consumption by the Board during 1991-92 was only 49200 tonnes against 54150 tonnes for 1990-91. Along with the problems connected with export, the stagnating trend in domestic consumption pushes the coffee production and marketing scenario in real peril. Consequently both pool and export auction prices have considerably declined since the beginning of 1992. The average export auction price of plantation coffee which was Rs. 2041.75 for 50 Kgs. in 1988 has plummeted to the level 1471.750 in June 1992 while that of Arabic Cherry AB has

declined from Rs. 1667.25 to Rs. 1221.50. The situation demands a careful review of the national policy on Coffee marketing including the future role of the Coffee Board.

4.28 Aided by conducive climatic conditions, Kerala could repeat its promising performance in tea production during 1991 also. Production has increased from 63416 tonnes in 1990 to 68378 tonnes by 1991 largely contributed by the improvement in productivity from 1827 kg./ha. to 1967. The buoyancy witnessed in the tea market in 1989 and 1990 was reversed in 1991. The overall average price at South-Indian auction centres was Rs. 33.06 per kg. in 1991 against Rs. 38.62 per kg. in 1990 and Rs. 33.31 per kg. in 1989. This could be attributed to the fall in export from 210 million kgs. in 1990 to 202.9 million kgs. in 1991.

4.29 Production of cardamom in Kerala during 1991-92 was 2770 tonnes which was much lower than 3450 tonnes attained in 1990-91. The average productivity of the crop also recorded marginal decline from 52 to 44 kg. during the period. However the export front shows positive signs of revival with exports picking up from 400 tonnes in 1990-91 to 553 tonnes in 1991-92. In unit value realisation also the emerging trend is promising with a spurt in average export price from Rs. 271.75 kg. to Rs. 290.60.

### *Supplies and Service*

4.30 Over the years the State could build up an extensive net work for supplies and services in the farm front. Infact there was steady improvement in the consumption of almost all important inputs for agricultural production during the last 3 decades. With the establishment of Krishi Bhavans at the panchayat level, the supply and service windows in the farm sector has further increased. The task resting before the farm front is therefore one of optimally utilizing the available infrastructure including upgradation of the efficiency of inputs for securing better returns.

### *Improved Seeds*

4.31 Seed Industry in Kerala is still in a nascent stage with the governmental farms dominating the scene. Though improved seed is the critical input that can trigger a breakthrough in agricultural production, systematic arrangements organised on a permanent setting for a continuous upgradation of the existing genetic base of important commodities are lacking in Kerala. This is perhaps the weakest link in the State's Agriculture. Even in the case of rice, for which all the necessary infrastructure starting from breeder seed upto registered seed is very much there the system is not working on commercial lines. Consequently there is no continuity of efforts as well as there is no guaranteed source of supply for high yielding seeds. The distribution of high yielding variety seeds during 1991-92 is reported to be only 1675 tonnes against 5518 tonnes in 1990-91. So also the distribution of seedlings and planting materials of tree crops is also largely centred around governmental farms quite often linked with some development programme involving an element of subsidy. Thus the

supply is always regulated by the resources that could be made available through State budget. The distribution of coconut seedlings during 1991-92 also has come down from 17.90 lakhs in 1990-91 to 14.08 lakhs. Similar is the situation with regard to rooted pepper cuttings which also has declined from 45.49 lakhs to 39 lakhs in 1991-92. All these trends do not present a healthy environment for building a viable and sustainable seed industry. The multiplication and distribution arrangements have to be decentralised and privatised with the active support of the Department of Agriculture. The private nursery promotion programme recently launched by the Department of Agriculture is expected to give an impetus for the growth of the seed industry on desired lines.

4.32 Fertilizer consumption, which has been steadily increasing till 1990-91, decreased, consequent to the changes in fertilizer policy recently announced by Government of India. The consumption reached its peak of 244380 tonnes in 1990-91 with a reasonably high level of 81.5 kgs. of average consumption per ha. of gross cropped area. It was with very great efforts the State could promote the use of P&K which was lagging behind in early eighties. The steep hike in the prices of nitrogenous fertilizers (30%) announced in July 1991 had an adverse impact on the consumption of fertilizers. Even the concessions subsequently announced by Government of India for the small and marginal farmers could not completely avert a fall in consumption. The consumption during 1991-92 has thus fell to 224473 tonnes with a negative growth of 8.15 per cent during the year. The decontrol of phosphatic and potassic fertilizers in August 1992 has resulted in enormous increase in the prices of these two categories of fertilizers making it beyond the capacity of the small and marginal farmers for going in for an enhanced use of fertilizers. The hike in the price of P&K fertilizers was to the tune of 250 per cent. The adverse impact of this hike in fertilizer prices would be much more severe in Kerala as the fertilizer consumption pattern in Kerala is more of P&K compared to all India pattern in view of the predominance of commercial crops. So also the small farmers of Kerala do not have the wherewithal to absorb this shock. The export oriented commercial crops sector of Kerala comprising pepper, cashew, tea, coffee, cardamom etc., which are facing severe competition in the world market would be the worst affected among the commercial crops. The increase in cost of production arising out of the increase in fertilizer prices would make the export front much more non-competitive. This will have a far reaching adverse impact on the farm front of Kerala.

4.33 The strategy of need based application of plant protection chemicals pursued in respect of plant protection has helped the State to further reduce the use of plant protection chemicals during 1991-92. The consumption of fungicides has come down from 465.85 tonnes in terms of technical grade material to 374.46 tonnes in 1991-92 while the fall in consumption in respect of insecticides was from 436.93 tonnes to 325.24 tonnes. Consumption of Weedicides and Rodenticides also recorded negative growth during the period. On the other hand the number of parasites liberated for the biological control of coconut leaf caterpillar has increased from 225 lakhs to 234 lakhs. Distribution of P.P

equipment was also stepped up from 5518 members to 12944 during the year. Selected indicators of progress are given in table 4.21.

4.34 Farm Information Bureau is providing the information and communication support in the farm front. The activities of the Bureau for 1991-92 include 7628 farm news broadcasts, 1106 press releases, 24 rural exhibitions 76 seminars 26 melas and participation in two major exhibitions. The Bureau could also start more than 2000 farm book corners in rural libraries with the support of the State Institute of Languages and Kerala Grandhasala Sangham.

4.35 The supply of agro machineries through the Agro Industries Corporation during 1991-92 includes tractors (Rs. 40.46 lakhs), Power tillers (Rs. 240.64 lakhs), pumpsets and accessories (Rs. 84.14 lakhs) drip and sprinkler irrigation units (5.97 lakhs) and sprayers (Rs. 5.98 lakhs). The Corporation continued its after sale services through its 11 field offices during 1991-92 also fetching a revenue of Rs. 7.73 lakhs from this source alone. The manufacture of trailers, tankers for tractors and power tillers, storage bins, garbage bins, sales bunks, wheel barrows, hand cart etc. were also continued and the value of these items manufactured during 1991-92 is reported to be around Rs. 104.22 lakhs. Training programme for tractor driving was also continued benefitting 116 persons during the year. The Corporation has developed prototype for an efficient power operated mini thresher that can thresh about 150 to 200 Kg. of paddy per hour. The fruit processing unit of the Corporation was also continued with a sales of Rs. 37.85 lakhs during the year.

## PRODUCTION PROGRAMME

4.36 The group farming programme for rice continued during 1991-92 covering 5.10 lakh ha. and nearly 12.12 lakhs cultivators. A number of production enhancement activities were initiated utilising the grant of Rs. 495.67 lakh made available by Government to the group farming samithies. They include:

(a) Community Nurseries	2758 ha.
(b) Soil ameliorants—distributed	9672 MT
(c) Irrigation works	132 Nos.
(d) P.P. equipment	236 Nos.
(e) Power tillers	22 Nos.
(f) Pumpsets	3286 Nos.
(g) Renovation of existing tanks	22 Nos.
(h) No. of Padasekharams covered	2231 Nos.
(f) No. of Agro clinics organised	7889 Nos.

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

(a) Certified seed distributed	2315.80 M.T.
(b) Herbicide-Weedicides	9197 ha.
(c) Plant Protection equipment distributed	5978 Nos.
(d) Field demonstrations organised	2493 ha.
(e) Power tillers distributed	203 Nos.
(f) Training classes conducted	349 Nos.

4.38 Under the Programmes for procurement and distribution of paddy seed an area of 1072 ha. were brought under seed multiplication and 828 tonnes of seeds were distributed. Production and distribution of coconut seedlings amounted to 14.10 lakhs.

4.39 During the year, 7.50 lakhs of vegetable seed packets were distributed to farmers to take up vegetable cultivation. Apart from this 302 Schools, 405 youth clubs and 430 Mahila Samajams were given assistance for vegetable production. This is in addition to the 3000 numbers of mini kits distributed under the 100 percent Centrally Sponsored Scheme. A total of Rs. 40.00 lakhs has been spent for development of vegetables during 1991-92.

4.40 Under the pulses development programme an area of 8009 ha. were brought additionally under pulses by subsidised distribution of 160 M.T. of pulses seeds.

4.41 Under the National Biogas Development Project 2818 Nos. of biogas plants were installed during 1991-92.

4.42 The Special Employment Generation Programme introduced during 1989-90 with a view to generate additional employment opportunities to the unemployed agricultural labourers in rural areas continued during 1991-92 also, even though the flow of bank credit and involvement of the panchayats in organising the works were not there to the desired extent. An amount of Rs. 995.30 lakhs has been spent under this programme during 1991-92. The details of activities undertaken are given below:

(a) Soil conservation and land Development	4400 ha.
(b) Irrigation infrastructure	18000 ha.
(c) On farm development work in Padasekharams	1.68 lakh ha.
(d) Land development works for sericulture	687 "
(e) Infrastructure support for fodder development	824 "

4.43 Comprehensive Coconut Development Programme was the major scheme implemented for the development of coconut and the expenditure during 1991-92 was Rs. 386.50 lakhs. The activities supported under the scheme were construction of 8687 wells, 3000 Nos of mini kits distribution of 915 M.T. of green manure seeds, supply of 1382 pumpsets and distribution of 1.75 lakh coconut seedlings for replanting. These efforts were supplemented through the implementation of the Coconut Board Scheme for development of coconut small holding with an outlay of Rs. 1.38 crores. Under this scheme 460 irrigation units were established and 1.09 lakh uneconomic palms were replanted.

4.44 The integrated programme for spices implemented with 100% financial assistance from the Government of India was continued. Major activities taken up under the programme include production and distribution of 40 lakh rooted pepper cuttings, 64,000 tree spices seedlings, rehabilitation of 7300 ha. pepper gardens, distribution of 64,000 input minikits, 319 units of plant protection equipment etc.

4.45 Under the group management scheme for pepper emphasis given during 1991-92 was on plant protection and accordingly 3955 rocker sprayers were distributed to the group samithis for organising plant protection measures against quick wilt diseases. Fungicides required for the purpose was also arranged to be supplied.

4.46 Under Special Component Plan and Tribal Sub Plan, location specific development programmes benefiting the habitats of the targetted group were continued during 1991-92. All the inputs required were made available free of cost to the participating beneficiaries and the investment on infrastructural development by way of irrigation, land development etc., were supported in full under these scheme. During 1991-92 around 2001 lakh Scheduled Castes families and 6871 Scheduled Tribe families were benefited from these programmes. Details of physical achievements under these schemes are given in Table 4.22 & 4.23.

#### *Agricultural Marketing*

4.47 Agricultural Marketing is perhaps one of the weakest links in the agricultural sector of Kerala. Kerala is the homeland of a number of export oriented commodities like Pepper, Ginger, Turmeric, Cardamom, Cashew etc. which enjoyed a ready market and a premium price in the World Market. But the situation is fast changing and as on today most of the Kerala based export commodities are facing severe competition in the World Market. Production enhancement efforts on modern lines coupled with organisation of the marketing front with appropriate facilities for procurement, storage and value added marketing is of critical importance for sustaining the tempo of exports atleast at the current level. In an agricultural economy like ours dominated by small and marginal farmers with relatively meagre marketable surpluses, co-operatives could emerge as an effective institution for marketing of agricultural commodities. Unfortunately the record of co-operatives particularly those operating in the marketing front is not that encouraging.

4.48 The Kerala State Co-operative Marketing Federation and Rubber Marketing Federation, RAIDCO, CAMPCO, KERAFED and Cashew Apex Industrial Co-operative Society are the main agencies engaged in the marketing of agricultural produce in Kerala. The commodities handled by the Marketing Federation include copra, pepper and other spices. The Federation handled only 3,000 tonnes of copra, 154 tonnes of pepper and 6 tonnes of cardamom which accounts for less than 1%, 0.3% and 0.2% of the production in the State. With such marginal operations that too without the proper backing and linkage with the producer members co-operatives cannot make any headway in the area of agricultural marketing. The Rubber Marketing Federation with its 33 member societies handles about 20 percent of the commodity marketed. In addition to the procurement from the member societies the Federation has also appointed the Primary Agricultural Credit Societies operating in important rubber producing regions as agents for procurement. In areas not serviced effectively by the primaries procurement depots have been established by the Federation. In order to bring about quality improvement the Federation is operating 3 grading centres. The produce

Procured by the Federation is being marketed through the 8 marketing outlets directly operated by the Federation in the important rubber consuming centres in the country covering Bangalore, Bombay, Ahmedabad, Calcutta, New Delhi, Faridabad, Ghaziabad and Jallundar. The achievements in the area of rubber marketing by the Federation during the last five years is given in table 4.24

Table 4.24

Year	Quantity of Rubber marketed (M Tonnes)
1987-88	25498
1988-89	29468
1989-90	29192
1990-91	28662
1991-92	42756

4.49 In the area of processing also the Federation has made a good beginning by establishing 5 crumb rubber factories with a capacity of around 15000 tonnes. So also there are 3 centrifuged latex factories operating in the co-operative sector with a capacity of 2000 tonnes. The Federation is also establishing an inter mix unit with an installed capacity of 5400 tonnes for producing custom made rubber compounds, which is expected to be commissioned by the end of 1992. Procurement and distribution of fertilizers other important input required for rubber production is also organised by the Federation through its member societies.

4.50 The General Marketing Federation and the Rubber Marketing Federation are acting as wholesale distributors of fertilizers in the co-operative sector. The quantity of fertilizers distributed by them during 1991-92 accounts for about 42.5 per cent.

4.51 The Kerakarshaka Sahakarana Federation Limited, is an agency registered for implementing the Integrated Programme for Coconut Development with assistance from NCDC/EEC. The activities of Federation has been extended to all the districts and 898 primary agricultural credit societies against the targetted number of 900 have been affiliated to the federation. The Federation has already released Rs. 15.94 crores as share capital assistance to 843 PACS for organising procurement of copra from the coconut growers. Against 3 major copra processing complexes each with a capacity of 200 tonnes per day the first one has already been commissioned at Karunagapally. Since May 1989 Kerafed is procuring copra through its member societies. Kerafed's first product, 2 stage filtered oil under the brandname 'KERA' has already captured the market. Under the product diversification programme certain down stream products have been identified by the Federation which will also be in the market soon. Under the production enhancement efforts the activities sponsored by the Federation during 1991-92 includes distribution of 22865 coconut seedlings, lay out of 3567 demonstrations and conduct of 299 Seminars-cum-Training Programmes.

4.52 The Kerala State Warehousing Corporation has expanded its storage capacity to 143531 M.T. by constructing 1800 M.T. capacity godowns during 1991-92. The Corporation is de-hiring non-viable hired accommodation to minimise expenditure and was having only 32376 M.T. hired accommodation by the end of 1991-92. The Civil Supplies Corporation is utilizing 27 Warehouses of the Corporation to store their commodities. The Corporation apart from its basic function of providing storage facilities for agricultural produce is in the process of diversifying its activities by extending its services to allied fields like clearance and transportation of agricultural commodities and agricultural inputs on behalf of Government Departments and fertilizer companies, organising outside fumigation services etc.

4.53 The Monopoly procurement scheme was in operation for Cashew during 1992 season also with price band of Rs. 21 to 23 per Kg. However the quantity procured during the year was only 43746 tonnes against 58440 tonnes achieved during 1991. Only 472 societies participated in the procurement operation during 1992 against 781 in 1991. The record of performance of CAPEX during 1991-92 is also not very encouraging. The raw nuts procured by the society during the year is only 1075 tonnes against 6269 tonnes in 1990-91. There has been considerable reduction in the export performance of the society which has come down from 1368 tonnes in 1990-91 to 678 tonnes in 1991-92.

4.54 Grading of agricultural commodities under the 'AGMARK' scheme was continued by the Marketing Wing of the Department of Agriculture. The achievement of grading of coconut oil and honey under 'Agmark' during 1991-92 were lower than those in 1990-91, but achievements in respect of gingelly oil and ground spices were higher. The K.C.M.M.F. has been newly enrolled as an 'Agmark' packer of ghee during 1991-92. The grading of agricultural commodities done through 8 State 'Agmark' Grading Laboratories and through private laboratories for the last 7 years are given in table 4.25.

TABLE 4.25

Commodities graded under 'AGMARK' from 1985-86 to 1991-92

(Quantity in quintals)

Year	Coconut oil	Gingelly oil	Honey	Ground spices	Ghee
(1)	(2)	(3)	(4)	(5)	(6)
1985-86	35015	6502	879	1411	..
1986-87	33697	7459	366	1391	..
1987-88	66990	10270	1496	1157	..
1988-89	27840	404	615	511	..
1989-90	27294	842	1964	511	..
1990-91	15239	698	1467	1069	..
1991-92	13289	4504	868	5117	164

### Soil and Water Conservation

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

But the pace of implementation of the soil conservation activities in the State is rather slow and the cumulative coverage till the end of 1990-91 was only 98664 ha. which accounts for 6.57 per cent of the vulnerable area. The total coverage during 1991-92 is reported to be 2834 ha. comprising of 1416 ha. under State sector, 1420 ha. under Central sector. The 100 percent Centrally sponsored "National Watershed Development Programme" which provides soil conservation support for 56025 ha. in Kerala over a period of 5 years is yet to take off. Likewise the OPEC assisted rainfed project for the northern districts where soil and water conservation is the key activity also remained more or less a non-starter during the year.

### Soil Survey

4.56 The Soil Survey Organisation in the State has been restructured during the year 1990-91, with the objective of providing one soil survey field unit each in all the 14 Districts of the State. Detailed Soil Survey of Adoor Taluk was completed during 1991-92. Detailed Soil Survey works are in progress in the Taluks of Chengannur, Vaikom, Talappally, Chittur, Palghat and Badagara. Reconnaissance Soil Survey of Kanjirappally, Kunnathunad, Kochi and Paravoor taluks have been completed and work are in progress in the taluks of Eranad, Thodupuzha, Alathoor, Vythiri, Taliparamba and Kasaragode. The total area covered under detailed soil survey during 1991-92 was 101365 ha. and under Reconnaissance Soil Survey 142942 hectares.

4.57 The State Land Use Board set up in 1975 as a nodal agency for land use planning continued to provide its advisory support to the various development Departments. Under the nation wide land use mapping project maps on 1:250000 scale were prepared for all the 14 districts utilizing temporal satellite imageries of IRS-IA. The Board also collaborated with Kerala State Electricity Board for the preparation of action plan for soil conservation treatment in the catchment area of Athirappally Hydro-Electric Project and with the Forest Department in identifying vacant lands in coastal areas of Kasaragode and Kannur districts for agro forestry and for studying the soil and vegetation status in the Agasthyavanam forest area identified for establishing a biological park. The resource mapping survey taken up by the Board in collaboration with the Centre for Earth Science Studies also continued during the year.

### Agricultural Credit

4.58 Credit is considered to be one of the basic inputs for economic development. National Bank for Agriculture and Rural Development is providing refinance support for both co-operatives and commercial banks. The disbursement of refinance under schematic lending by NABARD has steadily increased from Rs. 58.06 crores in 1987-88 and reached a level of Rs. 84.57 crores in 1991-92. The percentage increase in 1991-92 works

out to 3.67. Though the refinance had increased steadily in absolute terms the share of Kerala in the All India disbursement has declined marginally from 4.28% in 1990-91 to 4.12% in 1991-92. NABARD provides refinance support for agricultural purposes through commercial banks, co-operatives and Regional Rural Banks. Among these agencies, the Commercial Banks absorbed the highest share of refinance (36.90%) followed by KSCARDB (35.11%), Kerala State Co-operative Bank (22.46%) and Regional Rural Banks (5.53%). The State Co-operative Bank and the Regional Rural Banks have improved their relative shares from 16.16% to 18.99% and 4.38 to 4.68% while the share of Kerala State Co-operative Agricultural and Rural Development Bank and Commercial Banks remain stagnant. Agency-wise distribution is shown in Appendix 4.2

4.59 The purpose-wise disbursements during the years 1990-91 and 1991-92 are furnished in Appendix-4.3. Farm sector accounts for the lion's share (82%) of disbursements and within the farm sector plantation/Horticulture sector absorbed the maximum share of 27% followed by minor irrigation (18%), IRDP (17%). The relative share of farm sector has come down from 84% in 1990-91 to 82% in 1991-92. The refinance support to the plantation/horticulture was also more or less stagnant during the year. The flow to minor irrigation and IRDP has declined whereas the non-farm sector advance has increased from Rs. 13.12 crores to Rs. 15.01 crores (14%). Eventhough there was marginal increase under land development and farm mechanisation these two important supporting sectors still account for only a very meagre share of 2.09% and 3.01% respectively. The contribution from the L.T.O. fund of NABARD for strengthening the share capital base of the co-operatives had increased from Rs. 221.41 lakhs in 1990-91 to Rs. 287.98 lakhs in 1991-92.

4.60 Commercial Banks operated through a net work of 2850 branches in Kerala during the year. They could sustain the increasing trend in rural credit disbursement during 1991-92 as well. The total disbursement by the banks to the priority sector during the year was to the tune of Rs. 1139.03 crores registering an increase of 15.82% from the previous year. The major share of disbursement (Rs. 622.99 crores) has been accounted by agriculture and allied sectors followed by the tertiary sector (Rs. 344.28 crores) and the SSI sector (Rs. 171.76 crores). Compared to the previous year, the percentage share of disbursement for agriculture has increased substantially from 49.7% in 1990-91 to 54.7% in 1991-92. Relevant data are given in Table 4.26.

TABLE 4.26  
Performance of Commercial Banks

Year	Priority Sectors			Total
	Agri. & Allied	SSI	Tertiary	
1989-90	502.17 (54.94)	118.83 (13.00)	293.15 (32.06)	914.15 (100.00)
1990-91	488.97 (49.72)	148.09 (15.06)	346.45 (35.22)	983.41 (100.00)
1991-92	622.99 (54.69)	171.76 (15.08)	344.28 (30.23)	1139.03 (100.00)

(Figures in bracket represent percentage to total)



### Short and Medium Term Co-operative Credit

4.61 In the Co-operative Sector short and medium term credit requirements of our farmers are met by a three tier system consisting of Kerala State Co-operative Bank at the apex level and 14 District Co-operative Banks at the middle level and 1579 primaries at the base level. The apex bank co-ordinates the working of the DCBs and primaries in their lending programmes as well as in mobilising deposits. The apex bank has further strengthened its financial base considerably during 1991-92. The share capital and reserves of the Bank which stood at Rs. 3301 lakhs as on 30-6-1991 had risen to Rs. 3450 lakhs as on March 1992. However in credit disbursement there was a marginal decline in 1990-91 from Rs. 466.91 crores in 1989-90 to Rs. 451.57 crores. The balance outstanding under loans and advances for the corresponding period stood at Rs. 231.20 crores at the end of June 1991 against Rs. 263.37 crores in the previous year. The short term credit limit sanctioned by the Bank for financing seasonal agricultural operations has also increased from Rs. 103.5 crores in 1989-90 to Rs. 119.00 crores in 1990-91. The credit limits sanctioned by the Bank during 1991-92 includes Rs. 18.20 crores for financing production and marketing activities of primary weaver's societies, Rs. 7.94 crores to HANTEX, Rs. 2.78 crores to primary coir societies, Rs. 10.00 crores to COIRFED, Rs. 50.00 crores to Kerala State Cashew Worker's Apex Industrial Co-operative Society for procurement of raw cashew, and Rs. 170.00 crores to Kerala State Marketing Federation and Rubber Marketing Federation for purchase and distribution of chemical fertilizers. The industrial finance disbursed by the Bank during 1991-92 aggregates to Rs. 427.46 lakhs while the advances to economically weaker sections for construction/purchase of dwelling houses under the housing scheme of National Housing Bank works out to Rs. 1234.09 lakhs.

4.62 The Primary Agricultural Credit Societies have emerged as the biggest democratic movement in Kerala at the grass root level with a total membership of 90.35 lakhs. The share capital base of the societies as on 30-6-1991 was of the order of Rs. 90.56 crores. The average membership of a society works out to 5722 with an average share capital base of Rs. 5.74 lakhs and an average working capital of Rs. 115.00 lakhs. The deposits of the societies have increased considerably from Rs. 798.3 crores to Rs. 953.79 crores with an average deposit of Rs. 1056 per member. The percentage of borrowing members remained more or less at the same level (37%) as in the previous year. The total loan disbursed through the ST, MT structure during the Co-operative year 1990-91 has increased from Rs. 785.29 crores to Rs. 911.11 crores registering an increase of 16.02% over the previous year. In the deployment of loans, more than 80 per cent is for short term purposes. Compared to the previous year, the disbursement of ST credit has increased by 15.50%, Medium Term by 16.02% and Long Term by 29.99%. However, the increase is mainly in the non-farm sector with the share of Agriculture loans under the S.T. category remaining stagnant around 36%, and M.T. declining marginally from 39.31% to 38.3%. This shows that there is a definite shift in co-operative credit dispensation in favour of non-farm sector. It appears that the co-operative credit structure which was built up with the primary objective of supporting the farm sector is moving away from its primary responsibility.

4.63 In the matter of deposit mobilisation, the performance of the sector had been very much encouraging. During 1990-91, the co-operatives could mobilise Rs. 289.00 crores against a target of Rs. 60.00 crores, and in 1991-92, the achievement was more than Rs. 300 crores. On the other hand the recovery performance of the co-operative sector in the recent past has not been satisfactory with mounting overdues from 1989-90 onwards. The overdue which was 26.35% in 1989-90 has increased to 28.02 in 1990-91. This shows that the credit structure has not recovered fully from the severe set back which it suffered consequent to the Debt Relief Scheme introduced during 1989-90. Eventhough on the whole the co-operative credit sector presents a very encouraging picture it is not all pervasive. Data on the performance of the PACS reveal that there are 831 societies still working on loss in Kerala. The selected indicators of the performance and credit operations of the Primary Agricultural Credit Societies during 1989-90 and 1990-91 are given in Appendices 4.4 & 4.5.

### Long Term Credit

4.64 The long-term co-operative credit structure in Kerala has a federal set up with KSCARDB at the apex level and 43 primaries at the base level. The lending support by the Bank covers minor irrigation, farm mechanisation, land development including soil conservation, horticultural/plantation crops and other diversified activities like dairying, fisheries, sericulture etc. Besides these, the Bank advances loans for non-farm sector with refinance assistance from NABARD, scheme for rural housing with the assistance of National Housing Bank. The advance during 1991-92 includes Rs. 11.44 crores for ordinary lending, Rs. 27.62 crores for schematic lending, Rs. 10.18 crores for non-farm and Rs. 17.29 crores for rural housing. The Bank mobilise resources for lending by floating debentures on Government guarantee. During 1991-92, the Bank had floated debentures to the tune of Rs. 394.80 crores comprising ordinary debentures amounting to Rs. 141.42 crores, schematic debentures for Rs. 170.10 crores, non-farm debentures for Rs. 33.54 crores and rural housing debentures for Rs. 49.74 crores. The performance of the Bank during 1991-92 show a sharp decline in credit disbursement from Rs. 81.18 crores in 1990-91 to Rs. 66.54 crores. This is largely accounted by the non-advancement of any amount to KSEB for energisation of pumpsets based on the policy decision of NABARD to route the assistance through the Rural Electrification Corporation. Another reason noted for the poor performance was the steep fall in the disbursement of housing loans. It is reported that the Bank did not entertain any fresh housing loan during the period from June 1991 to December 1991 on the anticipation that Government would concede for the exemption of 0.75 per cent guarantee commission on the debentures floated for housing as in the case of other debentures operated by the Bank. As the issue still remains unresolved the dispensation of housing loan continues to be lethargic during 1992 also. Under schematic loans also, eventhough the overall disbursement is higher than the previous year it is not discernable under all the categories. The short fall is mainly under the category of "others" which declined from Rs. 119.09 lakhs to Rs. 77.06 lakhs. Sericulture is the major activity supported under this item. The

marketing problem faced by the growers is reported to have dampened their enthusiasm resulting in low offtake of credit during the year. Purpose-wise classification of ordinary and scheme loans issued are given in Appendix 4.6 and 4.7.

4.65 NCDC is an important financing agency for investment credit in Kerala. The major activities supported in Kerala by NCDC are integrated programme for coconut development, integrated co-operative development projects by District Co-operative Banks in selected districts, NCDC-III storage project, Training Programme under NCDC-IV project Fisheries project by Matsyafed. The flow of finance to Kerala from this national agency has been on the increase in the recent past even though there is marginal decline during 1991-92 compared to previous year. The assistance made available during 1991-92 was Rs. 25.66 crores against Rs. 26.41 crores in 1990-91 the percentage decrease being 2.84. The State could build up its share of assistance from NCDC over the years and the percentage share as on 1991-92 works out to 7.82. Purpose-wise release by the Corporation is given in Appendix 4.8.

#### Animal Husbandry

4.66 In the emerging agricultural scenario of Kerala Livestock Development offers tremendous potential for providing income and employment opportunities to the rural farm families. In the Agricultural Policy recently announced by the Government promotion of mixed farming, combining Crop husbandry and Animal Husbandry, has therefore been rightly recognised as the most important strategy for maximising the income of the small and marginal farmers and agricultural labourers. In fact livestock rearing particularly dairy cattle and poultry under the backyard system of management has already become an integral part of the rural households. However, commercialisation of the livestock management in Kerala is facing new challenges in view of increasing costs and low productivity. In view of its suitability as a household activity in the highly dispersed settlement pattern of Kerala and its sustainability under women management, decentralised nature of production by masses and centralised nature services for input delivery and marketing should continue to be the appropriate strategy for livestock development in Kerala.

4.67. The performance of the livestock sector particularly in the area of herd improvement of Dairy cattle presents a very encouraging picture. Thanks to the concerted efforts to improve the genetic quality of cattle in Kerala, the State has the best developed infrastructure for artificial insemination especially in the use of frozen semen. As a result the crossbred cattle population in the State constitute more than half of the breedable females.

4.68 The Livestock wealth of Kerala as per 1987 census, includes over 37 lakhs of bovine, 179 lakhs of fowls, 15.81 lakhs of goats and 1.37 lakh of pigs. The trend in livestock population of Kerala over the quinquennium 1982 to 1987 is given in table 4.27.

TABLE 4.27

Trend in Live Stock Population in the State

Year	Over the Quinquennium					1982-87		
	Cattle	Breed- able Female	Cross- bred Male	Buffa- locs	Goats	Pigs	Poultry Ducks	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1982	30.97	9.13	2.17	4.09	20.04	1.27	145.1	5.3
1987	34.24	11.57	1.99	3.29	15.81	1.37	170.92	8.46

Source: Livestock Census 1982 and 1987.

4.69 Cross breeding programme comprising production and distribution of frozen semen combined with artificial insemination through Intensive Cattle Development is the main activity vigorously pursued for livestock development in an organised manner. While the KLD Board is entrusted with the responsibility of developing the frozen semen technology and its large scale production and distribution, the Animal Husbandry Department undertakes the responsibility for implementing the artificial insemination programme through the Intensive Cattle Development Projects. The performance of the KLD Board in the production and distribution of frozen semen during the past has been laudable paving the way for a silent revolution in improving the genetic base of Kerala Dairy cattle. The Board could maintain the positive trend in production of semen during 1991-1992 as well, though the increase in production is only marginal. The production during 1991-1992 was 26.57 lakhs doses against 25.63 lakh doses in 1990-1991.

4.70 Production of frozen semen, utilisation and number of insemination conducted during the last five years are furnished in table 4.28.

TABLE 4.28

Year	Production of frozen semen (lakh doses)	Utilisation of frozen semen (lakh doses)	No. of artificial inseminations conducted (lakh No.)
(1)	(2)	(3)	(4)
1987-1988	15.29	13.79	13.10
1988-1989	20.12	13.63	12.95
1989-1990	23.35	14.29	13.57
1990-1991	25.63	15.95	15.15
1991-1992	26.57	15.92	15.12

Source: KLD Board.

4.71 The impressive performance in the production of frozen semen has not been accompanied by commensurate increase in the utilization of the same. The trend of utilization during the last five years, though positive, was presenting more or less stagnating. The number of doses utilized during 1991-1992 has been reported to 15.92 lakhs against 15.95 lakhs achieved in 1990-1991. The negative trend has reflected in the number of artificial inseminations conducted during 1991-1992 as well, at 15.12 lakhs against 15.15 lakhs reported for the previous year.

This includes 78700 cases of artificial inseminations conducted by the Cattle Improvement Assistants working under the Dairy Development Department also. The situation calls for elaborate arrangements for spreading the artificial insemination programme to less intensively serviced areas through additional service points. This is particularly necessary in the North Kerala districts where the coverage of intensive cattle development units is relatively low. Expansion of the cross breeding programme to the Malabar region through the establishment of additional centres has therefore been rightly recognised as an important programme under the livestock sector during the Eighth Plan. Accordingly 263 centres have been added during 1991-1992 making the total AI Centres run by the Department to 1629.

4.72 Besides Animal Husbandry Department, other agencies like Dairy Department, APCO, Tata and certain voluntary agencies are also maintaining artificial insemination centres in the State. Agency-wise details are furnished in table 4.29.

TABLE 4.29

AI Centres in the State as on 30-11-1992

Department/ Institution	No. of AI Centres
(1)	(2)
Department of Animal Husbandry (Both ICDP and Non-ICDP)	1629
Department of Dairy Development	89
APCOS	54
Tata Tea	27
Other Voluntary Agencies	22
<b>Total</b>	<b>1821</b>

4.73 Production of various livestock products during 1991-92 was also impressive. Milk production increased to 17.85 lakh tonnes in 1991-92 from the level of 16.90 lakh tonnes during 1990-91. The per capita per day availability of milk in the State has consequently increased from 160 gms in 1990-91 to 167 gms. in 1991-92. The increase in egg production, was from 1550 million to 1605 million. Meat production also increased marginally from 95,000 tonnes in 1990-91 to 96,645 tonnes in 1991-92, while here was an increase of 2,000 tonnes in poultry to meat production as well. The relevant production details are furnished in table 4.30.

TABLE 4.30

Year-wise estimates of Milk, Egg and Meat production in Kerala during the past five years (from 1987-88 to 1991-92)

Year	Milk (lakh tonnes)	Egg (Million Nos.)	Meat (other than poultry (Tonnes)	Poultry Meat (Tonnes)
(1)	(2)	(3)	(4)	(5)
1987-88	14.26	1440	84991	16949
1988-89	15.07	1470	88386	18832
1989-90	16.00	1500	90000	20000
1990-91	16.90	1550	95000	22000
1991-92	17.85	1605	96645	24000

Source: Department of Animal Husbandry

4.74 Though the infrastructure and supporting facilities built up over the years helped in attaining a break-through in milk production, the efficiency of artificial insemination as well as productivity of cross bred animals remained low. The rate of calving vis-a-vis number of insemination has been sub optimal. The average productivity of cross breeds in Kerala is also only 3.19 Kg. which is much below the potential. Another grey area in cattle management is in the area of cattle feed supply. The supplies are not only inadequate but also exorbitantly costly.

4.75 KLD Board is the main supplier of inputs to the various livestock development activities in the state. Technology support for artificial insemination combined with mass production of frozen semen and fodder seeds is the main activity undertaken by the Board. The Board maintains three bull stations at Mattupatty, Dhoni and Kulathupuzha with 198 breeding bulls comprising pure, exotic crossbreds and Murrah buffalo bulls. As already mentioned the Board could not maintain the tempo in production of frozen semen during 1991-92. The table below gives comparative figures of production and distribution of frozen semen by the KLD Board from 1987-88 onwards.

TABLE 4.31

Production and Distribution of Frozen Semen and Artificial Inseminations conducted from 1987-88 to November 1992.

Period	Production of frozen semen	Distributed	
		inside the State	outside the State
(1)	(2)	(3)	(4)
1987-88	15.29	13.78	2.45
1988-89	20.12	13.96	6.48
1989-90	23.35	14.25	7.80
1990-91	25.63	15.92	6.81
1991-92	26.57	15.92	7.51
1992-93 up to Nov. '92	19.60	10.03	5.44

Source: KLD Board, Thiruvananthapuram.

4.76 The excess semen that was available due to under utilisation within the State was sold to neighbouring States and the sale increased from 6.81 lakh doses during 1990-91 to 7.51 lakh doses during 1991-92. Efforts made by KLD Board to stimulate the fodder development programme of the State was commendable. By undertaking research for the selection of New varieties of fodder crops and developing package practise the Board was able to produce 54.45 M. T. of fodder seeds during the year under review. In addition, the Board has also arranged procurement of 100 MT of seeds during 1991-92 for meeting the demand. At Dhoni farm 1308 kg. nucleus seeds were produced and distributed to the certified seed growers. Under the Central sector scheme of progeny testing for the selection of superior cross breeding bulls, 39 cross breeding

bulls were tested and 64254 test inseminations were conducted during the year. The Board's programme for imparting training in fertility management, frozen semen technology, artificial insemination, progeny testing of breeding bulls, fodder seed production and fodder production also continued during the year under review.

4.77 Animal Health care is a very important area in the livestock development efforts. The health care programmes in the State are handled by the Animal Husbandry Department supplemented by KCMMF on a limited scale. The services are rendered through a net work of institutions comprising Veterinary polyclinics, Veterinary hospitals, ICDPs, AI Centres, mobile farm aid units, sub centres and district veterinary centres. During the year 15 veterinary dispensaries were upgraded into hospitals and one district veterinary centre was newly established in Ernakulam district. The total number of veterinary institutions of different kinds in the State as at the end of March 1992 was 1788 showing an increase of 65 institutions. The district-wise distribution of these institutions as on 31-3-1992 is given in Appendix 4.9. Appendix gives a summary of the veterinary aid provided through these institutions and through domiciliary services during 1991-92.

4.78 During the year under review 37.83 lakhs cases were treated and 1.19 lakh operations performed. Also, 20.21 lakh animals and 41.24 lakh poultry were vaccinated. The Veterinary Biologicals, Palode produced 85.59 lakh doses of vaccine for poultry and 25.59 lakh doses vaccine for livestock. The corresponding figures for 1990-91 were 74.29 lakhs and 18.59 lakhs respectively.

4.79 Kerala, once considered to be the egg basket of South India has lost its position over the years. Even though production shows an increasing trend, the gap between demand and supply is widening. According to the sample survey conducted in 1987 about 50 per cent of the households in Kerala maintain poultry almost entirely under the backyard system. The efforts made for commercialising the production of eggs on the lines of the neighbouring States like Tamil Nadu and Andhra Pradesh have not been successful. The economics of egg production in Kerala is facing a serious threat in view of increasing wage and feed costs. On the contrary this is an activity which could be profitably organised as a supplementary income generating activity in households involving the womenfolk and utilizing their spare time. Centralised services on co-operative lines for the regular supply of improved chicks and feed combined with arrangements for marketing wherever necessary is very crucial in stepping egg production. Therefore there is need for a thorough overhauling and reorientation of the existing arrangements with appropriate institutional arrangements at different levels. Unfortunately the development support provided to this important sector is quite meagre and is not well organised. While there is growing demand for high quality chicks of improved strains the departmental poultry farms are finding it difficult even to maintain the existing levels of supply. Production of chicks in the departmental hatcheries during 1991-92 is reported to be only 6.37 lakhs against 8.07 lakhs recorded in 1990-91. As regards

manufacture of poultry feed, also the performance of the departmental units presents a dismal picture, with considerable drop in production from 1617 tonnes in 1990-91 to 1172 M.T. in 1991-92. The Poultry Development Corporation which was established in 1989 with the objective of bridging these critical gaps on a sustainable basis is still in the process of acquiring the required infrastructural facilities.

4.80 Livestock Insurance Scheme introduced through the United India Insurance Company is getting popular among the small and marginal farmers. The coverage during 1991-92 was 11431 calves which was two and a half times higher than the previous year. The UIIC could so far insured 28543 calves in the State. During 1991-92 State Government has provided subsidy to the farmers for the payment of premium to the tune of Rs. 5.717 lakh against Rs. 2.385 lakhs during 1990-91. Year-wise details of calves insured and subsidy provided are shown in the Table 4.32

TABLE 4.32

*Year-wise Details of Calf Insurance*

Year	No. of Calves insured under feed subsidy	Amount the subsidised (Rs. lakhs).
(1)	(2)	(3)
1985-86	2496	1.904
1986-87	2174	0.983
1987-88	1432	0.654
1988-89	2186	0.992
1989-90	4115	2.007
1990-91	4769	2.385
1991-92	11431	5.717
Total	28543	14.642

Source: Animal Husbandry Department

*Dairy Development*

4.81 With the enormous increase in the number of crossbred cows, the need for providing organised supporting facilities in areas like fodder development, manufacture of cattle feed etc., is keenly felt. Infact the milk production has been seriously constrained by the wide gap in these two vital areas of production support. The efforts made in the past for promoting fodder cultivation motivating the farmers for accepting it as an integral part of the cropping system have not been successful. Past experience shows that cultivation of fodder, accepting it as a component of the existing cropping system in the homesteads, is a difficult proposition to sell particularly among small and marginal farmers. Commercial fodder production initiated by the Dairy Development Department involving selected dairy co-operatives and arranging the market tie up through them is the only bright spot in the otherwise gloomy future of fodder development in Kerala. There is also need for giving added emphasis for procurement of all green wastes and foliages which could be alternatively used for feeding cattle in rainy seasons and

preserving them for use during lean seasons. Promotional measures with appropriate institutional arrangements on community basis are called for forgetting this idea accepted at the grass root level.

4.82 Commercial fodder production programme introduced by the Dairy Department involving the Milk Societies seems to have been accepted. During 1991-92 33 societies have ventured into commercial production of fodder. Details of fodder seed production/procurement and fodder cultivation are provided in Table 4.33.

*Production/procurement of Fodder seed and area under Fodder Cultivation*

Year	KLD Board		Dairy Department	
	Quantity of seeds produced (MT.)	Quantity of seeds produced (MT.)	Area covered cultivation (Ha.)	Quantity of fodder produced (MT.)
(1)	(2)	(6)	(4)	(5)
1987-88	14.71	20	525.00	13125
1988-89	17.03	70	1773.00	44325
1989-90	36.16	150	4060.00	101500
1990-91	47.74	100	3800.00	100000
1991-92	54.45	100	3780.00	99500

Source: KLD Board & Dairy Development Department.

4.83 Both the Dairy Department and KLD Board have continued their training programmes during 1991-92. In the training institute of the KLD Board 594 officers and field staff were given training in the field of fertility management, frozen semen technology artificial insemination, progeny testing of breeding bulls, fodder seed production and fodder production. This was certainly an improvement upon the Institute's programme during the previous year when the number of personnel trained were only 219.

4.84 Under the Rural Dairy Extension and farm Advisory service programme of the Dairy Department 92800 houses of dairy farmers were visited and 8900 discussion classes held. 166 cattle shows, 156 film shows and 158 model dairy farm units were also arranged as part of the programme. Financial support was also given to 39 societies for construction of buildings, 236 societies for working capital, 37 societies

managerial support, 300 societies for purchasing milk cans and 61 societies for acquiring milk testing equipment. Five societies were assisted @Rs. 3.00 lakhs for the setting up of Mini Milk product Factories and 7 milk co-operative societies were assisted @Rs. 1.00 lakh for setting up cattle feed units. Supply of 10000 bottles of Trivax and 40 MT of mineral mixture was also arranged by the Department. The quality control units functioning under the Dairy Department, tested 2,00,000 samples of milk during 1991-92. Under Westernghat Development programme 80.5 ha of land was brought under fodder cultivation and construction of cattle shed by 500 farmers was subsidised during 1991-92.

#### *Supply of Cattle Feed*

4.85 KCMMF is the major manufacturer of cattle feed in Kerala. The Federation has produced and sold 47633 MT of cattle feed upto November end in 1992. The sales during the corresponding period in the previous year was only 40922 MT.

#### *Milk Marketing*

4.86 Kerala Co-operative Milk Marketing Federation is the implementing agency of operations Flood Programme in Kerala with technical and financial assistance of National Dairy Development Board. The Federation operates through the 1481 Anand Pattern Co-operative Societies. The year 1992 was an year of achievements to the Federation. The Trivandrum Dairy which started trial processing early in the year was commissioned in October 1992. Milk procurement in 1992 witnessed an unprecedented rise to the tune of 35 to 40 percent over 1990. By December the average daily milk procurement had reached 3.65 lakh litres. Milk sales have also correspondingly gone up.

4.87 With the setting up of 148 new dairy societies (Traditional and APCOS taken together) the total number of dairy societies registered till the end of December 1992 has become 2147 with a total membership of 519800. During the year under review KCMMF has set up a training centre at Trichur at a total cost of Rs. 30 lakhs. Under Operation Flood III in addition to the Trivandrum Dairy, the other projects envisaged include the expansion of Mannar Chilling Centre to 30,000 lpd., Pathanamthitta Chilling Centre to 20,000 lpd and Nilamboor Chilling Plant to 30,000 lpd. Important achievements of KCMMF during 1991-92 are given in table 4.34

TABLE 4.34  
Performance of KCMMF

Sl. No.	Particulars	1988	1989	1990	1991 (upto November)	1992 (upto November)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Number of APCOS registered (cum.)	988	1067	1151	1305	1472
2.	Number of APCOS functional	813	963	1068	1263	1468
3.	Number of members in APCOS (cum.)	162229	206893	254183	300433	342528
4.	Number of Women in APCOS (cum.)	15439	20864	27419	35039	44014
5.	No. of SC/ST members in APCOS	10450	13743	16964	18952	22905
6.	Average Milk procured /day by KCMMF (lit.)	211682	236517	233739	224818	199529
7.	Average Milk Marketed/day (Lit.)	205861	238857	269765	291685	319995
8.	Direct Employment generated (persons)	1845	2243	2535	2903	3328
9.	Average price paid to SOC/lit. (Rs./ps.)	3.77	4.12	4.09	5.33	6.38
10.	Average price paid to prod/lit (Rs./ps.)	3.65	4.00	3.97	5.20	6.19
11.	Mobile regular Vety. route	15	19	19	19	19
12.	No. of case treated + regular routes (yearly)	184167	206189	225192	194444	69736
13.	No. of emergency Vety. routes	8	12	13	13	13
14.	No. of cases treated yearly	18349	20914	25103	29686	13953
15.	Cattle feed sales (MT.)	32194	34173	45931	44161	47653
16.	Quantity of Ghee sold (MT.)	635.7	829.0	616.1	794.9	764.5

Source: KCMMF, Thiruvananthapuram.

TABLE 4.35

Record of performance of the various dairies during 1991 & 1992 (Upto October 1992)

Name of Dairy	Capacity	Procurement		Sales					
		Progressive 1991	Total 1992 * (October)	Average per day		Progressive	Total	Average per day	
(1)	(2)	(3)	(4)	1991	1992 *	1991	1992*	1991	(1992*)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Trivankrum	100000	13629170	13162296	37340	43155	27056710	23220590	74128	76133
Kollam	60000	15682694	18578493	42966	60913	10912846	10919824	29898	35803
Alappuzha	60000	5273726	5797608	14449	19009	6438666	5745842	17640	18839
Kottayam	8000	1722109	2254533	4718	7392	23964194	22134067	16958	18282
Ernakulam	100000	20948242	24030549	57392	78789	6189805	5575899	63655	72571
Thiruv	60000	5451692	5791043	14936	18987	6098585	5918588	16708	19403
Palakkad	15000	8096444	8709617	22182	28556	6247992	5830249	17118	19116
Kannur	40000	6478648	8972134	17750	29417	10028160	9549072	27474	31308
Kozhikode	15000	4519924	4059995	12383	13311	9328087	8520943	26104	27938
<b>Total:</b>	<b>458000</b>	<b>81802649</b>	<b>91356270</b>	<b>224117</b>	<b>299529</b>	<b>106465045</b>	<b>97415074</b>	<b>291685</b>	<b>319294</b>

Source: KCMMF, Thiruvananthapuram.

## Fisheries

4.88 Kerala, a narrow stretch of land at the South Western part of the peninsular India, has a long coast line extending over 590 kms. The State occupies the foremost position in marine fish production in India, accounting for almost a quarter of the total landing 2.16 million tonnes in 1991. The fishable area in Kerala consists of the continental shelf within 200 m. depth range spread over 36000 sq. km. However the percapita availability of fishable area in Kerala in the marine sector is low (10 ha.) compared to other important fishing states like Gujarat (177 ha.) and the national average of 37 ha. The inland water area suitable for development of culture fisheries is estimated to be around 3.6 lakh ha. which include backwaters, lakes and estuaries (242600 ha.), reservoirs (29635 ha.), tanks and ponds (3300 ha) and rivers (85000 ha.)

4.89 The fishermen population (9.75 lakhs) accounts for 3.36% of the total population in Kerala. It is largely concentrated in Alappuzha (1.66 lakhs) and Thiruvananthapuram (1 lakh) districts. District-wise details are given in Appendix 4.11.

4.90 Total fish catch in 1991-92 declined to 6.04 lakh tonnes from 6.99 lakh tonnes in 1990-91. Out of this marine fish production in Kerala during 1991 was 5,64,161 tonnes which was less by 98729 tonnes compared to the 662890 tonnes in 1990. Despite intensive fishing efforts, the production during 1991 has gone down considerably. This is in contrast to the All India performance of more or less sustaining the 1990 level of production during 1991 as well.

4.91 Though the marine fish production in Kerala has doubled during the last decade, the latest trend indicates that the increase in production is not sustainable. The trend also highlights the need for a fresh look on the minimum sustainable yield of capture fisheries in the inshore sector. The composition of marine fish landing in Kerala during the last six years (species-wise) is furnished in Appendix 4.12.

4.92 Despite vast area of inland waterspreads offering tremendous potential for the development of inland fisheries in the State, the production is hovering around 25 to 30 thousand tonnes during the last decade. The intensive development effort initiated under the FFDAs and BFFDAs during the seventh plan is yet to make any perceptible improvement in the production scenario. The Kuwait Fund Assisted Prawn Development Project conceived as a major project with the objective of securing a break through in inland sector is also confronted with many problems. The project which was originally conceived for promoting co-operative culture fisheries units is being revised in favour of joint ventures permitting private participation and foreign collaboration.

4.93 The poor performance of Kerala inland culture fisheries calls for detailed examination and for identifying the key constraints and developing appropriate package of measures to circumvent these problems. Such an exercise is necessary particularly for learning the experiences of some of the less endowed States like Andhra Pradesh, Orissa, Gujarat etc.,

having impressive production performance in the recent past. Species-wise details of inland fish production in Kerala during the last few years are given in Appendix 4.13.

4.94 Exports of marine products from the country reached an all time record of 171820 tonnes valued at Rs. 1375.89 crores in 1991-92. Out of this the share of Kerala was 58743 tonnes valued at Rs. 444.47 crores. Kerala's contribution showed an increase of 7746 tonnes over the last years share of 50997 tonnes, while the all India increase during the period was 32401 tonnes. The details of marine products exports for the last ten years are furnished in Appendix 4.14.

4.95 Matsyafed, the apex body of the Fishermen Welfare and Development Co-operatives implement schemes meant for the development of marine fisheries in the State. The Federation has seven district offices and 81 village fishermen welfare and development Co-operatives (Appendix 4.15)

4.96 One of the major schemes implemented by matsyafed is the NCDC assisted 'Integrated Fisheries Development Project'. Phase I and II of the project have already been implemented in 47 selected fishermen villages of Thiruvananthapuram, Kollam, Alappuzha, Thrissur, Malappuram and Kozhikode. Under Phase I an amount of Rs. 555.84 lakhs was spent as subsidy and loan for the supply of inputs to 850 groups covering 4577 fishermen. Under Phase II 591 groups have been benefited and an amount of Rs. 1067 lakhs has been spent as on 31-3-1992. Phase III of the project is now under implementation in all the 81 marine fishermen villages at a block cost of Rs. 3560 lakhs. The physical and financial details of the project are given in Appendix 4.16.

4.97 Besides, Housing Schemes with the assistance of HUDCO and NFWF are being implemented by matsyafed. Till the end of 1991-92 a total of 27960 houses were completed under the subsidised housing scheme assisted by HUDCO. Under the Vizhinjam Rehabilitation Housing Scheme a total of 780 houses were completed as on 31-3-1992 and the work of 177 houses are in progress with assistance of National Fishermen Welfare Fund and State Government.

4.98 Fishermen Welfare Fund Board also continued its support during 1991-92 in a number of areas of security. They include pension to 25757 fishermen, financial assistance for marriage of the daughters of 560 fishermen, insurance assistance to 114 death cases, financial assistance for temporary disability to 960 persons etc. Details are given in Appendix 4.18.

### Fishing Harbours and Landing Centres

4.99 The Harbour Engineering Department serves as a service department for the fisheries sector. It undertakes construction of Fishery Harbours, Landing Centres, Fish Farms, Hatcheries etc. Works of fishery harbours at Vizhinjam, Thankassery, Munambam, Puthiyappa, Mopla Bay and Chombal are in progress. All these works are targetted to be commissioned by the middle of VIII Five Year Plan. Neendakara fishing harbour was commissioned in 1988. Landing centres for mechanised boats were constructed at Neeleswaram, Munakkakadavu, Darmadam,

and New Mahe Works at Chettuvai and Palacode are in progress. Landing centres at Cheruyattur and Thottappally were commissioned. (Details of works are given in Appendix 4.17).

4.100 During 1991-92 the Marine products Export Development Authority was instrumental in promoting prawn farming in 3137 ha. of new area. With a view to make diesel available at international price to the deep sea vessels, a price reimbursement scheme on HSD is in operation and under the scheme 36 deep sea fishing vessels were assisted. The subsidy disbursed on the score during 1991-92 was Rs. 91.26 lakhs. Medium size vessels were also given diesel subsidy of Rs. 12.15 lakhs. Twelve sea food processing plants were paid an amount of Rs. 78.44 lakhs for setting up of IQF machinery and seven processing units were given assistance of Rs. 2.77 lakhs for installation of generator sets.

4.101 The research support of the C.M.F.R.I. in the area of capture and culture fisheries is also noteworthy. During 1991-92 the institute undertook 34 need based research projects. One of the significant research highlights of the institute during the year has been the induced breeding of the sea cucumber under laboratory conditions. Under the sea ranching programme for marine prawns, 464,000 seed of the green tiger prawn were reared and released in the Palk Bay and the tagged ones registered a fast growth rate of 1.5 mm/day and attained sexual maturity. Under the transfer technology programme, pearl culture has been carried out involving 25 rural fishermen, who have been trained in various aspects of pearl culture.

4.102 The Central Institute of Fisheries Technology dealing with research and investigations on all disciplines of fishing and fish processing has also made important contributions in the area of fisheries research during 1991. The noteworthy achievements made by the institute during the year are:

- (i) a 50 m high opening trawl was developed and successfully operated for catching off bottom fishes.
- (ii) An insulated box of 100 Kg. capacity was designed and developed for transportation of fresh fish.
- (iii) A study on the supply and demand of fish nets in India was completed.

### Forestry and Wildlife

#### A. General Forestry

4.103 As per the statistics published by the Forest Department, the total area under forest in the State is 11222.92 sq. km. which includes 9334.72 sq. km. Reserve forests and 1888.20 sq. km. of vested forests. Division-wise details of forest area are given in Appendix 4.20.

4.104 The area under forest plantations recorded a marginal increase during 1992. Against 1531.48 sq. km. of plantations in 1991, the coverage in 1992 is 1537.58 sq. km. which shows 0.4% increase over the

previous year. Teak occupies 49.01% of the total plantations, species-wise area under plantations is given in appendix 4.21.

4.105 Among the various forest produces, Timber, Firewood, Cardamom, Honey, Reeds, Bamboo, Sandal wood etc. are the major ones. Production of Timber both roundlog and roundpoles, showed decline during 1990-91 over 1989-90. Production of bamboo recorded the maximum increase during 1990-91 while the production of reeds decreased considerably. Item-wise details are furnished in Appendix 4.22.

4.106 The major source of revenue earnings was from the sale of forest produces like timber and firewood. Revenue from forest produce has gone up from Rs. 3731 lakhs in 1990-91 has gone up to Rs. 5563.69 lakhs in 1991-92. The increase is mainly from the sales of timber which has gone up from Rs. 2967.57 lakhs in 1990-91 to Rs. 4631.11 lakhs in 1991-92. Details of revenue during the last six years are given in Appendix 4.23.

#### Social Forestry

4.107 The World Bank assisted social forestry project taken up in 1984-85 with an outlay of Rs. 59.91 crores for a period of six years was due for completion in December 1990. Promotion of farm forestry through organised arrangements for multiplication and distribution of seedlings, raising plantations in public lands and afforestation of degraded forest lands are the major components of the project. The project period was subsequently extended upto March 31st 1993, so as to enable the utilisation of unspent balance mainly on account of the appreciation in the foreign assistance due to the devaluation of Indian rupee.

4.108 The project is now expected to be completed by the end of 1992-93. The anticipated cumulative achievements by the end of the year would be 113000 ha. under farm forestry, construction of 317 buildings for residential and non-residential purposes and procurement of 212 vehicles. The total investment would be Rs. 78. crores. Physical and financial details of the Social Forestry activities are furnished in Appendices 4.24, 4.25 and 4.26.

4.109 Apart from the material benefits, the project had been helpful in creating a sense of awareness among the public about the need for greening the available land spaces and preserving the ecosystems.

#### Wild life

4.110 There are 11 wild life sanctuaries, two national parks and one tiger reserve in the State with an area of 2311.67 sq.km. which accounts for about 24% of the total forest area. In coverage of area Periyar Tiger Reserve ranks first with an extent of 777.54 sq.km. followed by Wayanad Wild Life Sanctuary with an area of 344.55 sq.km. Thattekkad Bird Sanctuary is the smallest one with an area of 25.16 sq.km. Sanctuary-wise area, respective district, headquarters and year of formation are furnished in table 4.36.



Among various development activities, intensive conservation programmes for the preservation maintenance, sustainable utilisation, restoration and enhancement of natural environment in the sanctuaries and National Parks are also being implemented. During 1991-92 1309.50 kms. of firelines were cleared. Roads and Paths extending over 70.60 kms, 3 wireless stations, one check dam, 2 fire watch towers, and 36 buildings

were constructed. Plantations were raised in various sanctuaries covering an area of 1257.50 ha. Details of works done in various wildlife sanctuaries and national parks are given in appendix 4.27.

4.111 Research support for the forest development activities was mainly rendered by the Kerala Forest Research Institute with about 54 research projects currently in operation.

TABLE 4.36  
Details of Wild Life Sanctuaries

Sl. No.	Name of Wildlife Sanctuary/ National park	Area (Ha.)	District	Headquarters	Year of formation
(1)	(2)	(3)	(4)	(5)	(6)
1.	Neyyar Wildlife sanctuary	12800	Thiruvanthapuram	Neyyadam	1958
2.	Peppara "	5300	do.	Peppara dam	1983
3.	Shendurny "	10032	Kollam	Thenmala	1984
4.	Idukki "	7760	Idukki	Painavu	1976
5.	Eravikulam National Park	9700	do.	Eravikulam	1978
6.	Chinnar Wildlife Sanctuary	9044	do.	Chinnar	1984
7.	Thattakkad Bird sanctuary	2516	do.	Thattakkad	1983
8.	Thekkady, Wildlife Sanctuary	77754	do.	Thekkady	1950
9.	Pecchi-Vazhani Sanctuary	12500	Thrisur	Pecchi Dam	1958
10.	Chimmony Sanctuary	1000	do.	Chimmony	1984
10.	Parambikulam Sanctuary	27414	Palakkad	Parambikulam	1985
12.	Silent Valley National Park	8952	do.	Mannarkkad	1985
13.	Wayand Wildlife sanctuary.	34444	Wayanad	Sulthan Battery	1985
14.	Aralam Sanctuary	5500	Kannur	Aralam	1984

Source: Forest Department.

TABLE 4.1  
Percentage Departure of Rainfall

(in m.m.)

Year	South West Monsoon	North East Monsoon
(1)	(2)	(3)
1981	-28	17
1982	-44	-16
1983	-79	2
1984	-13	-13
1985	-8	-17
1986	-51	-21
1987	-55	-31
1988	-15	-1
1989	-30	-9
1990	-28	-25
1991	-39	18
1992	-37	15

Source: Meteorological Centre, Thiruvanthapuram.

TABLE 4.2

Month-wise distribution of normal rainfall and average rainfall for last 8 years

(in m.m.)

Month	Normal rainfall	1985	1986	1987	1988	1989	1990	1991	1992	Deviation from Normal rainfall during 1992
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
January	15.64	63.3	4.1	0.9	1	6	15	14	3.4	-12.24
February	16.21	5.2	15.0	0.7	19	0	5	6	1.0	-15.21
March	37.14	41.5	5.3	3.5	49	19	17	34	0.1	-37.04
April	109.78	66.7	65.3	57.6	144	107	42	97	44.8	-64.98
May	252.42	268.7	122.7	118.8	142	153	489	119	226.1	-26.32
June	711.85	861.0	264.4	559.0	585	725	603	1084	813.3	+101.95
July	720.71	424.1	318.2	187.8	608	577	652	837	802.3	+81.59
August	433.71	293.2	349.7	394.2	427	354	349	471	503.6	+69.89
September	248.57	132.3	261.7	150.7	498	294	106	50	296.5	+47.93
October	297.28	190.9	156.3	261.2	76	313	326	291	318.4	+21.12
November	162.71	82.6	200.8	214.3	79	87	174	100	338.7	+175.99
December	42.35	52.3	8.9	91.6	25	7	2	3	4.8	-37.55
Total	3047.87	2481.8	1772.4	2039.7	2653	2642	2780	3106	3353	305.13
Average	253.98	206.82	147.7	169.98	221	220	232	259	279.41	+25.43

Source: Meteorological Centre, Thiruvananthapuram.

TABLE 4.3

Station-wise Average Monthly Rainfall (mm)-Year 1992

Sl. No.	District	January	February	March	April	May	June	July	August	September	October	November	December	Total
(1)	(12)	(3)	(3)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
1.	Thiruvananthapuram	39	0	0	18	248	653	291	165	195	447	336	11	2403
2.	Kollam	1	2	2	67	316	609	539	287	360	551	507	12	3253
3.	Alappuzha	0	3	0	13	369	655	667	399	302	354	340	10	3112
4.	Pathanamthitta	9	6	0	60	318	582	665	393	311	463	478	7	3292
5.	Kottayam	0	0	0	47	361	829	776	482	262	313	294	17	3381
6.	Idukki	0	1	0	121	254	935	1026	553	354	316	230	4	3794
7.	Ernakulam	0	1	0	36	308	826	891	495	363	326	279	6	3531
8.	Thrissur	0	2	0	44	207	927	925	567	395	414	387	0	3868
9.	Palakkad	0	0	0	31	88	561	629	391	216	173	244	1	2334
10.	Kozhikode	0	0	0	65	195	966	954	600	283	287	263	0	3613
11.	Malappuram	0	0	0	61	121	803	772	538	256	257	259	0	3067
12.	Wayanad	0	0	0	42	137	1065	814	521	256	148	207	0	3190
13.	Kannur	0	0	0	14	143	1184	986	836	316	223	396	0	4098
14.	Kasargod	0	0	0	7	101	791	1297	824	280	186	522	0	4008

Source: Meteorological Centre, Thiruvananthapuram

TABLE 4.4

Weekly Rainfall of Kerala in cm for Consecutive weeks of NE Monsoon  
(October-December) for last five years

Year	Weeks in the season											
	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th
1988	2	1	1	2	4	2	1	0	1	1	1	0
1989	3	13	5	5	9	2	1	0	0	0	0	0
1990	3	11	16	12	1	2	1	1	0	0	0	1
1991	5	3	5	13	4	4	3	0	0	0	0	0
1992	13	4	2	4	5	21	43	0	0	0	0	0

Note: Week refers to the seven days from Thursday to Wednesday.

Source: Meteorological Centre, Thiruvananthapuram.

TABLE 4.5

Weekly rainfall in cm in Kerala for consecutive weeks of South West Monsoon  
(June-September) for last five years

Year	Weeks in the Season																	
	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th	14th	15th	16th	17th	18th
1988	22	13	6	16	8	12	19	18	5	13	11	11	6	12	10	16	11	3
1989	5	11	22	11	19	5	5	12	29	8	9	9	11	5	3	6	12	8
1990	14	15	12	16	19	13	13	6	10	15	6	3	3	4	0	3	2	0
1991	29	34	23	15	17	21	15	11	29	11	12	16	7	1	0	1	2	3
1992	20	17	17	29	13	17	6	24	27	17	11	11	5	13	11	2	3	12

Note: Week refers to the seven days from Thursday to Wednesday.

Source: Meteorological Centre, Thiruvananthapuram.

TABLE 4.6

Land Use Pattern in Kerala

(Area in Ha.)

Classification of land	1989-90		1990-91		Change in area between 1989-90 & 1990-91	Per cent
	Actual	Percent	Actual	Percent		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Total Geographical Area	3885497	100	3885497	100	..	..
2. Forest	1081509	27.83	1081509	27.83	..	..
3. Land put to non-agricultural uses	284850	7.33	297381	7.65	12531	0.56
4. Barren and uncultivated land	65994	1.69	58308	1.50	-7686	-0.19
5. Permanent pastures and grazing land	2916	0.07	1912	0.04	-1004	-0.02
6. Land under miscellaneous tree crops not included in net area sown	38895	0.98	34375	0.8	-3720	-0.09
7. Cultivate waste	107 362	2.76	94608	2.43	-12754	-0.32
8. Fallow other than current fallow	26609	0.68	25466	0.68	-143	-0.003
9. Current fallow	46044	1.19	44164	1.13	-1880	-0.04
10. Net area sown	2232118	57.4	2246774	57.82	14656	0.37
11. Area sown more than once	786901	20.25	796270	20.49	9369	0.24
12. Total Cropped Area	3019019	77.6	3043044	78.31	24025	0.61
13. Cropping intensities		135.25		135.44		163.33

Source: Land Use Board, Thiruvananthapuram.

TABLE 4.8

Area Production and Productivity of  
(Area in Ha, Production in tonnes and

Sl. No.	Crops	Area			Change over the previous year	%
		1980-81	1990-91	1991-92		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Rice	801699	559450	541327	-18123	-3.2
2.	Jowar	--	4527	4602	75	1.65
3.	Ragi	1471	1272	1912	640	50.3
4.	Other millets	--	1455	3047	1592	109.4
5.	Pulses	33859	23985	24704	1319	5.6
6.	Sugar Cane	8041	7625	8080	455	5.96
7.	Pepper	108073	168507	169666	1159	.68
8.	Chillies	--	551	591	40	7.25
9.	Ginger	12662	14143	14832	689	4.87
10.	Turmeric	3270	2669	2857	188	7.04
11.	Cardamom	56376	66890	61815	-5075	7.58
12.	Betalnuts (Million nuts)	61242	64817	63451	-1366	-2.10
13.	Banana	49262	22099	22069	-30	-0.13
14.	Other Plantations		43538	43457	-81	-0.18
15.	Cashew nut	141277	115621	117390	1769	1.5
16.	Tapioca	244990	146493	142298	4255	-2.9
17.	Sweet potato	5054	2603	2595	-8	0.30
18.	Groundnut	9399	12819	13473	654	5.10
19.	Sesamum	14752	9433	10677	1244	13.18
20.	Coconut-(Million nuts)	651370	870022	846282	-23740	-2.7
21.	Cotton	6223	10731	8354	-2377	-22.15
22.	Tobacco	--	252	329	77	30.55
23.	Coffee	57564	75057	NA	NA	NA
24.	Tea	36164	34706	34769	63	-0.18
25.	Rubber	237800	384000	NA	NA	NA

4.8

*Principal Crops in Kerala**productivity in kg/ha)*

Production					Productivity				
1980-81	1990-91	1991-92	Change over the previous year	%	1980-81	1990-91	1991-92	Change over the previous year	%
(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
1271962	1086578	1060222	-26356	-2.42	1587	1942	1959	17	0.87
..	2305	2344	39	1.69	..	509	509	0	0
1131	1042	1677	635	60.94	769	819	877	58	7.08
..	1131	2259	1128	99.73	..	777	741	-36	-4.6
22479	16544	17984	1440	8.70	664	707	727	20	2.8
48178	51977	54708	2731	5.25	5992	6816	6770	-46	-0.6
28519	46802	41556	-5246	-11.2	264	278	244	-34	-12.23
..	544	599	55	10.11	..	987	1013	26	2.6
32039	45685	48638	2953	6.46	2530	3230	3279	49	1.5
6141	5123	5895	772	15.06	1878	1919	2063	144	7.5
9100	3450	2770	-680	-19.71	55	52	44	-8	-15.88
10805	13074	12572	-502	-3.8	1764312	201706	198197	-3569	-1.77
317405	295145	301521	6376	2.16	6443	13355	13662	307	2.29
..	196790	200527	3737	1.89	..	4519	4614	95	2.1
81900	102771	97911	-4860	-4.7	580	688	694	-54	-6.08
4060911	2803001	2737353	-65648	-2.3	16578	19134	19244	110	.57
32967	21611	22951	1340	6.2	6523	8902	8844	542	6.5
8225	9527	9452	-75	-0.78	875	742	701	-41	-5.5
3833	2063	2029	-34	-1.64	-260	218	190	-28	-12.8
3008	4232	4206	-26	-0.61	4618	5239	4969	-270	-3.15
9847	1732	2316	584	33.7	1580	1614	2772	1158	71.74
..	472	616	144	30.5	..	1879	1872	-1	-0.05
36475	35700	34000	-1700	-4.76	634	475	NA	NA	..
50716	63416	68378	4962	7.8	1402	1827	1967	140	7.66
140333	307521	343109	35588	11.57	590	800	NA	NA	..

*Source; Directorate of Economics & Statistics*

TABLE 4.9

Index of Area Production and Productivity of Crops in Kerala; Base Year Average of Triennium ending 1979-80

(1)	Area			Production			Productivity					
	Average of 3 years 1976-77 to 1978-79	1989-90	1990-91	1991-92	Average of 3 years 1976-77 to 1978-79	1989-90	1990-91	1991-92	Average of 3 years 1976-77 to 1978-79	1989-90	1990-91	1991-92
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
All Crops (A+B)	101.48	105.38	103.49	101.80	100.17	98.02	85.31	84.47	98.71	84.02	82.40	82.92
A. Food Grains (1+2)	102.55	72.22	69.24	67.54	98.67	88.81	84.69	82.93	96.22	122.68	122.04	122.49
1. Cereals	102.59	72.60	69.40	67.46	98.85	88.68	84.41	82.51	96.95	122.23	121.60	122.23
2. Pulses	101.53	71.01	65.45	69.14	87.06	97.27	89.55	97.34	85.75	139.07	136.75	140.6
B. Non Food Grains (3 to 8)	101.00	120.64	119.24	117.57	100.52	99.94	85.45	84.81	99.52	73.44	71.66	72.15
3. Oil seeds	101.66	122.81	128.15	125.01	103.48	137.82	134.02	133.19	101.79	112.07	104.54	106.45
4. Plantation Crops	95.04	157.07	159.51	159.38	93.84	166.24	193.57	205.65	98.74	108.20	121.49	128.95
5. Condiments & Spices	100.65	131.42	133.39	131.55	89.40	136.96	136.17	132.36	88.82	105.60	101.93	100.38
6. Drugs and Narcotics	82.29	80.08	78.55	79.69	89.54	63.63	58.22	70.37	108.85	87.57	73.44	88.10
7. Fruits and Vegetables	103.20	83.28	80.69	80.25	105.94	90.09	75.05	73.90	102.65	95.10	92.99	92.01
8. Miscellaneous Crops	103.59	123.44	141.78	126.94	98.02	131.32	103.74	110.15	94.62	95.34	79.22	93.95

TABLE 4.10

Area, Production and Productivity of Rice in Kerala

Year	Area ('000 ha.)	Production ('000 tonnes)	Productivity (Kg./ha)
1980-81	801.69	1271.96	1587
1985-86	678.281	1173.05	1729
1989-90	583.389	1141.23	1956
1990-91	559.45	1086.58	1942
1991-92	541.32	1060.22	1959

Source : Directorate of Economics &amp; Statistics

TABLE 4.11

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

Season	Area		Production		Productivity	
	1990-91	1991-92	1990-91	1991-92	1990-91	1991-92
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Autumn	236078	218767	463025	401482	1961	1835
Winter	258564	259981	480655	507525	1858	1908
Summer	64808	68579	142898	151215	2205	2205
All seasons	559450	541327	1086578	1060222	1942	1859

Source: Directorate of Economics & Statistics.

TABLE 4.12

District-wise Area, production and productivity of Rice in Kerala (Area in Ha., production in Tonnes and productivity in Kg./Ha.)

Sl. No.	District	Area				Production				Productivity			
		1990-91	1991-92	change over the previous year	%	1990-91	1991-92	Change over the previous year	%	1990-91	1991-92	Change over the previous year	%
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1.	Thiruvananthapuram	21677	19604	-2073	-9.56	38363	33553	-4810	-12.53	1770	1711	-59	-3.33
2.	Kollam	30513	27619	-2894	-9.48	58385	46086	-12299	-21.06	1913	1668	-245	-12.81
3.	Pathanamthitta	14234	19153	+4919	+34.56	33226	30989	-2237	-6.73	2334	2310	-24	-1.03
4.	Alappuzha	60675	55872	-4803	-7.9	131663	116089	-15574	-11.83	2170	2077	-93	-4.29
5.	Kottayam	26257	23855	-2402	-9.1	62719	55166	-7553	-12.04	2389	2312	-77	-3.22
6.	Idukki	5078	4851	-227	-4.4	10953	10932	-21	-0.19	2160	2253	+93	+4.31
7.	Ernakulam	63078	65001	+1923	+3.0	102689	109484	+6795	+6.62	1628	1684	+56	+3.44
8.	Thrissur	74038	69065	-4973	-6.7	129287	121723	-7564	-5.85	1746	1762	+16	+0.92
9.	Palakkad	145687	147066	+1379	+0.94	324907	344738	+19831	+6.10	2280	2344	+64	+2.81
10.	Malappuram	51934	50361	-1573	-3.02	80830	80346	-484	-0.60	1556	1595	+39	+2.51
11.	Kozhikode	12062	11535	-527	-4.36	14834	13781	-1053	-7.10	1230	1194	-36	-2.93
12.	Wayanad	20943	19582	-1361	-6.50	41974	42808	+834	+1.98	2063	2185	+122	+5.91
13.	Kannur	19882	20333	+451	+2.27	32308	31249	-1059	-3.28	1650	1596	-54	-3.27
14.	Kasaragod	14292	13430	-862	-6.03	24440	23883	-557	-2.28	1710	1778	+68	+3.98
	Kerala State	559450	541327	-18123	-3.24	1086578	1060222	-26356	-2.43	1942	1859	-83	-4.28

Source: Directorate of Economics & Statistics, Thiruvananthapuram.

TABLE 4.13

*District-wise Area, production and productivity of HTV of rice in Kerala 1991-92*

Sl. No.	District	Autumn			Winter			Summer			Total		
		Area (Ha.)	Production (Tonnes)	Productivity (Kg./Ha.)	Area (Ha.)	Production (Tonnes)	Productivity (Kg./Ha.)	Area (Ha.)	Production (Tonnes)	Productivity (Kg./ha.)	Area (Ha.)	Production (Tonnes)	Productivity (Kg./Ha.)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1.	Thiruvananthapuram	4508	8365	1856	2929	5388	1840	30	34	1133	7467	13787	1846
2.	Kollam	11102	20108	1811	1313	2455	1870	38	38	1000	12453	22601	1815
3.	Pathanamthitta	1597	3186	1995	2111	4793	2270	3674	11512	3133	7382	19491	2640
4.	Alappuzha	12719	15662	1231	13059	40178	3077	11245	29448	2619	37023	85288	2904
5.	Kottayam	4281	7485	1748	9173	22655	2470	7200	19251	2674	20654	49391	2391
6.	Idukki	76	162	2132	757	1727	2281	..	..	..	833	1889	2268
7.	Ernakulam	11757	19659	1672	3330	6328	1900	6153	11071	1799	21240	37058	1745
8.	Thrissur	3649	5858	1605	5068	11393	2248	8223	20051	2438	16940	37302	2202
9.	Palakkad	8508	17865	2100	1442	2866	1988	622	997	1603	10572	21728	2055
10.	Malappuram	5630	10356	1839	3043	5197	1708	3019	7299	2418	11692	22852	1955
11.	Kozhikode	738	878	1190	785	1349	1718	906	1673	1847	2429	3900	1606
12.	Wayanad	..	..	..	4426	12684	2866	1921	4760	2478	6347	17444	2748
13.	Kannur	6383	11378	1783	1482	2745	1852	138	209	1515	8003	14332	1791
14.	Kasaragod	2356	5191	2203	827	1639	1982	118	264	2237	3301	7099	2151
Kerala State		73304	126153	1721	49745	121997	2440	43287	106607	2463	166336	354157	2129

Source: Directorate of Economics &amp; Statistics, Thiruvananthapuram.

TABLE 4.16

*Area, Production and Productivity of Rubber—Kerala and India*

Year	Kerala			India		
	Area (1000ha.)	Production (M.T.)	Productivity (Kg./Ha.)	Area (1000ha.)	Production (M. T.)	Productivity (Kg./Ha.)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1986-87	342.6	202,129	924	388.6	219,520	926
1987-88	355.0	216,582	942	406.4	235,197	944
1988-89	366.7	298,414	967	423.7	259,172	974
1989-90	376.8	275,397	1025	440.7	297,300	1029
1990-91	NA	307,521	..	NA	329,515	..
1991-92	NA	343,109	..	NA	366,745	..

Source: Rubber Board, Kottayam.



TABLE 4.19

*Production, Import and Consumption of Rubber*

Item	India					
	(Metric Tonnes)					
(1)	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92
	(2)	(3)	(4)	(5)	(6)	(7)
<b>Production</b>						
Natural Rubber	219,520	235,197	259,172	297,900	329,615	366,745
Synthetic Rubber	38,816	44,468	54,389	53,482	57,299	424,448
Reclaimed Rubber	88,995	40,535	40,960	44,500	45,785	54,185 (P)
<b>Import</b>						
Natural Rubber	45,356	53,685	52,835	44,445	51,942	14,500
Synthetic Rubber	32,600	30,100	33,950	39,000	51,800@	39,800
<b>Consumption</b>						
Natural Rubber	257,305	287,480	313,830	341,840	364,310	380,150
Synthetic Rubber	71,785	76,410	84,150	93,550	104,735	105,650
Reclaimed Rubber	38,635	41,140	41,200	43,935	45,668	54,815(P)
<b>Total Consumption</b>	<b>367,725</b>	<b>405,030</b>	<b>439,180</b>	<b>479,325</b>	<b>514,705</b>	<b>539,815</b>

P—Provisional

@ Incomplete

Source: Rubber Board, Kottayam

TABLE 4.20

*Average Market Price of Indigenous & Natural Rubber in Kottayam Market**(Rs/ Quintal)*

Year & Month	RMA-4
(1)	(2)
1985-86	1732
1986-87	1660
1987-88	1791
1988-89	1815
1989-90	2131
1990-91	2129
1991-92	2141
April 1992	2397
May "	2470
June "	2680
July "	2542
August "	2577
September "	2764
October "	2793

TABLE 4.21

## Selected Indicators of Agricultural Development

Sl. No.	Programme	Units	1980-81	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	Change over 1980-81
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
<b>I. Fertilizer Consumption</b>										
(a)	Nitrogen	Tonnes	41697	60783	70730	80238	78638	93805	82874	41177
(b)	Phosphorus	..	29402	35857	49350	50884	47252	55420	51109	27707
(c)	Potoash	..	32432	54723	62410	82805	86564	95155	91954	59522
<b>2. Plant Protection</b>										
(a)	Seed treated	000 Tonnes	5288	4300	2618	N.A.	N.A.	N.A.	NA	-2670
(b)	Area under seed treatment	Lakh ha.	0.622	0.541	0.374	0.380	0.483	0.355	..	-0.267
(c)	Fungicides (Liquid and Solid) in terms of technical grade	Tonnes	304.17	536.45	468.81	469.08	445.97	465.85	374.46	70.29
(d)	Insecticides (Liquid and solid) in terms of technical grade	..	615.76	472.15	556.54	667.72	547.08	436.98	325.24	-290.52
(e)	Weedicides (in terms of technical grade)	..	153.62	24.35	25.73	27.68	23.40	29.84	20.46	-133.16
(f)	Rodenticides (in terms of technical grade)	..	18.52	6.50	7.92	11.02	12.55	12.88	4.09	-14.43
(g)	Area under plant Protection coverage	Lakh ha.	10.98	6.158	5.366	7.58	6.303	8.310	7.25	-3.73
(h)	Rodent control operation	..	0.63	0.913	1.784	0.799	1.055	1.069	0.989	0.359
(i)	Biological control of Nephantia serinopa parasites liberated	Lakh Nos.	262.59	242.236	177.266	216.488	207.47	225.576	233.814	-28.776
(j)	Weed Control	Lakh ha.	0.775	1.333	1.578	1.317	1.040	1.345	1.432	0.657
(k)	Trees sprayed for the control of coconut leaf disease	Lakh Nos.	80.074	33.918	9.972	..	6.652	51.229	..	-29.545
1.	P.P. equipment distributed	No.	..	691	845	844	2556	5518	12944	12253
3.	High Yielding varieties of paddy seeds distributed from State seed farm and other Government agencies	Tonnes	1376.42	2691.21	2450.22	1980.14	4184	2344	1675	298.58
<b>4. Quality Planting Material, Distributed</b>										
<b>(a) Coconut</b>										
(i)	W.C.T.	Lakh Nos.	9.265	17.823	13.43	12.64	15.94	16.86	13.12	3.855
(ii)	T x D	..	4.931	0.468	0.30	0.64	0.64	0.90	0.84	4.091
(iii)	D x T	..	1.180	0.627	0.09	0.14	0.099	0.14	0.12	-1.06
<b>(b) Rooted Pepper cuttings</b>										
(i)	Panniyoor-I	..	8.32	5.18	4.98	10.67	13.58	..	..	..
(ii)	Other Varieties	..	18.26	14.92	12.55	..	..	4549	39.00	30.68
(c)	Cashew Layers	..	0.098	0.01	0.01	0.15	0.15	0.10	..	0.002
(d)	Nutmeg seedlings	..	0.241	0.23	0.05	0.19	0.15	0.66	0.64	0.399
(e)	Seedlings	..	0.694	0.11	0.56	0.40	0.75	..	..	0.056
<b>5. Soil Testing</b>										
(a)	Soil Samples Collected	Lakh Nos.	..	193875	233427	253048	233558	227621	289937	46062
(d)	Soil Samples Analysed	..	1.24	183405	204505	220998	235346	212685	213441	89441

Source: Department of Agriculture, Trivandrum

TABLE 4.22

*Physical Achievement under Special Component Plan*

Sl. No.	Particulars of benefit given	Unit	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1.	No. of colonics benefited	Nos.	1788	3468	4849	481	2540	2644
2.	No. of families benefited	"	48760	111427	150105	..	144059	201025
3.	Area benefited	Ha.	6396.12	11656	11178	..	7949.77	6594.17
4.	Coconut seedlings	Nos.	241859	275986	219894	251561	685519	230994
5.	Rooted Pepper cuttings	"	110595	167114	639133	404230	595880	385229
6.	Glove seedlings	..	..	1890	4502	2540	773	2958
7.	Mango grafts	"	7896	898	5994	3289	6870	8043
8.	Nutmeg seedlings	"	..	..	..	16238	4000	6873
9.	Paddy seeds	Kg.	..	..	3096	7850	3248	..
10.	Land Reclamation work	M3	..	..	..	..	5968.92	19560
11.	Soil conservation work	Ha.	..	..	24.00	..	17814.26	17600
12.	Construction of Mud wall	M3	..	..	..	..	58086	..
13.	Knapsack Sprayers	No.	..	4079	520	3370	611	794
14.	Rocker Sprayers	"	..	1088	..	1073	392	322
15.	Power Sprayers	"	..	17	..	23	19	..
16.	Paddy thrushes	"	..	..	..	..	10	10
17.	Power tiller	"	..	77	61	68	21	15
18.	Tractor	"	..	6	7	1	14	11
19.	Metallic storage Bins	No.	3857	..	..	..	1623	2045
20.	Rubber Roller	"	..	..	..	..	3	10
21.	Construction of Biogas plant	"	..	..	..	..	224	252
22.	Smokeless oven	"	..	..	..	..	207	263
23.	Renovation of Irrigation well	"	..	165	210	85	587	1624
24.	Pump House	"	..	..	..	..	6	..
25.	Agro Service Centre	"	..	29	14	47	8	4
26.	Pumpset Installed	"	..	50	19	26	..	180
27.	Groundnut seeds	"	..	..	..	20	..	..
28.	Vegetable Seeds	Pkt.	21444	11438	6622	612	6058	4394

Source: Department of Agriculture, Thiruvananthapuram.

TABLE 4.23  
Physical Achievement under Tribal Sub Plan

Sl. No.	Particulars of benefit given	Unit	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1.	No. of colonies	Nos.	237	3468	603	225	417	395
2.	No. of families benefited	"	9385	12175	13579	5740	12077	6871
3.	Area benefited	Ha.	5569.94	9780	5395	1068.87	3226.89	2133.15
4.	Coconut seedlings	Nos.	141514	42731	61367	36029	91782	59952
5.	Rooted Pepper cuttings	"	84685	82160	252818	123179	79805	53105
6.	Glove seedlings	"	..	900	..	..	..	3120
7.	Mango grafts	"	40	1698	..	965	443	50
8.	Nutmeg seedlings	"	..	..	..	322	..	120
9.	Paddy seeds	Kg.	..	..	1010	680	375	..
10.	Land Reclamation work	MS	..	..	..	1600	..	..
11.	Soil conservation work	Ha.	..	..	24.00	..	..	..
12.	Construction of Mud Wall	MS	..	..	..	..	10410	..
13.	Knapsack Sprayers	No.	..	67	422	..	6	68
14.	Rocker Sprayers	"	..	242	363	34	25	32
15.	Power Sprayers	"	..	3	..	..	..	..
16.	Paddy thresher	"	..	..	..	..	..	..
17.	Power tiller	"	..	12	5	..	..	5
18.	Tractor	No.	..	3	7	..	..	1
19.	Metallic storage Bins	"	275	..	..	52	..	16
20.	Rubber Roller	"	..	..	..	..	..	3
21.	Construction of Biogas Plant	"	..	..	..	..	..	11
22.	Smokeless oven	"	..	..	..	..	..	58
23.	Renovation of Irrigation well	"	..	16	25	14	8	102
24.	Pump house	"	..	..	..	..	..	..
25.	Agro Service Centre	"	..	3	5	..	2	..
26.	Pumpset Installed	"	..	10	..	..	1	5
27.	Ground nut seeds	"	..	..	..	1400	1600	2000
28.	Vegetable seeds	Pkt.	1948	6950	900	2000	1192	762

Source:—Department of Agriculture, Thiruvananthapuram.

## CHAPTER 5

### IRRIGATION AND POWER

#### *Irrigation*

5.1 The total investment in the irrigation sector till the end of 1990-91 was Rs. 96457 lakhs. The area brought under irrigation through major and medium schemes and minor irrigation schemes till the end of 1990-91 was 3.25 lakh ha. (net) 5.5 lakh ha. (gross). During 1991-92 an area of 13811 ha. (net) or 18933 ha. (gross) has been brought under irrigation by spending an amount of Rs. 8445 lakhs. Thus till the end of 1991-92 the total expenditure in the irrigation sector was Rs. 1049.02 crores and the area benefited was reported as 3.388 lakh ha. (net) or 5.689 lakh ha. (gross).

#### *Major and Medium Irrigation*

5.2 The performance of this sector during the Seventh Plan and following Annual Plan periods has not been encouraging. Most of the schemes targeted for completion and commissioning during the period could not be completed due to various reasons. This has resulted in the short-falls in the physical achievement and enormous escalation of costs.

5.3 Till the end of 1990-91 an amount of Rs. 79167 lakhs was spent on major and medium irrigation projects. The area benefited by these projects comes to 1.86 lakh ha. (net) or 3.86 lakh ha. (gross). During the year 1991-92 by spending an amount of Rs. 6754 lakhs, the physical achievement was only 5257 ha. (net) or 8808 ha. (gross). The details of ongoing irrigation projects in the State and project wise physical and financial achievements during 1991-92 are given appendix 5.1, and 5.2. All the major works on Periyar Valley, Pamba, Chitturpuzha and Kuttady Schemes were completed during the year. All the other schemes are in various stages of implementation.

#### *Minor Irrigation*

5.4 The total area brought under irrigation till the end of 1990-91 through various categories of minor irrigation works in the State is 1.39 lakh ha. (net) or 1.64 lakh ha. (gross) by spending an amount of Rs. 172.90 crores. During the year 1991-92 Rs. 1591.23 lakh was spent on minor irrigation works including the ground water development and the area benefited was 8552 ha. (net) or 10125 ha. (gross).

5.5 The details of physical and financial achievements and the minor Irrigation works taken up and completed during the year are given in appendix 5.3 and 5.4. An amount of Rs. 1406 lakh was spent for surface water development against the budget outlay of Rs. 1602 lakhs during 1991-92. The average per ha. cost of irrigation through various categories of Minor Irrigation Schemes during 1991-92 works out to Rs. 16423 (net) or Rs. 13872 (gross) as against the average per ha. cost of Rs. 11868 (net) or 11612 (gross) during the previous year 1990-91. The average cost per ha. is

highest in the category of Minor Irrigation Class I, Lift Irrigation and M.I. Class II schemes. 21 M.I. Class I works, 78 M.I. Class II works, 25 Lift Irrigation works, 65 works in the I.P.D. Yelah unit were completed during the year under review. Under special component plan, 29 works were completed to irrigate an area 7561 ha. land and under T.S.P. 14 works were completed benefiting an area of 269 ha.

5.6 During 1991-92 Ground Water Department was actively engaged in the ground water exploration and developmental activities viz., hydrogeological survey, resources evaluation, selection of sites for construction of different types of wells, etc.

5.7 During the year under review an amount of Rs. 287.60 was spent in Ground Water Development as against the budget allotment of Rs. 280 lakhs. During 1991-92 detailed hydrogeological survey has been conducted in 75 sq. km. Technical guidance and site selection was done for 11266 open wells site and selection was done for 1065 drilled wells during 1991-92. It is reported that creation of supplemental irrigation potential was made in 10071 ha. of land during 1991-92.

#### *Flood Control and Anti Sea Erosion Programme*

5.8 The main works carried out under flood control programme are construction of embankment, retaining walls, bed bars, permeable groynes etc., to protect the banks of the river from the ravages of flood. Till the end of 1990-91 an amount of Rs. 2143.97 lakhs was spent and area benefited by this was 34142 ha. During 1991-92 an amount of Rs. 383 lakhs was spent as against the budget outlay of Rs. 400 lakhs. The area benefited by implementing the programme during 1991-92 was 3050 ha. Thus till the end of 1991-92 an amount of Rs. 2527.43 lakhs was spent and cumulative area benefited comes to 37192 ha. 16 works were completed during 1991-92.

5.9 Under Anti Sea Erosion till the end of 1990-91 an amount of Rs. 10043 lakhs was spent for the construction of 312 km. of new sea wall and to reform 4497 km. of old sea wall to standard size. During 1991-92 an amount of Rs. 1228.13 lakhs (including the share of central assistance) was spent. The physical achievement attained during 1991-92 was construction of 7.95 km. of a new sea wall and 4.41 km. of old sea walls to standard size. 32 works were completed during the year 1991-92.

5.10 The physical and financial achievement of flood control programme and anti sea erosion programmes during 1991-92 are given in appendix 5.6.

#### *Command Area Development Programme*

5.11 Command area development programme though initiated in the state during 1980, the activity took momentum only after 1986 when Kerala Command

Area Development Act came into force. At present there are 14 completed projects viz., Malampuzha, Walayar, Pothundy, Gayathri, Mangalam, Peechi, Vazhani, Cheerakuzhi, Chalakudy, Neyyar, Ghitturpuzha, Periyar Valley, Pamba and Kuttiady under C.A.D. Programme. The total cultivable command area of these 14 projects comes to about 180,000 hectares.

5.12 The main activities of command area development programme are construction of field channels, field drains, land development programmes, introduction of warabandhi system, demonstration and adaptive trials for better water management practices and scientific and improved methods of water use etc. Till the end of Seventh Plan period an amount of Rs. 1475.75 lakhs was spent for this programme and a total area of 42583 hectares has been benefited by this programme. During 1990-91 an amount of Rs. 802.56 lakhs was spent and area benefited was 14450 ha. During 1991-92 an amount of Rs. 1654 lakhs has been provided for CADA activities which is to be shared by both State and Central Government on a matching basis 50:50. The total expenditure incurred during 1991-92 is Rs. 1240.37 lakhs. Details of physical and financial achievements of CADA programme during 1991-92 is given in appendix 5.7. Field channels has been constructed to benefit an area of 10950 ha. and field drains for an area of 5230 ha. Warabandhi system has been introduced in area of 36035 ha. and adaptive trials conducted in 2420 ha. land. Number of demonstrations has been conducted and beneficiary Farmers Association have been formed with a view to involve farmers participation.

5.13 The ultimate aim of achieving the full irrigation potential is possible with effective implementation of CADA Programme and whole hearted co-operation of beneficiaries in the ayacut of projects coming under the Command Area Development Authority.

#### Power Development

5.14 The total investment in power development upto the end of VII Plan period was Rs. 115430 lakhs. During 1990-91 an amount of Rs. 13542 lakhs was spent. Thus till the end of 1990-91 the total amount in power development was Rs. 128972 lakhs. The installed capacity of ten completed hydro electric projects in the State as on March 1991 was 1476.5 MW. Since th no project was completed and commissioned, during 1991-92 no additional capacity was added to the power system of Kerala. The growth of Kerala Power system at a glance during 1990-91 and 1991-92 are given appendix 5.8.

5.15 The power generated during 1991-92 was 5325.79 MU. This was 164.96 MV less than the generation during 1990-91; Project wise power generation as on 31-3-1992 is given appendix 5.9. Import of power has been 1855.82 MU, an increase of 551.99 MU over the preceding year. The energy sold during the year was 5596 MU, which is 264.19 MU more than the energy sold during the previous year. Even though the generation of power is less during the year, the sale of power is more, which is due to the increase in the import of power during the year.

5.16 The per capita consumption of power in the State as in 1992 is 193 kwh. which is below the national average of 238 kwh achieved during 1989-90.

5.17 During 1991-92 there were 15 hydro electric projects of various capacities in different stages of implementation in the State. The details of tentative year of commissioning estimated cost, expenditure etc. of the projects are given in appendix 5.10. The works on all the projects are progressing. Repeated contract failures and labour strikes have slackened the pace of progress of works in Azhutha Diversion and Kakkad H.E. Project. This will naturally off set the time schedule of commissioning.

#### Transmission and Distribution

5.18 The transmission and distribution loss in the State as on 31-3-1992 was 21.73% which is 0.16% more than the previous year's Transmission and Distribution loss. Even though schemes are implemented to reduce the Transmission and Distribution loss due to various reason this could not be achieved. System improvement works and specific schemes are being implemented vigorously to reduce Transmission and Distribution loss. The following transmission lines and substations were commissioned during 1991-92.

Name of Transmission line/Substation	Route length KM/MV
1. Tap line to Guruvayur	66KV 1.5 DC
2. Tap line to Manjery	66 KV 3.5 DC
3. Vzhathope to Kattappana	66KV 2381
4. Guruvayur Substation	66KV/11KV 2x10
5. Manjery Substation	66 KV/11KV 2x6.3
6. Kattappana Substation	66 KV/11KV 2x6.3

Under distribution the achievements are as given below.

Sl. No.	Particulars	As on 31-3-1991	Addition during 1991-92	As on 31-3-1992
1.	Total number of consumers (Nos.)	3449888	247823	3697711
2.	11 KV line (Km.)	20821	865	21686
3.	L.T. line single phase and 3 phase (Km.)	101884	5524	107408
4.	Street light (Nos.)	522260	23392	545652
5.	No. of transformer	17838	1131	18965

#### Load shedding and Power cut

5.19 There was no load shedding and power cut during 1991-92. However, during exigencies like shortage of machines or import of power, temporary load shedding were made as per the requirement worked out by the load despatch stations.

#### Pattern of power consumption and revenue

5.20 Pattern of power consumption and revenue collected from various category of consumers during 1991-92 are given in appendix 5.11. There is no remarkable change in the pattern of consumption during the year under review compared to that of the previous year. The revenue from sale of power during the year was Rs. 336.17 crore as against Rs. 285.59

crore during the previous year. This increase is mainly due to the increase in the units sold and changes effected in the tariff rates during the year 1992. The total revenue during the year 1991-92 was Rs. 343.26 crore as against Rs. 290.62 crore during the previous year

5.21 Even though the total revenue has increased by 5264.66 lakhs during the year, the accounts for the year ended 31-3-1992 shows a net deficit of Rs. 3474.18 lakhs as against a deficit of Rs. 2168.85 lakhs during the previous year, registering an increase of Rs. 1305.33 lakhs. The expenditure for the purchase of power during 1991-92 was Rs. 13896.10 lakhs as against Rs. 7756.29 lakhs during the previous year, showing an increase Rs. 6139.81 lakh, registering 79.2% increase. This was due to the increase in the important of power by 551.99 MU during the year. Also the employees cost has increased from Rs. 12373.05 lakhs to Rs. 14167.90 lakhs during the year under review registering an increase 14.5%. During the year under review the

revenue subsidies and grants increased by 153.91 lakhs ie. from Rs. 2.55 lakhs during 1990-91 to 156.46 lakhs during 1991-92.

#### *Electricity Tariff rate*

5.22 The electricity tariff for all categories of consumers except new industries and farmers using low tension power for agricultural purposes was revised with effect from 1-1-1992. The increase was 0 to 50% for domestic consumer; and 50 to 135% for commercial consumers. The hike will be applied to various categories of industries consumers in a phased manner over 4 years.

5.23 In accordance with the Government's industrial policy new manufacturing units coming up in the State upto 31-3-1994 will be supplied electricity at the current rate for five years from the date of commissioning. For others both the energy charges and fixed charges will go up every years, upto 1995-96.

## INDUSTRY

*General Review*

The industries sector in the State has evinced noticeable improvements during 1991-92. A total number of 10918 small scale industrial units were registered in the State during this period against a target of 10,000 units, under various categories. The total number of small scale units registered during the previous year was only 8847. Achievements in respect of granting seed capital loan to small scale units and registration of industries promoted by women entrepreneurs were also more than what have been targetted for the year under review. Number of persons assisted under various schemes meant for SC/ST entrepreneurs has exceeded the original target set for the year.

6.2 The quantum of power consumed by industrial consumers, both by the small scale sector and large and medium scale sector, has increased during 1991-92 when compared to the previous year. Consumption of power of low and medium voltage by industrial consumers during this period was 391 MU as compared to 323 MU in 1990-91. This shows an increase of 21 per cent over the previous year. Number of consumers under this category has increased from 63898 in March, 1991 to 66628 by the end of March, 1992. The total consumption of power by the industrial units under High and Extra High Voltage category has increased from 2345 MU in 1990-91 to 2407 MU during 1991-92, representing a growth of about 3 per cent over the previous year. Total number of consumers under this category has also increased from 1040 in March, 1991 to 1119 in March, 1992.

6.3 Among the 45 State public sector units reviewed, 29 units were incurring loss during the year 1991-92. They incurred a total loss of Rs. 50.10 crores during this period. Only 16 companies were earning profit during 1991-92. They together earned a profit of Rs. 32.34 crores before taxation. The 'Chemical' group of industries viz. Travancore Cochin Chemicals Limited, Travancore Titanium Products Limited, Malabar Cements Limited and Travancore Cements Limited largely contributed to the profits in 1991-92. Thirty nine units, out of 45 reviewed were having accumulated loss at the end of March, 1992. Among these, the accumulated losses of 23 units, have exceeded their paid up capital. Total accumulated loss of these 23 units stood at Rs. 385.64 crores against their paid up capital of Rs. 140.99 crores at the end of March, 1992.

6.4 Total number of joint stock companies registered in the State increased to 4643 by the end of March, 1992, net addition to the total during the year 1991-92 being 386. A new company, viz., Kerala State Mineral Development Corporation Limited has been registered in the State Sector during this period. The number of registered working factories in the State has increased from 12831 in March, 1990 to 13457 by the end of 1991.

6.5 During 1991-92, 18 large and medium industrial projects with a total investment of Rs. 26.32 crores were commissioned, with financial assistance

from Kerala State Industrial Development Corporation. The total number of projects promoted/sponsored/assisted by the Corporation till the end of March, 1992 stood at 216. Among these, 162 companies have commissioned 199 different projects. In addition to these, 54 projects involving a total investment of Rs. 126 crores were under implementation at the end of March, 1992.

6.6 The Central investment in Kerala during 1990-91 was Rs. 152 crores. The total Central investment in the State increased to Rs. 1853 crores by the end of March, 1991 from Rs.1701 crores in March, 1990. On the otherhand, the percentage share of the State in the total Central sector investment in the Country has declined to 1.43 per cent by the end of March, 1991 from 3.24 per cent in March, 1975.

6.7 The State Government have plans to establish three electronic technology parks in Kerala. The work relating to the establishment of the 'Park' at Thiruvananthapuram was in progress during the period under review. Till the end of October, 1992, 45 companies have already registered for setting up units in the 'Technopark.' Out of these, seven companies commenced operation from rented premises in Thiruvananthapuram and another seven were in advanced stages of implementation.

6.8 During the period under review, industries in the traditional sector, such as coir and handloom continued to face problems with regard to shortage of rawmaterials and partial unemployment, among the workers engaged in these industries. Handloom industry was facing the twin problems of hike in the cost of raw materials and severe competition from the mills and handloom sector of neighbouring States. Both the value of production and sales turnover of the major traditional industries like coir, handloom and Khadi and Village Industries have improved noticeably during the financial year 1991-92. The State Government have taken measures to revitalise the traditional industries in the State by restructuring the co-operative societies. Accordingly, the financial base of the co-operative societies in the traditional industries sector are being restructured by strengthening their share capital and converting the outstanding loan into equity. Necessary steps are being taken to implement the sericulture development programme in the State. By the end of March, 1992, an extend of 13,000 acres have been brought under mulberry cultivation.

*Working Factories and Employment*

6.9. In Kerala there were 13,457 registered working factories as at the end of December, 1991. The total number of factories increased by 644 during the year 1991 from 12813, registering an increase of 5.03 per cent over the previous year. In all the districts, excepting Pathanamthitta, Idukki and Wayanad,



there has been increase in the number of factories during 1991. Ernakulam district stood first with 2070 factories. Maximum increase in the number of factories was also noticed in Ernakulam District, from 1934 in December 1990 to 2070 by the end of 1991.

6.10. In the year 1991, the total number of workers employed in the registered factory sector in the State has decreased by 1,51,009, showing a decrease of 29.05 percent over the previous year's level of 5.20 lakhs. This is mainly due to the sharp decline in the number of workers in Kollam and Pathanamthitta districts. The number of workers in all the districts except Thiruvananthapuram, Kollam, Pathanamthitta, Idukki, Thrissur and Wayanad has increased during the year. The district-wise distribution of registered factories and workers employed therein during 1990 and 1991 is furnished in Table 6.1.

TABLE 6.1

Number of Registered Working Factories and Employment in Kerala as on 31st December 1991

District	No. of Factories		Employment (Nos)	
	1990	1991*	1990	1991*
(1)	(2)	(3)	(4)	(5)
1. Thiruvananthapuram	660	686	38368	27865
2. Kollam	1177	1260	159111	27287
3. Pathanamthitta	335	331	22531	6534
4. Alappuzha	776	824	24731	25942
5. Kottayam	990	1044	21083	22232
6. Idukki	288	284	12873	12694
7. Ernakulam	1934	2070	76504	81081
8. Thrissur	1736	1832	48875	47092
9. Palakkad	1368	1388	28454	28869
10. Malappuram	706	731	13142	13607
11. Kozhikode	1395	1426	38708	38801
12. Wayanad	140	138	5033	3482
13. Kannur	1119	1235	27428	30271
14. Kasaragode	189	208	2940	3015
Total	12813	13457	519781	368772

Source: Department of Economics and Statistics, Thiruvananthapuram

\* Provisional

#### Joint Stock Companies in Kerala

6.11. The total number of joint stock companies in Kerala rose to 4643 by the end of March, 1992. They included 3897 private limited and 746 public limited companies. A total number of 448 companies, comprising of 403 private limited and 45 public limited companies were registered in the State during 1991-92

37/791/93/MC.

while 62 companies including 57 private limited companies were either wound up or amalgamated during this period. One of the companies functioning in Kerala was transferred to another State during 1991-92. The net addition to the total number of joint stock companies in Kerala during 1991-92 was 386 while that in the previous year was only 334. In the State sector a new company viz. Kerala State Mineral Development Corporation was registered during 1991-92. The total number of Government companies in Kerala increased to 103 as on 31-3-1992. They included 81 private limited and 22 public limited companies. The details of joint stock companies in Kerala as at the end of March, 1992 are furnished in Table 6.2.

TABLE 6.2

#### Joint Stock Companies in Kerala

Particulars	Private Limited	Public Limited	Total
	(2)	(3)	(4)
(1)	(2)	(3)	(4)
1. Number of Joint Stock Companies in Kerala as on 31-3-1991	3551	706	4257
2. Number of Companies Newly Registered during 1991-92	403	45	448
3. Number of Companies Transferred from other States during 1991-92	..	1	1
4. Number of Companies Wound up/Stuck off/Amalgamated during 1991-92	57	5	62
5. Number of Companies Transferred to other States during 1991-92	..	1	1
6. Net addition to the Total Number of Joint Stock Companies in Kerala during 1991-92: Item (2+3)-(4+5)	346	40	386
7. Total Number of Joint Stock Companies in Kerala as on 31-3-1992 (Item 1+6)	3897	746	4643
8. Total Number of Government Companies in Kerala as on 31-3-1991	80	22	102
9. Number of Government Companies Registered during 1991-92	1	..	1
10. Number of Government Companies Wound up during 1991-92	..	..	..
11. Net Addition to the Number of Government Companies during 1991-92 (Item 9-10)	1	..	1
12. Total Number of Government Companies in Kerala as on 31-3-1992 (Item 8+11)	81	22	103

Source: Registrar of Joint Stock Companies, Kerala.

## Industrial Promotion Agencies

### *Kerala State Industrial Development Corporation Limited*

6.12 The Corporation, since its inception, promoted/sponsored/assisted 216 projects in the public, joint and private sectors till the end of March 1992. Out of these, 162 companies have completed and commissioned 199 projects comprising new, expansion, diversification, modernisation and rehabilitation projects.

6.13 The gross financial assistance sanctioned by the Corporation to various industries amounted to Rs. 243.46 crores by the end of March 1992. This comprised of share capital and under writing assistance for Rs. 42.99 crores, loans of Rs. 167.13 crores and guarantees for Rs. 33.34 crores. Total disbursements aggregated to Rs. 166.49 crores which include share capital assistance of Rs. 22.70 crores, loans of Rs. 113.11 crores and guarantees for Rs. 30.68 crores.

6.14 Eighteen projects involving a total investment of Rs. 26.92 crores and having direct employment potential of 1561 were completed and commissioned

with the financial support of the Corporation. during the financial year 1991-92 Twenty-nine projects were under various stages of implementation whereas 11 projects costing Rs. 92 crores and having direct employment potential of 1694 were under different phases of development. During the year under review, the Corporation signed memoranda of understanding with private business groups, for developing and establishing 36 projects with aggregate cost ranging from Rs. 1026 to Rs. 1552 crores. Investment decisions were taken with regard to 17 projects out of these 36 projects.

6.15 The corporation earned a gross income of Rs. 704.76 lakhs during 1991-92, a growth of 73 per cent over that earned in 1990-91. It is worth mentioning that the Corporation has earned profit for the first time in 1991-92, after 1987-88. As compared to the net loss of Rs. 112.47 lakhs incurred in 1990-91, the corporation earned a net profit of Rs. 49.40 lakhs in 1991-92. The trends in the financial assistance sanctioned and disbursed by the Corporation during the period from 1989-90 to 1991-92 are furnished in Table 6.3.

TABLE 6.3

*Trends in Financial Assistance Sanctioned and Disbursed by Kerala State Industrial Development Corporation Limited during the last three years from 1989-90 to 1991-92.*

(Amount in Rs. lakhs)

Mode of Assistance	1989-90		1990-91		1991-92	
	Gross Sanction	Disbursement	Gross Sanction	Disbursement	Gross Sanction	Disbursement
(1)	(2)	(3)	(4)	(5)	(6)	(7)
(a) Share Capital	315.27	174.16	823.80	276.82	591.67	392.21
(b) Loan	1652.75	1176.89	1906.12	1174.85	2852.47	2030.56
(c) Guarantee	550.00	550.00	980.00	300.00	977.83	977.83
Total:	2518.02	1901.05	3029.92	1751.67	4421.97	3400.60

Source: Kerala State Industrial Development Corporation.

### *Kerala State Electronics Development Corporation Limited*

6.16 The Corporation has been managing eight subsidiary and five associate units during the period under review. In addition to these, it was operating nine manufacturing divisions of its own. During 1992, the Corporation has drawn up a turn-around programme, for its performance and operating results. As part of this, eleven projects were proposed to be implemented by its various divisions. Of these four projects viz. 512 Port Exchange (DTEP), TVRO, (MCD), Ground Mines and Sonobuoys (SPD) and Ship Control System (SPD) were under implementation. Out of the eight subsidiary companies of the Corporation, six have furnished the details regarding their performance during 1991-92. Two units, viz. the Keltron Component Complex Limited and Keltron Resistors Limited were operating on profit whereas the remaining units viz. Keltron Counters Limited, Keltron Electro Ceramics Limited, Keltron Resistors Limited and Keltron Magnetics Limited were incurring loss during the period under review.

### *Kerala State Industrial Enterprises Limited*

6.17 During 1991-92, the Kerala State Industrial Enterprises Limited was managing five Government owned manufacturing units viz, Kerala Soaps and

Oils Limited, Kerala State Drugs and Pharmaceutical Limited, Kerala State Detergents and Chemicals Limited, Kerala State Salicylates and Chemicals Limited and Travancore Plywood Industries Limited. Four companies in this group, excepting Kerala Drugs and Pharmaceuticals Limited have furnished details regarding their performance during 1991-92. All these four units were working on loss during this period. The total accumulated loss as on 31-3-1992 stood at Rs. 52.20 crores against their paid up capital of Rs. 10.17 crores. These units were facing acute shortage of working capital during the period under review.

6.18 The 'KSIE' earned a total income of Rs. 164.04 lakhs during 1991-92 as compared to Rs. 158.13 lakhs in the previous year. The sales income earned by the Company during 1991-92 decreased from Rs. 13.16 lakhs in 1990-91 to Rs. 10.69 lakhs whereas the income from other sources has increased from Rs. 145.71 lakhs to Rs. 152.17 lakhs during this period. The Company has incurred an expenditure of Rs. 136.83 lakhs towards interest and finance charges during 1991-92 as compared to Rs. 99.37 lakhs in the previous year. The overall working of the Company during 1991-92 ended in a net loss of Rs. 19.67 lakhs as compared to a marginal profit of Rs. 0.60 lakh earned in the previous year.

*Kerala State Textile Corporation Limited.*

6.19 This Corporation was managing four textile mills-viz, the Kottayam Textiles, Prabhuram Mills, Malabar Spinning and Weaving Mills and Edarikode Textiles during 1991-92. These four mills together produced 23.89 lakh kg. of cotton yarn during this period as against 26.08 lakh kg. in 1990-91. This shows a decline of nine per cent in the production of cotton yarn over the previous year. Though the quantity has declined, the value of cotton yarn produced has increased to Rs.1822.70 lakhs in 1991-92 from Rs. 1673.77 lakhs in 1990-91. The Knit wear and Elastic divisions of the Corporation manufactured items worth Rs. 16.93 lakhs during 1991-92 as against Rs. 16.50 lakhs in the previous year. Total sales turnover of the Corporation during 1991-92 amounted to Rs. 1900.05 lakhs compared to the previous year's level of Rs. 1797.92 lakhs. Eventhough the Corporation could generate profits during 1989-90 and 1990-91, it could not keep up this trend for 1991-92 on account of unprecedented escalation in cotton prices without commensurate increase in the yarn prices. Moreover, these mills were facing acute working capital shortage. The working of the Corporation incurred a net loss of Rs. 66.48 lakhs during 1991-92 as against a net profit of Rs.68.91 lakhs earned in 1990-91. The production details of the mills under the management of the Corporation are given in Table 6.4.

TABLE 6.4

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

Year	Cotton Yarn		Cloth/ Other items		Total Value of Production
	Production (Lakh Kg)	Value (Rs. lakhs)	Production (Lakh Mts)	Value (Rs. lakhs)	Rs. Lakhs
(1)	(2)	(3)	(4)	(5)	(6)
1986-87	13.86	468.16	11.28	59.31	527.47
1987-88	11.40	519.05	9.18	53.04	572.05
1988-89	NA	NA	NA	NA	963.00
1989-90	19.57	1349.94	..	11.34	1361.28
1990-91	26.08	1673.77	..	16.50	1690.27
1991-92	23.89	1822.79	..	16.93	1839.63

Source: Kerala State Textile Corporation Limited.

6.20 Modernisation programmes of Kottayam Textiles and Prabhuram Mills are now in an advanced stage of implementation. These involve a total investment of Rs.475 lakhs. Steps are being taken for the implementation of the modernisation programme for the Malabar Spinning and Weaving Mills at a total investment of Rs.357.59 lakhs. The Corporation have also initiated steps for the enhancement of installed capacity in the Edarikode Textiles.

*Kerala State Industrial Products Trading Corporation Ltd.*

6.21 The main activity of this Corporation, formed in 1976, is confined to the trading of the products of Government Companies and industrial concerns. It is the sole selling agent for the products of Travancore Titanium Products Limited from 1979 onwards. During 1991-92 the Corporation sold 13123 MT of Titanium dioxide. The Corporation has been running on profit from 1979-80 onwards continuously and paying dividend at the rate of 20 per cent from 1981-82 onwards. The net profit earned by the Corporation increased to Rs.60.24 lakhs in 1991-92 from Rs.34.09 lakhs in the previous year. The total sales turnover of the Corporation during the year 1991-92 was Rs.7124.05 lakhs. The sales turnover as well as the net profit earned during 1991-92 were the highest ever achieved by the Corporation since its inception. During the period under review, the Corporation functioned as an indenting agent for the sale of the products of M/S Kerala Minerals and Metals Limited. But this arrangement was continued only upto August 1991. The additional revenue to the State during 1991-92, by way of sales tax, as a result of consaliation of sales of titanium dioxide through this corporation has been estimated at Rs.1470 lakhs.

*Government Owned Companies*

6.22. As on 31st March, 1992 there were 28 manufacturing industrial undertakings in Kerala with paid up capital fully held by the State Government. Out of these, five companies viz. the Kerala Soaps and Oils Limited, Travancore Plywood Industries Limited, Kerala State Drugs and Pharmaceuticals limited, Kerala State Salicylates and Chemicals Limited and Kerala State Detergents and Chemicals Limited were being managed by the Kerala State Industrial Enterprises Limited. The Autokast Limited and Steel and Industrial Forgings Limited were under the management of Steel Industrials Kerala Limited, another holding company of the State Government. The Kerala Hitech Industries Limited and Kerala Special Refractories Limited have not started commercial production during the period under review. The Trivandrum Rubber Works Limited, Astral Watches Limited and Kerala Garments Limited were being managed by the Kerala State Road Transport Corporation, Kerala State Industrial Development Corporation Limited and Kerala State Handloom Development Corporation Limited, respectively. Some of the companies are yet to finalise their accounts for the year 1991-92. However, in the following paragraphs an attempt is made to analyse the performance of this group of companies on the basis of the details available.

6.23. The total capital invested in 21 companies has increased to Rs. 508.18 crores by the end of March 1992, from Rs. 463.65 crores in March, 1991 representing a growth of 9.60 per cent over the previous year. Five companies viz. the Kerala Minerals and Metals Limited, Malabar Cements Limited, Autokast Limited, Kerala Electrical and Allied Engineering Company Limited and Steel Industrials Kerala Limited together accounted for more than 68 per cent of the total capital invested by this group of companies as on 31-3-1992. Total number of employees in this group of companies registered only a marginal increase of 33 over the previous year. It rose from 10127 in March, 1991 to 10160 by the end of March, 1992. The

Kerala Minerals and Metals Limited, Kerala Electrical and Allied Engineering Company Limited and Malabar Cements Limited were employing more than 1000 people each during 1991-92. Details of capital invested and workers employed in the Government owned companies as on 31-3-1991 and 31-3-1992 are furnished in Appendix 6.1.

6.24. Seventeen companies (excluding Kerala State Drugs and Pharmaceuticals Limited, Kerala Electrical and Allied Engineering Company Limited, Kerala Premopipe Factory Limited and Meat Products of India Limited) produced goods worth Rs. 219.20 crores during 1991-92 as against Rs. 183.27 crores in the previous year marking a growth of 19.60 per cent over the year. The value of production of all these units excepting Kerala Soaps and Oils Limited, Travancore Plywood Industries Limited, Kerala Automobiles Limited and Kerala State Wood Industries Limited has improved noticeably during 1991-92 as compared to that of the previous year. Total sales turnover of 18 units (excepting Kerala State Drugs and Pharmaceuticals Limited, Kerala Premopipe Factory Limited and Meat Products of India Limited) has increased to Rs. 269.03 crores in 1991-92 from Rs. 182.62 crores in the previous year. This shows an increase of more than 47 per cent over the previous year. Major contributors to this increase were Kerala Electrical and Allied Engineering Company Limited, Kerala Minerals and Metals Limited, Malabar Cements Limited, Steel Industrials Kerala Limited and Kerala Agro Machinery Corporation Limited. Details of value of production and sales turnover of the Government owned companies are given in Appendix-6.2.

6.25. All the companies in this group (the details of which are available) excepting Malabar Cements Limited, Sitaram Textiles Limited, Kerala Agro Machinery Corporation Limited and Kerala Clays and Ceramic Products Limited were working on loss during 1991-92. As in the previous year, most of these companies were facing problems with regard to shortage of rawmaterials and working capital. Companies such as Kerala Ceramics Limited faced steep rise in the cost of production due to upward revision in the power tariff, rise in price of petroleum products, interest charges on cash credit facilities etc. The overall performance of the Kerala State Detergents and Chemicals Limited had been poor due to the discontinuance of contract by the Ballarpur Industries Limited for processing spray dried powder. The Kerala State Salicylates and Chemicals limited could take only experimental batches utilising the technical services of National Chemical Laboratories (CSIR), Pune to improve the process quality, etc and to overcome the capacity constraints of their Aspirin plant.

6.26. The Steel Industrials Kerala Limited made a net loss during 1991-92 mainly on account of huge losses incurred by their ship breaking unit at Baypore and the fabrication unit at Cherthala. Seven other production units of the Company could earn a total profit of Rs. 92.44 lakhs during this period. The activities of the Ship Breaking unit at Baypore came to a grinding halt with the change in policy of the Government of India regarding import of scrap vessels. The Ship Breaking Unit at Azhikkal, engaged in the

fabrication of sophisticated items could earn profit during 1991-92. Recessionary trends faced by engineering and automobile sectors in the country, the major customers for forgings, were responsible for not attaining higher capacity utilisation by the Steel and Industrial Forgings Limited. Though the Kerala Minerals and Metals Limited has achieved a record monthly production of 1241 MT of titanium dioxide and 1652 MT of beneficiated ilmenite during the year under review, it could not earn profit due to various reasons. The Trivandrum Spinning Mills Limited could achieve only 68.55 per cent of capacity utilisation during 1991-92 due to heavy break down of machinery on account of their obsolescence, labour absenteeism and power failure and interruption. The details of capacity utilisation in the Government owned companies are given in Appendix 6.3.

#### *Government Majority Companies*

6.27 As at the end of March, 1992, there were 22 manufacturing industrial undertakings in the State, majority of the paid up share capital of which was held by the Government of Kerala and its holding companies. The Kerala State Electronics Development Corporation was managing eight of these units. They were, the Keltron Counters Limited, Keltron Electro Ceramics Limited, Keltron Crystals Limited, Keltron Magnetics Limited, Keltron Power Devices Limited, Keltron Resistors Limited, Keltron Rectifiers Limited and Keltron Component Complex Limited. All the companies in this group, excluding the Keltron Power Devices Limited, Keltron Resistors Limited, Kerala Construction Components Limited and Sidkel Televisions Limited have furnished the details on their performance during 1991-92. Some of the units are yet to finalise their accounts for this period. The review of performance is based on the date available.

6.28 The total capital invested by this group of companies as on 31-3-1992 has increased to Rs. 183.45 crores from Rs. 165.47 crores in March 1991, an increase of 10.87 per cent over the previous year. Two companies viz., the Transformers and Electricals Kerala Limited and Traco Cable Company together accounted for more than 55 per cent of the total capital invested in this group. On the other hand, the total number of workers employed in this group showed a marginal decrease of 63 over the previous year from 8792 to 8729 by the end of March, 1992. Major employers in this group were, Travancore Titanium Products Limited, Travancore Cochin Chemicals Limited and Transformers and Electricals Kerala Limited. The details regarding capital investment and workers employed in the Government Majority companies as on 31-3-1991 and 31-3-1992 are given in Appendix 6.4.

6.29 During 1991-92, eighteen units under this group produced goods valued at Rs. 286.85 crores as against Rs. 236.55 crores in the previous year. This shown an increase of 21.26 per cent over the previous year. The value of production of all these companies excepting three subsidiary companies of the Kerala State Electronics Development Corporation Limited viz., Keltron Counters Limited, Keltron

Crystals Limited and Keltron Magnetics Limited has increased substantially. Major contributors to the total value of production achieved by this group of companies were Transformers and Electricals Kerala Limited, Travancore Cochin Chemicals Limited, Travancore Titanium Products Limited and Steel Complex Limited. These four companies accounted for more than 67 per cent of the total value of production. The sales turnover of 19 units in this group marked an increase of 26 per cent over the previous year, from Rs. 239.68 crores to Rs. 301.73 crores during 1991-92. Sales income of all the units under this group, excepting Keltron Counters Limited, Metropolitan Engineering Co., Limited and Forest Industries (Travancore) Limited has shown increase over the year. Four companies viz., Transformers and Electricals Kerala Limited, Travancore Titanium Products Limited, Travancore Cochin Chemicals Limited and Steel Complex Limited contributed 69 per cent of the total sales turnover achieved by this group of companies during 1991-92. Details relating to the value of production and sales turnover of Government majority companies are shown in Appendix 6.5.

6.30 Among the eighteen units, the details of which are available, nine were working on profit, while the remaining nine companies were incurring loss. Keltron Component Complex Limited, Keltron Crystals Limited, Metal Industries Limited, Travancore Titanium Products Limited, Travancore Cochin Chemicals Limited, Travancore Cements Limited, United Electrical Industries Limited, Transformers and Electricals Kerala Limited and Forest Industries (Travancore) Limited were operating on profit during the period under review. The credit squeeze and Reserve Bank of India's regulations regarding opening of letter of credit together with the political problems in the erstwhile USSR, from where imports had to be made affected the performance of the Keltron Counters Limited during 1991-92. Though the production of UPS in the unit has increased, shortage of certain other electronic components affected adversely the targetted production of the Keltron Magnetics Limited. The Steel Complex Limited has achieved a record production of billet (5331 tonnes) in January, 1992. However, non availability of sufficient quantity of imported scrap due to the restrictions imposed by the Government of India has affected the overall performance of the company. Main reasons for the loss incurred by Travancore Sugars and Chemicals Limited during 1991-92 are attributed to reduction in the sale of arrack, reduced margin for sale of arrack and reduction in the quantity of caue crushed during this period.

6.31 The Travancore Cochin Chemicals Limited made an all-time record production of caustic soda during 1991-92. Marketing of Liquid Chlorine improved resulting in better utilisation. During the period under review, the company exported 244 tonnes of caustic soda flakes. Considerable improvement in the overall performance of Travancore Cements Limited during 1991-92 has been noticed. The company adopted differential pricing for different states for stockists and for industrial consumers. While the Central Excise Department has allowed

the system of differential pricing with respect to stockists, it has been disallowed for industrial consumers. Details of capacity utilisation in respect of Government majority companies during 1990-91 and 1991-92 are given in Appendix 6.6.

#### *Summary of Performance of State Public Sector Industrial Undertakings*

6.32 Sixteen industrial undertakings out of the 45 units, the details of which are available, were operating on profit during the financial year, 1991-92. They together earned a total profit of Rs. 32.34 crores before providing for taxation during this period. More than 57 per cent of this was contributed by four units in 'Chemical' group viz., the Travancore Cochin Chemicals Limited, Travancore Titanium Products Limited, Malabar Cements Limited and Travancore Cements Limited. Under the 'Electricals and Cables' group and 'Engineering' group two companies each were working on profit during 1991-92. They were the United Electrical Industries Limited and Transformers and Electricals Kerala Limited in the 'Electricals and Cables' group and the Kerala Agro Machinery Corporation Limited and Metal Industries Limited in the 'Engineering' group. Out of the six companies under the 'Electronics' group, the Keltron component Complex Limited and Keltron Crystals Limited were operating on profit during the period under review. Three units, out of eight units reported under the 'Trading and promotional units, were working on profit.

6.33 On the other hand, 29 public sector units out of 45 units reported were incurring loss during 1991-92. They together incurred a loss of Rs. 50.10 crores during this period. Among the eight units reported, under the 'Engineering' group, six were working on loss. Their total loss during 1991-92 amounted to Rs. 17.41 crores, accounting for more than one-thirds of the total loss incurred by the 29 units under different categories. All the four subsidiaries of the Kerala State Industrial Enterprises Limited, who have furnished details were incurring losses during this period. Their total loss amounted to Rs. 10.78 crores. The Kerala Minerals and Metals Limited is the only unit (out of the five reported under the 'Chemical' group) which was working on loss during the year, 1991-92. It incurred a loss of Rs. 12.76 crores during this period. All the three units reported under the 'Agrobased' group were operating on loss during 1991-92. Under the 'Wood based' industries group, Kerala State Wood Industries Limited was incurring loss during this period. Out of the eight units reported under the 'Trading and Promotional' group, five units viz., the Kerala State Industrial Enterprises Limited, Kerala State Textile Corporation Limited, Kerala State Coir Corporation Limited, Kerala State Handloom Development Corporation Limited and Handicrafts Development Corporation of Kerala Limited were operating on loss during the financial year 1991-92.

6.34 Total paid up capital of the 45 public sector industrial undertakings reviewed, increased to Rs. 311.12 crores as at the end of March, 1992 from Rs. 289.74 crores in March, 1991 registering an

increase of 7.38 per cent over the year. Total borrowings of these units also registered an increase of 10.56 per cent over that of the previous year. It increased from Rs. 593.91 crores in March, 1991 to Rs. 656.61 crores as on 31st March, 1992. The total investment in these units in terms of their gross block has also increased from Rs. 427.12 crores in March, 1991 to Rs. 443.43 crores by the end of March, 1992. More than 50 per cent of the total investment as on 31-3-1992 was accounted for by the five units under the 'Chemical' group. The groupwise summary of the working results of the 45 State public sector industrial undertakings are furnished in Appendix 6.7.

6.35 The State Government has been taking all possible measures to improve the working of the State Public Sector units by extending financial support for expansion/diversification/modernisation, from time to time. In spite of these, some of the State sector units are incurring heavy losses due to various reasons. Consequently, their accumulated losses have already exceeded their paid up capital. Out of the 45 units reviewed, 23 units had an accumulated loss of Rs. 385.64 crores as against their paid up share capital of Rs. 140.99 crores as at the end of March, 1992. Kerala Minerals and Metals Limited, Kerala State Cashew Development Corporation Limited, Transformers and Electricals Kerala Limited, Autokast Ltd. and Kerala Soaps and Oils Ltd. accounted for major part of the loss. The details of the State Public Sector industrial undertakings whose accumulated losses have already exceeded their paid up capital are given in Table 6.5.

TABLE 6.5

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

(Amount in Rs. lakhs)

Name of Undertaking	Paid up Capital as on 31-3-1992	Accumulated Loss as on 31-3-1992
(1)	(2)	(3)
<i>Electronics</i>		
1. Keltron Counters Limited	394.00	720.12
2. Keltron Electro Ceramics Limited	195.29	362.69
3. Keltron Resistors Limited	139.81	181.57
<i>KSIE Group</i>		
4. Kerala Soaps and Oils Limited	185.59	2313.00
5. Travancore Plywood Industries Limited	48.59	817.15
6. Kerala State Detergents and Chemicals Limited	154.63	1298.25

	(1)	(2)	(3)
7. Kerala State Salicylates and Chemicals Limited	628.00	791.81	
<i>Chemical</i>			
8. Kerala Minerals and Metals Limited	3093.27	9922.28	
<i>Textiles</i>			
9. Trivandrum Spinning Mills Limited	214.99	637.95	
10. Sitaram Textiles Limited	267.00	1452.27	
<i>Electricals and Cables</i>			
11. Transformers and Electricals Kerala Limited	1547.54	4520.41	
12. Metropolitan Engineering Company Limited	73.17	357.71	
<i>Engineering</i>			
13. Autokast Limited	1195.45	3267.05	
14. Steel and Industrial Forgings Limited	450.00	968.00	
15. Scooters Kerala Limited	229.99	244.34	
16. Kerala Automobiles Limited	323.00	1246.96	
17. Steel Complex Limited	400.00	651.82	
<i>Ceramics and Refractories</i>			
18. Kerala Ceramics Limited	1031.98	1453.25	
19. Chalakudy Refractories Limited	346.64	431.28	
<i>Agrobased</i>			
20. Travancore Sugars and Chemicals Limited	51.00	60.23	
21. Foam Mattings (India) Limited	100.00	242.80	
<i>Wood based</i>			
22. Kerala State Wood Industries Limited	170.00	723.60	
<i>Trading and Promotional Agencies</i>			
23. Kerala State Cashew Development Corporation Limited	3058.95	5893.74	
<b>Total</b>	<b>14098.89</b>	<b>38564.28</b>	

*Central Sector investment in Kerala*

6.36 The Central investment (in terms of gross block) in the industrial sector in Kerala increased from Rs. 1701 crores in March, 1990 to Rs. 1853 crores by the end of March, 1991. However, the percentage share of the State in the total Central investment in the country has come down from 3.24 per cent in March, 1975 to 1.43 per cent by the end of March, 1991. While the total Central investment in the Country increased by Rs. 123471 crores from Rs. 6242 crores in March, 1975 to Rs. 129713 crores in March, 1991, Kerala received only Rs. 1737 crores which constitutes 1.41 per cent of the total investment over this period. This major reason for the declining trend in the percentage share of the State in the Central investment is attributed to the fact that the Government of India has not established any new industrial units in the State during the past few years excepting the expansion/diversification/modernisation projects of some of the existing Central Sector industrial undertakings. The Central sector investment in the Country and Kerala at different periods is given in Table 6.6

TABLE 6.6

*Central Sector Industrial Investment in Kerala*  
(Rs. in crores)

Year	Investment (Gross Block) as on 31st March		Percentage 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
1986	56806	923	1.62
1987	68052	1074	1.58
1988	82180	1298	1.58
1989	96881	1524	1.57
1990	113431	1701	1.50
1991	129713	1853	1.43

Source: (i) Bureau of Public Enterprises, Government of India and  
(ii) Centre for Monitoring Indian Economy

6.37 During 1990-91, the Central Sector industrial investment in the country as a whole increased by Rs. 16282 crores. Kerala's share was only Rs. 152 crores accounting for 0.93 per cent of the total investment made by the Government of India in the industrial sector in the Country. On the otherhand, New Delhi and five states of Maharashtra, West Bengal, Andhra Pradesh, Uttar Pradesh and Tamil Nadu together received an amount of Rs. 10153 crores, accounting for 62 per cent of the total investment made by the Government of India during 1990-91. The State-wise distribution of Central investment as at the end of March, 1990 and 1991 is given in Appendix 6.8.

6.38 Including five textile mills managed by the National Textile Corporation, eighteen Central Sector industrial units were functioning in Kerala during 1991-92. They were:

1. Cochin Refineries Limited, Kochi.
2. Cochin Shipyard Limited, Kochi.
3. Fertilisers and Chemicals Travancore Limited, Aluva.
4. Hindustan Newsprint Limited, Kottayam.
5. Hindustan Latex Limited, Thiruvananthapuram.
6. Indian Rare Earths Limited, Aluva and Chavara
7. Indian Telephone Industries Limited, Palakkad.
8. Instrumentation Limited, Palakkad.
9. Hindustan Insecticides Limited, Aluva.
10. Modern Food Industries (India) Limited, Kochi.
11. HMT Limited, Kalamasseri, Aluva.
12. Balmer Lawrie & Company Limited, Arcoor.
13. Hindustan Organic Chemicals Limited, Kochi.

*Units under National Textile Corporation*

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

6.39 The basic details relating to the Central Sector manufacturing units working in Kerala are furnished in Appendix 6.9 to 6.12.

*Industrial Disputes*

6.40. There were 47 industrial disputes in the State in 1991 as compared to 38 in 1990. Eventhough the number of disputes went up, the number of workers involved in these disputes mark a decline to 5944 in 1991 from 7061 in the previous year. But the total number of mandays lost due to strikes and lockouts has substantially increased from 3.92 lakhs in 1990 to 7.33 lakhs in 1991. The details of industrial disputes occurred in the state during 1990 and 1991 are furnished in Table 6.7.

TABLE 6.7

*Industrial Disputes Resulting in Work Stoppage in Selected Industries in Kerala*

Industry	1990		1991			
	No. of Workers disputes	Man- days Affected (in'000)	No. of Workers dis- putes	Man- days Affected (in'000)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Plantation	11	998	49	5	601	27
2. Textile	6	1536	45	2	697	69
3. Coir	1	215	18	..	..	..
4. Saw Mill	..	..	..	..	..	..
5. Tiles	3	373	33	2	177	40
6. Cashew	1	21	..	..	..	..
7. Others	16	3978	249	38	4469	59
Total	38	7061	392	47	5944	736

### Small Scale Industries

6.41. During 1991-92, 10918 new small scale industrial units were registered in the State against a target of 10,000 units, registering an increase of 23.61 per cent over the previous year. The capital invested by these units amounted to Rs. 13106.30 lakhs. These units generated goods and services worth Rs. 21957.23 lakhs (excluding Kasaragod and Malappuram districts) and provided employment to 52797 persons during the year. Of the total number of small scale industrial units registered, 780 units were run by women entrepreneurs and 339 by SC/ST entrepreneurs. The largest number of new SSI units registered was in Ernakulam district followed by Kottayam, Thiruvananthapuram and Alappuzha during the year under review. Idukki and Wayanad districts accounted for the lowest number of new SSI units with only 400 and 212 units respectively.

6.42. The budgeted outlay for the SSI sector during 1991-92 was Rs. 1350 lakhs. This included Rs. 225 lakhs for Special Component Plan and Rs. 55 lakhs for Tribal Sub Plan. The expenditure under the SSI sector during 1991-92 amounted to Rs. 1295 lakhs which included Rs. 163 lakhs under SCP and about Rs. 20 lakhs under TSP. During the year 889 SC entrepreneurs were assisted under the loan scheme and 2013 under grant scheme. Besides 167 SC industrial co-operative societies were assisted with grant and share participation. Under Tribal Sub Plan, 202 ST entrepreneurs were assisted under grant scheme and 638 persons under loan scheme. Further 167 SC industrial co-operative societies and 180 ST industrial co-operative societies were provided with grant and share capital contribution.

6.43. A total number of 618 prospective entrepreneurs were trained under the Entrepreneurship Development Programme during 1991-92, out of which about 55 persons have started new SSI units. Under Self Employment Programme an amount of Rs. 1753.81 lakhs was sanctioned to 4986 persons and Rs. 1024.67 lakhs disbursed to 3485 beneficiaries during the year under review. District-wise details of SSI units registered and achievements under Self Employment Programme during the year 1991-92 are furnished in Appendix 6.13 and 6.14 respectively.

### Kerala Financial Corporation

6.44. The Corporation incorporated with a view to promoting industrial development activities in the State, concentrated its efforts mainly in the Small Scale Sector during the period under review. Out of the total sanction of Rs. 7235 lakhs to 1751 units during 1991-92, an amount of Rs. 4149 lakhs has been given to 814 units in the small scale sector. Total disbursement during this period amounted to Rs. 6058 lakhs of which Rs. 3734 lakhs has been given to 1108 small scale units. Recovery of loan has showed improvement over the previous years. The Corporation could collect an amount of Rs. 5547 lakhs during 1991-92.

6.45. During the year under review, the Corporation has been operating an Entrepreneurial Guidance and Public Relations Cell at their Headquarters for rendering necessary assistance to industries. A screening

committee headed by the Managing Director is functioning in the Corporation for scrutinising the applications for loan above Rs. 15 lakhs. Another committee headed by the General Manager has also been set up for the scrutiny of applications for loan below Rs. 15 lakhs. This arrangement has facilitated decision making at appropriate levels and providing financial assistance to industries, without delay. The details of district-wise sanction and disbursement of loan during 1991-92 and the summary of loan operations by the Corporation are furnished in appendix 6.15 and 6.16.

### Kerala Small Industries Development Corporation (SIDCO)

6.46 Kerala Small Industries Development Corporation was registered as a company on 6-11-1975. The Corporation protects and promotes the interests of small scale industries in the State by providing them with capital and supplying machinery and equipment on hire purchase basis. It also helps in the procurement and distribution of scarce raw-materials. Further, it undertakes the revitalisation of sick units and rehabilitation of defunct units, construction, maintenance, management and administration of Industrial Estates and Development Plots. The authorised share capital of the Corporation stood at Rs. 5 crores on 31-3-1992 whereas the paid up capital was Rs. 4.52 crores. The total turn over of the Corporation during 1991-92 was Rs. 37.69 crores against Rs. 30.45 crores in the previous year registering an increase of about 24%. The various functional activities carried out by SIDCO during 1991-92 include the following:

(i) *Raw Material Division.*—The Raw Material Division of SIDCO procures and distributes scarce raw materials like Iron and Steel, Paraffin Wax, Coke, Coal, Ti O<sub>2</sub>, LDPE, LZDPE, PVP, PP palm fatty acid etc. to the registered SSI units in the State through the raw-material depots in each district. The quantity of raw materials handled and the value of materials distributed during 1991-92 were 24874 tonnes and Rs. 38.44 crores respectively. A total number of 2700 SSI units were assisted in the procurement of raw materials during the year under report. This Division registered a turnover of about Rs. 33 crores excluding the consignment agency sale of polymer products of IPCL and earned a profit of Rs. 27.59 lakhs.

(ii) *Production Division.*—Majority of the 12 Production/Service Units under this Division are running on loss ever since its inception. The main reasons for the loss include lack of working capital facility, old and obsolete machines, limitations of SIDCO to compete with other SSI units in the field of marketing the products etc. This Division registered a turnover of about Rs. 2.62 crores during 1991-92.

(iii) *Industrial Estates Division.*—Seventeen Conventional Industrial Estates and 36 Mini Industrial Estates are being controlled by SIDCO. During 1991-92, all the 531 sheds in the conventional Industrial Estates were occupied by 490 units and out of



the 393 sheds in Mini Industrial Estates, 381 were occupied by 337 units. The number of SSI units functioning in the major industrial estates has increased from 299 at the end of March 1991 to 317 by the end of March 1992, while the those in the mini industrial estates rose from 308 to 337 during 1991-92, the number of defunct/idling/closed units declined from 41 to 29 during this period. The problem faced by this Division is that the rent received from the estates is quite meagre for the upkeep and maintenance of these estates.

(iv) *Planning and Development Division*.—This Division mainly attends to rehabilitation of SSI units under the SIDCO-IRBI scheme and the recovery of dues from the entrepreneurs who had availed margin money and rehabilitation loans. Total amount collected during 1991-92 from the entrepreneurs who have availed rehabilitation margin money loan rose to Rs. 15.98 lakhs from Rs. 10.88 lakhs in the previous year. The outstanding amount to be collected as on 31-3-1992 was Rs. 1.83 crores. This Division also provides general guidance to prospective entrepreneurs and Non Resident Indians.

(v) *Marketing Division*.—This Division renders marketing assistance to registered SSI Units in the State. During the year 1991-92, SIDCO placed orders for the supply of articles to the tune of Rs. 2.96 crores of which articles worth Rs. 2.84 crores have been supplied. The four sales emporia working under this Division at Kannur, Ernakulam, Kottayam and Thiruvananthapuram recorded a total turnover of Rs. 59.47 lakhs during 1991-92.

(vi) *Construction Division*.—The Construction Division of SIDCO is engaged in civil works. During 1991-92, this Division carried out civil works costing Rs. 245 lakhs compared to Rs. 300 lakhs in 1990-91. The centage received out of these works declined to Rs. 31.15 lakhs during 1991-92 from Rs. 34 lakhs in the previous year.

#### *Small Industries Service Institute (SISI)*

6.47 The main objective of the Small Industries Service Institute is to provide technical and managerial consultancy services to existing and prospective small scale industries in Kerala and the Union Territory of Lakshadweep. Promotional and developmental activities are undertaken by the main office at Thrissur and extension centres at Alappuzha, Shoranur and Kozhikode. The Institute imparts training in machine shop practice, electric and gas welding, foot wear and leather goods manufacture, fruit and vegetable preservation, wood seasoning, furniture design, jigs saw cutting, planning, planer blade grinding and general engineering.

6.48 The Institute executed a total number of 1182 works by providing common facility services during 1991-92 and earned a total revenue of Rs. 3.31 lakhs by way of service charges, sale proceeds and consultancy charges. The workshops and extension centres attached to the Institute executed orders benefiting 684 registered SSI units during 1991-92 and a total number of 1049 existing and prospective entrepreneurs were provided with blue prints, drawings, technical publications etc.

6.49 The Technical Divisions of the Institute provided consultancy service in about 6101 cases out of which 726 cases were dealt with at the unit premises itself. Out of 6101 cases, 3203 were purely of technical in nature. Remaining cases were related to infrastructure facilities, financial availability, market potential, availability of various incentives and facilities etc. A summary of the type of consultancy services provided by this Institute during 1991-92 is given in Table-6.8.

TABLE 6.8

*Details of Consultancy Services offered by Small Industries Service Institute during 1991-92*

Sl.No.	Type of Service	Location of Services			
		At unit Premises	At SISI Extn. Centres	Through Correspondence	Total
(1)	(2)	(3)	(4)	(5)	(6)
1.	Technical	525	1850	828	3203
2.	Managerial	10	18	1	29
3.	Economic and Statistical	34	466	312	812
4.	Others	121	346	351	818
6.	Assistance to Start new Industries	36	805	398	1239
Total		726	3485	1890	6101

6.50 (Under the programme of modernization, the Institute conducted two important studies on the cluster groups viz. tyre retreading machinery and dipped rubber goods.) Under Ancillary Development/Marketing Exports Programme, 608 tender enquiries were circulated to SSI units to explore possibilities of ancillary activities based on sub-contracting arrangements. Items like voltage stabilizer, paints, varnish, fasteners, cartons, dial indicators etc., were covered with the quantity required by large and medium scale industries. During 1991-92, 26 units were registered with NSIC and 34 units with KSX at SISI. Some of the items required by large and medium scale industries have also been displayed in SISI premises. The Economic Investigation Division conducted three Industry Potential Surveys in Respect of Pathanamthitta, Quilon and Lakshadweep during 1991-92. A study on Sodium Silicate industry in Kerala was also conducted by this Institute during 1991-92. Under the Census of Small Scale Industries, State Level Report on Census has been prepared. In addition, 45 Market Survey Reports were also prepared for items selected for preparation of project profiles by the technical divisions.

6.51 District Industries Centres were also assisted by SISI in the preparation of sick units revival reports, capacity assessment reports, inplant study reports, quality upgradation and modernisation studies. In all, 36 sick unit revival reports were prepared by the SISI

during the year 1991-92. The Institute conducted various training programmes for the prospective entrepreneurs for the development of technical and managerial skills. Twelve courses of 6 months duration were conducted at FWSC, Central Workshop and fruit preservation centre at Thrissur and also in the extension centres at Calicut, Shoranur and Alappuzha. A total number of 566 entrepreneurs were trained by the Institute during 1991-92. Further, motivation campaigns were conducted at Thrissur, Kasaragode, Lakshadweep and Thodupuzha in which 712 entrepreneurs participated.

6.52 Under the programme of Energy conservation the Institute conducted a comprehensive study of Glass and Ceramic Industry in the State. Study of continuous kiln for firing of clay, Roofing and Flooring Tiles was conducted and report prepared. The SC/ST Women entrepreneurs were also extended all assistance by the Institute by providing training and guiding them to set up SSI units. A total of 134 entrepreneurs consisting of 70 SC/ST and 64 women were trained by the Institute during 1991-92. One month training course for the weaker sections of foot wear making was also conducted by the Institute during the year

*Kerala Industrial and Technical Consultancy Organisation Ltd., (KITCO)*

6.53 Kerala Industrial and Technical Consultancy Organisation (KITCO) is a professional consultancy organisation established by Industrial Development Bank of India (IDBI) and co-sponsored by national and state level financial institutions, banks and Government of Kerala for promoting the growth of small, medium and large scale industries in Kerala. KITCO achieved a turnover of Rs. 48.35 lakhs during 1991-92 against a turnover of Rs. 37.59 lakhs of the previous year. The functions of the organisation include preparation of project reports, appraisal reports, rehabilitation and diagnostic studies, monitoring of projects, modernisation of industries, detailed engineering services energy audit, entrepreneurship development programme skill upgradation programmes and other consultancy services.

6.54 During 1991-92, the Project Consultancy Division of KITCO has completed 193 project reports, 5 appraisal reports and 3 revival study reports. It has also completed the monitoring of Kerala Minerals and Metals Ltd. on behalf of IDBI. In the field of Market Studies, two works have been initiated viz. All India Market Study on Nickel Cadmium Batteries for Kerala Electrical and Allied Engineering Company Ltd. and All India Market Survey for FRP products for M/s Traco Cable Company Limited.

6.55 The Detailed Engineering Division of KITCO undertook consultancy services on engineering, electrical and construction works taken up by the organisations such as Hindustan Latex Ltd., Oil Palm India Ltd. (OPIL), Kerala State Co-operative Coir Marketing Federation (COIRFED), Centre for Management Development (CMD) Thiruvananthapuram, India Rare Earths, Ltd. (Alwaye) and Cannanore Co-operative Spinning Mills Ltd. Apart from this, KITCO received three assignments from National Dairy Development Board (NDDB) for Commissioning of dairy projects in Mangaloch, Haveri and Villupuram of which the work on Haveri was completed.

6.56 KITCO completed 20 Entrepreneurship Development Programmes during the year in various districts. Under these programmes, 476 entrepreneurs were trained. Among them, 34 persons have set up their own units. During the year 1991-92, KITCO had completed 10 preliminary energy audits and 5, detailed audits for various firms. To add to this, studies were also undertaken by KITCO in respect of Tile Industries, Ceramic Industries, Coir Industry Marine food industry, Rubber based units and other tiny sector industrial units. Techno-economic survey of the State was also undertaken to identify investment opportunities for scientists and technologists. Efforts were also made for identification of project for returning gulf migrants.

*Handicrafts Industry*

*Handicrafts Development Corporation of Kerala Limited*

6.57 The Handicrafts Development Corporation of Kerala, protects and develops handicrafts industry in the State by marketing the products within the country and abroad. The main activities include procurement and distribution of raw materials to artisans at subsidised rates, provision of improved tools and financial assistance to artisans, collection of handicrafts goods at fair prices and promotion of export through exhibition and sales of such goods in India and abroad. During the year 1991-92, the Corporation has participated in a number of exhibition-cum-sales in important places such as Jaipur, Ahmedabad, Poona and Faridabad. The Corporation is having 21 sales emporia for marketing of handicrafts items and has plan to open new showrooms at Thrissur, Ahamadabad and Lucknow.

6.58 There was appreciable increase in the total sales turn-over of the Corporation during the year, 1991-92. It rose to Rs. 465.22 lakhs in 1991-92 from Rs. 369.09 lakhs in the previous year. The export sales also indicated an upward trend which has increased by 30 per cent from the previous year's level of Rs. 17.42 lakhs to Rs. 22.67 lakhs, during 1991-92. The Corporation has made a profit of Rs. 2.76 lakhs during 1991-92 after providing Rs. 11.75 lakhs towards financial charges and Rs. 3.35 lakhs for depreciation.

6.59 The Corporation plans to set up a raw material-cum-procurement depot at Calicut for assisting the artisans of northern Kerala. The Corporation has renovated its major show rooms 'Kairali' at New Delhi and Calicut. The SMSM Institute at Thiruvananthapuram has also been renovated at a total cost of Rs. 7.50 lakhs. The Corporation has taken steps to get its integrated project for development of export of handicrafts approved by Government of India for availing financial assistance under UNDP.

*Bamboo Industry*

6.60 About three lakh traditional workers, mostly scheduled castes and scheduled tribes are engaged in the production of bamboo mats, basketry wares and other household items.

Kerala State Bamboo Corporation is entrusted with the promotion of Bamboo and Reed based traditional cottage industries in the State. The main functions of the Corporation include equitable distribution of raw materials to the workers and procurement and marketing of the finished products made by them. The Government have allotted 30,000 M.T. of reeds per annum, to the Corporation for distribution to the workers. These reeds are extracted from the Reserve Forests and are distributed to the workers through the retail outlets/distribution centres of the Corporation. There are about 16,000 weaver families, 2500 reed cutters and 1000 other workers directly attached to the Corporation. The industry produces commercial variety of mats for dunnage purpose. The average production of bamboo mats by the Corporation comes to about 800 lakh square feet per annum. Nearly 85% of the total production of bamboo mats in the State is being handled by the Corporation.

6.61 The Corporation has started a Bamboo Board Factory for the manufacture of Bamboo ply boards at a total cost of Rs. 105 lakhs. The new project helps conversion of bamboo mats into value added utility products and thus offers better support price to the mats produced by the workers. The Bamboo Board Factory utilised 90% of the installed capacity during 1991-92. Under the 'World Food Production Programme' a scheme for Food Assistance to Bamboo workers has been sanctioned and it is being implemented from 1992. Programmes for expansion of Corporations activities to Malabar area, installation of additional machinery in the Bamboo Board factory and computerisation for achieving better productivity are being undertaken. As on 31-3-1992, paid up share capital of the Corporation stood at Rs. 279.86 lakhs. The sales turnover of the Corporation during the year 1991-92 was Rs. 721.50 lakhs which shows an increase of 30 per cent over that of the previous year. The net profit earned by the Corporation during 1991-92 also increased to Rs. 22.22 lakhs from Rs. 4.88 lakhs in the year, 1990-91.

#### *Beedi Industry*

6.62 The Kerala Dinesh Beedi Workers' Central Co-operative Society, Kannur, started functioning from February 1969. The Central Society procures raw materials in bulk, and distributes to primary societies. In addition to providing advance, it purchases the finished products from the members and get them marketed under a single brand name. During the year 1991-92, 22 primary beedi worker's Co-operative Societies were functioning under the Central Society on a commercial basis. The total number of members in the primary societies as on 31-3-1992 was 49120. The Central and the Primary Societies, together provided employment to 33950 workers during the year. An amount of Rs. 28.03 crores has been disbursed

by the Primary Societies as wages and incentives during 1991-92. Besides, an amount of Rs. 111.65 lakhs has been paid as salary to staff in the Central and Primary Societies during the year. The Central excise duty remitted through the Primary Societies during 1991-92 was Rs. 365.69 lakhs. During the year 1991-92, workers were given 16% bonus and an amount of Rs. 467.43 lakhs was disbursed in this regard.

6.63 The paid up capital of the Central Society was Rs. 33.75 lakhs consisting of Rs. 15.65 lakhs contributed by members and Rs. 20.10 lakhs given by State Government. The total income of the Society during the financial year 1991-92 amounted to Rs. 85.90 crores. A total number of 737.75 crore beedies valued at Rs. 57.90 crores were purchased by the Central Society from the member societies during 1991-92. The purchase value of raw materials procured by the society during 1991-92 worked out to Rs. 24.65 crores during 1991-92. The total sales turnover of the Central Society during 1991-92 was Rs. 58.78 crores, while it was Rs. 53.18 crores during 1990-91. The net profit of the company increased from Rs. 32.18 lakhs in 1990-91 to Rs. 36.43 lakhs in 1991-92.

#### *Khadi and Village Industries*

6.64 The Khadi and Village Industries Board, started functioning in 1957, with the objective of organisation, development and promotion of Khadi and Village Industries in the State. During the year under review, the Board has extended financial assistance to Co-operative Societies, Charitable Societies and individual entrepreneurs to implement various schemes for the development of industries coming under the purview of Khadi and Village Industries Commission. The assistance was provided by way of grant and loan to the beneficiaries. During 1991-92 the Board has disbursed Rs. 26.11 lakhs as grant and Rs. 348.25 lakhs as loan. The total value of production of the Khadi and Village Industries sector increased from Rs. 7478.03 lakhs during 1990-91 to Rs. 8433.52 lakhs during the period under review. The sales value also increased from Rs. 8290.08 lakhs to Rs. 9104.73 lakhs during this period. Thus, the value of production and sales turnover increased by 12.78 per cent and 9.83 per cent respectively during the year, 1991-92. The total employment opportunities provided by the units assisted by Kerala Khadi and Village Industries Board in 1991-92 was 1,86,528. The wages paid to the employees decreased from Rs. 2879.40 lakhs to Rs. 2747.90 lakhs during the year under review.

6.65 During the year 1991-92, the State Government provided an amount of Rs. 290.00 lakhs as grant for implementing various programmes of the Board. Out of this, Rs. 33.00 lakhs was for schemes under SCP and Rs. 12.00 lakhs for schemes under TSP. With this amount, 1650 SC families and 600 ST families

were assisted during the year 1991-92. For augmenting the sale of Khadi products the Government have sanctioned 10% rebate on retail sale of Khadi and Village Industries Products, through out the year.

6.66 The Board has taken up Khadi spinning and weaving in departmental worksheds during 1991-92. A few Village Industries Units were also working departmentally in Village oil, Honey, Handmade paper etc., during 1991-92. The Central Sliver Project at Ettukudukka in Kasargod District will be commissioned shortly. The project will benefit 9000 spinners. The All Kerala Match Industries Federation, Kollam, Kerala Rural Women's Electronic Federation, Soap Federation, Kozhikode were functioning well during the period under review. The Bee keepers federation has already been formed and started functioning. The functioning of other federations like rubber and leather were at their formation stages.

6.67 Recently, the bee keeping industry was hit by disease affecting the honey bees in almost all colonies in Kerala. Steps have been taken to revive this industry with the help of Khadi and Village Industries Commission and Kerala Agricultural University. The details such as production, employment and wages paid in various units under the Board are given in Appendix 6.17.

*Kerala State Palmyrah Products Development and Worker's Welfare Corporation Ltd. (Kelpalm)*

6.68 The Kerala State Palmyrah Products Development and Worker's Welfare Corporation Ltd. (Kelpalm) was registered in 1985 with a view to implementing certain projects for the socio-economic uplift of the workers engaged in Palmyrah industry in the state. With the above aim, the Corporation has already commenced marketing of Palmyrah Products and soft drinks. During the year under review the Corporation has bagged an Export order for Palmyrah fibre to U.S.A. The Corporation expects regular export of this item in a big way in the coming years. In order to popularise and promote marketing of Palmyrah products, the 'Kelpalm' had participated in the Thrissur Pooram Exhibition during 1991-92.

6.69 The Corporation has already opened a Facility Centre at Palakkad and proposed to open similar centres at Parassala and Alathur. It is expected that nearly 450 artisans will get regular employment when these centres are commissioned. During the period under review, the 'Kelpalm' has provided training to 40 women entrepreneurs (25 at Parassala and 15 at Palakkad) in the process of Palmyrah fibre. The total income of the Corporation during 1991-92 was Rs. 0.89 lakh as against Rs. 0.53 lakh during the previous year. The loss incurred by the Corporation during 1991-92 increased to Rs. 3.26 lakhs from Rs. 1.46 lakhs in the previous year.

### *Sericulture*

6.70 Realising the enormous potential for the development of sericulture activities in the State and its importance in generating more employment opportunities in the rural areas, a Special Task Force was constituted in 1989 by the State Planning Board, to study the matter in detail and to draw up an integrated development programme for sericulture. Accordingly the Task Force recommended to take measures for mulberry cultivation in 28000 acres during the Five Year Plan 1990-95 since abandoned taking all the 14 districts together and to establish silk worm rearing and related activities. In the light of the new industrial policy announced by the State Government in 1991 and the decision to launch the Eight Five Year Plan from 1992-93, a revised programme for the development of sericulture during the plan period has been formulated with a target of extending sericulture in 50,000 acres and an ultimate perspective of creating self employment opportunities for 2.5 lakh people in the rural areas.

6.71 Government of Kerala declared sericulture as a village industry during 1990-91 and since then Khadi and Village Industries Board has been implementing the programmes of sericulture development in the State. The State Level Committee on sericulture under the chairmanship of the Minister for Industries and the District level Committees under the chairmanship of the concerned District Collectors monitor the progress of implementation of the programme. The State Departments of Agriculture, Rural Development and Irrigation are also involved in making available supplementary support to the programmes. There is a remarkable achievement in the implementation of the sericulture development programmes during the period 1990-91 and 1991-92. Nearly 13,000 acres have been brought under mulberry cultivation upto the end of March, 1992. Total area covered under mulberry cultivation upto the end of Seventh Plan period was only 2700 acrts. During the Annual Plan period 1992-93 (upto September 1992) an area of 4165 acres has been brought under mulberry cultivation.

6.72 The vast employment potential under sericulture is clearly evident from the number of farmers engaged in sericulture activities. Number of farmers engaged in mulberry cultivation increased from 6018 to 9660 during 1991-92 which shows an increase of 61 per cent over the year 1990-91. In order to promote the activities under sericulture, Khadi and Village Industries Board has initiated various steps. Farmers having a productive mulberry garden and training in sericulture are being given subsidy on silk worm rearing equipment upto Rs. 2000 per acre, limited to Rs. 2000 per individual. Mulberry cultivators or their nominees are given one month's practical training in sericulture with a stipend of Rs. 250. More than 4500 farmers have so far been imparted with training under this programme.

6.73 At present there are two grainages in Kerala, one under Central Silk Board, at Palghat and another established by a voluntary agency viz. Mithranikethan. Eggs are procured from these centres and distributed to the farmers. Work is in progress for setting up a grainage in the State sector, at Elamad in Kollam District. By the end of the third year of the Eighth Plan, it is proposed to establish one grainage each in every district.

6.74 Two Silk reeling centres have been established in the State sector, one at Pattanakad and another at Uduma, in Kasargod District and they are expected to be commissioned shortly. Action is also initiated to establish mulberry demonstration plots in the districts under farmers' holdings. Steps have been taken to identify progressive entrepreneurs to establish private reeling centres with financial support from the Government. As on 31-3-1992, there were 435 Panchayat Level Sericulture Co-operative Societies registered under Khadi and Village Industries Board in the State. An amount of Rs. 500 lakhs has been provided in the Plan Budget for 1992-93 for the development of Sericulture. Main achievements under sericulture during 1991-92 and 1992-93 are given in table-6.9

TABLE 6.9

## Progress of Sericulture Development Programme in the State

Item	1991-92	1992-93 (April-September)	Remarks
Mulberry Cultivation (acres) (additional area)	3161	4165	
Number of Farmers	9660	4249	
Production of cocoons (MT)	29.5*	22.3*	
Silk Worm Seed Production Centres (No)			
(a) State sector	Nil	Nil	
(b) Private Sector	1	..	
(c) Co-operative sector	..	Nil	
(d) Central Sector	1	Nil	
Total (4)	2	Nil	
Cocoon Purchase Centres:			
(a) State sector	2	2	
(b) Co-operative Sector	Nil	Nil	
(c) Private Sector	Nil	Nil	
Total (5)	2	2	
Silk Reeling Units.			
(a) State sector	..	2	
(b) Co-operative sector	1	..	
(c) Private sector	..	..	
Total (6)	1	2	
Demonstration-Cum- Training Centres:			
(a) State sector	Nil	Nil	
(b) Central Sector	1	..	
Total (7)	1	..	
Production of raw silk yarn	..	..	Centres yet to start functioning
Sericulture Co-operative Societies Organised (Nos.)	306	129	

\*Production of cocoons under state sector only.

## Coir Industry

6.75 Coir industry is an agro-based industry of vital importance in the State economy. It provides employment to 3.83 lakh persons in the rural areas. For historical and geographical reasons, Kerala which accounts for about 46% of the total coconut production in the country ranks first in coir production. About 85% of coir and 90% of Coir products are manufactured in Kerala. Fibre extraction and spinning of coir yarn are carried out extensively in the coastal districts of Thiruvananthapuram, Kollam Alappuzha and Ernakulam.

6.76 According to the 1988 Coir Census it is estimated that there are 11.08 lakh people in the households of coir workers in the State. Nearly 84 per cent of the workers engaged in the coir sector are women. About 94 per cent of the total workers are engaged in the spinning sector alone. Fifty per cent of the workers are estimated as self employed in this sector. Non availability of required quantity of coconut husk at reasonable price is the major problem faced by this industry. Introduction of mechanised activities in the coir industry and development of brown fibre in other states have become a serious threat to the future of coir industry in Kerala. Husk collection through three point levy system helps to increase the availability of husk at reasonable prices to the primary societies.

6.77 As on 31-3-1992, there were 483 working societies in the co-operative sector. Out of these, 452 were Primary Societies, 22 Mats and Matting Societies, 7 Small Scale Producers Societies and 2 Husk Procurement Societies. In addition to these, one Apex Society viz. the Kerala State Co-operative Coir Marketing Federation (COIRFED is working at State level. A total number of 76694 workers were employed in the co-operative sector during 1991-92.

6.78 Two agencies viz the Kerala State Coir-Corporation and the Kerala State Co-operative Coir Marketing Federation are engaged in the marketing of coir and coir products produced by the primary societies. The Kerala Coir Corporation from the initial trading activities has grown into an organisation with substantial infrastructure for manufacture of 188000 sq. metres of mats and mattings. Besides, a unit at Beypore in Calicut district manufactures decorticated curled fibre. The company has a net work of 14 showrooms in different parts of the country for domestic marketing of coir products. Earlier, major portion of the products of the Corporation were exported to Soviet Union and East Europe. Due to the recent developments in these countries, the company's export has suffered a serious set back. As far as the exports to Western countries are concerned, the floor price of the Coir Board stands in the way of the Corporation making any significant achievement towards exports to this region. Efforts are being made to step up domestic marketing through showrooms and sales to Government Departments

and public tenders. The Corporation has been providing relief to the domestic small scale manufacturers in times of crisis by absorbing their produce in accordance with Government Distress Purchase Schemes. The Corporation's gross sales income during 1991-92 was Rs. 190.77 lakhs as compared to Rs. 132.99 lakhs in the previous year. It shows an increase of 43.45 per cent over the previous year. The working of the Corporation during 1991-92 ended in a net loss of Rs. 20.72 lakhs as against Rs. 13.92 lakhs in 1990-91.

6.79 The Foam Mattings (India) Ltd., incorporated in 1978 provides employment to 143 persons. The main activities of the Company are manufacturing of coir mattings and latex backing of coir products. The Company was under lock out for a period of 6 years from 1984 to 1990. After reopening of the factory, there has been commendable progress in the working of the Company. During 1991-92 the production in the matting plant increased from 652,84 sq. metres and that in the latex backing plant increased to 165,131 sq. metres from 73023 sq. metres. The sales turnover has gone up to Rs. 99.25 lakhs from Rs. 55 lakhs which is 81 per cent higher than that of the previous year.

6.80 In order liquidate the accumulated stock in the co-operative sector and popularising the consumption of coir products 20 per cent rebate had been allowed on sale of coir and coir products for a period of 90 days during 1991-92 also. The export of coir and coir products during the year 1991-92 amounted to 30999 tonnes valued at Rs. 7411.63 lakhs as against the export of 27926 tonnes valued at Rs. 4832.85 lakhs in the previous year. It shows a growth of 11% in quantity and 53% in the value. Coir pith is a new item exported during the year 1991-92. Steps are being taken to implement the recommendations of the Special Task Force on Coir Industry constituted by the State Planning Board for the re-organisation of Coir Co-operative Sector with the financial support of Central Government and NCDC.

6.81 Details on Coir Co-operative Societies in Kerala, export of coir and coir products from India, activities of Coir co-operative societies etc. are given in the Appendix 6.18 to 6.20.

### Handloom Industry

6.82 Handloom Industry is one of the major traditional industries in the State. It provides direct employment to about two lakhs persons. The major problems faced by the Handloom Industry during the year under review were the unprecedented hike in the price of hank yarn, scarcity of yarn in required quantity and severe competition from the Powerloom and Mill sector. The estimated number of looms in the State upto 31-3-1992 is 52600. It shows a marginal increase of 0.33 per cent over the previous year's level of 52169. Most of the Handloom development programmes are implemented

through Primary Handloom Weaver's Co-operative societies to redeem the weavers from the clutches of middlemen and master weavers and to improve their living standards.

6.83 Till the end of March 1992, there were 604 registered Primary Handloom Weavers Co-operative Societies in the State. Of this, 125 were Factory type and 479 were cottage type. Out of these 604 societies, 468 were working. Forty six societies were dormant while 90 societies were under liquidation.

6.84 The total number of looms in the Co-operative sector has increased from 40591 to 40979 during the period under review, showing a marginal increase of 0.96 per cent over the previous year. The co-operative sector accounts for 77.91 per cent of the total handlooms in the State. The Production of Handloom Cloth in this sector has increased marginally to 45.25 million metres during 1991-92 from 43.50 million metres in 1990-91. The value of production has also increased to Rs. 81.45 crores during 1991-92 from Rs. 65.25 crores during the previous year. It shows an increase of 24.83 per cent over the year. The productivity of looms has also increased from 1071 to 1104 metre/loom during the year under report. The production of handloom cloth in the Corporate sector marked a slight decrease over the previous year. It declined from 1.48 million metres in 1990-91 to 0.98 million metres during the period under review. The value of production also showed decrease over the previous year. Productivity of looms in this sector has drastically decreased from 233 in 1990-91 to 146 metre/loom during 1991-92, a decrease of 37.34 per cent over the previous year.

6.85 In the unorganised sector, the number of looms increased from 5048 in 1990-91 to 5260 during 1991-92, registering an increase of 4.19 per cent over the previous year. But the production of handloom cloth has decreased to 9.10 million metres during 1991-92 from 9.60 million metres in the previous year. Even though value of production has increased from Rs. 14.40 crores to Rs. 16.37 during 1991-92, the productivity of looms in this sector decreased to 1730 in 1991-92 from 1903 metres/loom in the previous year.

6.86 The production of handloom cloth in the State as a whole, has increased to 55.28 million metres during 1991-92 from 54.60 million metres in the previous year. Value of cloth produced during 1991-92 has increased to Rs. 99.20 crores from Rs. 81.87 crores in the previous year. During 1991-92, average productivity of looms in the state has showed a decline from 1069 to 1050 metres/loom. The details regarding production, productivity, value of production etc. under Handloom sector are given in Appendix 6.21.

6.87 During 1991-92, the Handloom Directorate has implemented various schemes for the development of Handloom Industry in the State. An amount of Rs. 43.81 lakhs has been spent for the revitalisation of 46 dormant societies. As part of modernising the looms, 1150 looms were revamped

through 66 weavers co-operative societies at a cost of Rs. 17.26 lakhs during the period under review. For providing house-cum-workshed to 348 weavers an amount of Rs. 28.85 lakhs has been spent. An amount of Rs. 20.00 lakhs each has been given to Hantex and Hanveev by way of share capital contribution. Under Special Component Plan for Scheduled Caste and Tribal Sub Plan for Scheduled Tribes an amount of Rs. 23.61 and Rs. 15.57 lakhs respectively has been spent during the period under review. An amount of Rs. 283.95 lakhs has been spent for the implementation of market development assistance scheme and Rs. 249.79 lakhs for giving rebate on sale of handloom products during 1991-92.

6.88 The Kerala State Handloom Weavers Co-operative Society (Hantex) was established in 1961 with the objective of developing handloom industry of the Co-operative sector on commercial lines. It is the Apex marketing agency of 400 member primary societies. As on 31-3-1992 the paid up share capital of the society stood at Rs. 533.81 lakhs of which Rs. 515.85 lakhs has been shared by the Government. The HANTEX procured handloom cloth worth Rs. 8.13 crores during 1991-92. The production of Handloom cloth under Hantex has increased from 4.95 lakh metres in 1990-91 to 5.30 lakh metres during 1991-92. The sales turn over of the society during the year under review was Rs. 11.83 crores as against Rs. 11.15 crores in the previous year. The value of Janatha cloth produced during 1991-92 decreased to Rs. 1.26 lakhs from Rs. 9.95 lakhs in 1990-91. On the other hand, the value of Polyester shirting, double veshty and single veshty produced has increased from Rs. 36.59 lakhs to Rs. 41.32 lakhs during this period. The Society organised 74 exhibitions during 1991-92 with a view to boosting the sale of the product of Hantex. The Hantex International Garments unit, a readymade garment making unit of Hantex continued its activities during the year under review. The details regarding the working results of the Society is given in Appendix 6.22.

6.89 The Kerala State Handloom Development Corporation (Hanveev) is an agency for the development of Handlooms outside the Co-operative fold. The paid up share capital of the Corporation as on 31-3-1992 was Rs. 398.03 lakhs. The total borrowings of the Corporation has increased from Rs. 507.58 lakhs to Rs. 556.18 lakhs during 1991-92. The Corporation has at present 32 clusters having 6361 looms. Processing and printing works of the Corporation are done at Chirakkal in Kannur district. Dyeing of yarn which is required for the clusters are done at the Dye House at Kalliassery in Kannur District. Marketing of its products is being done through its own show rooms (40 Nos.), 21 agency showrooms and 7 mobile sales vans working under the Corporation.

6.90 During the year under review the Corporation achieved a total sales turnover of Rs. 315.65 lakhs. The value of items produced by the Corporation during 1991-92 has decreased to Rs. 137.97 lakhs from Rs. 221.95 lakhs during 1990-91, showing a decrease of 36.57 per cent over the previous year. Income of the Corporation through sale of products increased marginally from Rs. 110.94 lakhs in

1990-91 to Rs. 116.70 lakhs in 1991-92. Expenditure on raw materials procured during 1991-92 was to the tune of Rs. 209.58 lakhs as against Rs. 330.40 lakhs in the previous year. During the year under report, the Corporation incurred a loss of Rs. 16.53 lakhs. The accumulated loss of the Corporation stood at Rs. 115.96 lakhs as on 31-3-1992.

6.91 The Working results of the Kerala State Handloom Development Corporation is given in Appendix 6.23. Details pertaining to the Powerloom sector in Kerala are furnished in Appendix 6.24.

#### Cashew Industry

6.92 Cashew Industry is categorised as a traditional industry due to the low level of technology involved in the processing of cashewnut. The value addition in this industry has been estimated at 60 to 65 per cent. During the year 1991-92, the cashew factories in Kerala could provide employment to about one lakh persons, mostly women.

6.93 The Kerala State Cashew Development Corporation is engaged in the manufacture of cashew kernels, cashewnut shell liquid and tannin and sale of these products inside as well as outside the country. The Corporation provided employment to about 51000 persons during 1991-92. As at the end of March, 1992, the Corporation had an installed capacity for processing 42000 M. T. of Cashew Kernels, 6000 M. T. of cashewnut shell liquid and 900 M. T. of tannin. The Corporation manufactured 6996 MT of cashew kernels valued at Rs. 7536.40 lakhs during 1991-92. Production of tannin during 1991-92 was 137 M.T. valued at Rs. 35.65 lakhs. The sales turnover of the corporation in respect of cashew kernels was Rs. 8690.04 lakhs while that of tannin was Rs. 57.79 lakhs. During the period under review, the Corporation has exported cashew kernels valued at Rs. 76.15 crores to USA.

6.94 The Corporation could not utilise its full capacity during 1991-92 due to scarcity of raw materials. The Corporation had imported 3058 MT. of raw cashewnuts in addition to the quantity of 24870 MT. procured from within the State. Value of raw cashewnuts consumed by the Corporation during the period under review amounted to Rs. 78.60 crores.

6.95 The Corporation has received an amount of Rs. 3058.95 lakhs as share capital from State Government as on 31-3-1992. The total income of the Corporation has decreased from Rs. 12203.45 lakhs in 1990-91 to Rs. 9207.92 lakhs during 1991-92. The Corporation expended an amount of Rs. 5571.85 lakhs for raw materials and components Rs. 2281.95 lakhs for personnel payment including wages, salaries and bonus, Rs. 772.55 lakhs for interest and finance charges during 1991-92.

6.96 The Kerala State Cashew Workers Apex Industrial Co-operative Society (CAPEX) was registered on 9-8-1984 with the objective of organising cashew industry in the State on commercial basis, rendering assistance to affiliated societies in the procurement and distribution of raw cashewnuts, arran-

ging funds for processing and marketing of kernels and other items produced in the factories of the affiliated societies. During 1991-92 the 'CAPEX' had 8 affiliated societies having 5648 cashew workers who were members in the primary societies.

6.97 The paid up share capital of the Society stood at Rs. 88.42 lakhs as on 31-3-1992. It included contribution from Primary Societies (Rs. 19.36 lakhs) and State Government (Rs. 69.06 lakhs). During 1991-92, the society sold in the domestic market cashew kernels, cashew shell, cashew skin and shell oil valued at Rs. 136.95 lakhs. A total quantity of 678.50 tonnes of cashew kernels valued at Rs. 1037.79 lakhs has been exported by the Society during this period.

6.98 Raw nuts procured by the society during the year 1991-92 has decreased to 1075.20 tonnes from 6269.84 tonnes in the previous year. It shows a decrease of 82.85 per cent from the previous year's level. The value of raw nuts procured during 1990-91 was Rs. 805.60 lakhs. It has decreased to Rs. 198.67 lakhs during the period under review. The quantity as well as the value of cashew kernels exported during 1991-92 by the society have also shown a sharp decrease from those achieved in the previous year.

6.99 CAPEX is the sole agent of the State Government for the monopoly procurement of raw cashewnuts for ensuring fair price for the cashew growers and equitable distribution of raw nuts among cashew processors. The quantity of cashewnuts procured during 1992 cashew season by CAPEX was 43746 MT. valued at Rs. 9507.39 lakhs as against 58440 MT. valued at Rs. 8654.65 lakhs in the previous year. At the same time, dried nuts obtained during 1991 season was 55059 M.T. as against 40796 M.T. 1992 cashew season. The procured rawnuts have been allotted to the processing units of KSCDC, CAPEX and private sector.

6.100 Number of primary societies participated in the programme of monopoly procurement during the year 1992 was 472 as against 781 during the previous year. Actual procurement was done through 2560 sub depots set up under 36 yards of 8 regions during the year under review. As an incentive, an amount of Rs. 172.94 lakhs has been paid as commission to these societies during the year 1992 as against Rs. 143.07 lakhs during the previous year. The district wise details of procurement of rawnuts during 1992 cashew season and its inter-district variation with respect to procurement and selling prices are given in Appendix 6.25.

6.101 The Cashew Export Promotion Council is the sole agency set up by Government for quality control and perishment inspection of cashewnuts exported. The total export of cashew kernels during 1991-92 was 64692 M. T. valued at Rs. 668.45 crores. During 1990-91, the total export was 49874 M. T. valued at Rs. 442.24 crores. Out of the total exports during 1991-92, 22 per cent went to USA, 18 per cent to Netherlands and 7 per cent to Japan. As a result of devaluation in July, 1991, the unit value

realised was much higher at Rs. 103.32 per Kg. compared to Rs. 88.67 per Kg. during 1990-91. The export of cashew shell liquid during 1991-92 was 4477 M. T. valued at Rs. 3.96 crores as against 5658 M. T. valued at Rs. 5.55 crores in 1990-91. The unit value realised during 1991-92 has come down to Rs. 8844 per M. T. from Rs. 9818 per M.T. in the previous year.

6.102 The import of raw cashewnuts during the period under review was 106,080 M.T. valued at Rs. 266.68 crores. It has increased from 92639 M. T. valued at Rs. 134 crores in the previous year, showing an increase of 28.37 per cent in the quantity of rawnuts imported over the year. The unit price of rawnuts imported shot up to Rs. 25140 per M.T. compared to Rs. 16125 per M.T. in the previous year. This was mainly due to the devaluation of Indian Rupee. Major suppliers of rawnuts were Guinea, Bissau, Ivory Coast, Nigeria, Tanzania, Benin, Indonesia and Vietnam. A total quantity of 1384 M.T. of raw nuts could be imported in 1991-92 from Mosambique after a long gap of 15 years.

6.103 The details of foreign exchange earnings and import of raw cashewnuts into India are given in Appendix 6.26 and 6.27.

#### Mining

6.104 The Department of Mining and Geology carried out its developmental as well as regulatory functions during the financial year 1991-92 satisfactorily. In the case of major minerals, 13 mining leases were granted and executed during this period. They included four for china clay, six in respect of silica sand, two for limeshell and one for quartz. Altogether 75 mining leases were in force in the State during 1991-92. Out of these, 26 leases were issued for the mining of silica sand in Alappuzha district. Twenty mining leases were issued for china clay and fourteen for limeshell. In respect of minor minerals there were 127 quarrying lease, 380 quarrying permits and 158 dealer's licences were in force during 1991-92. The department continued to take rigorous measures for checking illicit mining and transport of valuable mineral resources of the State. The revenue collection of the Department on minerals during 1991-92 increased to Rs. 164.36 lakhs from Rs. 107.91 lakhs in 1990-91. The details of revenue collected during the period from 1985-86 to 1991-92 are shown in Appendix 6.28.

6.105 The Kerala Mineral Exploration and Development Project continued its activities during 1991-92 also. The detailed investigation for bauxite in Nileswaram area of Kasaragod district undertaken by the Project was concluded by the end of May, 1991. Based on the results of the bauxite samples analysed in the KMEDP laboratory, two low grade bulk samples—high silica and high iron—were sent to Indian Bureau of Mines to determine how far they can be upgraded by beneficiation process. The



results of the beneficiation studies conducted on them are awaited. A detailed investigation was taken up for probing the existence of lignite and assessment of china clay and bauxite occurring in the various stratigraphic horizons of Madai area in Kannur district. This work was started in June 1991 and during the period under review 920 metres of drilling was completed in 20 bore holes. Kaolinitic clay and bauxitic laterite were observed in most of the bore holes. Detailed investigation was undertaken for kaolinitic clay in Mangalapuram area and Melthonnakkal village of Thiruvananthapuram district in collaboration with the Department of Mining and Geology. Preliminary survey during 1990-91 has indicated 300 Ha. of kaolinitic clay bearing area in Melthonnakkal and Veilur villages with an inferred reserve of 40 million tonnes. During the above operations an area of 29 Ha. was subjected to topographic survey also.

6.106 During 1991-92 investigation for granite was taken up in the Thiruvananthapuram district. An area of 150 sq. km. was subjected to geological reconnaissance in Thiruvananthapuram and Neyyattinkara Taluks. From this detailed mapping was conducted in localities like Kizharoor ferry area, Chittumala, Pandavanpara and Pazhamala. In addition to this, leptinite occurrences were noted from Pongummood to Pazhanjippara and garnetiferous charnockites exposed in Ankode, Theruvian-Chathanpara area. During the period under review, an area of 0.14 sq. km. was mapped in Venmani and three quartz reefs were traced and sampled. The Mineralogy and Gem testing laboratory working under the project has completed works including cutting and polishing of rock samples, Petrographic studies etc. Mineral/gem testing was made on 145 stones brought to the laboratory for certification during 1991-92.

## CHAPTER 7

### TRANSPORT AND COMMUNICATIONS

Almost all the villages in the State are connected with all-weather roads. The total length of roads went up by 3287 Kms. from 132541 Kms. during 1990-91 to 135828 kms during 1991-92. Of the total roads, only 88 per cent was surfaced by 1991-92. Kerala has a road length of 350 kms. per hundred sq. kms. of area and 468 kms. per lakh of population. (1991 Census—Provisional Population) compared to the All India figures nearly 64 kms. and 249 kms respectively. Eventhough Kerala is way ahead of other states in regard to coverage of roads, the quality of these roads leaves much to be desired. While the road length during the last decade increased by 1.42 times, the growth of vehicles has been much higher at 3.21 times. A major segment of roads in the State is sub-standard.

7.2 The number of motor vehicles registered in the State stood at 708172 during the review year 1991-92 as against 647742 in the preceding year, 1990-91, an increase of 60430 vehicles. There are 1822 vehicles per hundred sq. kms. of area and 2441 vehicles per lakh of population: (1991 Census—Provisional population; where as the All-India figures stood at 583 vehicles and 2272 vehicles respectively. The public and private sectors undertake passenger transport operations in the state. Eventhough the Kerala State Road Transport Corporation runs passenger services through out the State, the private sector occupies the major share. The Corporation owns 3534 buses which comprises of 24 per cent of the total stage carriages in the State. In terms of goods transport, the private agencies have the monopoly.

7.3 The aggregate railway route length in the State stood at 1055 kms. of which 942 kms. were broadgauge and 113 kms. metergauge. When compared with other States in the country, Kerala has the lowest route length. Air traffic is operated from the Airports of Thiruvananthapuram, Kochi and Calicut. Besides internal services, international flights to Gulf countries, Male and Colombo are operated from Thiruvananthapuram and also to Sharjah from Kozhikode.

7.4 While the passenger traffic originated from the State increased by 10.4 per cent, the traffic terminated increased only 3.41 per cent. As regards freights carried through, the originating traffic increased by 5.97 per cent, whereas the same terminated declined by 14.18 per cent over the previous year.

7.5 The three passport authorities in the State issued 2.76 lakh passports in 1991-92 as against 2.39 lakhs in the preceding year, showing an increase of 15 per cent. Appendix 7.19 gives the particulars regarding passports issued during the year 1991-92.

7.6. Kerala has one major port at Kochi and three intermediate ports at Neendakara, Alappuzha and Kozhikode, Vizhinjam, Thiruvananthapuram Kollam, Kodungalloor, Vadamakara, Ponnani, Thalassery Kannur, Azheekal and Kasaragod are the ten minor ports. During 1991-92 the cargo handled at Kochi port recorded, an increase of 2.8% compared to the previous year. The quantity of cargo handled at this port during the period under review increased to 74.81 lakh tonnes as against 72.75 lakh tonnes in the preceding year. During 1991-92, both import and export increased to the tune of 64.83 lakh tonnes and 10.49 lakh tonnes respectively.

7.7. During 1991-92 the cargo handled at the intermediate and minor ports increased to 1.42 lakh tonnes, from 1.30 lakh tonnes in the previous year, registering an increase of 9.2%.

7.8. During the period under review landing and shipping operations took place only at the four ports of Kovalam-Vizhinjam, Neendakara, Azheekal and Kozhikode.

7.9. During the year under review, the departmental dredgers conducted operation at Azhikkal, Munambam Ponnani Neendakara and Beypore ports. 385677.5M<sup>3</sup> dredging operations were done with a time of 1840 Hrs. during the year under review.

7.10. Hydrographic survey wing conducted investigation works in the minor and intermediate ports. Construction of a wharf of 70m. length at Neendakara was completed. Shore protection works, construction of an approach road to cargo wharf and Transit shed at Neendakara were completed. The construction of rubble mound break water at Beypore for 860m and 820 m. at Chaliyam were completed. The work of providing fenders at Beypore port wharf was completed during the period under review.

7.11. The Kerala State Water Transport Department, Kerala Shipping and Inland Navigation Corporation Limited and Water Transport wing under K.S.R.T.C. are the three public sector agencies which carryout water transport operations in the state.

7.12. The number of passengers carried by the three agencies together stood at 259.06 lakhs during the year under review showing a decrease of 0.8%. Corresponding figures for 1990-91 stood at 261.35 lakhs. The quantity of cargo handled by these agencies stood at the same level as that of the previous year.

7.13. Kerala postal circle comprises of 24 postal services divisions and 3 other postal service divisions. Under the 24 postal service divisions there were 4978 post offices. Out of this, 10 post offices were in Lakshadweep and 4 post offices were in Mahe. The number of speed post centres stood at 6 during the year under review.

7.14. The other Postal Services Divisions are Railway Mail Service Division, Mail Motor Service Division and Central Stamp Depot. Under the other postal service Divisions there were 89 offices. On an average, one post office served 5840 persons and 7.823 sq.km. area.

7.15. Kerala Telecom Circle consists of 10 secondary switching areas with 675 exchanges. When

compared to the previous year this represented an increase of 4%. The total number of working connections reached to 305605 registering a growth of 17.4%. There were 6255 public call offices during the year under review. Out of this, 4345 were local public call offices, 1784 were STD Public call offices and 126 were long distance Public Call offices.

7.16. The growth of Transport and Communications Infrastructure since 1975 is presented in table 7.1.

TABLE 7.1  
Growth of Transport & Communication Infrastructure since 1975

Sl.No.	Item	Unit	1975	1980	1985	1986	1987	1988	1989	1990	1991	1992
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1.	Road Length P.W.D. Kms.	Kms.	14870	17408	19107	19460	19752	19808	19815	19836	20283	20414
2.	Road Length (Panchayats)	"	54812	66158	81515	81539	82913	90301	94487	96951	99022	101067
3.	Motor Vehicles	Nos.	119720	174704	319259	361617	414310	473789	529343	581054	647742	708172
4.	Passenger Buses	"	7828	8705	12910	13497	16704	18121	19094	20290	21454	22833
5.	Goods Vehicles	"	15875	211215	40879	45325	51284	57388	58528	61106	66190	71089
6.	Buses under KSRTC	"	2212	2935	3239	3070	3019	3219	3240	3313	3413	3534
7.	Railway Route Length											
a.	Broadgauge	Kms.	774	803	828	828	828	828	828	885	885	942
b.	Metregauge	"	122	113	113	113	113	113	113	113	113	113
	Sub-Total		896	916	941	941	941	941	941	998	998	1055
8.	Minor Ports	Nos.	10	11	9	9	10	10	10	10	10	10
9.	Intermediate Ports	"	2	3	4	4	3	3	3	3	3	3
10.	Traffic through Minor & Intermediate Ports											
(a)	Export	Lakh Tonnes	17.30	1.87	1.49	0.99	0.75	0.74	1.29	1.18	1.20	1.32
(b)	Import	"	1.28	0.76	0.26	0.12	0.15	0.09	1.74	0.40	0.11	0.10
11.	Traffic through Kochi Port											
(a)	Export	"	12.82	11.10	3.90	7.19	12.83	12.17	12.83	10.72	10.25	10.48
(b)	Import	"	35.90	43.60	36.76	45.59	56.00	55.85	65.41	60.53	62.50	64.33
12.	Length of Navigable waterways	Kms.	N.A.	1895	1895	1895	1895	1895	1895	1895	1895	1895
13.	Passenger Boats in Public Sector											
(a)	State Water Transport Department	Nos.	..	..	74	75	75	75	79	86	88	91
(b)	Kerala Shipping & Inland Navigation Corporation (KSINC)	"	..	..	8	8	8	9	9	9	11	11
(c)	Kerala State Road Transport Corporation-Water Transport Wing	"	..	..	12	12	12	12	12	12	12	12
14.	Post Offices	"	4024	4512	4751	4748	4748	4782	4782	4861	4911	4984
15.	Telephone Exchanges	"	286	441	561	584	608	621	632	636		675
16.	Total Equipped Capacity	"	70410	104595	144462	162721	178821	195852	224377	246190	281607	344536
17.	Public Call Offices	"	2352	2292	2766	2858	2944	2938	3107	3794	4358	6248

### Roads

7.17 Kerala had a road length of 135828 kms in the review year, 1991-92. Out of the total road length the Public Works Department maintains 20414 kms, National Highways 1011 kms; Panchayats 101067 kms and 13396 kms comes under the Municipalities, Corporations, Forests, Electricity Board and Irrigation Department. The black topped/metalled roads in the State is only 30963 kms. during the year 1991-92. Table 7.2 depicts the length of roads under different Departments.

TABLE 7.2

Length of Roads in Kerala under different Departments as on 31st March 1991 and 1992

Sl. No.	Name of Department	Kms		
		Road Length		Percentage
		As on 31-3-1991	As on 31-3-1992	
(1)	(2)	(3)	(4)	(5)
1.	National Highways	1011	1011	0.75
2.	Public Works Department	20283	20414	15.03
3.	Panchayats	99022	101067	74.41
4.	Municipalities including Corporations	7831c	8112c	5.97
5.	Forests	2654	3480	2.56
6.	Others	1740p	1744p	1.28
	<b>Total</b>	<b>132541</b>	<b>135828</b>	<b>100.00</b>

c Corrected figures

p Provisional figures

7.18 The total length of National Highways in the State in 1992 remained the same level as in the previous year. The road length under Public Works Department increased by about 131 kms; whereas the length of Panchayat roads and the roads under Municipalities (including Corporations) went up by 2045 kms and 281 kms respectively during the year under review.

7.19 The surface-wise distribution of Public Works Department roads is presented below in Table 7.3.

TABLE 7.3

Distribution of Public Works Department Roads by type of surface as on 1-3-1992\*

Sl. No.	Category	(Kms.)				
		Cement concrete	Black topped	Water Bound Macadam	Others	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	State Highways	16.612	1857.984	8.350	7.405	1890.351
2.	Major District Roads	8.263	5896.230	64.464	51.295	6010.252
3.	Other Districts Roads	..	9215.020	158.002	183.740	9556.762
4.	Village Roads	..	827.953	194.517	1934.100	2956.570
	<b>Total</b>	<b>24.875</b>	<b>17977.187</b>	<b>415.333</b>	<b>2176.540</b>	<b>20413.935</b>

\* Provisional

7.20 The Public Works Department took over 8 village roads having an aggregate length of 72 kms in the review year 1991-92. The Appendix 7.1 shows the district-wise length of roads taken over by the Public Works Department.

7.21 Panchayat roads increased by 2045 kms during the year 1991-92, the aggregate length of various categories of roads being 99022 kms during 1990-91 and 101067 kms during 1991-92. The percentage increase in length to total length of blacktopped/metalled roads in all Panchayats of the State stood at 10.44 during 1991-92 as against 8.90 in the preceding year. In respect of gravelled and earthen roads, the percentage increase come to 27.64 and 61.94 in the year under review. A district-wise comparison of length of Panchayat roads shows Kollom district ranked first (13374 kms) followed by Thrissur (11285 kms); while Wayanadu district comes last (2856 kms) during the review year. Appendix 7.4 shows the district-wise length of roads under various categories as on 1-4-1992 in Kerala.

### Road Accidents

7.22 Road accident in the State increased by 18 per cent to 24677 numbers during the year under review from 20960 numbers in 1990-91. During 1991-92 the number of accident victims rose to 32421 compared to 27972 at the end of 1990-91. The number of fatal cases increased to 1886 in 1991-92 from 1717 during 1990-91. Appendices 7.7 to 7.10 depict the District-wise particulars of the number of road accidents, time of accidents, primary cause of accidents and road accidents by class of vehicles involved.

### Road Transport

7.23 Eventhough the public sector and private sector together provide adequate transport services in the State, the private sector occupies a predominant position in the passenger transport as well as goods transport operations. The Kerala State Road Transport Corporation, the state owned agency conducts only passenger service. The goods transport by road is more or less the monopoly of the private sector.

7.24 During the year under review the aggregate number of motor vehicles having valid registration stood at 7.08 lakhs as against 6.48 lakhs in 1990-91; showing an increase of 9.3 per cent. Growth of motor vehicles in Kerala from 1975 onwards is shown in Appendix 7.11. In comparison with the other States in India, the density of motor vehicles in Kerala is very high. During the year under review Kerala had 2441 vehicles per lakh of population, (1991 Census) and 1822 vehicles per hundred sq. km. of area. The corresponding All India figures were only 2272 and 583 respectively.

7.25 Among the Vehicles having valid registration, 47 per cent were scooters/motor cycles. Passenger buses and goods vehicles together constituted only 12 per cent of the total number of vehicles. This shows that the personal modes of transport accounted for 88 per cent of the total motor vehicles in the State during the year under review. A district-wise ranking of number of vehicles having valid registration shows that Ernakulam district ranks first (115605 nos.) followed by Thiruvananthapuram (109270 nos.) Wayanad ranks the last (9082 nos.)

7.26 Registration of new vehicles in the State showed an increase of 4.18 per cent during the year under review. The number of newly registered vehicles during 1991-92 stood at 67,012 as against 64,326 during 1990-91. Among the vehicles newly registered, 61 per cent were scooter/motor cycles. The details of newly registered vehicles are given in Appendix 7.14. In this respect too, Ernakulam district stands first (12,709 nos) followed by Thiruvananthapuram (9,768 nos); Wayanad district was at the bottom (555 nos).

7.27 During 1991-92, the Regional Transport Authorities issued 2222 temporary and 1174 permanent stage carriage permits. Under National Permits Scheme, no permit was issued during the year under review. The statements regarding permits issued under various categories are shown in Table 7.4

TABLE 7.4

Details regarding the issue of permits and National permits granted under National Permits Scheme.

Permits granted under:—	1991-92
(i) Existing inter-state operators (Nos)	} 2903
(ii) Existing intra-state operators "	
(iii) Ex-army personnel "	
(iv) Unemployed Drivers "	
(v) Scheduled Castes & Scheduled Tribes (Nos)	
Total	2903

2. State Quota on National permits (at the end of March 1992)	No Quota has been fixed for National Permit.
3. Number of goods vehicles having inter-state permits (not included under National Permits Scheme):—	
(i) Vehicles registered in Kerala having permit to operate in other states	2025
(ii) Vehicles registered in other states having permit to operate in Kerala	..
Total	2025
4. Number of stage carriage permits issued by R.T.A's:—	
(a) Temporary	2222
(b) Pucca	1174
Total	3396

7.28 The revenue collected by way of taxes and other items under Motor Vehicles Act and Rules accounted for Rs. 93.91 crores during the year under review as against Rs. 74.14 crores in the previous year; registering an upward trend of 27 per cent. The cumulative tax arrears from the private sector under the Motor Vehicles Act at the end of March 1991-92 stood at Rs. 6.07 crores which is relatively higher than that of the previous year's figure of Rs. 4.96 crores.

### Passenger Transport:

7.29 Both the Public Sector and Private Sector operate passenger transport services in the State. When we compare the passenger transport services in the public sector of our state with the neighbouring states of Tamil Nadu, Karnataka and Andhra Pradesh, we can note that they have a higher ratio of public sector transport services. The share of public sector passenger transport service in the total is only 24 per cent in Kerala where as it is 40 percent in Tamil Nadu, 41 percent in Karnataka and 48 percent in Andhra Pradesh. The All India figure for the same stood at 32.7 per cent in 1989-90. The district-wise distribution of stage carriages in the state, both the public Sector and Private Sector are shown in Table 7.5.

TABLE 7.5

District-wise Distribution of Stage Carriages in the State.

Sl. No.	Name of District	K.S.R.T.C.*			
		No. of Trans- port Units	No. of buses held in each unit.	Other Stage Carri- ages	Total Stage Carri- ages
(1)	(2)	(3)	(4)	(5)	(6)
1.	Thiruvananthapuram	13	1252	248	1500
2.	Kollam	4	317	483	800
3.	Pathanamthitta	3	156	393	549

(1)	(2)	(3)	(4)	(5)	(6)
4.	Idukki	1	34	550	584
5.	Alappuzha	6	333	1005	1338
6.	Kottayam	6	294	395	689
7.	Ernakulam	6	318	1632	1950
8.	Thrissur	5	199	1949	2138
9.	Palakkad	1	101	887	988
10.	Malappuram	3	88	891	979
11.	Kozhikode	2	117	1323	1440
12.	Wayanad	3	156	97	253
13.	Kannur	2	123	1174	1297
14.	Kasaragod	1	46	336	382
Total		56	3534	11363	14897

\*Inclusive of vehicles held in various workshops of KSRTC also.

#### Kerala State Road Transport Corporation (K.S.R.T.C.)

7.30 The Kerala State Road Transport Corporation is the only agency in the Public sector for passenger transport by road in the state. During the year under review, the Corporation had a fleet strength of 3534 vehicles as against 3413 vehicles during the preceding year. The Corporation commissioned 289 new buses and disposed of 169 buses during the year under review as against 325 and 225 in the preceding year. During 1991-92, the Corporation operated 3089 schedules as against 3052 schedules during 1990-91, showing an increase of 1.21 per cent. The Corporation runs its fleet in 3919 routes with a route distance of 1.76 lakh Kms. in 1991-92 as against 3,894 routes and 1.74 lakh Kms. respectively during 1990-91. During the year under review, the total number of passengers carried stood at 9119 lakhs as against 8535 lakhs during 1990-91. The total number of passengers carried increased to 6.84 per cent. The average distance travelled by a passenger was only 15.7 Kms during the year under review. The gross revenue receipt of the Corporation stood at Rs. 204.96 crores in 1991-92, compared to Rs. 172.32 crores during the preceding year; showing an increase of Rs. 32.64 crores. The present fare structure of KSRTC is shown in Table 7.6.

TABLE 7.6

#### Fare Structure of K.S.R.T.C. as on 31-12-1992

Sl. No.	Type of Service	Basic fare per km. (Paise)	Minimum fare (Paise)
(1)	(2)	(3)	(4)
1.	City	15	80
2.	Ordinary	15	80
3.	Fast Passenger	18	150
4.	Super Fast	20	200
5.	Express	22	400
6.	Super Express	23	400
7.	Deluxe Express	25	500

7.31 During the year under review, the average earnings per passenger stood at 215.9 paise compared to 196.9 paise during 1990-91. The average earnings per km. of buses operated went up to 702 paise from 617 paise during 1990-91, registering an increase of 13.78 per cent.

7.32 During the year 1991-92, the Corporation's revenue expenditure was Rs. 234.49 crores. The expenditure for the preceding year was Rs. 203.33 crores; i.e., an increase of 15.32 per cent. The total expenditure on salary alone stood at Rs. 108.28 crores (46.17 per cent). The expenditure for repairs and maintenance accounted for Rs. 27.76 crores (11.84 per cent). Rs. 48.45 crores (20.66 per cent) was spent for fuel and Rs. 50.01 crores (21.33 per cent) for other expenditure.

7.33 The K. S. R. T. C. is running at a loss from 1967-68 onwards. Even though an amount of Rs. 65 crores was written off by the State Government during 1980-81, 1983-84 and 1985-86, the accumulated loss of the Corporation (includes Water Transport wing) at the end of 1991-92 stood at Rs. 224.55 crores as against Rs. 193.76 crores in the previous year. The loss of K.S.R.T.C (Roads wing) stood at Rs. 29.53 crores in 1991-92 as against 31.01 crores during 1990-91.

7.34 The share capital investment by Government of Kerala and Government of India stood at Rs. 54.77 crores and Rs. 18.15 crores respectively during the year under review. The loans to be repaid by KSRTC to Government of Kerala, LIC, KTDFC and IDBI during 1991-92 reached Rs. 106.42 crores. The age-composition, utilisation of fleets and staff productivity are the main factors that determine the efficiency and productivity of a transport corporation. As on 31-12-1992, 43.20 per cent of the fleet of K.S.R.T.C is overaged. When compared with the other Transport Corporations in the country, this is very high. Table 7.7 shows the age-wise classification of vehicles owned by K S R T C on 31-12-1992

TABLE 7.7

#### Age-wise Details of Vehicles owned by K.S.R.T.C. as on 31-12-1992

Sl No	Age-wise Classification	Numbers
1.	10 years and above	648
2.	Above 7 years and below 10 years	861
3.	Above 5 years and below 7 years	327
4.	Below 5 years	1657
Total:		3493

7.35 The main factors attributed to the loss of the Corporation are low fleet utilisation, high percentage of overaged buses, frequent accidents and break downs and frequent cancellation of schedules. It is estimated that the fleet utilisation of K.S.R.T.C during 1991-92 was 82.5 per cent while the All India average stood at

89 per cent. The staff productivity of K.S.R.T.C. per day is 26.27 kms. in 1991-92; whereas the All India average is 37.5 kms. The bus staff ratio came down in 1991-92 when compared with the previous year. The number of staff per bus was 8.65 during 1991-92. This ratio is much less in the other Transport Corporations like Andhra Pradesh and Tamil Nadu 8; but 7 in Karnataka. A category-wise staff strength of the Corporation is shown in Table 7.8.

TABLE 7.8

*Category-wise Staff Position of K.S.R.T.C.*

Sl. No.	Category	At the end of March 1991	At the end of March 1992	At the end of December 1992
(1)	(2)	(3)	(4)	(5)
1.	Administrative staff (including watch and ward)	4708	4542	4494
2.	Traffic Personnel	19102	19151	18665
3.	Maintenance Personnel	6820	6878	6767
Total:		30,630	30,571	29,926

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

*Goods Transport*

7.36 The goods transport services in the State is more or less the monopoly of the private sector. The number of goods vehicles in the staff increased from 66,196 in 1990-91 to 71089 in 1991-92; registering an increase of 7.39 per cent. Table 7.9 gives the growth of goods vehicles in the State since 1980.

TABLE 7.9

*Growth of goods Vehicles in Kerala Since 1980*

Year	No. of goods Vehicles	Index
(1)	(2)	(3)
1980	20128	100
1981	22896	114
1982	25696	128
1983	29153	145
1984	30966	154
1985	36699	182
1986	45925	225
1987	51284	255
1988	57838	285
1989	58528	291
1990	61106	304
1991	66190	329
1992	71089	353

*Kerala Transport Development Finance Corporation (KTDFC)*

7.37. This Corporation set up exclusively for financing transport services in the State started functioning in 1991-92 with equity capital contributed from State Government. The objective of the Corporation is to finance transport sector through lease, hire purchase, hypothecation of transport vehicles used by persons, firms and companies particularly by KSRTC. The Corporation accepts deposits from the public. The Corporation issued hire purchase loans worth Rs. 90.29 lakhs during 1991-92 to KSRTC.

*Railways*

7.38. The three Railway Divisions such as Thiruvananthapuram, Palakkad and Madurai maintain the total rail routes in the State. The aggregate route length is 1055 kms. which comprise of 942 kms. broad-gauge and 113 kms. metre-gauge. The Kayamkulam Alappuzha route was commissioned on 20-11-1992, which added 57 kms. to the previous year's route length. The Thrissur-Guruvayoor line with an estimated cost of Rs. 17 crores is nearing completion.

7.39. There are 97 railway stations in the Thiruvananthapuram Division covering nine districts of which 57 are block stations and 40 are flag stations. The number of passengers originated from Thiruvananthapuram Division stood at 420 lakhs in the year 1991-92 as against 374 lakhs in 1990-91; an increase of 12 per cent. The terminating passengers during the review year stood at 336 lakhs as against 299 lakhs in the previous year, an increase of 12 percent. The originating goods traffic declined from 31.97 lakh tonnes in 1990-91 to 31.54 lakh tonnes in 1991-92. Goods traffic terminating also declined from 35.17 lakh tonnes in 1990-91 to 34.69 lakh tonnes in 1991-92. The freight operations are done at the three major yards such as Irimpanam, Kochi and Ernakulam Marshalling yard. The Irimpanam yard cater to the traffic requirements of M/s Cochin Refineries Ltd. and M/s FACT, Kochi division. The Kochi yard has control over the originating traffic of Port area and the FACT godown of the division. The goods traffic arrangements of Nagercoil, Thirunelveli and the industrial area of Ernakulam are under the control of the Ernakulam Marshalling yard.

7.40. The gross receipts from all stations of Thiruvananthapuram Division both on passenger and goods traffic showed an increase during 1991-92 when compared with the previous year 1990-91. The revenue collection figures are given in the Table 7.10.

TABLE 7.10

*Revenue Receipts - Thiruvananthapuram Division*

(Rs. in lakhs)

Item	Gross Revenue receipts		Percentage increase over 1990-91
	1990-91	1991-92	
(1)	(2)	(3)	(4)
Passengers	6020	7182	19.30
Goods	8549	9061	5.99
Total	14569	16243	11.49

7.41. The Palakkad Division covers five revenue districts of Kerala viz., Palakkad, Malappuram, Kozhikode, Kannur and Kasaragode. The division runs 125 passenger trains, of which 70 are Mail/Express trains. There are 77 railway stations in Kerala under Palakkad Division, of which 48 are block stations and 29 are halt and flag stations. The goods traffic originated during 1991-92 stood at 21.43 lakh tonnes as against 19.09 lakh tonnes in the previous year. The figures for the terminating traffic of goods showed an increase from 18.20 lakh tonnes in 1990-91 to 21.76 lakh tonnes during 1991-92. The passengers originated increased from 156.65 lakhs in 1990-91 to 167.44 lakhs in 1991-92; showing an increase of 6.89 per cent where as the terminating passenger traffic showed an increase of 5.46 per cent from 89.35 lakhs to 94.23 lakhs for the above period. The major stations handling passenger traffic in Kerala are Palakkad, Shornur and Calicut Junctions. The number of wagons loaded at different stations showed an upward trend from 80603 in 1990-91 to 91785 in 1991-92, registering a percentage of 13.87. The number of wagons received at the different stations in Kerala is reckoned as 75388 in 1991-92 as against 57227 in 1990-91; having a percentage increase of 31.74.

7.42. As regards goods traffic, an average of 162 goods trains per day were operated in 1991-92. There is a centralised Booking Depot of the Food Corporation of India at Palakkad, from where wagons are rebooked to various godowns of the FCI located in Kerala. The division serves four cement factories, of which one is located at Walayar Kuttippuram, Tikkoiti, Ettakkot and Nileswar stations have sidings for FCI, while West Hill, Elathur and Kannur have sidings for handling petroleum traffic. The division employs about 19,000 persons during 1991-92.

7.43. Five new rail services namely Navayug Express (weekly) from Mangalore to Jammu Tawi, Mangalore—Cochin Harbour Terminus Kurla Express daily; Bokaro-Tata-Madras Express extended to and from Alappuzha as a daily train and Thiruvananthapuram Central Gandhidham weekly Express connecting different stations in Kerala were started in 1991-92.

7.44. The gross collection from the stations of Palakkad division accounted for Rs. 1201.40 lakhs during 1991-92 as against Rs. 1160.36 lakhs in 1990-91, registering an increase of 3.54 per cent.

7.45. Konkan Railway connecting Mangalore and Bombay passes through the West Coast States of Maharashtra, Karnataka and Goa. Kerala also benefits from this project since the rail distance between Mangalore and Bombay will be reduced by about twelve hours. The share participation of Kerala is fixed as six per cent of the total cost viz. Rs. 15 crores. An amount of Rs. 12 crores has been released till date. The balance amount will be released during the financial year 1993-94.

### Air Transport

7.46. The two main agencies such as Indian Airlines and Air India undertake air traffic in the state. The Indian Airlines undertaken flight operations from Thiruvananthapuram, Kochi and Kozhikode Airports to major cities in the country. It also operates three international flights to Colombo, Male and Sharja. Air India on the other hand operates from Thiruvananthapuram Airport to Gulf countries.

7.47. The passengers originated from Thiruvananthapuram Kochi and Kozhikode increased by 10.4 percentage. The passengers terminated from the above Airport depicted a marginal increase by 3.41 per cent. In absolute terms the numbers stood at 3,07,915 and 3 26 842 respectively during the year under review.

7.48. Freight traffic originating from the State increased by 5.97 per cent where as the freight terminating declined by 14.18 per cent during the year 1991-92 compared with that of the previous year. The tonnage carried were 2389.95 tonnes and 2005.66 tonnes respectively. Details of traffic originated and terminated are presented in Appendix—7.18.

### Passports

7.49. The State has three Regional Passport Offices at Thiruvananthapuram Kochi and Kozhikode. These offices together issued 2.76 lakh passport in 1991-92 as against 2.39 lakhs in the previous year, showing an increase of 15 per cent. The total number of emigration clearances from the protector of Emigrants Thiruvananthapuram stood at 13072 during the year under review. The number of fresh applications received, passports issued and emigration clearances granted is shown in Appendix 7.19.

### Ports and Harbours

7.50. Kerala has one major port at Kochi, three intermediate ports at Neendakara, Alappuzha and Kozhikode and ten minor ports at Vizhinjam, Thiruvananthapuram, Kollam, Kodungalloor, Vadakara, Ponnani, Thalassery, Kannur, Azhhekal and Kasaragode.

7.51. The quantity of cargo handled at Cochin Port during the year under review stood at 74.81 lakh tonnes as against 72.75 lakh tonnes during 1990-91, thus registering an increase of about 3 per cent.

7.52. During the year 1991-92 coastal traffic handled through the port showed a decrease of 6% while the foreign traffic showed an increase of 20%. Details of coastal and foreign traffic through Cochin Port are shown in Table 7.13.



TABLE 7.13

Coastal and Foreign Traffic through Cochin Port during 1990-91 and 1991-92

	(in lakh tonnes)								
	1990-91	Export 1991-92	% Variation increase(+) decrease(-)	1990-91	Import 1991-92	% Variation increase(+) decrease(-)	Total 1990-91	1991-92	% Variation increase(+) decrease(-)
Coastal	6.44	5.94	(-)-7.76	41.13	38.67	(-)-5.98	47.57	44.61	(-)-6.22
Foreign	3.81	4.54	(+)-19.16	21.37	25.66	(+)-20.07	25.18	30.20	(+)-19.94
Total	10.25	10.48	(+)-2.24	62.50	64.33	(+)-2.93	72.75	74.81	(+)-2.83

Source: Administration Report of Cochin Port Trust, 1991-92.

7.53 Commodity-wise import traffic through Cochin Port during the year under review and the previous year 1990-91 are given in Table 7.14.

TABLE 7.14

Commodity-wise details of import through Cochin Port

Commodity	(During 1990-91 and 1991-92)				
	1990-91		1991-92		% Variation increase(+) decrease(-)
	Quantity	% to total	Quantity	% to total	
(1)	(2)	(3)	(4)	(5)	(6)
Fertilizer & raw materials	864431	13.80	969498	15.1	(+)-12.15
Foodgrains	27308	0.48	16463	0.26	(-)-39.71
Iron, Steel and Machinery	6549	0.10	2058	0.03	(-)-68.58
Newsprint	19819	0.30	20134	0.31	(+)-1.59
Cashewnuts	4809	0.10	1361	0.02	(-)-71.70
Miscellaneous <sup>(a)</sup>	5327401	85.20	5423870	84.31	(+)-1.81
Total	6250317	100.00	6433384	100.00	(+)-2.93

(a) Includes P.O.L.

Source: Administration Report of Cochin Port Trust 1991-92.

7.54 The commodity-wise details of export during 1991-92 compared to the previous year are given below (Table 7.15).

TABLE 7.15

Commodity-wise statement of export during the year 1990-91 and 1991-92

Commodity	(in tonnes)				
	1990-91		1991-92		% Variation increase(+) decrease(-)
	Quantity	% to total	Quantity	% to total	
Tea	9530	0.93	17906	1.71	(+)-87.89
Cashew Kernels	49970	4.88	35630	3.50	(-)-26.70
Seafoods	58598	5.72	65800	6.28	(+)-12.29
Coir Products	24198	2.36	21639	2.07	(-)-10.58
Spices	35976	3.51	29710	2.84	(-)-17.42
Coffee	35892	3.50	42008	4.01	(+)-17.84
Miscellaneous*	810822	79.11	834098	79.60	(+)-2.85
Total	1024986	100.00	1047731	100.00	(+)-2.22

\* includes P.O.L.

Source: Administration Report of Cochin Port Trust 1991-92.

7.55 Appendix 7.20 shows the number of ships which called at the Cochin Port and their Net Registered Tonnage during the year 1990-91 and 1991-92. Number of ships called at the Port decreased to 801 during the year under review as against 858 in the preceding year. Number of passenger ships increased from 4 to 5 in the period under review and their Net Registered Tonnage increased from 38608 tonnes to 48918 tonnes.

7.56 The total traffic handled at the port of Cochin during the period under review shows an increase of 2.8% i.e. from 72.75 in 1990-91 to 74.81 in 1991-92. Number of passengers sailed and arrived through Cochin Port during 1991-92 stood at 26,858 and 28,629 respectively as against 20,632 and 22,505 in 1990-91.

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

7.58 During the year under review the quantity of cargo handled amounted to 1,41,663 million tonnes as against 1,30,105 million tonnes during the preceding year, registering an increase of 8.9%. An important achievement of the department is the opening of Kovalam-Vizhinjam port for cargo traffic. It handled 3867 million tonnes cargo during the year under review. The details of commodity-wise cargo handled at the intermediate and minor ports during 1991-92 are given in Appendix 7.21.

7.59 The number of vessels both steamers and sailing vessels which called at the intermediate and minor ports during 1991-92 stood at 460 as against 448 in 1990-91, registering a growth of 2.68%. Port-wise details are depicted in Appendix 7.22.

7.60 The passenger steamer service between Beypore and Lacadive Island introduced during 1987 continued during the period under review also. The steamer carried 1075 passengers for the island and 3486 passengers from the island. Under the Merchant Shipping Act of 1958, 417 Mechanised Fishing Vessels were registered at the port during the period under review. Under Harbour Craft Rules, 98 Cannoes and 2 cargo boats were renewed during the year 1991-92.

7.61 During the year 1991-92 the Departmental dredger conducted dredging operations at Azheekal, Munambom, Ponnani, Neendakara, Beypore Ports. Total hours dredged by CSD Meena Kerala CSD Neendakara and Grab dredger were 406.40, 468.05 and 966.15 respectively.

7.62 During the period under review there was a significant fall in the number of harbour crafts, registered. Total number of harbour crafts registered at the intermediate and minor ports during 1991-92 stood at 517. During 1990-91 it was 1504. That is 66% decline is observed.

7.63 The revenue collected at all the 13 ports stood at Rs. 46,85,152 as against Rs. 44,28,355 showing an increase of 5.8%. Of the total revenue collected 2.2% was port dues, 15.9% Export/Import dues,

31.4% Tughire charges, 0.13% pilotage fees, 44.86% rent from ground and shed and 5.5% from registration and other fees. Item wise details of revenue collected are shown in Appendix 7.25.

7.64 Hydrographic investigation data were utilised by the Port Department and Harbour Engineering Department for the development of various minor ports and fishing harbours.

7.65 The works on Neendakara Cargo harbour for providing permanent facilities for shipping operations and construction of wharf of 70 m. length was completed. Shore protection work, construction of an approach road to cargo wharf and transit shed at Neendakara were completed. The temporary jetties were repaired. The construction of rubble mound breakwater of 860 m. at Beypore and 820 m. at Chaliyam were completed.

7.66 The work of providing fenders at Beypore Port Wharf was completed during the year 1991-92. Maintenance work of Port Department, building and structures at Kasaragode, Kannur, Badagara, Kozhikode, Beypore and Ponnani were the other works carried out during the year under review. Repairs and replacement of fenders and trolley lines and other structures at Alleppey and Valiathura were done for shipping operations. A temporary wharf was constructed and shipping operations were commenced at Vizhinjam during the year under review.

#### *Inland Water Transport*

7.67 Inland Water Transport Operations in the State are carried out by three agencies viz. State Water Transport Department (SWTD), Kerala Shipping and Inland Navigation Corporation Ltd. (KSINC) and Water Transport Wing of KSRTC. While KSINC is mainly concerned with cargo transportation activities, SWTD and Water Transport Wing of KSRTC deal with passenger transport in the state. The activities of SWTD are concentrated in the Water logged areas of Quilon where as KSINC and KSRTC undertake transport operations in areas around Cochin.

7.68 These three agencies together possessed 114 boats during the period under review. Eventhough the number of boats increased from 111 in 1990-91 to 114 in 1991-92 the passenger carried showed a declining trend of 0.8%. Number of passengers which stood at 261.35 lakhs in 1990-91 declined to 259.06 lakhs in 1991-92. The quantity of cargo carried remained at the same level of 0.03 lakh tonnes as that of the previous year. Out of the 114 boats, 36 were aged over 20 years. The schedules operated and the number of employees stood at the same level as that of the previous year.

7.69 Revenue receipts of the Corporation stood at Rs. 219.42 lakhs in 1991-92 as against Rs. 263.77 lakhs in 1990-91, showing a decrease of 17%. Revenue expenditure of the Corporation increased to Rs. 518.01 lakhs during the year under review compared to Rs. 477.12 lakhs in the preceding year. Total loss of these three agencies increased from Rs. 251.96 lakhs in 1990-91 to Rs. 296.00 lakhs during 1991-92. Out of the total earnings 54% is the contribution by SWTD. Similarly 66 percent of the revenue expenditure was by SWTD.

*State Water Transport Department*

7.70 State Water Transport Department (SWTD) operated boat services mainly for passenger traffic. It operated 56 schedules during 1991-92 covering a total route distance of 1861.60 kms. The Department owned 91 boats of which 46 were in operation. Out of the 91 boats 36 were aged more than 20 years. The boat service carried 116.72 lakhs passengers during the year under review. When compared to the previous year it showed a decline of 2.4%. It also carried 3108 tonnes of cargo during the year.

7.71 Total revenue receipts of the Department stood at Rs. 118.00 lakhs during the period under review compared to Rs. 135.64 lakhs in the previous year showing a decrease of 13%. Expenditure of the Department stood at Rs. 341.00 lakhs, registering an increase of 4.90 percent over the previous year. The loss of the Department stood at Rs. 220.00 lakhs.

*Kerala Shipping and Inland Navigation-Corporation Ltd.*

7.72 Kerala Shipping and Inland Navigation Corporation Ltd (KSINC) operated only passenger boat services during 1991-92. The Corporation owned 11 boats, of which 9 were in operation. During the year under review the Corporation served 53 lakh passengers. When compared to the preceding year this showed an increase of 10 percent. During

1990-91, the passengers carried stood at 48 lakhs. No cargo transport operation was conducted by KSINC during 1991-92.

7.73 Revenue receipt of the Corporation during 1991-92 increased to Rs. 49.44 lakhs as against the previous year's receipt of Rs. 37.21 lakhs registering an increase of 33%. The expenditure of the Corporation also shot up from Rs. 45,60,487 in 1990-91 to 58,25,352. During the year under review the Corporation incurred a loss of Rs. 8.81 lakhs

*Water Transport Wing of KSRTC*

7.74 Water Transport Wing of KSRTC operated only passenger boat services. With a strength of 12 boats, it operated services in 8 routes with a seating capacity of 1622. During 1991-92 it carried 89.34 lakhs passengers compared to 93.73 lakhs in 1990-91 registering a decline of 4.7%.

7.75 Total income received during 1991-92 was Rs. 51.98 lakhs as against Rs. 52.30 lakhs in the previous year, a decline of 0.6%. During the period under review, expenditure of the Corporation increased to Rs. 118.76 lakhs as against Rs. 106.54 lakhs during the preceding year. A decreased revenue receipt and an increased revenue expenditure resulted in a loss of Rs. 66.79 lakhs to the Corporation. An analysis of the expenditure shows that 75% of the total expenditure was spent on salary and wages.

TABLE 7.12

*Operational Statistics of Inland Water Transport*

Particulars	1990-91			1991-92		
	SWTD	KSINC	KSRTC	SWTD	KSINC	KSRTC
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Total No. of boats	88	11	12	91	11	12
2. Boats aged over 20 years	36	..	12	36	..	..
3. No. of boats in operation	44	9	12	46	9	12
4. No. of trips or schedules	56	9	..	36	9	..
5. Gross route distance (in Lakh Kms)	1861.60	970	..	1861.60	1038	..
6. No. of passengers carried (in lakhs)	119.57	48	93.78	116.72	53	89.34
7. Volume of cargo carried (Lakh tonnes)	0.03	..	..	0.03	..	..
8. Total revenue receipts (Rs. lakhs.)	135.65	37.21	90.91	118.00	49.44	51.98
9. Total revenue expenditure (Rs. lakhs)	324.98	45.60	106.54	341.00	58.25	118.76
10. Net loss	189.33	8.39	54.24	220.00	8.81	66.79
11. NO. of persons employed	1167	104	238	1167	104	238

### Communications

7.76 Kerala Postal Circle comprises of 24 postal service divisions and 3 other postal services division. Under the 24 postal service divisions, there were 4978 post offices with 51 Head Post Offices, 1416 Departmental and 552 Extra Departmental Sub Post Offices and 2959 branch offices during the year under review. The total number of post offices increased from 4910 in 1990-91 to 4984 (including speed post centres) in 1991-92 regarding an increase of 1.5%. Of the 4978 post offices, 10 post offices were in Lakshadweep and 4 post offices were in Mahe. Excluding this 14 post offices, Kerala has a strength of 4964 post offices.

7.77 The three Other Postal Services Divisions are;

1. Railway Mail Services Division
2. Mail Motor Service Division
3. Central Stamp Depot.

Under the 3 other postal service divisions there were 88 post offices functioning during the period under review. Category-wise details of Post Offices are presented in Appendix 7.26. Growth of postal system during the last ten years is given in Appendix 7.27.

7.78 During 1991-92 there were 6 Speed Post Centres in the State at Thiruvananthapuram, Kollam, Kochi, Aluva, Thrissur and Kozhikode. Names of speed post centres in India and in foreign countries are given in Appendix 7.28

7.79 During the period 1991-92 the average area and population served up by one post office in Kerala were 7.823 sq.km and 5,840 persons respectively. The corresponding figures for the preceding year stood at 7.946 sq.km. and 5,932 persons respectively. Excluding the post offices in Lakshadweep and Mahe, the total number of post offices increased from 4891 in 1990-91 to 4968 in 1991-92 showing an increase of 1.6%.

7.80 District-wise details of area and population served by one post office are given in Appendix 7.29. Division-wise details of post offices in different categories are shown in Appendix 7.30. A district wise analysis shows that one post office served 7,402 persons in Ernakulam District which is the highest rank and in Idukki District one post Office served nearly 3,676 persons which is the lowest rank.

7.81 Kerala Telecom Circle is divided into 10 Secondary Switching Areas (SSA) viz Thiruvananthapuram, Kollam, Pathanamthitta, Alappuzha, Kottayam, Ernakulam, Thrissur, Palakkad, Kozhikode and Kannur. Under 10 SSAs, there were 675 exchanges during 1991-92 as against 649 exchanges during 1990-91. The telecommunication system in Kerala has developed into a total equipped capacity of 3,44,536 during the year under report as against 2,81,607 in the preceding year, registering an increase of 22%.

7.82 The total number of working connections during the year reached to 3,05,605 against 2,60,261 in the previous year showing an increase of 17.42%. During the year 1991-92, there were 2,14,834 applications in the waiting list compared to 1,74,833 in 1990-91; an increase of 23% than that of the previous year.

7.83 As on 31st December 1992, there were 6255 Public Call Offices under Kerala Telecom Circle. Out of the 6255 Public Call Offices, 4345 were Local Public Call Offices, 1784 were STD Public Call Offices and 126 were Long Distance Public Call Offices. On an average, one telephone served 215 persons of Kerala during 1991-92. SSA-wise statistics relating to Kerala Telecom Circle are given in Appendix 7.31.

### Tourism

7.84 The tourists arrival in the State in 1992 was considerably larger compared to the previous year, when the number showed an increase of 31 percent, 90624 international tourist visited the State during 1992 as against 69309 in 1991.

7.85 The schemes under "Tourism" are implemented by (i) the Director of Tourism (2) the Chief Conservator of Forests and (3) the Managing Director, Kerala Tourism Development Corporation Ltd. These implementing agencies together spent Rs. 341.73 lakhs in the State sector during the year under review. In addition to this, Rs. 237.53 lakhs were spent for different Centrally Sponsored Schemes. The details of the schemes implemented by the Director, Tourism are given below.

7.86 As a part of the publicity efforts, different publicity materials were brought out and Great Elephant March, Nishagandhi Dance Festival etc. were conducted. Seventeen organisations were assisted for promoting local cultural programmes. Under 'Preparation of Project Reports and Plan', soil investigation was carried out at the site of Bridge Museum at Pallana and the preparation of suitable structure has been completed. As part of the development of Veli, a toy train service has been started. Dredging of the Veli-Akkulam portion of the T.S. Canal has also been undertaken. Necessary furniture have been provided in the way side amenities at Kayamkulam, Kasargode and Valara. Construction of Kappad beach resort also showed progress. Further, the construction of one guest house has been completed out of the 15 number under execution. The personnel of the Department of Tourism were deputed for training. Communication equipment was installed in the Directorate of Tourism. Subsidies were given to 25 schools for organising tours. Similarly Tourism clubs were set up in most of the Colleges. The District Tourism Promotion Councils were assisted for carrying out different tourism promotion activities in their respective districts. The Kerala Institute of Tourism and Travel Studies, is engaged in developing infrastructure and for conducting different courses and training programmes on Tourism.

7.87 Under 100% centrally sponsored schemes, the construction of a tourist facilitation centre is nearing completion. Out of the seven wayside amenities under construction, three are in the finishing stage. Two yatriniwasas have been commissioned and one is under construction. The work of a forest lodge is in progress.

7.88 The main activities of the KTDC consist of hoteliering, tourist transport, centralised reservation services and promotion and publicity.

7.89 The Corporation owns 12 hotel units, 2 yatriniwas and 8 motels and restaurants, with 952 beds. 17193 foreign and 81163 domestic tourists availed of the facilities available in KTDC units.

7.90 During the year under report, three of the total units owned by the KTDC showed occupancy ratio more than 60 per cent and two units more than 50 per cent. The total income of the Corporation for the year 1991-92 stood at Rs. 708.11 lakhs against an expenditure of Rs. 618.23 lakhs. The loss of the Corporation for the year stood at Rs. 39.56 lakhs. The accumulated loss of the Corporation as on 31-3-1992 was at Rs. 892.65 lakhs.

7.91 In contrast to the trend over the years, the operating expenses stood at a higher level than the

administrative expenses during the year under report. This was due to increase in the number of units owned by KTDC. A statement showing the operational details of the Corporation is appended (Appendix 7.32). The total number of staff members of KTDC stood at 561 during the year under report. The Transport Division, of KTDC owned 25 motor boats, 38 pedal and row boats, 2 luxury coaches and 12 non-AC Coaches.

7.92 The funds allotted to the Tourism Resorts Kerala Ltd., were not spent during the year under review due to the non-availability of equity funds from other sources. The Cochin project was taken over by the Taj Kerala Hotels and Resorts Ltd. and the project is nearing completion.

## EXPORT—IMPORT TRADE

*India's Foreign Trade*

Severe pressures of a crisis proportion witnessed by the Indian Economy, particularly, in its external payment situation during the fiscal year 1990-91 persisted to a large extent to the second quarter of 1991-92, after which, however, there occurred a marked turn around in the country international reserves. The Gulf Crisis of 1990, the global slow down in world trade, and breaking of the erstwhile Soviet Union were some of the external factors impinging on India's balance of payment.

8.2 The foreign exchange assets, which dipped to a low level of US\$ 975 million (Rs. 2,492 crores) as on July 12, 1991 made a remarkable recovery and attained the level of US\$ 5631 million (Rs. 14,578 crores) by the end of March 1992. The series of crisis management measures, as also, the brisk action on stabilisation and structural adjustment programmes undertaken during the year have combined to achieve a positive transformation in the country's international liquidity position. In particular, the drastic compression of imports and the determined efforts made to encourage repatriation of capital have helped the process. A measure of balance of payments support was also received bilateral and multilateral donors.

8.3 India's foreign exchange reserves exclusive of gold revaluation and also transaction with the International Monetary Fund (IMF) (Other than the Trust Fund Loans), increased by US\$ 2,793 million (Rs. 8,637 crores) during 1991-92 as against a fall of US\$ 2,351 million (Rs. 3,560 crores) during 1990-91. Foreign currency assets rose by US\$ 3,395 million (Rs. 10,190 crores) during 1991-92 as compared with a fall of US\$ 1,132 million (Rs. 1,399 crores) during 1990-91.

TABLE 8.1

*Foreign Exchange Reserves: 1980-81 to 1991-92*

(Rs. crores)

Year	Foreign currency assets of RBI at the end of the year	Foreign exchange reserves at the end of the year
(1)	(2)	(3)
1980-81	4822	5544
1981-82	3355	4024
1982-83	4265	4782
1983-84	5498	5972
1984-85	6817	7243
1985-86	7384	7820
1986-87	7645	8151
1987-88	7287	7687
1988-89	6605	7040
1989-90	5787	6251
1990-91	4388	11416**
1991-92	14578	23850

\*\*Notes: Includes foreign currency assets of RBI gold holdings of RBI and SDR holdings of government.

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

Source:—R.B.I. Bulletin, October 1992.

8.4 Along with the plethora of policy measures announced by the Government of India to restructure and deshelter the Indian economy and to impart international competitiveness, a new export and import policy was commenced by the Government of India which came into force on April 1, 1992 and would be valid for five years till 31st March 1997 to coincide with the 8th Five Year Plan. The New Policy should be viewed in the backdrop of a financial year marked by major trade policy changes including the introduction of Exim-scrip, the abolition of Cash Compensatory Support (CSS) and reduction in licensing complexities. The Policy also followed the announcement of a dual exchange rate system, abolishing the exim-scrip, which will allow conversion of 60 per cent of foreign exchange earnings at the rate determined in the foreign exchange markets. The New Exim Policy allows licence free import of all goods except those specified in the negative list. In addition, import of consumer goods except 28 listed items continues to be subject to licence restriction.

8.5 The fiscal year 1991-92 witnessed a striking improvement in trade balance contributed mainly by a severe compression in imports which declined by 19.4 per cent in dollar terms during the year in sharp contrast to a rise of 13.2 per cent in the previous year. The trade deficit would have shrunk still further but for the fall in exports.

8.6 According to the provisional data on foreign trade the trade deficit declined sharply to US\$ 1,556 million (Rs. 3,835 crores) in 1991-92 from US\$ 5,930 million (Rs. 10,640 crores) in 1990-91. See Table 8.2

TABLE 8.2

*India's Foreign Trade: 1980-81 to 1991-92*

(Rs. in crores)

Year	Export	Import	Balance of Trade
(1)	(2)	(3)	(4)
1980-81	6711	12549	—5838
1981-82	7806	13608	—5802
1982-83	8803	14294	—5491
1983-84	9771	15831	—6060
1984-85	11744	17134	—5390
1985-86	10895	19658	—8763
1986-87	12452	20096	—7644
1987-88	15674	22244	—6570
1988-89	20232	28235	—8003
1989-90(PR)	27681	35416	—7745
1990-91(P)	32553	43193	—10640
1991-92 (P)	43978	47813	—3835

Note:— PR: Partially Revised.

P: Provisional.

Source:—Reserve Bank of India Bulletin December, 1992.

8.7 The break-up of the total deficit into oil and non-oil components suggests a revealing picture. Non-oil deficit which stood at US\$ 425 million (Rs. 762 crores) during 1990-91 turned into a surplus of US\$ 3,394 million (Rs. 8,272 crores) during 1991-92 reflecting the impact of severe import compression measures. In contrast the oil deficit rose by 22.6 per cent from Rs. 9,878 crores in 1990-91 to Rs. 12,107 crores in 1991-92, which, however, arose from the downward adjustment of the external value of Indian Rupee.

8.8 After attaining significant increases in the exports continuously for four years, the export performance during 1991-92 was sluggish as it declined by 1.7 per cent in dollar terms although in rupee terms it increased by 35 per cent due to exchange rate changes. Exports are adversely affected by both domestic and external factors. They include import compression, tight monetary policy and the recessionary conditions in major developed countries along with the disruption of India's trade with the Rupee Payment Areas (RPA)

### Trade through Kochi Port

8.9 The total traffic handled by Kochi Port went up to 74.81 lakh tonnes in 1991-92 from 72.75 lakh tonnes in 1990-91 recording an increase of 2.8 per cent. While wet bulk cargo handled showed an increase from 60.53 lakh tonnes to 62.43 lakh tonnes, dry bulk cargo marginally declined from 6.15 lakh tonnes to 6.13 lakh tonnes during 1990-91 to 1991-92. Meanwhile, the tonnage of bulk cargo handled showed an increase of 5.3 per cent to 6.01 lakh tonnes from 5.71 lakh tonnes in the preceding year. During the year foreign cargo handled at the port recorded an increase of 19.9 per cent to 30.20 lakh tonnes from 25.18 lakh tonnes in the preceding year. While the coastal traffic recorded a fall by 6.2 per cent to 44.61 lakh tonnes from 47.57 lakh tonnes in the preceding year as can be seen from the table 8.3.

TABLE 8.3

Cargo Handled by Kochi Port: 1989-90 to 1991-92

(in lakh tonnes)

Traffic	Export			Import			Total		
	1989-90	1990-91	1991-92	1989-90	1990-91	1991-92	1989-90	1990-91	1991-92
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Coastal	5.89	6.44 (9.34)	5.94 (-7.76)	35.70	41.13 (15.21)	38.67 (-5.58)	41.59	47.57 (14.37)	44.61 (-6.22)
Foreign	4.83	3.81 (-21.12)	4.54 (19.16)	24.83	21.37 (-13.93)	25.66 (20.07)	29.66	25.18 (-15.10)	30.20 (19.94)
Total	10.72	10.25 (-4.88)	10.48 (2.24)	60.53	62.50 (3.25)	64.13 (42.60)	71.25	72.75 (2.11)	74.81 (2.83)

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

Source: Cochin Port Trust: Administration Report 1991-92

8.10 The total export traffic handled during 1991-92 also showed an increase by 2.2 per cent to

10.48 lakh tonnes from 10.25 lakh tonnes during 1990-91 as shown in the table 8.4.

TABLE 8.4

Commodity-wise Exports through Kochi Port 1989-90 to 1991-92

(Tonnes)

Commodity	1989-90		1990-91		1991-92		Percentage Variation over 1990-91
	Quantity	Percentage to total	Quantity	Percentage to total	Quantity	Percentage to total	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Tea	12347	1.2	9530	0.9	17906	1.7	87.9
Cashew Kernels	46095	4.3	49970	4.9	36630	3.5	26.7
Sea Foods	59123	5.0	58598	5.7	65800	6.3	12.3
Skin Products	26117	2.0	24198	2.4	21639	2.1	-10.6
Spices	41268	3.8	35976	3.5	29710	2.8	-17.4
Coffee	57852	5.4	35892	3.5	42008	4.0	17.0
Miscellaneous*	834666	77.9	810822	79.1	834038	79.6	2.9
Total	1071468	100.0	1024986	100.0	1047731	100.0	2.2

\*Includes P.O.L.

Source: Cochin Port Trust, Administration Report, 1991-92.

8.11 Significant increase was noticed quality-wise in the export of tea (87.9%) followed by coffee (17.0%) and sea foods (12.3%). However, quantity-wise exports of cashew kernels, spices and coir products showed a decline.

8.12 The Commodity wise value of foreign export trade through Kochi port from 1986-87 to 1991-92 is given in the table 8.5.

TABLE 8.5  
Commodity-wise Value of Foreign Export Trade Through Kochi Port, 1986-87 to 1991-92

Commodity	(Rs. crore)						Percentage variation Over 1990-91
	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Tea	37.10	39.35	43.46	32.38	30.02	42.38	41.17
Pepper	191.65	233.65	156.23	148.00	99.97	72.49	-27.49
Cardamom	3.99	0.56	1.41	0.90	2.18	4.00	87.79
Cashew Kernels	302.81	278.42	251.23	334.58	391.88	432.82	10.46
Coffee	112.84	111.35	127.05	136.35	79.70	118.60	48.81
Ginger	2.47	3.84	7.83	9.42	7.85	12.69	61.66
Sea foods	167.11	187.47	224.15	236.72	317.44	443.02	39.56
Coir products	38.10	28.87	28.94	23.95	28.25	29.04	2.80
Miscellaneous	327.77	184.10	248.58	295.28	357.31	492.97	37.97
<b>Total</b>	<b>1178.84</b>	<b>1093.71</b>	<b>1686.83</b>	<b>1217.50</b>	<b>1914.56</b>	<b>1648.01</b>	<b>25.37</b>

Source: Cochin Port Trust, Administration Report 1991-92

8.13 In value terms except for pepper all other commodities registered significant increases. In the case of pepper the fall in export may be mainly attributed to the stalemate of export trade persisted with the CIS (Commonwealth of Independent States) which was a major importer of Indian pepper. The principal

foreign exchange earners are sea foods, cashew kernel and spices.

8.14 The commodity-wise details of major imports during 1989-90 to 1991-92 are given in table 8.6. The total import traffic handled during 1991-92 recorded an increase of 2.9 per cent to 64.33 lakh tonnes from 62.50 lakh tonnes in the preceding year

TABLE 8.6  
Commodity-wise imports: 1989-90 to 1991-92

Commodity	(Tonnes)						Percentage variation over 1990-91
	1989-90		1990-91		1991-92		
	Quantity	Percentage share	Quantity	Percentage share	Quantity	Percentage share	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Fertilisers & Raw materials	889429	14.7	864431	13.8	969498	15.1	12.2
Food grains	42881	0.7	27308	0.5	16463	0.3	-39.7
Iron & Steel and Machinery	20772	0.4	6549	0.1	2058	..	-88.6
Newspaper	13060	0.2	19819	0.3	20134	0.3	1.6
Cashewnuts	11060	0.3	4809	0.1	1361	..	-71.7
Miscellaneous*	5063957	83.7	5327401	85.2	5423370	84.3	1.8
<b>Total</b>	<b>6668139</b>	<b>100.00</b>	<b>6250817</b>	<b>100.0</b>	<b>6433384</b>	<b>100.0</b>	<b>2.9</b>

\*Includes P.O.L

Source: Cochin Port Trust, Administration Report, 1991-92



*Marine Products*

8.15 The marine products account for a significant share of India's foreign exchange earnings more particularly due to the fact that their import intensity is virtually insignificant. Considering the export potential of sea foods it has been identified as a thrust item for export promotion. India's share of the world market for marine products, however, is only about 2.2 per cent of which Kerala contributes roughly about 35 per cent.

8.16 The major share of our export is directed to the General Currency Area (GCA) countries such as Japan, USA and UK, which account for about 70 per cent of our export. India has achieved an impressive growth in the export of marine products during 1991-92 recording an export of 1,71,820 tonnes valued at Rs. 1,375.89 crores indicating a growth rate of 25 per cent in terms of quantity and 54 per cent in terms of value. The average unit value realised has also increased from Rs. 64.08 per kg. in 1990-91 to Rs. 80.08 per kg. during 1991-92.

TABLE 8.7  
Exports of Marine Products: Kerala and India—1980-81 to 1991-92  
(Qty. in Tonnes, Value in Rs. lakhs.)

Year	India		Kerala		Percentage share of Kerala	
	Quantity	Value	Quantity	Value	Quantity	Value
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1980-81	75591	23484	29148	9534	39	41
1981-82	70105	28601	32006	12519	46	44
1982-83	78175	36136	32525	14147	42	39
1983-84	92691	37302	32840	14086	35	38
1984-85	87187	38429	31570	14798	36	39
1985-86	83651	39800	29580	13808	35	35
1986-87	85843	46067	33906	16457	39	36
1987-88	97179	53120	35576	18394	37	35
1988-89	99777	59785	45614	22191	46	37
1989-90	110843	63499	47245	24094	43	38
1990-91	139419	89337	50997	31379	37	35
1991-92	171820	137589	58743	44447	34	32

Source: The Marine Products Export Development Authority, Kochi

8.17 Even though the quantity of marine products exported through Kochi Port increased from 50997 tonnes valued at Rs. 313.79 crores in 1990-91 to 58743 tonnes valued at Rs. 444.47 crores representing a growth rate of 15 per cent in quantity exported and 42 per cent in terms of value, Kerala's share in total national exports has been declining in recent years.

8.18 The export earnings from sea food has also increased from US\$ 55.8 million in 1990-91 to US\$ 60.23 million in 1991-92 indicating a growth rate of 12 per cent. Western Europe again emerged as the

second largest market for Indian marine products with a share of 29 per cent followed by USA which accounted for 11 per cent in terms of value. However, Japan still continues to occupy the single largest market with a share of 46 per cent.

8.19 Frozen shrimp continued to be the predominant item in our exports accounting for a share of 44.32 per cent in terms of quantity and 71.16 per cent in terms of value during 1991-92 as shown in the table 8.8. Fresh and frozen fish was the second largest item with a share of 28.71 per cent and 10.40 per cent respectively in terms of volume and value.

TABLE 8.8

Major Items of Export of Marine Products: India—1989-90 to 1991-92

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

Major items	1989-90		Percentage share		1990-91		Percentage share		1991-92		Percentage share	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Frozen shrimp	57819	46390.88	52.16	72.96	62995	66332.69	44.75	74.25	76151	97911.66	44.32	71.16
Frozen Lobster Lobster tails	2068	3962.80	1.87	5.30	1600.20	3430.20	1.16	3.85	1628	5530.70	0.95	4.02
Frozen cuttle fish / Fillet	14158	4730.98	12.77	7.45	11596	4528.74	8.32	5.07	12437	6091.09	7.24	4.43
Fresh/frozen fish	21227	4820.31	19.15	7.59	42340	9082.14	30.37	10.16	49393	14319.64	28.71	10.40
Frozen squid	11944	2848.39	10.77	4.49	16667	4498.81	11.95	5.03	25529	10938.10	14.86	7.95
Dried fish	1081	146.85	0.98	0.23	1331	173.72	0.95	0.19	2466	351.17	1.44	0.26
Shark fins & fish maws	295	598.83	0.27	0.94	152	300.95	0.11	0.94	317	895.74	0.18	0.66
Other Items	2251	660.22	2.03	1.04	3338	9099.73	2.39	1.11	3959	1550.98	2.30	1.12
<b>Total</b>	<b>110843</b>	<b>63499.26</b>	<b>100.00</b>	<b>100.00</b>	<b>139419</b>	<b>89336.98</b>	<b>100.00</b>	<b>100.00</b>	<b>171820</b>	<b>137589.08</b>	<b>100.00</b>	<b>100.00</b>

Source: The Marine Products Export Development Authority, Kochi

*Export of spices*

8.20 Sharp fluctuations in the quantum and value of exports and in unit value of realisation have become a characteristic feature of spices trade in recent years. India produces and export a large variety of spices. Pepper, cardamon, ginger and turmeric are the major spices produced and exported from Kerala. A major share of pepper and cardamom exported from India are contributed by Kerala. The total export earnings from spices for 1991-92 were Rs. 362.04 crores of which Kerala's share is estimated to be around Rs. 110 crores.

*Pepper*

8.21 The quantity of pepper exports fell to 20,565 tons in 1991-92 from 29,985 tonnes in 1990-91 registering a fall of 31 per cent. Correspondingly, the value declined from Rs. 102.40 crores in 1990-91 to 74.21 crores in 1991-92 indicating a decline of 28 per cent as can be seen from table, 8.9.

TABLE 8.9

Export of Black Pepper: India:  
1984-85 to 1991-92

Year	Quantity (MT.)	Value (Rs. crores)	Unit value (Rs./Kg.)
(1)	(2)	(3)	(4)
1984-85	25420	60.54	23.81
1985-86	37620	172.48	45.85
1986-87	37083	200.33	54.02
1987-88	41011	240.58	58.66
1988-89	36981	164.63	44.52
1989-90	34482	152.97	44.36
1990-91	29985	102.40	32.15
1991-92	20565	74.21	36.08

Source: Spices Board, Kochi

8.22 Pepper exports had accounted for the lion's share of about 35 per cent of the total quantity exported and about 60 per cent in value realisation. However, the export of pepper and its unit value realisation have been steadily declining during recent years mainly due to the improved supply situation in the world market.

8.23 The setback to pepper exports was also partly attributed to the collapse of RPA which accounted for more than half of the export from the country. The Gulf war also disrupted export to the Middle East. The glut in the world market and the consequent competitive pressure led to a considerable fall in pepper prices. Kerala accounts for about 97 per cent of the pepper production in the country and hence

almost the entire export of pepper from India can be considered as Kerala's contribution.

#### Small Cardamom

8.24 Kerala accounts for about 54 per cent of the area under small cardamom. On an average about 65 per cent of the country's production is contributed by the state. The estimated export of small cardamom from the state is roughly about 80 per cent of the total export from the country.

8.25 During 1991-92 export of small cardamom from India was about 553 tonnes valued at Rs. 16.07 crores compared to 400 tonnes valued at Rs. 10.87 crores in 1990-91, details of which are given in table 8.10.

Table 8.10

*Export of Small Cardamom: Kerala & India, 1982-83 to 1991-92*  
(Quantity in M.T. and value in Rs. Crores)

Year	Kerala		India		Share of Kerala (%)	
	Quantity	Value	Quantity	Value	Quantity	Value
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1982-83	844	13.75	1032	16.37	82.00	84.00
1983-84	194	4.10	258	5.44	75.00	75.00
1984-85	2170	59.05	2383	64.81	91.00	91.00
1985-86	2994	49.20	3272	53.46	92.00	90.00
1986-87	1268	16.46	1447	18.50	88.00	89.00
1987-88	212	2.67	270	3.40	79.00	79.00
1988-89	606	7.88	727	10.37	80.00	80.00
1989-90	127	2.37	180	3.06	74.00	74.00
1990-91	321	8.72	400	10.87	80.25	80.22
1991-92	440	12.78	553	16.07	79.57	79.53

Source: Spices Board, Kochi.

8.26 As can be seen from the table the export has declined during the second half of the eighties and there after showed a significant improvement in both quantity and value.

8.27 The Indian presence in the world export market for cardamom is steadily diminishing. During the seventies the country accounted for about 70 per cent to the world export trade. However, over the years, Guatemala's presence in the world trade is being increasingly due to high productivity and low prices.

#### Ginger

8.28 Kerala accounts for about 26 per cent of the total area under ginger and 30 percent of the total production. According to trade circles 90 per cent of the exportable variety of ginger is being produced in Kerala. The trend in export of dry ginger from

India for the period 1984-85 to 1991-92 in given table 8.11.

TABLE 8.11

*Export of Dry Ginger: India, 1984-85 to 1991-92*  
(Quantity in M.T. Value Rs. Crores)

Year	Quantity	Value
(1)	(2)	(3)
1984-85	7330	18.73
1985-86	6820	10.89
1986-87	4843	5.71
1987-88	2628	4.89
1988-89	6368	9.40
1989-90	9037	12.68
1990-91	6555	11.76
1991-92	13396	20.32

Source: Spices Board, Kochi.

8.29 The export of dry ginger in 1991-92 registered an all time record touching 13,396 tonnes valued at Rs. 20.32 crores representing an increase of 104 per cent in quantity and 73 per cent in value. USA, Pakistan, Bangladesh and West Asia countries are the major buyers of India ginger. The reported crop failure of ginger in China enabled us to export more ginger during the year under review.

#### Turmeric

8.30 Kerala contributes only about 2 per cent of the country's turmeric production, according to official estimates. A major share of the total production from the State is exported as Alleppey Turmeric. According to the trade sources around 2000 to 2500 tonnes of Alleppey turmeric are being exported from Kerala.

TABLE 8.12

Export of Turmeric: India 1983-84 to 1991-92  
(Quantity in M.T. Value Rs. Crores)

Year	Quantity	Value
(1)	(2)	(3)
1983-84	10890	11.06
1984-85	12800	17.16
1985-86	8560	12.09
1986-87	19530	19.18
1987-88	8747	9.23
1988-89	18968	19.39
1989-90	16860	16.15
1990-91	13624	15.48
1991-92	16565	31.58

Source: Spices Board, Kochi.

8.31 Export earnings from turmeric increased by 104 per cent in terms of value and 22 per cent in terms quantity during 1991-92 indicating substantial improvement in unit value realisation. The major buyers of Indian turmeric were the UAE, Japan, UK and the USA.

8.32 Indian Turmeric has been enjoying competitive edge over the Chinese and Peruvian varieties due its high cucumin contents. However, reports indicate that Thailand has of late entered the world market with turmeric having a cucumin content of over 6 per cent which may cause a challenge for India in future

#### Cashew Kernels

8.33 The total world import of cashew kernel in 1992 has been estimated to register an increase of 7 per cent over the previous year. The import by USA which is the major cashew consumer amounted to 15,83,051 cartons during the first eight month of 1992 as against 13,99,019 cartons during the corresponding period in 1991. Next to India, Brazil is the largest producer and the exporter. Kerala accounts for about 90 per cent of both production and exports of cashew kernels in the country.

8.34 The exports of cashew kernels from India during 1991-92 registered an increase of 21 per cent over the target of Rs. 550 crores fixed by the Government. Thus the total exports stood at 64,692 tonnes valued at Rs. 668.45 crores representing a growth rate of 29.7 per cent in quantity and 51 per cent in terms of value, as can be seen from the table 8.13.

TABLE 8.13

Export of Cashew Kernels: Kerala and India (1985-86 to 1991-92) (Quantity-MT; Value Rs. Crores)

Year	Kerala		India		Kerala's Share	
	Quantity	Value	Quantity	Value	Quantity	Value
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1985-86	31904	196.16	37097	225.11	90.8	91.1
1986-87	37508	302.81	43004	327.55	89.8	90.6
1987-88	33163	290.36	35971	311.29	89.8	88.9
1988-89	30234	245.74	33994	273.93	88.9	88.9
1989-90	41651	334.58	44858	365.07	92.8	92.8
1990-91	4437	391.83	49874	442.24	88.5	88.6
1991-92 P	..	..	64692	668.45	..	..

P: Provisional

Source: Cashew Export Promotion Council

8.35 As a result of devaluation of Indian Rupee in July 1991, the unit value realisation on cashew kernels was higher at Rs. 103.32 per kg. during 1991-92 compared to 88.67 per kg. during 1990-91. Out of the total export the USA accounted for about 22 percent followed by Netherlands (18%) and Japan (7%). The re-registration of export contracts helped to keep the exports to RPA within the agreed trade plan provisions. Export of cashewnut shell required during 1991-92 was 4,477 tonnes valued at Rs. 3.96 crores as against 5,658 tonnes valued at Rs. 5.56 crores during the previous year. The unit value realisation has come down to Rs. 8,844 per ton from Rs. 9,318 per ton during 1990-91. Japan and Korea continued to be the major markets for the cashew shell liquid. (See table 8.14).

TABLE 8.14

*Export of Cashew Shell Liquid Kerala & India  
(1982-83 to 1991-92)  
(Qty. in Tonnes, Value in Rs. Crores)*

Year	Kerala		India	
	Quantity	Value	Quantity	Value
(1)	(2)	(3)	(4)	(5)
1982-83	4260	1.15	5903	1.74
1983-84	1446	0.55	3385	1.36
1984-85	2662	1.13	3411	1.81
1985-86	1574	0.83	2180	1.35
1986-87	1888	1.00	2716	1.48
1987-88	5372	2.42	6534	5.03
1988-89	915	0.63	3034	2.20
1989-90	1919	1.61	3014	2.56
1990-91	2855	2.01	5658	5.56
1991-92	..	..	4477	3.96

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

8.36 The import of raw cashewnut was 106080 tonnes valued at Rs. 266.68 crores during 1991-92 as against 82639 tonnes valued at Rs. 134 crores during 1990-91 as given in the table 8.15.

TABLE 8.15

*Import of Raw Cashewnut: Kerala & India  
1982-83 to 1991-92  
(Quantity in Tonnes, Value in \*Rs. Crores)*

Year	Kerala		India	
	Quantity	Value	Quantity	Value
(1)	(2)	(3)	(4)	(5)
1982-83	885	0.76	896	0.77
1983-84	17736	14.60	26877	22.12
1984-85	9813	10.78	33215	36.49
1985-86	6959	07.73	21945	24.36
1986-87	26529	37.57	49149	71.16
1987-88	30499	48.54	42609	64.37
1988-89	21847	30.57	45150	61.37
1989-90	21060	29.07	52474	76.66
1990-91	4809*	..	82639	134.00
1991-92@	..	..	106080	266.68

Source: Cashew Export Promotion Council.

Note: \*Import through Kochi Port

@Provisional

37/791/93/MC.

8.37 The unit price of import raw nuts shot up to Rs. 25,140 per ton per during the year under review as against Rs. 16,215 per ton during 1990-91, largely on account of the devaluation of Indian Rupee. The Major suppliers of raw cashew nuts were Guinea, Bissau, Ivorycost, Nigeria, Tanzania and Indonesia.

8.38 Despite the significant import of raw nuts, the country Cashew kernels continue an important net foreign exchange earner for the country. Thus, the net foreign exchange earning increased from Rs. 202.09 crores in 1985-86 to 290.97 crores in 1989-90. Rs. 313.80 crores in 1990-91 and Rs. 405.73 crores in 1991-92.

Tea

8.39 Tea holds an important position in the agro-based exports from the country. India's share in the total world trade is estimated at around 30 per cent. Recently, however, Sri Lanka has emerged as a leading producer and exporter to the world market. The total exports of Indian tea is provisionally estimated to fetch Rs. 1,374 crores during 1991-92 which represents an impressive growth rate of 31 per cent over the previous year as shown in the table 8.16.

TABLE 8.16

*Export of Tea—Kerala and India  
(Quantity in tonnes, value in Rs. lakhs)*

Year	Kerala*		India	
	Quantity	Value	Quantity	Value
(1)	(2)	(3)	(4)	(5)
1987-88	15371	3335	201830	62777
1988-89	22884	4346	204800	64187
1989-90	12347	3238	211760	91482
1990-91	9530	3002	199170	107105
1991-92	17906	4238	210390	115714
1992-93	..	..	132370	72480

Sources: (i) Tea Board. (ii) (\*) April-December

8.40 The export of tea through Kochi Port increased both in terms of quantity and value. During 1991-92 the export increased to 17,906 tonnes valued at Rs. 42.38 crores indicating a growth rate of 88 per cent in quantity and 41 per cent in value over the previous year. Kerala's share in the total area under tea is slowly but steadily declining. Even though the total production of Kerala has increased in absolute terms her share in total output of the country has declined during the eighties.

8.41 The basic problem in promoting tea export is the mounting domestic demand. Even though there has been steady growth in the production of tea owing to the implementation of various promotional activities including tea production in nontraditional areas, it has not been reflected in augmenting the export surplus in view of the growing domestic demand

## Coffee

8.42 Indian coffee is undergoing a testing time. Domestically there has been a fall in output and productivity coupled with a crash in international prices following the breakdown of the quota system. A tremendous increase in output of the Premium Columbia Coffee has also upset the delicate balance between supply and demand especially for washed Arabicas and brought down significantly its international price. Consequently, the gap between Arabica and Robusta has narrowed down. Even though the International Coffee Organisation (ICO) has set up a negotiating group to prepare a new agreement for stabilising the international market for coffee, the progress has been extremely tardy.

8.43 During 1991-92 India exported coffee worth Rs. 310 crores showing a growth rate of 11 per cent over the previous year. The export through Kochi Port increased from 35,892 tonnes valued at Rs. 79.70 crores in 1990-91 to 42,008 tonnes valued at Rs. 118.60 crores in 1991-92 representing a growth rate of 17 per cent in quantity and 48 per cent in value as shown in table below.

TABLE 8.17

Export of Coffee: (1985-86 to 1991-92)  
(Quantity in tonnes value in Rs. lakhs)

Year	Kerala*		India	
	Quantity	Value	Quantity	Value
(1)	(2)	(3)	(4)	(5)
1985-86	44570	12342	99298	27498
1986-87	31056	1284	86666	36344
1987-88	47058	11135	92533	26010
1988-89	41248	12705	98226	33772
1989-90	57852	13635	134052	36092
1990-91	35892	7970	100100	27889
1991-92@	42008	11860	..	31000

Note: \* Export through Kochi port. @ Provisional  
Source: Coffee Board.

## Coir

8.44 The export of coir and coir products from India during the year 1991-92 amounted to 30999 tonnes valued at Rs. 74.12 crores as against 27927 tonnes worth Rs. 48.33 crores during 1990-91 showing a growth rate of 11 per cent in terms of quantity and 53 per cent in terms of value. The item-wise export of coir and coir products in India is given in the table 8.18.

TABLE 8.18

Export of Coir and Coir Products: India 1989-90 to 1991-92  
(Quantity in tonnes, value in Rs. lakhs)

Items	1989-90		1990-91		1991-92	
	Quantity	Value	Quantity	Value	Quantity	Value
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Coir fibre	49	3.70	41	3.17	5	1.40
Coir yarn	19770	1969.67	14110	1705.85	15266	2328.23
Coir mats	8273	1571.68	9009	2021.86	11168	3569.35
Coir matting	3580	744.92	3362	794.54	3645	1193.90
Coir rugs & carpets	1573	289.10	1208	268.07	602	241.28
Coir (Other sorts)	46	7.70	51	13.09	86	13.27
Coir rope	74	8.85	113	15.19	139	22.43
Controlled coir	67	4.03	17	1.02	32	2.23
Rubberised coir product	26	18.12	16	10.06	61	40.06
Total	27438	4017.77	27927	4832.85	30999	7411.63

Source: Coir Board, Cochin.

8.45 An analysis of the itemwise exports of coir products shows that there has been an increase of 8 per cent in the export of coir yarn and 24 per cent in the export of coir mats. However, the export of coir rugs and carpets declined during the year under review.

8.46 Coir is exported to more than 155 countries all over the world. Italy and countries in Western Europe continued to occupy a major share of India's exports. Exports to the USA has also shown a significant upward trend during the period.

## SOCIAL AND COMMUNITY SERVICES

*Kerala Tops in HDI Among Indian States*

Though income level is an important indicator of well being, social development indicators such as the level of education and health status are also equally important determinants of well being. This concept has resulted in the construction of Human Development Index (HDI). The HDI combines income with two social indicators viz., adult literacy and life expectancy at birth to give a composite measure of socio-economic progress.

9.2. India as a whole ranks 37th in terms of HDI. Among the Asian countries, it has a higher HDI than Afganistan, Bhutan, Nepal and Bangladesh but it is much lower than Sri Lanka, Thailand, China and Philippines. But compared to some of the African countries India has done better. The diversity within India is so large that the HDI ranges from 0.292 in Uttar Pradesh to as high as 0.6 for Kerala. Only three Indian States out of 17 other than Kerala out of seventeen considered for comparative analysis viz., Haryana, Punjab and Maharashtra had the HDI in the medium category. The HDI worked out for 17 states in India is given in Appendix 9.1.

9.3. Kerala has made singular achievements in the field of education and health and the standards attained are almost comparable to that of developed countries. It has attained 91 per cent literacy, the IMR is around 17 and expectation of life at birth is 69 years for men and 72 years for women. The development in Kerala in area of health, education etc. with relatively low per capita income is a matter of great interest to social scientists that when high literacy and good health standards in other Asian countries such as Singapore, Taiwan, Hongkong and South Korea are associated with high per capita income, rapid economic growth, high proportion of the labour force in non-agricultural operations, higher employment, high nutritional levels etc. Also within the country, states like Punjab, Haryana etc. though have higher per capita income and low percentage of people below poverty line, could not achieve the level of development attained by Kerala in spheres like education, health, housing etc. The fact remains that the state have followed a development path different from the rest of the country.

9.4 The successive governments in the state have made rapid strides in the distribution of public

goods, such as education and health. This has been well reflected in the commitment of the state and the actual expenditure on social services was about 40 percent of the total expenditure of the state according to 1991-92 budget (revenue and capital), compared to the all states average of social services expenditure of around 28 per cent. The expenditure on social services sector from 1985-86 to 1992-93 is presented in Table 9.1.

TABLE 9.1.

(Rs. in crores)

Year	Total expenditure (Revenue & capital)	Expenditure on social services (Revenue & Capital)	% to total expendi- ture
(1)	(2)	(3)	(4)
1985-86	1651	689	42
1986-87	1711	790	46
1987-88	1948	852	44
1988-89	2241	970	43
1989-90	3418	1059	31
1990-91	3081	1278	41
1991-92 (R.E.)	3513	1333	38
1992-93 (B.E.)	4019	1620	40

Source: Annual Financial Statement (from 1987-88 to 1992-93)

*Education**Literacy*

9.5. According to the 1991 Census Kerala attained the highest literacy rate of 90.6 percent as against 52.1 percent at the All India level. The male literacy rate is 94.5 percent. The female literacy rate is as high as 87 percent in Kerala compared to 39 percent at the national level. The major landmark is that literacy among weaker segments is almost at par with the general category. The literacy levels of India and Kerala at the beginning of the 20th century and its growth through subsequent decades are given in Table 9.2.

TABLE 9.2.

*Trend in Literacy—India and Kerala*

Year	India			Kerala		
	Rate of Literacy	Male	Female	Rate of Literacy	Male	Female
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1901	5.35	9.89	0.60	11.14	19.15	3.18
1911	5.92	10.56	1.05	13.31	22.23	4.48
1921	7.16	12.21	1.81	19.02	27.88	10.26
1931	9.50	15.59	2.93	21.34	30.89	11.99
1941	16.10	24.90	7.30	..	..	..
1951	16.67	24.93	7.93	40.47	49.79	31.41
1961	24.02	34.44	12.93	56.85	54.97	38.90
1971	29.45	39.45	18.68	60.42	66.62	34.31
1981	36.03	46.62	24.73	70.42	87.74	75.65
1991	52.11	..	..	90.39	94.45	86.98

Source: Census of India—Kerala.

The table shows that Kerala's literacy in 1901 was higher than the national average achieved three decades later..

9.6. Kottayam district has the highest literacy (85.21) percent and close behind is Pathanamthitta with 84.32 percent and Palakkad district has the lowest rate of 69.79 percent. While computing the literacy rates for taluks and districts the entire population was taken into account. Among the taluks, Changanacherry in Kottayam district tops the list with 86.65 percent and Thalasserry in Kannur district with the lowest rate of 64.09 percent. The district-wise level of literacy in the State is given in Appendix 9.2.

#### School Education

9.7. Accessibility of school education infrastructure is one of the major factors in attaining the present level of school enrolment. The school education infrastructure in the State consists of 6783 lower primary schools, 2935 upper primary schools and 2472 high schools comprising a total of 12190. A further analysis would show that 7330 aided private schools and 372 are private unaided schools. Thus only 36.8 percent of the schools are in Government sector. An underlying factor in Kerala's educational infrastructure is that there are 2842 L.P. sections in U.P. schools and high schools and 1929 U.P. sections in high schools. Given the density of population which is 747 persons per sq. kilometre, the accessibility of facilities is a positive factor in school enrolment in Kerala. The spread of infrastructure is such that for every 2400 persons there is one school in Kerala. The distribution of school infrastructure district-wise and stage-wise is given in Appendix 9.3.

#### School Enrolment

9.8. Kerala has a unique record of very nearly achieving the constitutional requirement of universalisation of elementary education for the age group 5-14. At the national level the latest available data show that in 1991 the Gross Enrolment Ratio (GER) had reached 101.03 percent at the primary stage and 60.40 percent at the upper primary stage. It was found that in the gross enrolment ratio the overaged and under aged children was in the range of 16 to 23 percent. The drop out rate for primary stage was around 46 percent and for elementary stage as a whole was 60 percent.

9.9 In Kerala the school enrolment stood at 59.07 lakh students which represented 101.5 percent of the total 58.17 lakh children in the age group 5-14. An analysis of the stagewise enrolment revealed that there are 27.19 lakh L. P. students 16.31 lakh U. P. students and 15.53 lakh high school students. The girl students in schools stood at 28.96 lakhs which accounted to 49 percent of the total school enrolment. The standardwise enrolment of students is given in Appendix 9.4.

9.10. The enrolment in schools (Stage-wise) from 1989-90 to 1991-92 is given in Table 9.3

TABLE 9.3

#### Enrolment in Schools—Stage-wise

Stage	1989-90	1990-91	1991-92
(1)	(2)	(3)	(4)
Lower Primary	2527068	2472403	2718860
Upper Primary	1895249	1929806	1630598
Secondary	1460399	1498892	1557547
Total	5882716	5901101	5907005

Source: Directorate of Public Instruction

#### Declining Trend in School going population

9.11 A clear declining trend has set in with regard to school age population of Kerala. An age-wise projection made by Centre for Development studies recently reveals that 5-14 age group population will go down from 58.17 lakhs in 1991 to 55.22 lakhs in 1996 and further to 52.8 lakhs in 2001 A.D. Thus there will be a net decline of 5.36 lakh children. The relevant data are highlighted in Table 9.4.

TABLE 9.4

#### Projection of School Going population for Kerala 1991-2001

Age	Years		
	1991	1996	2001
0	545091	509311	424171
1	547718	514282	444081
2	550497	519243	463493
3	552260	523260	482035
4	553046	526138	490580
5	561812	532731	506704
6	569129	537667	512925
7	575008	541044	518180
8	579435	543132	522355
9	582288	544125	531962
10	583443	552963	531962
11	586941	560363	536942
12	590338	566289	540349
13	593347	570708	542451
14	595542	573571	543437
Total	29011237	30750330	32219463
(Population Kerala)			
0-14	8565870	8114818	7503999
5-14	5817258	5522584	5280639

Source: Centre for Development studies Thiruvananthapuram.



9.12 There are 190810 school teachers in the State. Of this 70647 are L.P teachers, 61767 U.P teachers and 58396 High School teachers. The teacher-pupil ratio in Kerala is 31, where as the all India ratio is around 35. The data relating to teachers are given in Table 9.5.

TABLE 9.5

Number of School Teachers as on 31-3-1992

Category	Total number of School Teachers	Of which Scheduled Castes	Scheduled Tribes
Lower Primary	70647	2735	163
Upper Primary	61767	2095	94
High School	58396	1534	16
Total	190810	6364	273

Source: Directorate of Public Instruction.

*Uneconomic schools and Protected Teachers*

9.13 An uneconomic school is defined as one which does not satisfy the requirement of para 1 of Rule 22 (4) of Kerala Education Rules which warrants that the minimum strength per standard in LP/U.P/H.S. shall be 25. The minimum strength per standard in Sanskrit and Arabic Schools shall be 15. The uneconomic schools in the State increased to 1170 in 1992 from 964 in 1991. Of the total 1170 economic schools 695 schools are in private sector. The increase of uneconomic schools poses a major problem in the school education sector. A further analysis of the situation reveals that Kannur district had the highest number (230) followed by Pathanamthitta district (194). The district wise distribution of uneconomic schools are presented in Table 9.6. As per the 1991 data furnished by the department there were 2051 protected teachers out of which 548 were high school teachers, 967 primary school teachers and 500 special teachers.

*S.S.L.C. Examination results*

9.14. The data on S.S.L.C. examination shows that out of 5.49 lakh students appeared, 2.84 lakhs (51.73 per cent) passed out in March 1992. A further analysis shows that the percentage of girl students passed was marginally higher (51.65 per cent) when compared to boys. Among the SC/ST, the percentage passed was 23.63. The details of S.S.L.C. examination showing the students appeared and passed for the period from 1989-1992 are presented in Appendix 9.5.

TABLE 9.6

List of Uneconomic Schools—District wise 1991-92

District	Number of Uneconomic Schools		Total
	Government	Private	
(1)	(2)	(3)	(4)
1. Thiruvananthapuram	47	18	65
2. Kollam	23	21	44
3. Pathanamthitta	63	131	124
4. Alappuzha	48	38	86

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(1)	(2)	(3)	(4)	(5)
5.	Kottayam	61	73	134
6.	Ernakulam	48	38	86
7.	Idukki	30	19	49
8.	Thrissur	22	28	50
9.	Palakkad	14	20	34
10.	Malappuram	8	9	17
11.	Kozhikode	46	81	127
12.	Wayanad	7	..	7
13.	Kannur	36	194	230
14.	Kasaragod	22	23	45
Total		475	695	1170

Source: Directorate of Public Instruction

*Higher Secondary Education (Plus Two)*

9.15 Higher Secondary Education was introduced in 31 schools during 1990-91 and 55 schools during 1991-92. Out of the total 86 schools, 49 were government schools, 34 aided schools and 3 unaided schools. The position is that science subjects are introduced in 52 schools and humanities groups in 34 schools. The annual intake of students under higher secondary education increased from 5959 in 1991-92 to 8292 in 1992-93.

*Vocational Higher Secondary Schools*

9.16 Vocational Higher Secondary courses are introduced in 214 schools of which 172 are government high schools, 22 technical high schools and 20 aided schools. There are 39 vocational courses introduced with an annual intake of over 12000 students. Out of this 4655 are girls. Details of year wise intake of students in Vocational Higher Secondary Courses are furnished in Table 9.7. An analysis of the examination results for 1991-92 reveals that out of 8224 students appeared, only 2244 students (27.29%) passed.

TABLE 9.7

Year wise intake of students for Vocational Higher Education from 1984 to 1992

Year	Intake of students		
	Boys	Girls	Total
1983	435	135	570
1984	1100	830	1990
1985	1450	1185	2635
1986	2000	1650	3650
1987	2000	1650	3650
1988	2100	1600	3700
1989	3250	1750	5000
1990	4700	3965	8665
1991	7035	5115	12150
1992	7345	4655	12000

Source: Directorate of VHSE

### University Education

9.17 There are 173 arts and science colleges in the State consisting of 40 government colleges and 133 private colleges. During 1991-92 a new college viz., the Unity Women's college, Manjeri in Malappuram district was started. The Government upgraded 38 junior colleges (12 government and 26 private colleges) by starting degree courses during the year under review. During 1991-92 academic year, 43 new courses were introduced of which 16 were science subjects 12 commerce and 15 arts subjects. The University wise distribution of colleges shows that there are 44 colleges under the University of Kerala, 57 colleges under M.G. University and 72 colleges under the University of Calicut. The district-wise distribution of arts and science colleges is given in Appendix 9.6.

9.18 The students strength at the University level aggregated to 3.75 lakhs during the year under review as against 3.56 lakhs during the previous year. The annual enrolment in the three universities together stood at 1.62 lakhs of which girls constituted 53%. The enrolment at predegree level was 1.12 lakhs, at degree level it was 44858 and postgraduate level it was 5065. The per centage of enrolment of girl students was 51 per cent, 56 per cent and 60 per cent respectively at pre-degree, degree and PG levels. The relevant data on enrolment by stages in arts and science colleges are given in Appendix 9.7. In 1992 there are 13419 teachers of which 5220 were women teachers. The details are furnished in Table 9.8.

9.19 The State Government have allowed private registration to cater to those students who could not attend regular courses in colleges. The coursewise details of private registration in Kerala and Calicut Universities are given in Appendix 9.8. During 1991-92 a total of 1.40 lakh students were admitted by the two Universities.

TABLE 9.8

Number of Teachers in Arts and Science Colleges 1991-1992

Name of University	Number of Teachers					
	1991			1992		
	Men	Women	Total	Men	Women	Total
1. Kerala	2498	1804	4302	2369	1768	4137
2. Kozhikode	3019	1816	4835	2944	1767	4711
3. Gandhiji	3194	1824	5022	2886	1685	4571
Total	8711	5448	14159	8199	5220	13419

Source : Directorate of College Education.

### Technical Education

9.20 The technical education in Kerala consists of 9 Engineering Colleges, 32 Polytechnics, 51 Technical High Schools, 19 Prevocational Training Centres, 7 Food Craft Institutes including extension Centres, one College of Fine Arts and 2 Fine Art Institutes. Out of the 9 Engineering Colleges 4 are in Government

sector, 3 in private sector. Besides there is one Regional Engineering College at Kozhikode and one Model Engineering College at Ernakulam under IHRDE. Of the 32 polytechnics in the State, 26 are in Government sector including the model polytechnic at Vadakara and 6 in private sector. All the 51 Technical High Schools are under Government sector including the 3 under IHRDE. Besides, there are four autonomous institutions promoting technical education and research. They are Lal Bahadur Sastri Centre for Science and Technology, Institute of Human Resources Development for Electronics, Kerala State Science and Technology Museum and Kerala Audio Visual and Reprographic Centre. The Cochin University of Science and technology imparts advanced training and research in technical education sector.

### Engineering Colleges

9.21 The total students strength in the engineering colleges stood at 11949 of which there were 909 SC/ST students. The annual intake in engineering colleges increased from 2784 in 1990-91 to 2901 during 1991-92. The relevant data are presented in Appendix 9.9. Post graduate courses in engineering education are imparted in 11 major branches and during 1991-92, 312 students were admitted. An analysis of the intake in different branches of study as presented in Table 9.9 would show that 120 students were enrolled under MCA, 57 under Civil Engineering, 42 mechanical engineering and 41 under electrical engineering.

TABLE 9.9

Course-wise intake and out-turn in Engineering Colleges at Post-graduate Level

Name of Course	1992 intake
1. Civil Engineering	57
2. Mechanical Engineering	42
3. Electrical	41
4. Electronics	5
5. Chemical Engineering	6
6. Instrumentation and Control System	10
7. Production Engineering	6
8. Applied Electronics and Instrumentation	5
9. Architectures	3
10. Industrial Engineering	15
11. Master of Computer Application	120
12. Production and Management	..
Total	312

### Polytechnic Education

9.22 Of the total 32 polytechnics in the State 6 are under private sector. The total student strength increased from 11531 in 1991 to 15236 in 1992. An analysis of the enrolment would show that there were 7595 girl students which accounted to 49 per cent of the total. The SC/ST students strength in polytechnic

was 369. The annual intake in Polytechnics stood at 4241. The total enrolment, annual intake and other details of technical education are given in Appendix 9.9. The data on district wise distribution of polytechnics is given in Appendix 9.10.

#### Technical High Schools

9.23 There are 51 technical high schools in the State. The students strength increased from 7838 during 1989-90 to 8289 in 1991-92. There were 1029 girl students and 801 SC students in technical high schools. Details showing the number of institutions, students, teachers and annual intake under technical high schools are given in Appendix 9.9.

#### Expenditure on Education

9.24 The total expenditure on education during 1991-92 amounted to Rs. 793.27 crores (Revised Estimates) as against Rs. 751.42 crores during 1990-91. Of the total expenditure of Rs. 793.27 crores, Rs. 396.71 crores was spent on primary education (50%) and Rs. 230.56 crores for secondary education (29%). The expenditure on University education increased from Rs. 95.14 crores in 1990-91 to Rs. 115.60 crores during the year under review. Expenditure on Technical education increased to Rs. 43.96 crores in 1991-92 from Rs. 38.08 crores in 1990-91. The details of expenditure on education are furnished in Table 9.10.

TABLE 9.10

Expenditure on Education--1985-86 to 1991-92

Stages	1985-86 (Accounts)	1986-87 (Accounts)	1987-88 (Accounts)	1988-89 (Accounts)	1989-90 (Accounts)	1990-91 (Accounts)	1991-92 (R.E.)
Primary Education	210.64	240.00	244.52	274.55	305.17	304.16	356.71
Secondary Education	125.11	140.17	146.58	163.60	182.23	229.51	230.56
University and Other Higher Education	54.50	62.22	68.27	77.10	83.21	95.14	115.60
Adult Education	1.31	1.22	1.44	1.28	2.30	0.87	2.74
Language Development	2.44	2.57	2.14	2.66	3.16	3.72	3.69
Technical Education	20.55	24.23	20.63	22.94	27.02	38.08	43.96
Total	414.55	470.41	483.58	542.13	609.69	751.48	793.27

Source: Detailed Budget

The percapita government expenditure on education in Kerala was Rs. 268 in 1991 as against Rs. 190 at the all India level. The state wise expenditure and percapita expenditure are reflected in Appendix 9.11. The cost of education per pupil at the Primary Stage increased from Rs. 872.69 in 1990-91 to Rs. 912.40 in 1991-92. The relevant details are given in Table 9.11.

TABLE 9.11

Cost of School Education per pupil 1987-88 to 1991-92  
(Rs.)

Year	Primary Stage	Secondary Stage
1987-88	550.35	1089.38
1988-89	617.80	1161.93
1989-90	690.12	1248.15
1990-91	872.69	1500.00
1991-92	912.40	1480.86

#### Health

##### Introduction

9.25 Kerala has made signal achievements in the health front and the standards attained are almost

comparable to those of some of the developed countries. The State could establish a sound health infrastructure and facilities at different levels. The improvement in the Health care delivery system is clearly reflected in certain development indicators. The decadal growth rate of population in Kerala during 1981-91 is 13.98 per cent whereas the all India rate is 23.5 per cent. The birth rate per thousand population in Kerala is 19.8 whereas the all India rate is as high as 30.5. The death rate per thousand population in Kerala is 5.8 as against the all India rate of 10.2. Infant mortality rate in Kerala came down to 17 per thousand live births but the all India rate is still as high as 91. The maternal mortality rate in Kerala is below one for every three thousand deliveries. The life expectancy at birth in Kerala is 69 years for men and 72 for women. Some of the basic health development indicators are presented in Table 9.12. In the attainment of high standards in health factors such as health care infrastructure and manpower development, high literacy particularly among women, high level of awareness, family based approach in health care, mass participation and clean health habits of the people with regard to personal hygiene, family hygiene and environmental hygiene have played a key and positive role.

TABLE 9.12

*Birth, Death and infant mortality rates in Kerala*

Year	Birth rate per 000' population		Death rate per 000' population		Infant mortality rate per 000' population	
	Kerala	All India	Kerala	All India	Kerala	All India
1970	32.3	36.8	9.2	15.7	61	129
1980	26.8	33.7	7.0	12.6	42	117
1981	25.6	33.0	6.6	12.5	37	110
1985	22.9	32.9	6.9	11.8	33	97
1986	22.4	32.6	6.7	11.1	27	96
1987	21.0	32.2	6.0	10.9	26	95
1988	19.9	31.3	6.0	10.00	24	94
1989	20.3	30.5	6.1	10.2	21	93
1990	20.3	30.5	6.1	11.2	21	93
1991	19.8	30.5	5.8	10.2	17	91

*Immunisation Status*

9.26 1. The first phase of Universal Immunisation programme (UIP) launched in 1985 was completed in 1991. Now UIP is under implementation with the integration of maternal and child health activities, control of acute respiratory infection and management of diarrhoeal diseases.

2. The achievement under the programme is hundred per cent coverage of pregnant women with T.T. and 100 percent of infants with DPT, polio and B.C.G. But antimeasles coverage is only 91 per cent.

3. In 1992, a new programme called child survival and safe motherhood (CSSM) was launched in Alappuzha and Malappuram with the perspective of extending this to all districts.

4. A notable factor is that because of the wide net work of infrastructure, awareness and access to facilities more than 90 per cent of the estimated 6 lakh

deliveries are institutionalised and this facilitates the high rate of attainment of Immunisation Programme.

*Health Care Infrastructure and Manpower Development*

9.27 One of the major factors that contributed to the present level of development is the health care infrastructure and availability of man power which facilitated greater access to people to institutional care. The health care infrastructure facilities under department of Health services consisted of 1229 institutions with 39531 beds in 1992 as against 1226 institutions with 38726 beds in 1991. A further analysis would show that there are 141 hospitals with 27999 beds, 907 Primary Health Centres including MCH units with 5031 beds, 22 T.B. Clinics/Centres with 453 beds, 15 leprosy control units and 54\* community Health centres with 3216 beds and 54 dispensaries with 163 beds during 1992. The relevant data are given in Table—9.13 and Appendix 9.12. The spatial distribution of institutions and beds are given. Table 9.14. The expansion of rural health infrastructure during the last 7 years is presented in Table 9.15.

TABLE 9.13

*No. of Medical Institutions and beds under Allopathy in Kerala 1981 to 1992*

Year	No. of Medical Institutions	No. of beds	No. of beds per lakh of population
1981	968	32447	127
1982	991	32532	126
1983	1005	32880	125
1984	1009	33380	124
1985	1014	33329	124
1986	1015	35744	128
1987	1038	36404	128
1988	1066	36668	127
1989	1126	37100	126
1990	1199	38223	128
1991	1226	38726	133
1992*	1370	49677	171

\* Include Medical Institutions and beds in all system of Medicine.

TABLE 9.14

*Spatial Distribution of Medical Institutions, Beds and Patients treated under Allopathy (District-wise)*

District	No. of Medical Institutions		No. of Beds		No. of patients treated 1992	
	1991	1992	1991	1992	Inpatients	Outpatients
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Thiruvananthapuram	109	109	6343	6446	174419	4057789
2. Kollam	83	83	1903	1931	118767	2235003
3. Alappuzha	82	82	3811	3873	103576	2163571
4. Pathanamthitta	56	55	939	939	36917	1004172
5. Kottayam	76	76	3046	3046	87099	2263135
6. Idukki	62	63	715	805	61639	792318
7. Ernakulam	113	113	3600	3778	135771	2911190
8. Thrissur	111	111	3821	3983	115501	2418605
9. Palakkad	102	101	2081	2101	127805	2190672
10. Malappuram	113	113	1836	1854	116090	2382471
11. Kozhikode	87	88	4283	4284	77597	1810246
12. Wayanad	41	43	590	749	47053	243081
13. Kannur	96	96	2441	2465	115337	1618285
14. Kasaragode	59	60	648	659	94178	618690
<b>Kerala</b>	<b>1190</b>	<b>1193</b>	<b>36057</b>	<b>36862</b>	<b>1351083</b>	<b>26709228</b>

Excluding grant in aid institutions

TABLE 9.15

*Rural Health Infrastructure 1986-92*

Year	Primary Health Centre		Community Health Centre	
	No.	Beds	No.	Beds
(1)	(2)	(3)	(4)	(5)
1986	299	2880	..	..
1987	444	3400	..	..
1988	577	3274	29	2226
1989	740	3686	29	2292
1990	883	4480	54	3129
1991	908	4714	54	3159
1992	907	5031	54	3216

9.28 As regards the availability of trained manpower, Kerala is relatively well placed. There are 22268 medical personnel attached to the department of health services, 1733 personnel attached to the medical colleges in the State. The relevant data are highlighted in Table 9.16 and 9.19.

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TABLE 9.16

*Medical and para Medical Personnel in the Health Services Department*

Category	(Numbers)		
	1990	1991	1992
(1)	(2)	(3)	(4)
1. Medical Officers	2796	2998	2905
2. Dentists	69	71	66
3. Senior Nurses	1733	1951	1954
4. Junior Nurses	4486	4086	4137
5. Lady Health Inspectors	857	857	894
6. Pharmacists	1679	1684	1681
7. Junior P.H. Nurses (ANMS)	5116	5296	5281
8. Junior Health Inspectors	4505	4505	4505
9. Health Inspectors	845	845	845
<b>Total</b>	<b>22086</b>	<b>22293</b>	<b>22268</b>

*Health Institutions and Beds in Private Sector*

9.29 Private health institutions have been playing an important role in the health and family welfare programme of the State. A survey carried out by the Department of Economics and Statistics revealed that there were 3565 private allopathic medical institutions with about 50,000 beds in the State. Besides there are 17 Allopathic Co-operative Hospitals, 5 Ayurvedic Co-operative Hospitals and 3 Homoeopathic Co-operative Hospitals in the State at district levels. Also, there are 61 co-operative dispensaries (including all systems of medicines) in the state at Panchayat levels.

*Bed Population Ratio*

9.30 There are 1193 medical institutions with 36862 beds under the department of health services and 1351083 inpatients were treated during 1991-92. The number of beds per lakh of population was 127. Besides in all the medical colleges together there were 7017 beds. The beds per lakh of population thus under Government sector is 171. A survey carried out by the Department of Economics and statistics revealed that there were 3565 allopathic medical institutions with about 50,000 beds in the state. The bed availability in the state including private sector thus is 343 per lakh population.

*Patients treated in hospitals under different systems of Medicines*

9.31 During the year under review, a total of 1,351,083 inpatients and 26,709,228 outpatients were treated in allopathic institutions under the department of health services. In all the medical colleges a total of 2,99,130 inpatients and 1,626,698 outpatients were treated. The total number of inpatients treated under allopathy stood at 1,650,213. The fact remains that 5.69 per cent of the population had taken treatment as inpatients. The out patients taken treatment under allopathy stood at 97.67 percent of the population as an average. This situation clearly reflects the increasing utilisation of health care facilities in the State.

9.32 As regards other systems of medicine 15,811 inpatients and 58862534 out patients were treated under homoeopathic sector and 20192 inpatients and 36,36,525 outpatients were treated under Ayurvedic sector during 1992. The relevant data are furnished in Table 9.17.

TABLE 9.17

*Statement showing the Patients treated in 1992*

	Inpatients	Outpatients
1. Health care Institutions (DHS)	1351083	26709228
2. Medical Colleges		
(i) Thiruvanthapuram	75043	516067
(ii) Kozhikode	96409	413393
(iii) Kottayam	56884	289648
(iv) Alappuzha	38402	240197
(v) Thrissur	32392	167393
	299130	1626698
3. Health Care Institution under Ayurveda	20192	36365253
4. Health Care Institution under Homoeopathy	15811	58862534
<b>Total</b>	<b>1686216</b>	<b>90834985</b>

9.33 The Statement showing the number of attacks and death under allopathy due to principal diseases during 1991 and 1992 is given in Appendix 9.14 and the statement showing the number of delivery cases attended during 1991-92 under various medical institutions of the department of health Services is given in Appendix 9.15.

*Medical Education*

9.34 There are 5 medical colleges in the state one each at Thiruvananthapuram, Kottayam, Alappuzha, Thrissur and Kozhikode, 2 Dental Colleges one at Thiruvananthapuram and other at Kozhikode and 3 Nursing Colleges at Thiruvanthapuram, Kottayam and Kozhikode with a total intake of 700 students for MBBS, 70 students for BDS, 28 students for B.pharm, 24 students for B.Sc MLT, 75 students for B.Sc Nursing, 4 students for MSc. Nursing, 6 students for M.pharm, 21 students for MDS. M. pharm and MDS Courses are being conducted only in the Thiruvananthapuram Medical College. There are 412 seats for various post graduate degree courses, diploma and super speciality courses and 585 seats for para-medical courses in the medical colleges. Details of annual intake of students for various courses in the Medical Colleges are given in Table 9.18. There are 7017 beds in all the five medical college hospitals. The details of personnel (clinical/non-clinical) under the Department of Medical Education is given in Table 9.19.

TABLE 9.18

*Medical and Para-Medical courses conducted in the Medical Colleges with annual intake of Students*

Courses	Number of Students in the Medical Colleges					Total
	Thiruvananthapuram	Kozhikode	Kottayam	Alappuzha	Thrissur	
(1)	(2)	(3)	(4)	(5)	(6)	(7)
<b>Degree Courses</b>						
1. M.B.B.S.	200	200	100	100	100	700
2. B.D.S.	40	30	..	..	..	70

(1)	(2)	(3)	(4)	(5)	(6)	(7)
3. B.Sc. Nursing	25	25	25	..	..	75
Sub Total:	265	255	125	100	100	845
<i>Post-Graduate Degree</i>						
4. M. Sc. Nursing	4	..	..	..	..	4
5. M.D.S.	1	..	..	..	..	21
6. M.D. Anaesthesia	4	1	2	..	..	7
7. M.D. Biochemistry	2	2	..	..	..	4
8. MD Forensic Medicine	2	2	..	..	..	4
9. MD Dermatology and Venereology	3	4	3	..	..	10
10. MD General Medicine	13	12	7	2	..	34
11. MD Micro Biology	2	2	..	..	..	4
12. MD Obstetrics & Gynaecology	8	8	4	..	..	20
13. MD Pathology	6	2	3	..	..	11
14. MD Pharmacology	4	2	..	..	..	6
15. MD Physiology	2	3	2	..	..	7
16. MD Paediatrics	6	5	3	..	..	14
17. MD Psychiatry	1	2	..	..	..	3
18. MD Radio Diagnosis	2	..	..	..	..	2
19. MD Radiotherapy	2	..	..	..	..	2
20. MD Community Medicine	3	..	2	..	..	5
21. MD T.B. & Respiratory Diseases	2	2	..	..	..	4
22. MS Anatomy	2	2	2	..	..	6
23. MS General Surgery	20	12	8	2	..	42
24. MS ENT	2	2	2	..	..	6
25. MS Orthopaedics	4	4	3	..	..	11
26. MS Ophthalmology	4	4	2	..	..	10
27. MD Physical Medicine	2	..	..	..	..	2
Sub Total	121	71	43	4	Nil	239
<i>Superspeciality Courses</i>						
28. Mch. Paediatric Surgery	2	2	..	..	..	4
29. Mch. Genito Urinary Surgery	2	2	1	..	..	5
30. Mch. Plastic Surgery	2	2	1	..	..	5
31. Mch. Thoracic Surgery	2	2	..	..	..	4
32. Mch. Neuro Surgery	2	..	..	..	..	2
33. D.M. Gastro Enterology	1	1	..	..	..	2
34. DM Neurology	1	..	..	..	..	1
35. DM Cardiology	2	1	..	..	..	3
36. DM Nephrology	..	1	..	..	..	1
Sub Total	14	11	2	..	..	27

(1)	(2)	(3)	(4)	(5)	(6)	(7)
<i>Diploma Courses</i>						
1. Diploma in Anesthesia	8	6	6	—	—	20
2. Diploma in Child Health	6	12	6	..	..	24
3. Diploma in Clinical Pathology	3	6	..	..	..	9
4. Diploma in Dermatology and Venereology	..	2	..	..	..	2
5. Diploma in Laryngology and Otology	8	6	2	—	—	16
6. DMRD	2	2	..	—	..	4
7. DMRT	2	2	..	..	..	4
8. Diploma in Obstetrics and Gynecology	12	12	9	..	..	33
9. Diploma in Ophthalmology	3	6	4	..	..	13
10. Diploma in Orthopaedic Surgery	8	6	6	..	..	20
11. Diploma in Physical Medicine and Rehabilitation	4	..	..	..	..	4.33
12. Diploma in Psychiatric Medicine	6	..	—	—	—	6
13. Diploma in Public Health	12	..	..	..	..	12
14. DTCD	2	2	..	—	—	4
<i>Diploma/Certificate Courses</i>						
1. B. Pharm	28	—	—	—	—	28
2. M. Pharm	6	..	..	..	..	6
3. B. Sc. M.L.T.	24	..	..	..	—	24
4. M.L.T. Certificate	60	50	15	15	15	155
5. CRA Certificate	40	30	15	15	10	110
6. Ophthalmic Assistant Certificate	30	20	15	5	5	75
7. D. Pharm. (1 year)	50	..	30	35	..	115
8. D. Pharm. (2 years)	..	50	..	..	..	50
9. Dental Mechanic Certificate Course	15	5	..	..	..	20
10. Certificate course in Nursing	30	30	..	..	..	60
	(for SC/ST)	(for SC/ST)				
Sub Total	359	247	108	70	30	814
Total	759	584	278	174	130	1925

TABLE 9.19

*Details of personnel (Clinical/Non-Clinical) under Directorate of Medical Education*

Category	No. of Clinical/Non Clinical Personnel		
	1990	1991	1992
(1)	(2)	(3)	(4)
1. Director	4	4	4
2. Professor	206	211	211
3. Associate Professor	216	217	218
4. Assistant Professor	480	484	488
5. Tutor	801	801	809
Total	1710	1720	1730



### Nursing Education

9.35 Medical Colleges at Thiruvananthapuram, Kottayam and Kozhikode have Nursing Colleges attached to them. Twenty five students are admitted in each of these colleges for B.Sc. Nursing. M.Sc. Nursing Course is being conducted only in Nursing College, Thiruvananthapuram with an annual intake of 4 students. Also certificate course in general nursing is being conducted at Thiruvananthapuram and Kozhikode Medical Colleges. Under the department of Health Services and approved private Nursing Schools, every year 1545 trainees for certificate course are admitted of which 1150 are enrolled in private nursing schools. A Junior Public Health Nursing Course of 18 months duration is also conducted by both Government and Private Nursing Schools with an annual intake of 515 and 476 respectively. The annual admission for various nursing courses in different categories is given in Table 9.20.

### Indian System of Medicine

#### Ayurveda

9.36 There were 106 Ayurveda hospitals with 2229 beds and 527 dispensaries as on 31-3-1991. During the year 1992, 23 dispensaries were started. Thus as on 31-3-1992 there were 106 Ayurveda hospitals and 550 dispensaries. The district wise details of institutions, beds and the number of patients treated are given in Appendix 9.16. The details showing the Ayurveda hospitals and dispensaries from 1986 to 1992 are given in Table 9.21

#### Ayurveda Education

9.37 There are three Government Ayurveda Colleges in the State with an annual intake of 50 in Thiruvananthapuram and 30 each in Thrippunithura and Kannur for BAMS course. MD. Education is imparted only in the Ayurveda College, Thiruvananthapuram and the annual intake is 24. Besides there are two private Ayurveda Colleges at Kottakkal and Ollur.

TABLE 9.20

Annual Admission for Nursing Courses in different categories in 1992

Institutions	No. of Institutions	Total Annual Intake
(1)	(2)	(3)
I. Integrated (General Nurse-cum-midwives) 3½ years course		
a. Government Nursing Schools	12	335
b. Private Nursing Schools	50	1150
c. Medical college, Kozhikode	1	30
d. Medical College, Thiruvananthapuram	1	30
II. Junior Public Health Nurses (18 months course)		

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	(1)	(2)	(3)
a. Government Nursing Schools		13	51
b. Private Nursing Schools		18	476
III. B.Sc. Nursing (4 years course)			
a. Medical College, Thiruvananthapuram		1	25
b. Medical College, Kottayam		1	25
c. Medical College, Kozhikode		1	25
IV. M.Sc. Nursing, Medical College, Thiruvananthapuram		1	4

TABLE 9.21

Number of Ayurveda Hospitals and Dispensaries 1986-1992

Year	Ayurveda Hospitals	Ayurveda Dispensaries
1986	94	473
1987	97	497
1988	101	496
1989	101	498
1990	101	506
1991	106	527
1992	106	550

#### Homoeopathy

9.38 There are 30 homoeopathic hospitals with 900 beds in the state. The dispensaries increased from 312 in 1991 to 338 in 1992. The district-wise distribution of institutions, beds and patients treated under homoeopathy are given in Appendix 9.17. The details showing homoeopathic hospitals and dispensaries from 1986 to 1992 are given in Table 9.22.

#### Homoeo Education

9.39 There are 5 homoeopathic colleges in the state of which two are in the Government sector and the remaining three are in the private sector. BHMS Degree course is being conducted in the Government Homoeopathic colleges with the total intake of 100 students. In the Private Athurasramam NSS Homoeo Medical College, Kurichy both BHMS Degree and Diploma courses are being conducted with an annual intake of 50 and 120 students respectively. In the remaining two private homoeo colleges BHMS diploma course is being conducted with an annual intake of 60 and 65 students. The bed strength in the homoeopathic college hospital, Kozhikode has been increased from 50 to 100.

TABLE 9.22

*Number of Homoeo Hospitals and Dispensaries  
1986-1992*

Year	Homoeo Hospitals	Homoeo Dispensaries
(1)	(2)	(3)
1986	24	227
1987	24	255
1988	24	255
1989	24	262
1990	26	274
1991	30	312
1992	30	338

TABLE 9.23

*Medical Practitioners\**

System	Class of Registration	(Number) (Cum)		
		1990-91	1991-92	
(1)	(2)	(3)	(4)	(5)
1. Modern Medicine	A	18686	19848	
	B	635	635	
	Listed	204	204	
	Sub Total	19525	20687	

(1)	(2)	(3)	(4)	(5)
2. Homoeopathy	A		3937	4275
	B		1486	1486
	Listed		279	279
	Sub Total		5702	6040
3. Ayurveda	A		5874	6049
	B		6100	6100
	Listed		599	599
	Sub Total		12573	12748
4. Sidha	A		75	82
	B		1218	1218
	Listed		41	41
	Sub Total		1334	1341
5. Unani	A		1	1
	B		51	51
	Listed		5	5
	Sub Total		57	57
Grand Total			39191	40873

\* Details of Medical Practitioners under Government only

TABLE 9.24

*List of Registered Para-Medical Practitioners*

(Number cum)

Sl.No.	Category	1990-91			1991-92		
		Male	Female	Total	Male	Female	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	Nurse	278	13103	13381	288	13374	13662
2.	Midwife	..	11683	11683	..	12039	12039
3.	Nurses and Midwives (integrated)	..	13213	13213	..	13536	13536
4.	Auxiliary Nurse-Midwife	..	9892	9892	..	10726	10726
5.	Health Visitors	..	318	318	..	318	318
Grand Total		278	48209	48487	288	49993	50281

#### Family Welfare Programme

9.40 Kerala's achievement in the family welfare front have been impressive in terms of major indicators viz. birth rate, death rate, maternal mortality rate, infant mortality rate, couple protection rate. The couple protection rate at present is 67 whereas the all India average is only about 45. The family welfare programme with mother and child health care being its integral part in the State could serve as a model to the other States. The social factors such as female literacy, higher age at marriage of girls, status of women, employment of women, effective role played by non-governmental organisations and the general socio-economic consciousness of the people have contributed to this unique position. The policy of Government of India is to reduce Net Reproduction Rate (NRR) to one by 2000 A.D.

9.41 The Family Welfare Programmes in Kerala are being carried out through a net work of 907 Primary Health Centres and 5094 sub centres. The details are given in Table 9.25. Training is an integral part of the Family Welfare Programme. The training infrastructure consists of 6 Junior Health Inspectors Training Schools with a total intake capacity of 260 for imparting training of 12 months duration and 13 Junior Public Health Nurses Training Schools with a total intake capacity of 515 imparting training of 18 months duration. Besides there are 18 Female Health Workers Training Schools in Private Sector with a total intake capacity of 560. There are 3 Female Health Supervisors Training Schools functioning with an intake capacity of 120 for conducting promotional training courses. The targets and achievements under Family Welfare Programme are given in Table 9.26. The expenditure during 1991 amounted to Rs. 4081.74 lakhs. The relevant data are given in Table 9.27.

TABLE 9.25

No. of Family Welfare Centres 1992

Sl.No.	District	Rural		
		Main Centres	Sub Centres	Total
(1)	(2)	(3)	(4)	(5)
1.	Thiruvananthapuram	76	455	531
2.	Kollam	63	449	512
3.	Alappuzha	64	368	432
4.	Pathanamthitta	45	260	305
5.	Kottayam	58	359	417
6.	Idukki	56	231	287

(1)	(2)	(3)	(4)	(5)
7.	Ernakulam	79	351	430
8.	Thrissur	80	492	572
9.	Palakkad	81	471	552
10.	Malappuram	91	508	599
11.	Kozhikode	66	389	455
12.	Wayanad	30	204	234
13.	Kannur	71	352	423
14.	Kasaragode	47	205	252
Kerala		907	5094	6001

N.B. i. No Urban F.W. Centres in Kerala  
ii. 38 Primary Health Centres have been converted into Community Health Centres.

TABLE 9.26

Target and Achievement of Family Welfare Programmes

Item	Unit	1990-1991		1991-1992	
		Target	Achievement	Target	Achievement
(1)	(2)	(3)	(4)	(5)	(6)
1. Family Welfare Programmes					
(a) Sterilisation (Vasectomy, Tubectomy)	No.	200000	190547	160000	173599
(b) I. U. D. Insertion	"	150000	119747	125000	115446
(c) C. G. Users	"	297200	305888	300000	296359
(d) O. P. Users	"	50300	40651	35000	38970
2. M. C. H. Programmes					
(a) Immunisation Programmes					
(i) D. P. T	"	581837	590814	561785	573794
(ii) Polio	"	"	607516	"	587603
(iii) B. C. G.	"	"	656370	"	638463
(iv) Measles	"	"	549196	"	512188
(v) T. T. for pregnant women	"	623731	649001	574422	608204
(vi) DT	"	592856	247646	514483	23131
(vii) T. T. for 10 years	"	507464	290021	489989	320096
(viii) T. T. for 16 years	"	"	272723	"	295539
(b) Prophylaxis against nutritional anaemia					
i) Women	"	680000	579047	720000	586371
ii) Children	"	691000	989803	1200000	900589
c) Prophylaxis against blindness due to vitamin 'A' deficiency children.	"	1600000	1211236	1200000	1108453

Note:—2 (a) (i) to (iv) are target and achievement of children below one year (infants)

TABLE 9.27

Expenditure on Family Welfare Programmes

Year	Amount (Rs.lakhs)	(1)	(2)
1981	590.20	1984	1176.47
1982	687.08	1985	1930.99
1983	785.59	1986	2510.22
		1987	3130.33
		1988	3370.22
		1989	3157.83
		1990	4279.08
		1991	4081.74
		1992(RE)	5349.66

## Expenditure on Health

9.42 The expenditure on medical and public health (excluding family welfare) increased from Rs. 48.80 crores in 1981 to Rs. 74.28 crores in 1985, Rs. 149.5 crores in 1990 and to Rs. 196.6 crores in 1992. The Plan and Non Plan expenditure on Medical and Public Health are given in Table 9.28. The per capita expenditure increased from Rs. 46 in 1985-86 to Rs. 84 in 1991-92 thus showing an increase of 82.6 per cent. The relevant data are given in Table 9.29. The state wise expenditure on health is given in Appendix 9.19.

TABLE 9.28

Plan and Non-Plan Expenditure on Medical and Public Health in Kerala excluding Family Welfare Programme.

(Rs. Lakhs)

Year	Plan	Non-Plan	Total
1972	162.79	1199.22	1362.10
1973	207.02	1351.17	1560.19
1974	243.59	1394.82	1638.41
1975	180.46	2022.17	2202.63
1976	230.71	2527.38	2758.09
1977	236.87	2678.67	2915.54
1978	306.96	2867.83	3174.79
1979	525.66	3051.48	3577.14
1980	472.51	3647.19	4119.70
1981	651.38	4229.27	4880.65
1982	905.97	4936.88	5842.85
1983	880.10	5058.12	5938.22
1984	1044.41	5935.02	6979.43
1985	1074.00	6354.81	7428.31
1986	1102.50	8754.37	9856.87
1987	1799.34	9576.09	11375.93
1988	1532.08	10207.12	11739.20
1989	1802.43	11408.10	13210.53
1990	2040.33	12910.55	14950.88
1991	1529.53	16587.77	18117.30
1992(RE)	1896.70	17769.21	19665.91

Source: Budget Document

TABLE 9.30

District-wise number of villages covered with protected Water Supply and population benefited as on 31-3-1992.

Sl.No.	District	No. of Villages	Rural population in 000's.	Population benefited in 000's	Percentage of rural population benefited
(1)	(2)	(3)	(4)	(5)	(6)
1.	Thiruvananthapuram	86	1941	879	45.28
2.	Kollam	68	1952	807	41.34
3.	Pathanamthitta	38	1092	295	28.58
4.	Alappuzha	88	1381	803	58.15
5.	Kottayam	74	1504	674	44.81
6.	Idukki	42	1026	320	31.19
7.	Ernakulam	79	1440	716	49.72
8.	Thiruv	213	2015	1110	55.09
9.	Palakkad	146	2002	1098	54.84
10.	Malappuram	115	2811	591	21.02
11.	Kozhikode	89	1610	378	23.48
12.	Wayanad	31	648	162	25.00
13.	Kannur	88	1099	220	20.02
14.	Kasaragod	62	894	281	31.43
<b>Total</b>		<b>1219</b>	<b>21355</b>	<b>8334</b>	<b>39.02</b>

TABLE 9.29

Per capita expenditure on Medical and Public Health

Year	Population (lakhs)	Expenditure on health including family welfare (Rs. lakhs)	Index of growth	Expenditure per head (Rs.)	Index of growth
(1)	(2)	(3)	(4)	(5)	(6)
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	297.24*	25015.58**	197	84.15	182

Source: Annual Financial Statement.

\* Population of Kerala upto October 1992.

\*\* Revised estimates.

## Water Supply and Sanitation

9.43 During the last 40 years of planned development, about 40 per cent of the rural population and 70 per cent of the urban population could be covered with protected water supply in the State. In the three city regions of Thiruvananthapuram, Kozhikode and Kochi over 90 per cent of the people are covered.

## Rural Water Supply

9.44 Provision of rural water supply continued to receive priority during 1991-92. As on 31-3-1992 64 villages were fully covered and the remaining 1132 villages were partially covered with protected water supply. The district wise number of villages covered with protected water supply and the total population benefited are provided in Table-9.30

9.45 The village wise distribution and percentage of population provided with safe drinking water as on 31-3-1992 are given below.

Percentage of Population	No. of Villages
Below 10%	260
Between 10% and 25%	257
Between 25% and 50%	252
Between 50% and 75%	238
Between 75% and 100%	212

9.46 There were 1592 rural water supply schemes in operation during 1991-92 and 83 were completed during the year. The district-wise details on the number of schemes in operation and schemes completed during 1991-92 are presented in Table—9.31

TABLE 9.31

No. of Rural water supply schemes in operation and schemes completed during 1991-92

S.No.	District	No. of Schemes in operation during 1991-92	No. of Scheme completed during 1991-92
1.	Thiruvananthapuram	107	9
2.	Kollam	75	..
3.	Pathanamthitta	49	6
4.	Alappuzha	89	1
5.	Kottayam	113	3
6.	Idukki	119	4
7.	Ernakulam	138	7
8.	Thrissur	195	16
9.	Palakkad	165	2
10.	Malappuram	154	3
11.	Kozhikode	127	9
12.	Wayanad	59	10
13.	Kannur	119	7
14.	Kasaragod	83	6
Total		1592	83

#### World Bank and Bilaterally assisted schemes

9.47 There are seven rural water supply schemes and two sanitation schemes under implementation with World Bank assistance. These seven Schemes on full completion would benefit a population of 13.54 lakhs. Besides eleven rural water supply schemes have been taken up with assistance from Netherlands Government and Danida. On completion of these schemes a population of about 19.58 lakhs would be benefited.

#### Urban Water Supply

9.48 There are 12 urban water supply schemes under implementation originally started with LIC assistance. The progress of work on these schemes vary between 40 per cent. and 90 percent. Already two schemes were commissioned in 1992. On completion of these schemes an additional population of 13.78 lakhs would be covered.

9.49 The present status of coverage of all the 106 census towns (as per 1981 census) is given below.

Below 10 lpcd	7 towns
Between 10 lpcd and 25 lpcd	16 towns
Between 25 lpcd and 50 lpcd	33 towns
Between 50 lpcd and 75 lpcd	22 towns
Between 75 lpcd and 100 lpcd	8 towns
100 lpcd and above	20 towns

Total 106 towns

#### Source of funds

9.50 For the implement of water supply schemes assistance was received from different sources and the source wise flow of funds is given in Table 9.32. The funds received increased from Rs. 26 crores in 1989-90 to Rs. 44 crores in 1991-92.

TABLE—9.32

Flow of funds from LIC, Government of India, HUDCO and External agencies

(Rs. in lakhs)

Year	Flow of fund from						Total
	LIC	World Bank	Netherlands Govt.	Danida	Govt. of India	HUDCO	
1989-90	917	435	136	163	944	..	2625
1990-91	1000	242	543	170	1076	214	3245
1991-92	1347	903	500	300	1191	192	4433

#### Pricing of water

9.51 During 1991-92, Rs. 13.15 crores was collected through water rates. The relevent data are given in Table 9.33

37/191/93/MC.

TABLE 9.33

Revenue collected from water supply and the operation and maintenance cost of Kerala Water Authority

(Rs. lakhs)		
Year	Revenue collected	Operation & maintenance cost of KWA
1985-86	315	962
1986-87	629	846
1987-88	853	893
1988-89	915	972
1989-90	1504	1224
1990-91	1685	1821
1991-92	1315	2737

#### Sanitation

9.52 According to the data published in 'Survelkhana' (January-March 1992) 51.54 per cent of the households in Kerala are without any mode of sanitary latrines. This means that, out of a total 40.2 lakh rural house holds in Kerala 20.7 house holds are without sanitation. The major departments involved in sanitation are the departments of Rural Development, Panchayat and Municipality, Fisheries Housing, Scheduled caste Development, Tribal Welfare and Kerala Water Authority. The performance of various departments in this regard during the last five years is given below:

I. Rural Development Department	No. of latrines constructed
(a) Environmental sanitation programme	3000
(b) NREP	15065
(c) RLEGP (including I.A.Y)	62079
(d) CRSP	2250
(e) JRY (including I.A.Y)	71721
(f) DWCRA	740
II. Through NGOs assisted by capart	14528
III. Socio Economic Unit	8000
IV. Panchayats and Municipalities	183284
<b>Total</b>	<b>360667</b>

#### Expenditure on water supply

9.53 The total plan and Non-plan expenditure for water supply and sanitation sector increased from Rs. 76.22 crores in 1990-91 to Rs. 87.48 crores in 1991-92. The trend in expenditure for the period 1985-86 to 1992-93 is shown in Table 9.34.

TABLE 9.34

Plan and Non Plan expenditure on water supply and sanitation schemes  
(Rs. crores)

Year	Plan Expenditure	Non plan Expenditure	Total
1985-86	15.94	7.80	23.74
1986-87	39.25	11.54	50.79
1987-88	29.83	10.92	40.83
1988-89	62.21	22.26	84.47
1989-90	51.99	24.23	76.22
1990-91	60.37	27.11	87.48
1991-92	45.58	29.45	75.03
(RE)			
1992-93 BE	94.07*	32.51	126.58

\*This includes provision of Rs. 15.08 crores earmarked under 100 per cent ARWSS.

9.54 The Kerala Water Authority utilises its own resources raised through water rates and resources raised outside the budget to meet its over head charges. The plan and Non plan expenditure of Kerala Water Authority during the last three years is given in Table 9.35

TABLE 9.35

Plan and Non plan Expenditure of Kerala Water Authority  
(Rs. lakhs)

Year	Expenditure		Total
	Plan	Non Plan	
1989-90	5125	2666	7791
1990-91	4152	3929	8081
1991-92	3887	4592	8469

9.55 The total expenditure and per capita expenditure of different states are presented in Appendix 9.20. The per capita expenditure on water supply and sanitation during 1990-91 was Rs. 20.94 which was higher than the per capita expenditure of seven states.

#### Housing

##### Housing Demand in Kerala

9.56 According to 1991 Census (Provisional figures) there were 52.1 lakh residential buildings and 54 lakh households in Kerala. The demand for houses at the beginning of 1991 was about 11 lakhs as worked out below.

Numerical shortage during 1991	1.90 lakhs
Number of substandard huts which are not fit for human dwelling	6.00 lakhs
Number required to be demolished and reconstructed	3.00 lakhs
<b>Total</b>	<b>10.90 lakhs</b>

9.57 It is estimated that during the period between 1991 to 2000 A.D. about 9 lakh new houses are to be constructed for accommodating the new families as a result of increase in population. When the existing shortage is added to this the total requirement of new houses comes to about 20 lakhs by 2000 A.D. For solving the housing problem fully by 2000 A.D 2 lakh houses would have to be constructed annually.

#### Housing Policy—

##### A Shift in approach

9.58 There has been a shift in approach in the housing sector for the economically weaker sections. The resource allocation has increased considerably towards provision of house-sites and houses to weaker sections. Out of 4.33 lakh houses constructed/assisted under major housing schemes 2.87 lakhs were for the economically weaker sections during the period 1985-86 to 1991-92. Institutional financing has come to play an increasing role in housing development finance and here also priority was assigned to economically weaker sections.

9.59 The major public agencies in Kerala raised more than Rs. 59 crores during 1992.

Houses constructed/assisted during 1985-86 to 1991-1992.

9.60 In the state, the revenue department, housing department, finance department, Rural Development, Department, Kerala State Housing Board, Kerala State Development Corporation for Scheduled Castes/Scheduled Tribes and the Kerala State Co-operative Housing Federation are the major government departments and autonomous organisations implementing housing programmes. An assessment revealed that a total of 433149 houses were assisted/constructed during 1985-86 to 1991-92. This implied that on an average 61878 houses were constructed/assisted by the state sector agencies in Kerala. The annual house construction in the private sector in the state is estimated between 60,000 and 70,000.

9.61 The Housing Board is implementing 12 schemes. Of these the two major schemes are Public Housing Scheme and the Cash Loan Scheme. During 1991-92, 478 houses were constructed under Public Housing Scheme and 84 houses under Rental Housing Scheme. Loan assistance was extended to 3157 houses under Cash Loan Scheme of which 1878 loans were disbursed to low income groups. During this period, the Housing Board raised Rs. 41 crores from financial institutions. The Kerala State Co-operative Housing Federation and its 207 affiliated primary societies played a major role in the construction of houses in the state. The Federation received Rs.15

crores as LIC loan and mobilised Rs. 110 lakhs through debentures during the year under review. During 1991-92 the federation disbursed Rs.20.96 crores and assisted construction of 5313 houses of which 4698 houses were completed.

9.62 The Board of Revenue implemented 'Allotment of house sites to landless rural workers' and Construction of houses for rural workers. During 1991-92 house sites were allotted to 2342 rural workers. Of this 1171 beneficiaries belonged to SC/ST. House construction assistance was given to 335 families of which 176 were SC/ST.

9.63 The Finance Department scheme implemented the 'House Building Advance to Government Servants' and Rs. 12.15 crores was disbursed to 2631 persons during 1991-92. The number of applications received and sanctioned and the amount disbursed from 1985-8 to 1991-92 are provided in Table 9.36. There were 3859 pending cases during 1991-92.

TABLE 9.36

*Number of Applications received and sanctioned and amount disbursed under House Building Advance to Government Servants*

Year	No. of applications received	No. of cases sanctioned	No. of pending cases	Amount disbursed (Rs.lakhs)
(1)	(2)	(3)	(4)	(5)
1985-86	NA	1824	NA	500.35
1986-87	NA	2000	NA	620.50
1987-88	NA	2350	NA	793.92
1988-89	NA	2096	NA	699.87
1989-90	4481	2090	2391	694.17
1990-91	4484	2041	2443	900.00
1991-92	6490	2631	3859	1215.52

9.64 Among other schemes specially meant for the development of people belonging to scheduled castes, the Scheduled Caste Development Department implemented the housing scheme 'Rehabilitation of landless/houseless scheduled castes'. Under this scheme 985 houses were constructed during 1991-92 incurring an expenditure of Rs. 154.5 lakhs. The Rural Development Department under Jawahar Rozgar Yojana for the people living below poverty line during 1991-92 assisted/constructed 22182 houses. The achievement under major schemes since inception is given in Table 9.37.

TABLE 9.37

*Achievement in Housing -Major Schemes*

Sl No-	Name of scheme	Upto 31-3-1985	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1.	*Provision of house sites to Rural and landless workers	4841	3022	5517	1869	2908	2179	2634	2342
2.	Huts/Houses for rural workers	7740	700	974	366	852	395	396	335

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
3. Village Housing Project		10453	..	..	..	..	29	52	..
4. Low Income group Housing		10514	184	..	..	..	28	52	2240
5. Middle Income Group Housing		4402	113	59	22	27	53	68	494
6. Co-operative Housing Scheme for Economically weaker sections		49537	2427	2625	..	..	..	..	..
7. Subsidised Aided Self Help Housing Scheme with the Co-operation of Voluntary agencies		15460	12125	2090	..	..	..	..	..
8. Rental Housing Scheme		4687	152	..	..	11	78	258	84
9. Public Housing Scheme		11117**	528	613	544	488	172	216	478
10. Kudikidappukar Housing		6351	743	212	..	..	..	..	..
11. Kerala State Development Co-operation for SC/ST		21047	3870	2215	1916	675	1283	1181	738
12. Scheduled Tribe Development Department		3660	590	90	350	377	286	404	583
13. Scheduled Caste Development Department		18076	313	139	1166	957	1131	818	985
14. Fishermen Housing		16313	17019	2290	3870	6143	869	2211	63
15. Kerala State Co-operative Housing Federation		20749	4869	8987	8658	6716	3502	4577	5313
16. Rehabilitation Housing Scheme		..	..	86837	9840	22062	6497	29611	5239
17. NREP		1570*	2301	9544	7560	9451	..	..	..
18. RLEGP		2045*	4802	14988	11040	8554	..	..	..
19. Jawahar Rozgar Yojana		..	..	..	..	..	22932	14225	22182
20. Completed/discontinued schemes		12308	..	..	..	..	..	..	..
21. Other schemes implemented by KSHB		..	..	..	..	..	..	..	4755
<b>Total</b>		<b>220861</b>	<b>53758</b>	<b>136000</b>	<b>47201</b>	<b>59216</b>	<b>39374</b>	<b>56703</b>	<b>45831</b>

\* Achievement is for the year 1984-85 only.

\*\* Includes achievements under 'HIG Housing, Toddy workers welfare fund loan schemes and HUDCO Loan scheme.

### Urban Development

9.65 As per 1991 census, Kerala's urban population was 7.8 million which accounted to 26.39 percent of the total population of 290.98 lakhs in the state. At the all India level the percentage of urban population was 25.72. There are 197 towns according to 1991 census of which 65 are statutory towns (3 corporations, 59 municipalities, one cantonment and 2 townships) and 132 census towns. The various urban development schemes in the State are implemented by the departments of Town Planning, Municipal Administration, three City Corporations, eleven Development Authorities and 59 municipalities.

9.66 The Kerala Urban Development Finance Corporation has rendered financial assistance to 513 schemes of various urban local bodies amounting to Rs. 42 crores. Out of these 433 projects were completed. During the year under review it had assisted 42 schemes involving Rs. 7 crores.

### Nehru Rozgar Yojana

9.67 The Nehru Rozgar Yojana was introduced during 1989-90 for generation of more employment opportunities to the people living below the poverty line in urban areas. The major achievements are briefly summarised below:

#### Urban Micro Enterprises

(i) Amount sanctioned during 1989-90 to 1991-92 (both Central & States share)	Rs. 465.26 lakhs
(ii) Subsidy sanctioned to beneficiaries	Rs. 239.53 lakhs
(iii) Loan disbursed by bank	Rs. 748.59 lakhs
(iv) No. of persons assisted	11618
(v) No. of units started functioning	10952



## II. Training under Micro Enterprises

(i) Amount sanctioned during 1989-90 to 1991-92	Rs. 47.66 lakhs
(ii) Expenditure incurred	Rs. 29.68 lakhs
(iii) No. of Persons completed training	1916

## III. Urban Wage Employment

(i) Amount sanctioned during 1989-90 to 1991-92 (both central and state share)	Rs 512.63 lakhs
(ii) Expenditure incurred	Rs. 397.12 lakhs
(iii) No. of public works completed	1968
(iv) No. of ongoing public works	82
(v) No. of mandays of work generated	6,35,400

## IV. Housing and Shelter Upgradation

(i) Subsidy sanctioned	Rs. 853.29 lakhs
(ii) No. of schemes approved by HUDCO	12
(iii) No. of dwelling units involved in the approved scheme	95190
(iv) No. of dwelling units upgraded	20329
(v) No. of dwelling units under upgradation	10500

## Environmental Improvement of Slums

9.68 It is estimated that there are 4.5 lakh slum population in the state. So far about 2 lakh persons could be covered on a per capita investment about Rs. 400. The expenditure during 1991-92 amounted to Rs. 50 lakhs. During 1991-92, 20,245 slum dwellers were covered.

## Integrated Development of Small and Medium Towns

9.69 During the year 1991-92 3 new towns viz., Shoranur, Chavakkad and Pathanamthitta were brought under this scheme. During VIII Plan period 9 towns viz., Guruvayur, Kottayam, Thrissur, Tirur, Kayamkulam, Thalassery, Changanacherry, Malappuram and Vadakara and 4 towns viz., Palakkad, Thodupuzha, Manjeri and Kannur during the VIII Plan period were selected under this scheme.

## Urban Basic Services for the poor

9.70 The scheme was implemented in the 26 urban local bodies of Thiruvananthapuram, Kollam, Pathanamthitta, Palakkad, Wayanad, Kozhikode and Kannur districts during 1991-92. Central assistance to the tune of Rs. 54.9 lakhs was released during 1991-92.

9.71 The Department of Town Planning is mainly engaged in the preparation of development plans for urban and rural areas. During 1991-92 the department prepared 9 town planning schemes, 15 draft schemes prepared and forwarded to local bodies and 5 project reports for the integrated development of small and medium towns. Besides, it prepared 126 lay out plans for local bodies, approved 169 factory sites and cleared 251 building plans. The department had handled over 15600 cases of enforcement of building rules and town planning schemes.

9.72 There are eleven (11) Development Authorities constituted in the State for promoting balanced urban development. They are Thiruvananthapuram, Calicut, Greater Cochin, Kottayam, Quilon, Idukki, Trichur, Palaghat, Velloor-Mulakulam, Cannanore and Alleppey.

## Industrial Training

9.73 There are 28 Government Industrial Training Institutes and 315 Private Industrial Training Centres in the State with a seat strength of 11440 trainees and 31556 trainees respectively. The number of private ITCs increased from 274 in 1991 to 315 in 1992. The Government ITIs impart training in 15 trades with one year duration and 16 trades with two years duration. The relevant data showing spatial distribution of ITIs with seat strength in Government ITIs are presented in Table 9.38. The Government ITIs have imparted training to 356 students sponsored by the Kerala Labour Welfare Fund Board. Apprenticeship training was given to 6292 apprentices in 68 trades through 8 Related Instruction Centres.

## Trade-wise Training in ITIs

9.74 An analysis of the courses in Government ITIs would show that 45% are undergoing one year course and 55% in two year course. In the case of private ITCs 35% are in one year course and 65% in two year course.

9.75 In Government ITIs a total of 4240 students were admitted under 16 trades in the two year course. Out of this the SC/ST students stood at 879 of which only 157 were girls. The trade-wise intake in Government ITIs and Private ITCs are given in Table 9.39 and Table 9.40.

9.76 In the All India Trade Test conducted in July 1992, 23990 trainees were appeared and 13310 were passed. The percentage of pass was 55.

9.77 As regards the employment of SCs, the infrastructure consists 14 District Employment Exchanges and one Professional and Executive Employment Exchange at Thiruvananthapuram, one special Employment Exchange for the benefit of physically handicapped, and 23 town Employment Exchanges. Besides there are 10 cells for SCs in the District Employment Exchanges and University Information and Guidance Bureaus exist in Thiruvananthapuram, Thrissur, Kozhikode and Ernakulam.

TABLE 9.38

District-wise Number of Industrial Training Institutions and Seat Strength in Kerala as on 31-12-1992

No.	District	Number of Institutions		Seat Strength		Total	
		Government I.T.I.	Private I.T.C.	Government I.T.I.	Private I.T.C.		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	Thiruvananthapuram	5	51	56	2960	3796	6756
2.	Kollam	2	32	34	1032	4524	5556
3.	Pathanamthitta	1	30	31	176	2880	3056
4.	Alappuzha	2	37	39	864	4824	5688
5.	Kottayam	2	24	26	1060	3324	4384
6.	Idukki	1	5	6	224	504	728
7.	Ernakulam	2	44	46	880	5716	6596
8.	Thirissur	3	32	35	1068	2164	3232
9.	Palakkad	2	12	14	800	792	1592
10.	Malappuram	1	12	13	296	744	1040
11.	Kozhikode	3	14	17	880	1120	2000
12.	Kannur	2	16	18	944	840	1784
13.	Wayanad	1	2	3	144	160	304
14.	Kasaragode	1	4	5	112	168	280
Total		28	315	343	11440	31556	42996

Source: Directorate of Training, Thiruvananthapuram.

TABLE 9.39

Trade-wise Annual Intake in Government ITIs and Private ITCs for two year Course

S.No.	Trade	Industrial Training Institutes		Industrial Training Centres	
		Total Intake	Of which Girls	Total Intake	Of which Girls
1.	Draftsman Mechanic	96	32	272	7
2.	Draftsman Civil	320	206	3680	612
3.	Surveyor	80	60	48	9
4.	Fitter	576	..	2176	..
5.	Turner	300	..	60	..
6.	Mechanist	276	..	36	..
7.	Mechanic (R & AC)	224	..	400	..
8.	Instrument Mechanic	80	80	..	..
9.	Watch and Clock Repair	48	..	16	..
10.	Electrician	448	..	2496	..
11.	Wireman	368	..	256	..
12.	Electroplater	..	..	..	..
13.	Mechanic (Motor Vehicle)	448	..	688	53
14.	Mechanic (Radio & TV)	384	187	832	104
15.	Electronics	512	201	1648	..
16.	Painter (General)	64	..	48	..
17.	Millwright Mechanic	16	..	..	..
18.	Tool and Die maker	..	..	16	..
Total		4240	766	12672	785

## CHAPTER 10

## SPECIAL PROGRAMMES FOR THE WEAKER SECTIONS

According to the Census 1991 the rural families constitute about 74% of the total population in Kerala. In absolute terms the number of rural families are estimated to be around 41 lakhs. There is wide disparity between rural and urban population in respect of income and employment opportunities. Consequently the quality of life enjoyed by them is much below that of the families in urban areas. The poor access to education, health, water supply, and other essential service and amenities of the rural population also contribute to this situation. Hence the development of rural areas and rural people, more specially the alleviation of rural poverty continues to be the central concern of development planning. Poverty alleviation programmes cover a wide range of programmes that aim at reduction of poverty through generation of income and employment opportunities. Most important among them are the Integrated Rural Development Programme (IRDP), Jawahar Rozgar Yojna (JRY), National Rural Employment Programme (NREP), Small and Marginal Farmer's Programme for increasing agricultural production etc. Land Reforms had also been on the agenda for rural reconstruction in the past five year plans.

10.2 Over the last 12 years, since 1980, during which IRDP has been under implementation in Kerala, a total of 11.14 lakh families have been assisted under IRDP with a total investment of Rs. 458.67 crores which include a subsidy support of Rs. 152.89 crores and a bank loan of Rs. 305.78 crores. Year-wise details are given in Table 10.1.

10.3 Over the years the activities under IRDP have been considerably diversified to suit the requirements of our rural population. In the area of rural employment also massive schemes were taken up. The National Rural Employment Programme and RLEGP were under implementation till 1988-89 and both these schemes were merged to launch the Jawahar Rozgar Yojna which is the major employment generation scheme currently under implementation. The investment made so far under these programmes works out to Rs. 458.67 crores generating cumulative employment of 19.45 crores mandays (Please see table 10.2). Even though the implementation of both these programmes gives an impressive record of physical performance they do not appear to have made any appreciable dent into the unemployment problem faced by the State. As per the family survey organised by the Rural Development Department in 1992 nearly 17.86 lakhs families are still below the poverty line. Likewise the level of unemployment at the commencement of the Eighth Plan is estimated at 31 lakhs consisting of 16 lakh persons totally unemployed and 15 lakhs under employed. About 50 per cent of the fully unemployed are educated comprising of 4.7 lakh matriculates, 1.3 lakh P. D. Cs, 1.2 lakh graduates, 27 thousand Post-graduates and 9 thousand professional degree holders. At the present trend the level of unemployment is likely to go up to 39 lakhs by the end of Eighth Plan.

10.4 Programme-wise details of implementation of major rural development programmes are given in Table 10.2

TABLE 10.1

*Physical and Financial achievements under IRDP-Families Assisted and subsidy disbursed under IRDP during 1980-81 to 1990-91*

Year	No. of families Assisted	Bank loan Rs. in lakhs	Amount of subsidy given (Rs. in lakhs)	Total
1980-81	58992	602.92	331.46	994.38
1981-82	96832	1221.34	610.67	1832.01
1982-83	127798	2146.72	1073.36	3220.08
1983-84	120547	2510.94	1255.47	3766.41
1984-85	104816	2463.12	1241.56	3724.68
1985-86	71376	1550.56	775.28	2325.84
1986-87	143399	4021.96	2010.98	6032.94
1987-88	110684	3150.04	1575.02	4725.06
1988-89	87006	3079.06	1539.53	4618.59
1989-90	74150	3120.44	1560.22	4680.66
1990-91	60877	3404.18	1702.09	5106.27
1991-92	57562	3227.06	1613.53	4840.59
Total	1114039	30578.34	15289.17	45867.51

Source: Rural Development Department.

TABLE 10.2

*Physical and Financial achievements under NREP, RLEGP and JRY Schemes*

Year	MANDAYS GENERATED (in lakhs)			Total
	NREP	RLEGP	JRY	
1980-81	97.00	—	—	97.00
1981-82	128.00	—	..	128.00
1982-83	93.08	..	..	93.08
1983-84	119.00	..	..	119.00
1984-85	142.00	..	..	142.00
1985-86	72.34	77.62	..	149.96
1986-87	105.32	113.72	..	219.04
1987-88	98.75	85.32	..	184.07
1988-89	149.57	74.11	..	223.68
1989-90	..	..	231.79	231.79
1990-91	..	..	180.96	180.96
1991-92	..	..	177.08	177.08
<b>Total</b>	<b>1005.06</b>	<b>350.77</b>	<b>589.83</b>	<b>1945.66</b>

Source: Rural Development Department.

(a) *Integrated Rural Development Programme (IRDP)*

10.5 The Integrated Rural Development Programme (IRDP) is a major poverty alleviation programme under implementation in Kerala financed by Central and State Governments on a 50:50 sharing basis from 1978-79 onwards. The objective of the programme is to assist selected families below the poverty line in rural areas to take up self-employment ventures for overcoming poverty by providing income generating assets through a package of assistance comprising of subsidy and institutional credit.

10.6 For identification of families really eligible for assistance under the programme a comprehensive house to house survey was organised in 1990 and the final list of families was published in 1992. According to the survey a family with an annual income of Rs.11,000 (at 1991-92 price level) or less is considered to be below poverty line. The survey revealed that a total number of 17.86 lakh families are below the poverty line.

TABLE 10.3

*Number of families below poverty line according to Social Group*

District (1)	Number of families			Total (5)
	S.C. (2)	S. T. (3)	Others (4)	
1. Thiruvananthapuram	34280	2161	166818	203259
2. Kollam	24458	95	161115	185668
3. Pathanamthitta	13895	722	54710	69327
4. Alappuzha	7871	47	126604	134522
5. Kottayam	4454	749	104073	109276
6. Idukki	10919	6422	59464	76205
7. Ernakulam	4208	118	116364	120690
8. Thrissur	27265	430	148321	176016
9. Malappuram	13470	1247	156209	170926
10. Palakkad	36614	4571	111526	152711
11. Wayanad	2029	16063	35673	51739
12. Kozhikode	9316	288	156933	166537
13. Kannur	1142	196	104897	106235
14. Kasargode	7223	2555	53965	63743
<b>State Total (Provisional)</b>	<b>196538</b>	<b>33664</b>	<b>1556672</b>	<b>1786874</b>

Source: Rural Development Department.

TABLE 9.40

*Trade-wise Intake in Government ITIs and Private ITCs during 1991-92*

Sl. No. (1)	Trade (2)	Industrial Training Institutes		Industrial Training Centres	
		Total Intake (3)	Of which girls (4)	Total Intake (5)	Of which Girls (6)
1.	Forger and Heat Treater	352	..	32	..
2.	Carpenter	384	60	256	..
3.	Dress making	80	80	64	12
4.	Mechanic (Diesel)	144	..	464	..
5.	Mechanic (Tractor)	64	..	..	..
6.	Moulder	224	..	32	..
7.	Plumber	368	..	1472	..
8.	Secretarial Practice	48	48	80	11
9.	Stenography (Eng)	432	240	1344	763
10.	Stenography (Hindi)	48	32	48	5
11.	Sheet Metal Worker	272	72	32	..
12.	Upholstery	16	..	..	..
13.	Welder	696	..	348	..
14.	Data preparation and Computer Software	240	200	2180	512
15.	Plastic Processing Operator Trade	64	..	16	..
16.	Cutting & Tailoring	..	..	224	168
17.	Hand Compositor and Proof Reading	..	..	80	..
18.	Photography	..	..	16	3
19.	Hair and Skin care	..	..	16	..
20.	Preservation of Fruits & Vegetables	..	..	32	13
21.	Letter press Machine minder	..	..	48	..
22.	Book Binder	..	..	16	..
Total		3432	732	6800	1487

10.7 Since the scheme aims at assisting the poorest of the poor families first, priority is given to rural families having annual income below the 'Cut Off' line of Rs. 8500. Here again families with annual income below Rs. 6000 are assisted first. The programme is implemented in all 152 blocks of the State through 14 DRDAs. 50% of the families assisted are SC/STs and 40% of those assisted are women and 3% of the outlay is earmarked for the physically handicapped. The physical and financial achievements under the programme are furnished in table 10.4.

10.8 A new scheme viz. the Family Credit Plan Scheme was introduced during 1992 in Ernakulam and Palakkad districts with the intention of assisting 200 families each, additionally in those districts. The total number of families assisted are 175 in Palakkad and 122 in Ernakulam districts.

#### (b) Trysem

10.9 TRYSEM imparts training to Rural Youth in the age group of 18-35 belonging to families below the poverty line for enabling them to take up self-employment ventures. The number of youth trained during 1991-92 was 7126 against the target of 6000. The details of achievement under TRYSEM are furnished in Table 10.4.

#### (c) Jawahar Rozgar Yojana (JRY)

10.10 Jawahar Rozgar Yojana an intensive wage employment programme is implemented by 14 DRDAs through 152 blocks and all panchayats in the State. The expenditure under the programme is being shared between the Centre and the State in the ratio of 80:20. The main objective of the programme is the creation of additional gainful employment for the unemployed in rural areas and strengthening of rural infrastructure.

10.11 The financial and physical achievements under JRY during 1990-91 and 1991-92 are furnished in Table 10.4.

TABLE 10.4

Physical and Financial Achievements under Rural Development Programmes (1990-91 and 1991-92)

Programme	Unit	Achievement	
		1990-91	1991-92
(1)	(2)	(3)	(4)

#### I. (a) IRDP

Total Expenditure	Rs. lakhs	2043.51	1784.84
Families assisted	No.	60877	57562
SC families assisted	"	27860	24682
ST families assisted	"	2478	2166
Women assisted	"	27496	28063
Subsidy adjusted	Rs. lakhs	1702.09	1613.53
Per family investment: (in Rs.)		7001	7094
SC families	"	6367	6391
ST families	"	5941	5786

(1)	(2)	(3)	(4)
(b) TRYSEM			
Total Youth trained	No.	5657	7126
of which No. of SCs	"	1836	2484
" STs	"	193	190
" Women	"	3768	4763
Total No. settled including self employed and wage employed	No.	4532	4992
% of youth settled out of no trained	(%)	80	70
(c) DWGRA			
Women groups organised	No.	265	347
Women groups functioning	"	265	218
II. JRY			
Total Expenditure	Rs. lakhs	6819.92	7252.79
Mandays generated	(Lakh mandays)	180.96	177.08
Foodgrains utilised	M.T. Rice	3052.32	2232.94
No. of houses completed	Nos.	14255	22182
New roads constructed	Km.	2144.42	1873.38
Sanitary latrines completed	No.	7622	6112
Drinking water wells constructed	No.	546	433
Irrigation canals	No.	187	118
Area planted under social forestry	Ha.	13.02	207.14
No. of seedlings and fruit plants distributed	lakhs	21.50	32.59
Building construction (Schools and other buildings)	No.	131	104

Source: Rural Development Department

#### (d) Development of Women and Children in Rural Areas (DWGRA)

10.12 The objective of DWGRA is to provide opportunities to women belonging to the target groups living below poverty line to increase their income and also to provide supportive services needed to enable them to take up income generating activities. The scheme continued in seven districts of Wayanad, Palakkad, Idukki, Malappuram, Kannur, Kozhikode and Alappuzha in 1991-92. Details of achievement under the programme are given in Table 10.4.

## (e) Peoples Action for Development (Kerala)

TABLE 10.5

10.13 PAD(K) encourage, promotes and assist voluntary organisations in implementing projects for enhancement of rural prosperity and strengthens and promotes voluntary effort in rural development. It gives much publicity for schemes for which assistance is made available from Council for Advancement of People's Action and Rural Technology (CAPART). Further it helps voluntary organisations in preparing projects in accordance with the guidelines of CAPART. During the year 1991-92 CAPART has sanctioned 78 projects involving a total financial achievement of Rs. 2.5 crores for implementation through voluntary organisations.

*Targets and achievement under Land reforms*

Year	Target fixed	Achievement			
		SC	ST	Others	Total
(1)	(2)	(3)	(4)	(5)	(6)
1989-90	1000	343	16	346	705
1990-91	1000	159	38	207	404
1991-92	2600	272	31	337	640

Source: Land Board (Kerala)

## (f) Kerala Rural Development and Marketing Society (KERAMS)

10.14 KERAMS established in 1986, provided marketing facilities for products manufactured by RDP beneficiaries rural artisans, DWGRA units Jhila Samajams, voluntary organisations etc. Apart from 'Grama Sree' a permanent sales outlet for IRDP products, functioning in Trivandrum since 1987, mobile sales unit was also started during 1990-91. The average sales proceeds through this mobile unit would come to about Rs. 3000 per day. KERAMS is been organising trade fairs during onam festival in District Head Quarters and has also participated in major trade fairs and exhibitions outside the State. Further more, it has started 3 training-cum-production centres of Fruit processing, Readymade garments and bra grass mats at Calicut, Kollam and Kottayam districts respectively. The sale proceeds of KERAMS during the last 3 years is given below:

Year	Total Sales (Rs. in lakhs)
1990-91	9.47
1991-92	19.116
1992-93 (upto November)	17.34

## (g) Land to Landless

10.15 The extent of land declared surplus as on 1992 under the land reform measures was 169215

Out of which 93654 acres have been taken over by Government and 63764 acres were reserved up to 30-1-1992. About 20297 acres of land reserved for Public purposes. The beneficiaries of the programme were largely from the category of backward castes and scheduled tribes. Category-wise details are furnished in Appendix 10.1 to 3

10.16 Annual Target for the distribution of surplus land and the achievement since 1989-90 are given in Table 10.5.

10.17 For the effective implementation of land reforms, a resurvey of the entire land in the State was initiated and the resurvey works are in progress in all districts in the State except Kasaragod. As on 31-10-1992 out of the 32510 sq. kms to be resurveyed, an area of 22361 sq.km. under field work and an area of 17346 sq.km. under desk work has been completed. Out of the 61 taluks in the State, resurvey work has been started in respect of 45 taluks of which the survey field work, has been completed in 21 taluks. Out of the 1036 villages (45 taluks) taken up, resurvey field work has been completed in 740 villages. The scrutiny and mapping process of remaining villages are in progress and the final notification in respect of 483 villages has been published.

10.18 The assignees of surplus land are also given financial assistance at the rate of Rs. 2500 per hectares for agricultural development. The achievement under the scheme during the last three years are given in Table 10.6

TABLE 10.6

*Financial assistance to the Assignees of Surplus Land Achievement.*

Particulars	Unit	1989-90	1990-91	1991-92
(1)	(2)	(3)	(4)	(5)
1. Total Amount sanctioned	(Rs. lakhs)	24.00	30.00	30.00
2. Amount Spent	"	23.79	21.99	11.05
3. No. of beneficiaries				
(a) General	(No.)	2275	1523	1257
(b) Scheduled Castes	"	1964	1292	960
(c) Scheduled Tribes	"	207	74	45
Total (3)	No.	4446	2339	2262

Source: Land Board (Kerala)

(h) *Development Programmes of Panchayats*

10.9 The number of Panchayats in Kerala during the year 1992 was 983. The various development activities undertaken by the Panchayats include construction and maintenance of village Roads, Small bridges, Culverts, Petty irrigation works, sinking wells, construction and maintenance of Public Latrines Bus stands, Shopping centres, Market Stalls etc. The amount spent by Panchayats under such public work during 1991-92 is reported to be Rs. 22.01 crores. Under Agricultural schemes 9,742 Minor Irrigation works were maintained by Panchayats benefitting 5,33,550 acres of land. Under eleven point programme 276 play grounds, 401 Samskarika Nilayams 98 Sarviharas and 99 Open air Auditoriums were completed up to March 1992. Under the scheme

Rehabilitation of Puramboke dwellers an amount of Rs. 138 lakhs were distributed upto March 1992 to 151 selected panchayats for providing 5 cents of land each per family. Under the programme "Untied funds to Panchayats" an amount of Rs. 19 crores was made available to the Panchayats during 1991-92 for taking up need based development works in a location Specific manner. The works under this programme are to be executed directly by the Panchayats, through functional committee with peoples participation. Under this scheme 25% of the outlay has been earmarked for programmes benefitting Scheduled Castes and 5% for Scheduled Tribes. The total expenditure incurred by the Panchayats up to 31-10-1992 was Rs. 13.80 crores against the allotment of Rs. 19.00 crores. The physical achievements of the programme during 1990-91 are furnished in the table 10.7.

TABLE 10.7

*Physical Achievement under Untied Funds to Panchayats during 1990-91*

Sl.No.	Name of Scheme	Unit	Physical Achievement 1990-91
(1)	(2)	(3)	(4)
1.	Construction and Improvement of Roads	Kms	800
2.	Construction of Foot bridges/bridges/culverts	Nos.	342
3.	Construction of Waiting Sheds	Nos	99
4.	Construction of Latrines	Nos.	10125
5.	Construction of routes for weaker sections	Nos.	1120
6.	Electrification of houses	Nos.	7583
7.	Construction of Play grounds/Community halls/Public Buildings	Nos.	41
8.	Construction of Cultural Centres/Libraries	Nos.	54
9.	Construction of Nursery School Buildings	Nos.	26
10.	Construction of shopping complexes	Nos.	10
11.	Installation of Street lights	Nos.	948
12.	Construction of Ponds/Wells	Nos.	126
13.	Construction of drainage schemes.	Meters	835
14.	Installation of Water Taps	Nos.	113
15.	Installation of smokless Choolahs	Nos.	200
16.	Construction of T V Kiosk	Nos.	19
17.	Installation of T. V. Sets	Nos.	63

Source: Directorate of Panchayats.



(i) *Rural Development Board*

10.20 The function of Kerala State Rural Development Board at present is confined to the implementation of Remunerative Development schemes in Panchayats viz., the construction of shopping centres Commercial Complexes, Market Stalls, Bus stands and Office Buildings. The funds required for the implementation of such schemes are raised through open market borrowing. The Board has so far raised open market loan of Rs. 21.33 crores and completed 511 schemes costing Rs. 22.25 crores. During the year 1991-92, administrative sanction has been accorded for 24 schemes in various panchayats costing Rs. 1.93 crores. Another 49 Schemes with an outlay of Rs. 4.64 crores are under various stages of execution.

(j) *Western Ghats Development Programme*

10.21 Western Ghats Development programme is a fully Centrally Sponsored Scheme. The important programmes taken up under Western Ghats Development include Agriculture and Allied Activities, Minor Irrigation, Village and Small Scale Industries (Sericulture), Watershed Development Programmes, Infrastructure Development, Survey and Studies. During the year 1991-92, the formulation and implementation of Western Ghats Development Programme were entrusted with the District Councils. The actual allotment for Western Ghats Development Programme for the year 1991-92 amounted to Rs. 605.22 lakhs while the expenditure incurred was only Rs. 576.47 lakhs (95%). The sector-wise breakup of allotment and expenditure during 1991-92 are given below in Table 10.8.

TABLE 10.8

*Financial Achievement under Western Ghats Development Programme during 1991-92*

(Rs. in lakhs)

Sector (1)	Financial	
	Outlay (2)	Expenditure (3)
<b>I. Agriculture &amp; Allied Services</b>		
i) Soil Conservation	98.87	96.80
ii) Agriculture Development	26.46	25.53
iii) Dairy Development	24.41	24.39
iv) Forestry	190.00	169.27
v) Afforestation	17.65	12.41
vi) Poultry Development Units	0.50	0.50
vii) Horticulture Development	5.00	5.00
viii) Sericulture Development	3.30	4.55
<b>II. Minor Irrigation</b>	107.66	104.46
<b>III. Infrastructure Development</b>		
i) Water Supply	58.27	62.27
ii) Foot bridges	63.11	61.11
<b>IV. Survey and Studies</b>	9.80	5.99
<b>V. Western Ghats Cell</b>	4.19	4.19
<b>Total</b>	<b>605.22</b>	<b>576.47</b>

10.22 Category-wise physical achievement under western Ghats Development programme during the year are given in Table 10.9

TABLE 10.9

*Physical Target and Achievement under Western Ghats Development Programme during 1991-92.*

Sl. No.	Name of the Sector	Unit	Target	Physical Achievement
(1)	(2)	(3)	(4)	(5)
1.	Soil Conservation	Ha.	1530	1176
2.	Agricultural Development			
	(a) Seedlings distributed			
	i) Coconut	Nos.	29200	25310
	ii) Pepper	"	215000	108200
	iii) Cashew	"	9800	3300
	iv) Others	"	69325	28615
	b) Supply of sprayers/Sprinklers	"	83	83
3.	Minor Irrigation			
	i) Check dams/Cross bar/Weirs	Nos.	222	241
	ii) Wells/Ponds	"	19	19
	iii) Tanks	"	37	16
	iv) Pumpsets	Nos	57	57
	v) Area benefitted	Ha.	1140	1100
4.	Dairy Development			
	a) Pasture/Fodder Development	Ha.	240	231
	b) Hay making	Ha.	200	250
	c) Construction	Nos.	744	785
5.	Poultry Development Units (Back Yard Poultry)	Nos.	120	120
6.	Forestry Programmes			
	a) Afforestation	Ha.	249	363
	b) Bio-preservation of Forests (Bamboo cultivation)	Ha.	560	435
	c) Meterogeneous Forest Vegetation	Ha.	1355	1305
	d) Fire line tracing	Km.	1377	985
7.	Sericulture Development	Acre	120	109
8.	Watershed Development Programme covered	No.	23	23
9.	Construction of Foot Bridges	No.	65	63
10.	Water Supply (Families benefitted)	No.	2655	2400
11.	Survey & Studies	Ha.	8000	8082

### *Social Security*

10.23 Social Security programmes are increasingly being accepted as useful and necessary instruments for the protection and stability of the most vulnerable segments like widows, destitutes, handicapped and so

on. In Kerala a modest beginning in social security and welfare services by the government was made in the erstwhile princely states of Travancore and Cochin. Some voluntary organisations also initiated measures in ameliorating the conditions of the weaker segments in society. The successive popular governments in Kerala have introduced a large number of

Social Security and welfare schemes with the objective of attaining the goal of reducing income in security. As a result there are about 30 social security and welfare schemes presently operated in the state. During the period 1986-91 the budgetary commitment under the social security measures amounted to about Rs.370 crores. The budget provision for 1991-93 under state supported schemes is about Rs. 80 crores which represents 2.8% of the state budget. The Kerala situation is unique that it is well ahead both in coverage as well as in terms of financial commitment when compared to the national situation.

10.24 The All India expenditure on social security and welfare schemes has been around 1.02% of the budget. But in Kerala, 2.8 percent of the budget is spent on this sphere. The coverage under fully state financed social security pensions is about 20.4% of the 60 plus population in the state which is estimated at 29.3 lakhs.

10.25 The proportion of population above 60 years in Kerala according to 1981 Census was 7.55 per cent compared to the all India average of 6.27. According to a study made by the Centre for Development Studies, the proportion of the aged, those above

60 years of age, in Kerala in the year 2001 will be 10.2 percent as against the all India percentage of 8. This situation would necessitate more commitments in future, particularly in pensions for State Government servants, old age security pensions to weaker sections, medical care facilities and similar other welfare measures.

10.26 The summary statement giving the eligibility, rate of assistance, coverage etc on major social security measures implemented in the state is given in Table 10.10. It is evident from the table that the Kerala Destitute Pension Scheme benefited 1.82 lakh persons and 3.35 lakh persons got benefited under the Kerala Agricultural workers pension scheme. Under the major welfare fund scheme over 10 lakh workers are registered.

10.27 Another significant role of the state is provision of institutional care to orphans, handicapped old and aged etc. There are 13 homes for the handicapped in the state and over 200 persons were benefited. Under the social welfare department institutional care is provided to 30570 persons through a net work of 412 institutions. The relevant data are highlighted in Table 10.11.

TABLE 10.10

*Major Social Security and Pension Schemes in Kerala*

Sl.No.	Name of Scheme	Qualifying/ Conditions	Eligibility	Year of Starting	Present Rate of Assistance	Amount Spent (Rs. in lakhs)		No. of persons covered/received Assistance	
						1990-91	1991-92	1990-91	1991-92
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
1.	Agricultural Workers Pension Scheme	Elegible age is above 60 years. Annual Family income should not exceed Rs. 1500		1-4-1980	Rs. 70 p.m.	2914.10	1897.31	323781	335228
2.	Kerala Destitute Pension Scheme	Above 65 years age. For widowed, Destitutes no age limit, monthly income not to exceed Rs. 100		1960	Rs. 65 p.m. Rs. 5 p.m. is also being paid to those widows have one or more minor children	1277.00	1401.92	181354 (58598 OAP 122956 WF)	182609
3.	Special Pension Schemes for the physically handicapped, disabled and Mentally Retarded Persons.	Disabled persons who have minimum 40% disability are eligible. Certificate from Medical Board is necessary. Beneficiary's monthly income Rs. 75 or family income not to exceed Rs. 5000 per annum		1982	Rs. 85 p.m.	875.10	823.33	76000	84452
4.	Financial Assistance to Leprosy Leprosy and Cancer Patients.	Leprosy and Cancer Patients are covered. Certificates from hospitals are to be produced. Income of the patients not to exceed Rs. 50 p.m.		1976	Rs. 100 p.m.	29.19	12.52	9450	4210
5.	Pension to Sportsmen	The income should not exceed Rs. 300 p.m., minimum age 45 years		1978	Below 60 years Rs. 100 p.m. between 60 to 70 years Rs. 150 p.m. above 70 years Rs. 200 p.m.	..	..	..	157

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
6.	Welfare Fund for Journalists.	Financial Assistance is given to the working journalists/their dependent in distress. The annual income should not exceed Rs. 3600	1975	Rs. 300 p.m.	..	7.24	..	192
7.	Welfare fund for Cine Artists.	Financial assistance is given to Cine Artist in distress. The annual family income should not exceed Rs. 3600	1975	Rs. 300 p.m.	..	5.14	..	145
8.	Kerala Cashew Workers Relief and Welfare Scheme (workers registered under the fund)	Cashew workers above 60 years of age	1989	Rs. 75 p.m.	..	..	1767	103000
9.	Kerala Coir Workers Welfare Scheme. (workers registered under the fund)	Coir Workers above the age of 60	1989	Rs. 75 p.m.	..	..	..	57638
10.	Kerala Construction Workers Welfare Scheme. (workers registered under the fund)	Construction workers having 3 years service and attained 60 years of age.	1990	Rs. 75 p.m. to a maximum of Rs. 300 p.m.	..	..	..	210000
11.	Kerala Khadi Workers Welfare scheme. (workers registered under the fund)	Khadi workers having 10 years of service and 60 years of age.	1990	Rs. 60 p.m.	..	..	..	11888
12.	Kerala Handloom workers Welfare Scheme. (workers registered under the fund)	Handloom workers above the age of 60	1989	Rs. 75 p.m.	..	..	..	24514
13.	Abkari Workers Welfare Scheme. (Workers registered under the Scheme)	Abkari workers having 3 years of service and 60 years of age.	1990	Rs. 75 p.m.	..	..	..	100000
14.	Kerala Toddy Workers Welfare Fund		1970	P.F. contribution at 16% of total wages, gratuity at 50% of the monthly average of wages and other facilities.	..	..	..	46000
15.	Kerala Advocate Clerks Welfare Scheme	Advocate clerks	1985	After 5 years of contribution Rs. 1650 is given After completing 30 years Rs. 10,000.	..	..	..	2500
16.	Kerala Headload Workers Welfare Scheme (Members registered)	Minimum 3 years of service	1983	Accident benefit at Rs. 10000. The fund will be used for pension, bonus, death insurance scheme, superannuation assistance	..	..	..	6300
17.	Kerala Artisans and skilled Workers Welfare Scheme (members enrolled)	Artisans and Skilled workers above 68 years	1991	Death benefit of Rs. 10,000, Rs. 500 as medical aid, disability assistance at Rs. 100 p.m. scholarship for children, maternity benefit at Rs. 500 for two times for women members, Retirement benefit etc.	..	..	..	2,78,595
18.	Kerala Motor Workers Welfare Fund (workers registered)		1986	Retirement benefit, P. P. etc. A member will get about Rs. 12000 for 5 years of contribution and Rs. 60000 if continues as member for 15 years.	..	..	..	29332
19.	Kerala Fishermen's Welfare Schemes (Members enrolled)	Bona fide fishermen who has completed 60 years of age.	1987		..	..	..	25757

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
20.	Financial Assistance to widows for the marriage of their daughters	Yearly income of the family should not exceed Rs. 5000.	1978	Rs. 1250		9243	..	7000
21.	Tree climbers Welfare Scheme	Financial assistance is given to workers in the event of total accidents and permanent total disability following the accident.	1980	Rs. 10,000		..	..	260 205
22.	Kerala Labour welfare fund scheme	..	..	..	..	..	..	.. 3,50,000
23.	Students Accident Insurance Scheme	All students	1989	Rs. 10,000 in the case of total accidents which cause total disability. In the case of minor injuries and assistance subject to a maximum of Rs. 500 in a year.		Rs. 30 lakhs premium remitted		50 lakhs students covered
24.	Unemployment Assistance	Financial assistance is given to those who wait for employment in the live register of Employment Exchange for more than 3 years.	1981	Rs. 60 p.m.	..	..	264914	260196
25.	Self employment Scheme	Unemployed persons	1980	Rs. 600 per person	..	..	4255	2653

TABLE 10.11

Major Social Security Schemes implemented by the Social Welfare Department - Institutional care

Sl. No.	Scheme /Institution	1990-91			1991-92		
		No. of centres	No. of beneficiaries	Expenditure (Rs. lakhs.)	No. of centres	No. of beneficiaries	Expenditure (Rs. lakhs.)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. Welfare Institutions run by Government							
(a)	Abalamandiram (shelter for waits and stays)	10	205	14.58	10	176	13.26
(b)	Government Balasadan	2	145		2	82	
(c)	Rescue Homes	2	142	19.58	3	78	17.35
(d)	After care Hostels (for women)	1	163		1	23	
(e)	Care Homes	5	179	..	15	179	
(f)	Custodial Care Home	1	15		1	13	
(g)	Home for Mentally Deficient children	2	80	22.74	2	74	23.92
(h)	Care Home for disabled Children	4	94		4	80	
(i)	Home for physically Handicapped	5	113	2.85	7	144	
(j)	Children's Home	1	50	8.86	1	40	2.58
(k)	Working Women's Hostel	2	43		2	24	
(l)	Home for Cured Mental patients	3	17	1.98	3	32	3.40
(m)	Vocational Training Centres (Thiruvanthapuram & Kozhikode)	2	88	1.54	2	61	2.92
(n)	T.A. for interview	..	37	0.03	..	32	
Institutions run by Voluntary Organisations							
(a)	Orphanages (Plan)	34	1225	10.27	34	1225	19.86
	(Non-plan)	271	24215	139.08	275	24736	172.31
(b)	Home for the Aged and Infirm	49	2688	14.97	50	2713	14.31
(c)	Founding Homes	5	440	1.29	5	440	
(d)	Beggar Homes	3	366	2.01	3	366	2.40
(e)	Vocational Training Centres (Pathanamthitta & Thiruvur)	2	42	0.82	2	43	2.30

### *Welfare of Scheduled Castes and Scheduled Tribes*

10.28 Welfare of Scheduled Castes and Scheduled Tribes has acquired the top most priority in the progressive steps taken up by the State Government in ameliorating the backwardness of the weaker sections of the society. The Scheduled Castes and Scheduled Tribes development departments are undertaking several social and economic measures for the uplift of these classes to the normal socio-economic life of other sections of the society. The most creditable endeavour in this direction is the advent of Special Component Plan for Scheduled Castes and Tribal Sub Plan in the state in the seventies. These special measures were designed and executed exclusively for the benefit of these people through the implementation of income-generating economic development schemes. A brief note on this is furnished below.

#### *Special Component Plan and Tribal Sub Plan*

10.29 Special Component Plan for Scheduled Castes and Tribal Sub Plan have been found as effective instruments for the development of Scheduled Castes and Scheduled Tribes since the inception of these in the state and especially since decentralisation to the district level in 1983-84. In contrast to the implementation of vertical stereotyped departmental schemes, this set up has made it possible to chalkout those schemes which are local need-based, beneficiary oriented and income generating. This has helped to a great extent the implementation of innovative schemes which could raise the economic as well as social status of these people and bring them to the main stream of socio-economic life.

10.30 Funds earmarked by the different sectoral departments form the corpus of the outlay for SCP and TSP. Over and above these, the Government of India provide every year, on the basis of certain criteria, an amount as special central assistance which is intended to act as an additive to the State Plan funds. The schemes for SCP, TSP and SCA are being formulated and implemented at the district level. The responsibility of the above has been vested with the district level working group functioning under the chairmanship of the District Collector. The SCP and TSP schemes are being monitored at the district and state levels.

10.31 The anticipated flow to SCP during 1992-93 is to the tune of Rs. 89.35 crores out of a state plan outlay of Rs. 913 crores constituting 9.67%. The corresponding flow to TSP is Rs. 15.965 crores forming 1.75% of the total outlay for the state.

#### *Profile of Scheduled Castes and Scheduled Tribes Scheduled Castes*

10.32 According to 1981 census the Scheduled Caste population in Kerala is 25.49 lakhs which works out to 10.02% of the total population. Among the districts the highest percentage of SC population is recorded in Palakkad District (15% of the total SC

population of the State and 18% of the total population of the district) and the lowest percentage, in Wayanad District (0.94% and 4% respectively). The average household size of Scheduled Castes is 6.28 compared to 5.75 of the general population. The SC households (4.83 lakhs) form 11% of the total households in the state.

10.33 The literacy rate among Scheduled Castes is 56 (Male 62.3% and female 49.7%) as against the total literacy rate of 70.4% in the State (Male 75.3% and female 65.7%) and 36.2% in the country as a whole.

10.34 The combined work participation rate of Scheduled Castes in the State is 42.1 per cent. (36.26% main workers and 5.84% marginal workers). Of the main workers, 60.37% belong to the agricultural sector, (2.28% cultivators and 58.09% agricultural labourers) 3.43% to household industry and 36.2% are other workers.

#### *Scheduled Tribes*

10.35 There are 2.61 lakhs Scheduled Tribe population in the state constituting 1.03% of the total population of the state and 0.51% of the total Scheduled Tribe population of the country. More than 77.5% of Scheduled Tribes are in the districts of Wayanad, Kannur, Idukki and Palakkad. The Scheduled Tribe households in the state number about 52400.

10.36 There are Scheduled Tribe communities in the state of which 5 communities viz., Cholanai-kans, Kattunaickans, Kadars, kurumbas and koragas are declared as Primitive Tribes who account for about 3% of the total Scheduled Tribes in the State.

10.37 Literacy rate of Scheduled Tribes in Kerala is 31.79% as against 70.42% for the general population. Female literacy rate is as low as 20% as against the general female literacy rate of 65.7%. The lowest literacy rate viz. 12% is recorded in Palakkad and the highest 73.6% in Kottayam district.

10.38 The occupational status of Scheduled Tribes shows that 40% of them are workers. Agriculture sector provides employment to 78% of the Scheduled Tribe workers, of whom 57.5% are agricultural workers and 20.5% are cultivators.

10.39 From time immemorial, tribals have been dwelling in the forests. Shifting cultivation has been the usual practice. Supplementary occupations like hunting, fishing, collection and sale of minor forest produce, basket making, matweaving etc. have been adopted by them.

10.40 District-wise population of Scheduled Castes and Scheduled Tribes (1981 census) and the comparative picture of their literacy rates are furnished in Tables 10.12 & 10.13.

TABLE 10.12

Population of Scheduled Castes/Scheduled Tribes  
(1981 Census)

(in lakhs).

District	Total Population	Scheduled Castes	Scheduled Tribes
(1)	(2)	(3)	(4)
1. Thiruvananthapuram	25.96	2.84	0.14
2. Kollam	21.93	2.71	0.03
3. Pathanamthitta	11.08	1.38	0.05
4. Alappuzha	18.66	1.74	0.02
5. Kottayam	16.97	1.19	0.15
6. Idukki	9.69	1.33	0.38
7. Ernakulam	25.35	2.17	0.04
8. Thrissur	24.40	3.02	0.03
9. Palakkad	20.44	3.77	0.29
10. Malappuram	24.03	2.08	0.08
11. Kozhikode	22.45	1.62	0.04
12. Wayanad	5.54	0.21	0.96
13. Kannur	19.32	0.78	0.15
14. Kasaragod	8.73	0.65	0.25
Total	254.54	25.49	2.61

TABLE 10.13

Literacy Rate of Scheduled Caste/Scheduled Tribes

Year	Kerala			All India		
	General	Scheduled Castes	Scheduled Tribes	General	Scheduled Castes	Scheduled Tribes
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1971	60.42	40.21	25.72	29.45	14.67	11.30
1981	70.42	55.96	31.79	36.03	21.38	16.35

10.41 The Scheduled Castes and Scheduled Tribes departments undertake several schemes under plan and non-plan for the development of education, economic status, infrastructural facilities and health of these people. Among educational programmes, scholarships and stipends at pre-matric and post-matric levels, special incentives to talented students, coaching for competitive examinations etc. deserve special mention.

Intensive Habitat Development Programmes, Training Institutes, Development of Ambedkar grammar, Assistance to the major rehabilitation Projects etc. are the schemes which are worth mentioning under economic development. Under Social development programmes, construction of houses, rehabilitation housing scheme, enforcement of PCR Act, Inter-caste marriage grant, programmes for vulnerable-groups and primitive tribes etc. are to be specially mentioned. As a boost to these, sectoral departments are also implementing beneficial schemes.

10.42 Apart from the SC/ST Development Departments the Kerala State Development Corporation for SC/ST (KSDC) and Kerala Institute for Research, Training and Development Studies for SC/ST (KIRTADS) are also implementing programmes for the development SC/ST. The details of these are given in Appendix 10.4.

10.43 The educational details of SC/ST are furnished in the following table.

TABLE 10.14

Enrolment of SC/ST students at school level as on 1-7-1992 and Admission details of SC/ST students in the Arts and Science Colleges during 1991-92

Section	Enrolment			
	Student Strength			
	General	SC	% to Total	ST % to Total
L.P.	2362250	270565	11.50	33642 1.42
U.P.	1903330	215847	11.34	19196 1.00
H.S.	1585777	166792	10.51	11451 0.72
Total	5851357	653204	11.16	64289 1.10

College Admission

Course	Total sanctioned strength	Scheduled Caste/Scheduled Tribes	Percentage
Pre-degree	103377	16766	16.20
Degree	42648	3627	8.50
Post-graduate	4967	544	10.95

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6. Idukki	9.69	1.33	0.38
7. Ernakulam	25.35	2.17	0.04
8. Thrissur	24.40	3.02	0.03
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10. Malappuram	24.03	2.08	0.08
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College Admission

Course	Total sanctioned strength	Scheduled Caste/Scheduled Tribes	Percentage
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Degree	42648	3627	8.50
Post-graduate	4967	544	10.95

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10.45 Thanks to the thrust given for education even before the formation of Kerala state, the advancement in this field is unique in the country. In the case of SCs and STs also, they are educationally far ahead of their counterparts in the country.

10.46 The employment exchange registers show that 3.6 lakhs SC candidates and 18674 ST candidates have registered with the exchange in 1992 (upto 30-9-1992). District-wise details are furnished in Appendix 10.7

10.47 Representation of SC/ST people in Government employment as on 1-1-1992 is indicated below.

Category	Total	Scheduled Castes	Scheduled Tribes
1. Gazetted	21774	2094	95
2. Non-Gazetted including last grade	150808	14103	1229
3. Last grade	30037	3855	402

10.48 The Scheduled Caste Development Department is running a number of institutions. There are 81 balawadies/feeding centres, 67 boys' hostel, 51 girls' hostels, 43 Industrial Training Centres, 3 Production cum Training Centres, 3 Pre-examination training Centres and one IAS Coaching Centre during the year under review. The district-wise details are furnished in Appendix 10.8.

10.49 The number of beneficiaries of various programmes of the department for 1990-91 and 1991-92 is given in the following table.

TABLE 10.15  
Number of beneficiaries

Scheme	1990-91	1991-92
(1)	(2)	(3)
1. Balawadies and Feeding Centres	2833	2147
2. Pre-matric studies	624719	627915

(1)	(2)	(3)	(4)
3. Prematric hostels		2886	2890
4. Postmatric studies		41987	47997
5. Postmatric hostels		833	888
6. Pre-examination training Centres		3	3
7. Incentive to talented students		271	197
8. Tuition system		1245	1342
9. Book banks		12	11
		Colleges	Colleges
10. Study centres		355	385
11. Financial assistance to failed SC students		779	727
12. Inter-caste marriage grants		583	943

10.51 The department has constructed 985 houses (including spillover) for scheduled caste people during 1991-92. The district-wise details are furnished in Appendix 10.9.

10.52 The scheduled Tribe Development Department is running a number of institutions viz. Balawadies, nurseries, GRB hostels, GRB schools, Tribal hostels, model residential schools dispensaries etc. District-wise details of Department is given in Appendix 10.10.

10.53 The Scheduled Caste Development Department recorded a total plan and non-plan expenditure of Rs. 1240.96 lakhs and Rs. 2566.37 lakhs respectively during 1991-92 against the corresponding expenditures of Rs. 1252.21 lakhs and Rs. 2693.45 lakhs for 1990-91. Whereas the Scheduled Tribe Development Department incurred total plan expenditure of 507.80 lakhs in 1991-92 against Rs. 564.96 lakhs in 1990-91 slightly higher expenditure of Rs. 615.80 lakhs has been incurred under non-plan head for 1991-92, against Rs. 594.56 lakhs during 1990-91.

## INSTITUTIONAL FINANCE

The role of Financial Institutions in augmenting the resources needed for economic infrastructure development is very important. The major All India Financial Institutions extending credit facilities to various developmental activities are Life Insurance Corporation of India (LIC), Industrial Finance Corporation (IFC), Industrial Development Bank of India (IDBI), Industrial Credit and Investment Corporation of India (ICICI), National Bank for Agriculture and Rural Development (NABARD) and Housing and Urban Development Finance Corporation (HUDCO).

11.2 The overall performance of the All India Financial Institutions in terms of the quantum of assistance disbursed during 1990-91 has declined from the level of disbursement in the previous year, registering an increase of only 7.4% in 1990-91 compared to 10.43 during the previous year. Out of the total amount of Rs. 11082.54 crores disbursed by All India Financial Institutions during 1990-91, the largest share of Rs. 3832.50 crores (34.58%) was disbursed by IDBI, followed by NABARD Rs. 1902.17 crores (17.16%) and UTI Rs. 1582.70 crores (14.28%). The share of GIC was only 1.32%, the lowest disbursement, as in the previous year.

11.3 An analysis of the State-wise disbursement showed that Maharashtra retained top place receiving 23.83% of the total disbursement by All India Financial Institutions during 1990-91, followed by Gujarat (11.60%), Uttar Pradesh (9.4%) and Andhra Pradesh (9.35%). Assam, Bihar and Kerala were at the bottom of the table receiving only 1.18%, 1.36% and 1.91% respectively, of the total credit disbursed. It is an indication of the fact that the capital absorption by these States has undergone practically no change over the previous years. The State-wise assistance disbursed by All India Financial Institutions during 1990-91 is given in Appendix 11.1.

11.4 In terms of cumulative disbursement of assistance by All India Financial Institutions also, Maharashtra was at the top (15.63%) followed by Gujarat (11.13%), Uttar Pradesh (11.68%), Tamil Nadu (9.12%) and Andhra Pradesh (9.07%). Kerala's share (2.75%) was the lowest, next only to Assam (0.99%). In Kerala the major component of assistance was by IDBI (52.37%) and NABARD (29.22%). Of the Aggregate amount of Rs. 67409.34 crores disbursed by All India Financial Institutions so far, largest share was that of IDBI (47.64%) followed by NABARD (21.23%), ICICI (13.12%) and IFCI (10.26%). The details of State-wise and institution-wise disbursement is given in Appendix 11.2.

11.5 The per capita amount disbursed by All India Financial Institutions during 1990-91 in the country as a whole stood at Rs. 108.4. This was marginally higher than the previous year's disbursement, by Rs. 6.20. The per capita amount disbursed by IDBI was the highest with Rs. 46.6 followed by IFCI (Rs. 18.5) and ICICI (Rs. 17.1). The GIC has the lowest disbursement (Rs. 1.8). The State-wise disbursement during 1990-91 showed that Maharashtra was the highest benefactor (Rs. 317.5) followed by Gujarat (Rs. 295.4) and Haryana (Rs. 162.6). Kerala received Rs. 35.00 very much lower than the All India level of Rs. 108.4 and among the major fifteen States, Kerala's position is thirteenth. The per capita amount received by the State declined from Rs. 57.7 in 1989-90 to Rs. 35.0 in 1990-91. This was because of the lower disbursement by IDBI and IFCI during the year. While disbursement by IDBI declined from Rs. 47.9 in 1989-90 to Rs. 25.7 in 1990-91, that of IFCI declined from Rs. 5.8 in 1989-90 to Rs. 3.7 in 1990-91. Details of State-wise per capita assistance disbursed by All India Financial Institutions during 1989-90 and 1990-91 are shown in Appendix 11.3.

11.6 The Commercial Banks in India made a rapid stride on opening branches, mobilising deposits and in advancing credit to various sectors of development. With the number of bank offices rose from 8262 in June 1969 to 60528 in March 1992, registering more than a seven fold increase, the population served by a bank office came down from 65,000 in 1969 to 11,000 in 1992. While the aggregate deposits increased by 51 times, the aggregate credit increased only by 31 times. This shows that the credit deployment does not keep pace with the growth in deposits. The credit deposit ratio of commercial banks which was 77.90 in 1969, came down to 64.35 in 1990, 65.24 in 1991 and to an all time low of 59.99 in March 1992. While the credit deposit ratios of major States varied from 39.47 to 98.48 in 1991, in 1992 it varied from 38.16 to 97.09. The CD ratio was highest for Tamil Nadu (97.09) followed by Orissa (89.84) Andhra Pradesh (81.55) Karnataka (78.22). Kerala, with a CD ratio of 50.92, ranks 10th among the major 15 States. A significant point with regard to CD ratios of 1992 is that, barring Orissa, the CD ratios in respect of all the remaining 14 States are lower than those of the previous year. As far Kerala, the CD ratio has sharply declined from 58.72 in 1991 to 50.92 in 1992 and to an all time low of 49.58 per cent in September 1992. The credit deposit ratios of major 15 States are shown in Table 11.1.

TABLE II.1  
Deposits and Credits of Public Sector Banks (as at the end of March 1992)

(Rs. in crores)

States	Deposit					Credit					Credit - Deposit Ratio (%)				
	1989	1990	1991	1992*	1993	1989	1990	1991	1992*	1993	1989	1990	1991	1992*	1993
1. Andhra Pradesh	121	8482	10086	10920	122	7488	8283	8905	100.80	88.28	82.53	81.56			
2. Assam	89	1749	2032	2234	-13	961	1006	1079	39.40	55.13	49.08	48.30			
3. Bihar	169	7643	8482	9219	52	2951	3948	3518	30.80	38.61	39.47	38.16			
4. Gujarat	401	10194	11443	13457	195	6074	6989	7218	48.60	59.58	61.08	59.54			
5. Haryana	49	3359	3839	4119	23	1991	2262	2307	45.90	57.49	59.01	56.91			
6. Karnataka	188	7174	8300	9705	148	6598	7370	7591	76.10	89.16	88.80	78.22			
7. Kerala	117	5192	6027	7084	77	3251	3539	3607	63.80	63.95	58.72	50.92			
8. Madhya Pradesh	107	6469	7196	8014	63	4812	5424	5665	58.90	66.66	75.38	63.20			
9. Maharashtra	905	26092	29739	38900	911	20670	23803	25040	100.09	79.40	80.04	64.97			
10. Orissa	29	2192	2461	2183	15	1678	1929	1963	51.70	76.35	78.98	69.84			
11. Punjab	185	8744	9839	10865	50	3656	4324	4578	27.00	44.06	49.95	42.14			
12. Rajasthan	74	3999	4697	5298	98	2449	2730	2996	51.40	61.24	58.12	56.55			
13. Tamil Nadu	233	9806	11607	12862	311	9928	11430	12488	139.50	101.24	98.48	97.09			
14. Uttar Pradesh	337	16260	18233	20291	154	7636	8692	8948	45.17	46.96	47.67	44.10			
15. West Bengal	436	14689	16170	18159	526	7332	8457	8788	115.40	50.03	52.18	48.39			
Total—Major States	3402	131921	130115	173312	2699	86999	99566	104091	72.20	65.90	66.33	60.06			
Total—All India	3997	153147	172993	199531	3835	98550	112475	119693	77.90	64.33	65.24	59.99			

\* Provisional

Source: (1) RBI Bulletin

(2) Economic Survey-1992-93, Government of India.

11.7 In Kerala, the credit deployment has not been picking up in proportion to the deposits received by Banks, especially in private sector Banks. In all the years from 1988 to 1992, the credit deposit ratios of private sector Banks have been lower than those of the public sector Banks. Since the latter half of 1980's there has been a phenomenal increase in the rate of growth of deposits of Commercial banks in Kerala. In 1990-91 and 1991-92 the deposits showed an increase of 18.7 per cent and 23.1 per cent respectively over the preceding years. But there has been a decline in the rate of growth of advances from 18.77 per cent in 1988-89 to 12.62 per cent in 1990-91 and further to 7.87 per cent in 1991-92. This shows that it has not been possible for the State to capture the increase in bank deposits in recent years.

11.8 The NRE deposits in 1992 showed a remarkable increase of 32% over the previous year as against a 14.5% in 1991. In 1985, the

NRE deposits amounted to Rs. 844 crores constituting about 24 per cent of the total deposits. At the end of September 1992, the NRE deposits increased to Rs. 3490 crores, which accounted for nearly 35 per cent of the total bank deposits. In terms of the total NRE deposits in the country, which stood at Rs. 21,500 crores in 1991-92 Kerala's share would work out to 16 per cent. Thus increasing the flow of bank funds in the State also amounts to fulfilling the additional objective of getting benefits from NRE funds. Given the constraints in budgetary resources, it is needless to say that the present declining trend in C.D. ratios would decelerate the State's economic growth. Therefore it is high time for the State to redouble its effort to channelise the maximum credit from the Commercial Banks for investment purposes. The deposits, advances and credit deposit ratios of Commercial Banks in Kerala are shown in Appendix 11.5.

## **APPENDIX**

### **STATISTICAL TABLES**

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## APPENDIX 2.1

Net State Domestic Product at Factor Cost by Industry of Origin (At Constant Prices)

Base Year...1980-81  
(Rs. in lakhs)

S.L.No.	Industry of Origin	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91*	1991-92@	1992-93\$
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
1	Agriculture	129984	130483	128638	118576	131975	137924	130949	136601	156894	154730	164013	179855	184286
2	Forestry and Logging	12982	7283	8832	5288	4749	4507	4389	3072	2998	3115	2710	2357	2051
3	Fishing	7743	5797	6958	7691	6764	7042	5917	4592	6505	5457	6166	6968	7873
4	Mining and Quarrying	461	590	481	345	540	496	647	525	1394	905	1021	1152	1290
	<b>Sub Total—Primary</b>	<b>149970</b>	<b>144153</b>	<b>144909</b>	<b>131900</b>	<b>144028</b>	<b>149969</b>	<b>141902</b>	<b>144790</b>	<b>167731</b>	<b>164207</b>	<b>173910</b>	<b>184332</b>	<b>195500</b>
5	Manufacturing	53152	57178	62187	58565	56916	58480	52345	59886	67569	81268	90046	100032	110560
5.1	Registered	29030	31028	32324	32388	30865	31114	25442	38518	46930	53893	61885	71063	81012
5.2	Un-registered	24122	26150	29863	26177	26051	27366	26903	21968	20639	27375	28161	28969	29548
6	Electricity, Gas & Water supply	5509	3394	2438	1334	2698	1518	3157	1845	1635	6786	7732	8742	9665
6.1	Electricity	5077	2885	2055	855	2566	891	2240	780	512	5484	6204	7019	7931
6.2	Gas	83	84	87	95	67	354	612	645	717	794	974	1119	1276
6.3	Water Supply	347	425	326	404	265	273	305	420	466	508	534	604	658
7	Constructions	34496	31495	28944	31405	31509	35732	33176	31876	33599	37280	38827	40438	42056
	<b>Sub Total—Secondary</b>	<b>93157</b>	<b>92067</b>	<b>93569</b>	<b>91924</b>	<b>91923</b>	<b>95730</b>	<b>88678</b>	<b>93607</b>	<b>104863</b>	<b>125394</b>	<b>136605</b>	<b>148212</b>	<b>162481</b>
8	Transport, Storage & Communication	13625	14271	14832	15691	18644	21034	22214	24012	24819	23125	25643	26124	26633
8.1	Railways	419	646	629	686	705	636	807	872	879	837	896	899	903
8.2	Trd. other means & storage	10770	10841	11352	11879	14717	16967	17966	19598	19755	19933	20462	20354	20357
8.3	Communication	2436	2784	2851	3126	3222	3231	3441	3602	4185	4335	4595	4871	5163
9	Trade, Hotel & Restaurants	57577	57999	59707	56968	60964	61085	60089	61849	67794	71177	72600	74032	75334
10	Banking and Insurance	11428	12098	13564	14914	16867	19193	20329	27145	28974	33396	40579	47072	54604

11	Real Estate & Ownership of Dwellings	12198	12166	12567	12178	11840	9011	7689	6324	8448	2760	2869	2956	3045
12	Public Administration	15193	19375	17005	17515	19267	20208	22898	25289	28786	30085	31801	33815	35844
13	Other Services	29185	29953	30808	31276	31825	32366	32887	33587	34083	34258	35178	35693	36227
	Sub Total—Tertiary	139146	141261	148378	147944	158807	162937	168717	178166	185816	199406	208765	219712	231877
14	Net State Domestic Product	382273	377481	386851	371168	394158	408636	399297	416563	439410	488497	519280	533256	589858
15	Mid-year Population ('000). @	25244	25646	26031	26412	26788	27159	27325	27886	28241	28591	28996	29276	29610
16	Per Capita Income (Ra.) @	1514	1472	1486	1405	1471	1505	1451	1492	1623	1710	1795	1890	1992

\* Provisional      @ Quick estimates      § Anticipated

Sources: Department of Economics and Statistics except for items under 15 and 16.

## APPENDIX 2.2

Net State Domestic Product at Factor Cost by Industry of Origin (At Current Prices) Base Year—1980-81

(Rs. in Lakhs)

Sl. No	Industry of Origin	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91*	1991-92@	1992-93\$
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
1	Agriculture	129384	131163	153826	199323	214908	203596	234755	261685	285915	308536	336304	366372	399563
2	Forestry and Logging	12382	8048	14361	8097	8448	9018	9872	7170	6287	9691	9497	9307	9121
3	Fishing	7743	6292	7923	8939	8942	11777	12104	10661	16845	28370	39151	45415	52681
4	Mining and Quarrying	461	640	754	690	1014	920	912	1159	1966	2219	2504	2826	3165
	Sub Total—Primary	149970	146143	176867	217048	233312	225251	257643	280675	311013	348816	337455	424120	464530
5	Manufacturing	53152	61585	71171	75013	79448	86335	90178	112815	131873	177944	213700	256944	307452
5.1	Registered	29030	33461*	36610	41755	45368	47610	48892	75186	92453	120182	147776	181705	221680
5.2	Un-Registered	24122	28124	34561	33258	34080	38725	41286	37629	39420	57762	65924	75239	85772
6	Electricity, Gas & Water supply	5509	9647	2797	1785	4307	2360	5920	3420	3163	12585	14242	16025	18004
6.1	Electricity	5077	3111	2283	1102	3772	1363	4305	1523	1014	10140	11268	12521	19898
6.2	Gas	85	95	101	109	87	459	909	960	1099	1177	1443	1655	1887
6.3	Water Supply	347	441	401	575	448	538	706	937	1050	1268	1531	1849	2219
7	Construction	34496	38427	42657	52889	60378	77439	76657	82617	94989	102161	112469	123817	136199
	Sub Total—Secondary	93157	103659	116625	129687	144133	166134	172755	198852	230025	292690	340411	396786	461655
8	Transport, Storage & Communication	13625	14725	16781	23676	32009	37448	44678	56718	64082	73748	86996	99694	114230
8.1	Railways	419	835	1010	1181	1039	1529	1898	2967	3336	2831	3601	4469	5497
8.2	Tran. other means & storage	10770	11482	14769	18976	26838	31446	37016	47032	40593	59076	67937	77448	88290
8.3	Communication	2436	2408	3002	3519	4132	4473	5764	6719	10253	11791	15458	17777	20449
9	Trade, Hotel & Restaurants	57577	60383	70111	81958	88750	89131	107859	125020	129161	142853	157137	1728851	190136
10	Banking and Insurance	11428	16206	19803	22873	27198	31424	37053	39339	49637	61310	74185	87538	103295
11	Real Estate & Ownership of Dwellings	12198	12359	13152	12868	13159	10463	9055	7572	4347	4031	4354	4663	4993
12	Public Administration	15133	16873	17489	19259	25191	30806	39146	44417	48096	55206	58518	62029	65731
13	Other Services	29183	34625	38322	44959	50393	59684	67248	79143	81811	87809	97119	106589	116071
	Sub Total—Tertiary	139146	153171	177658	205593	236700	238956	305039	346229	377134	424957	478309	533364	594476
14	Net State Domestic Product	382273	404973	471150	552328	614145	650341	735437	825756	918172	1066463	1206176	1354270	1520661
15	Mid-Year Population ('000)	25244	25646	26031	26412	26788	27159	27523	27886	28241	28591	28936	29276	29610
16	Per Capita Income (Rs)@	1514	1579	1810	2091	2293	2395	2672	2961	3251	3730	4168	4626	5136

\* Provisional @ Quick estimates \$ Anticipated

Source: Department of Economics and Statistics except for items under 15 and 16.

## APPENDIX 2.3

Sector-wise distribution of Net Domestic Products of Districts at Factor cost (New Series)

(Rs. in lakhs)

Sl. No.	District	Year	At Current Prices				At Constant (1990-91) Prices			
			Primary	Secondary	Tertiary	Total	Primary	Secondary	Tertiary	Total
1.	Thiruvananthapuram	1980-81	12166 (31.7)	9742 (25.4)	16426 (42.9)	38334 (100)	12166 (31.74)	9742 (25.41)	16426 (42.85)	38334 (100)
		1990-91	28463 (23.5)	33162 (27.38)	59512 (49.12)	121137 (100)	13324 (25.04)	13306 (25.00)	26586 (49.96)	53216 (100)
		1991-92	31038 (22.92)	38229 (28.23)	66155 (48.85)	135422 (100)	14143 (24.96)	14368 (25.36)	28148 (49.68)	56659 (100)
2.	Kollam	1980-81	19708 (45.50)	10068 (23.20)	13533 (31.30)	43309 (100)	19708 (45.50)	10068 (23.25)	13533 (31.25)	43309 (100)
		1990-91	35839 (36.02)	26370 (26.50)	37282 (37.48)	99491 (100)	15011 (35.78)	10720 (25.55)	16226 (38.67)	41957 (100)
		1991-92	39201 (35.10)	30866 (27.64)	41611 (37.26)	111678 (100)	15949 (35.57)	11756 (26.22)	17137 (36.21)	44842 (100)
3.	Pathanamthitta	1990-91	17114 (33.52)	13801 (27.03)	20135 (39.45)	51050 (100)	8110 (35.44)	5619 (24.56)	9152 (40.00)	22881 (100)
		1991-92	18532 (32.40)	16134 (28.21)	22530 (39.39)	57196 (100)	8536 (34.98)	6147 (25.19)	9719 (39.83)	24402 (100)
4.	Alappuzha	1980-81	10149 (32.9)	7675 (24.9)	13043 (42.2)	30867 (100)	10149 (32.88)	7675 (24.86)	13043 (42.26)	30867 (100)
		1990-91	25977 (30.84)	24334 (28.89)	33922 (40.27)	84233 (100)	10967 (30.85)	9929 (27.93)	14655 (41.22)	35551 (100)
		1991-92	28938 (30.42)	28424 (29.88)	37759 (39.70)	95121 (100)	11689 (30.84)	10831 (28.58)	15383 (40.58)	37903 (100)
5.	Kotrayam	1980-81	10777 (43.67)	3616 (14.65)	10287 (41.68)	24680 (100)	10777 (43.67)	3616 (14.65)	10287 (41.68)	24680 (100)
		1990-91	30447 (38.75)	13145 (16.73)	34937 (44.52)	78579 (100)	14736 (41.60)	5519 (15.58)	15172 (42.82)	35427 (100)
		1991-92	33390 (38.0)	15460 (17.60)	39006 (44.4)	87856 (100)	15626 (41.46)	6081 (16.13)	15986 (42.41)	37693 (100)
6.	Idukki	1980-81	10506 (54.48)	5469 (28.36)	3310 (17.16)	19285 (100)	10506 (54.48)	5469 (28.36)	3310 (17.16)	19285 (100)
		1990-91	25941 (43.96)	22013 (37.30)	11062 (18.74)	59016 (100)	12371 (47.57)	8843 (34.0)	4791 (18.43)	26005 (100)
		1991-92	28144 (42.47)	25967 (39.09)	12316 (18.44)	66427 (100)	19041 (46.74)	9848 (35.30)	5012 (17.96)	27901 (100)
7.	Ernakulam	1980-81	12830 (25.12)	18385 (36.0)	19847 (38.88)	51062 (100)	12830 (25.13)	18385 (36.0)	19847 (38.87)	51062 (100)
		1990-91	40512 (22.71)	72528 (40.65)	65370 (36.64)	178410 (100)	17788 (23.63)	29021 (38.54)	28484 (37.83)	75293 (100)
		1991-92	48514 (23.25)	85452 (40.82)	73414 (35.93)	204380 (100)	18937 (23.30)	32078 (39.48)	30252 (37.22)	81267 (100)
8.	Thrisur	1980-81	12263 (34.44)	9083 (25.51)	14263 (40.05)	35609 (100)	12263 (34.44)	9083 (25.51)	14263 (40.05)	35609 (100)
		1990-91	32509 (28.45)	33117 (28.99)	48628 (42.56)	114254 (100)	14154 (29.30)	13166 (27.25)	20987 (43.45)	48307 (100)
		1991-92	35558 (27.71)	38482 (29.98)	54301 (42.31)	128341 (100)	15017 (29.18)	14362 (27.91)	22079 (42.91)	51458 (100)
9.	Palakkad	1980-81	10758 (40.41)	6179 (23.21)	9684 (36.31)	26621 (100)	10758 (40.41)	6179 (23.21)	9684 (36.38)	26621 (100)
		1990-91	25100 (31.92)	20743 (26.38)	32788 (41.70)	78626 (100)	12101 (34.56)	8331 (23.79)	14580 (41.65)	35012 (100)
		1991-92	27423 (31.23)	23881 (27.20)	36496 (41.57)	87800 (100)	12814 (34.57)	8951 (24.15)	15302 (41.28)	37067 (100)

Sl. No.	District	Year	At Current Prices				At Constant (1990-91) Prices			
			Primary	Secondary	Tertiary	Total	Primary	Secondary	Tertiary	Total
(1)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
10.	Malappuram	1980-81	11986 (48.09)	3309 (13.24)	9637 (38.67)	24925 (100)	11986 (48.09)	3900 (13.24)	9637 (38.67)	24925 (100)
		1990-91	32762 (43.00)	10940 (14.36)	32487 (42.64)	76189 (100)	13607 (42.88)	4169 (13.14)	13955 (43.98)	31731 (100)
		1991-92	35292 (42.39)	12345 (14.46)	36123 (43.15)	83760 (100)	14287 (42.94)	4434 (13.33)	1455 (43.73)	233273 (100)
11.	Kozhikode	1980-81	16048 (38.65)	10915 (26.26)	14598 (35.09)	41561 (100)	16048 (38.62)	10915 (26.26)	14598 (35.12)	41561 (100)
		1990-91	29057 (26.87)	34921 (33.29)	44174 (40.84)	108152 (100)	12397 (27.30)	13972 (30.76)	19048 (41.94)	45417 (100)
		1991-92	31661 (20.06)	40695 (35.50)	49128 (40.44)	121484 (100)	13178 (27.28)	15231 (31.54)	19891 (41.18)	48300 (100)
12.	Wayanad	1990-91	16441 (55.87)	6048 (20.55)	6940 (23.58)	29429 (100)	7879 (59.00)	2501 (18.73)	2975 (22.27)	13355 (100)
		1991-92	17847 (54.54)	7139 (21.82)	7736 (23.64)	32722 (100)	8315 (58.66)	2737 (19.31)	3122 (22.03)	14174 (100)
13.	Kannur	1980-81	22779 (48.88)	8725 (18.72)	15099 (32.40)	46608 (100)	22779 (48.88)	8725 (18.72)	15099 (32.40)	46608 (100)
		1990-91	29896 (34.70)	20222 (23.80)	36027 (41.50)	86145 (100)	13911 (37.45)	7943 (21.38)	15296 (41.17)	37150 (100)
		1991-92	32650 (34.00)	23273 (24.24)	40100 (41.76)	96023 (100)	14763 (37.58)	8551 (21.77)	15967 (40.65)	39281 (100)
14.	Kasargode	1990-91	17398 (41.96)	9067 (21.87)	1500 (36.17)	41465 (100)	7554 (42.02)	3566 (19.84)	6858 (38.14)	17978 (100)
		1991-92	18932 (41.10)	10439 (22.66)	16689 (36.24)	46060 (100)	8037 (42.22)	3837 (20.16)	7162 (37.62)	19036 (100)
Kerala		1980-81	149970 (39.2)	93157 (24.3)	139727 (36.5)	382854 (100)	149970 (39.17)	93157 (24.23)	139727 (36.60)	382854 (100)
		1990-91	387456 (32.12)	340411 (28.23)	478309 (39.65)	1206176 (100)	173910 (33.49)	136605 (26.31)	208765 (40.20)	519280 (100)
		1991-92	424120 (31.32)	396786 (29.30)	533364 (39.38)	1354270 (100)	184332 (33.32)	149212 (36.97)	219712 (39.71)	553256 (100)

Note: 1. Figures for 1990-91 are provisional estimates

2. Figures for 1991-92 are quick estimates.

Source: Department of Economics and Statistics.



## APPENDIX 2.4

District-wise Distribution of State Incomes at Constant (1980-81) Prices and 1991-92

(Rs. in lakhs)

Sl. No.	District	1980-81				1991-92				Population ('000)*	
		Primary	Secondary	Tertiary	Total	Primary	Secondary	Tertiary	Total	1980-81	1991-92
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1	Thiruvananthapuram	12166 (8.11)	9742 (10.46)	16426 (11.78)	38334 (10.01)	14143 (7.67)	14368 (9.63)	28148 (12.81)	56659 (10.24)	2567 (10.17)	2965 (10.13)
2	Kollam	19708 (13.14)	10068 (10.81)	13533 (9.69)	43309 (11.31)	15949 (8.65)	11756 (7.88)	17137 (7.80)	44842 (8.11)	2804 (11.11)	2421 (8.27)
3	Pathanamthitta	..	..	..	..	8536 (4.63)	6147 (4.12)	9719 (4.42)	24402 (4.41)	..	1196 (4.08)
4	Alapuzha	10149 (6.77)	7675 (8.24)	13043 (9.33)	30867 (8.06)	11689 (6.34)	10831 (7.26)	15383 (7.00)	37903 (6.85)	2340 (9.27)	2013 (6.88)
5	Kottayam	10777 (7.19)	3616 (3.88)	10287 (7.36)	24680 (6.45)	15626 (8.48)	6081 (4.07)	15986 (7.28)	37693 (6.81)	1688 (6.68)	1840 (6.29)
6	Idukki	10506 (7.00)	5469 (5.87)	3310 (2.37)	19285 (5.04)	13041 (7.07)	9848 (6.60)	5012 (2.28)	27901 (5.04)	961 (3.81)	1085 (3.70)
7	Ettakulam	12830 (8.56)	18385 (19.74)	19847 (14.20)	51062 (13.34)	18937 (10.27)	32078 (21.50)	30252 (13.77)	81267 (14.69)	2517 (9.97)	2834 (9.68)
8	Thrissur	12263 (8.18)	9083 (9.75)	14263 (10.21)	35609 (9.30)	15017 (8.15)	14362 (9.63)	22079 (10.05)	51458 (9.30)	2420 (9.59)	2753 (9.41)
9	Palakkad	10758 (7.17)	6179 (6.63)	9684 (6.93)	26621 (6.95)	12814 (6.95)	8951 (6.00)	15302 (6.97)	37067 (6.70)	2024 (8.02)	2397 (8.19)
10	Malappuram	11986 (7.99)	3300 (3.54)	9637 (6.90)	24923 (6.51)	14287 (7.75)	4434 (2.97)	14552 (6.62)	33273 (6.01)	2371 (9.39)	3116 (10.64)
11	Kozhikode	16048 (10.70)	10915 (11.72)	14598 (10.45)	41561 (10.86)	13178 (7.16)	15231 (10.21)	19891 (9.05)	48300 (8.73)	2603 (10.31)	2636 (9.00)
12	Waynad	..	..	..	..	8315 (4.51)	2737 (1.83)	3122 (1.42)	14174 (2.56)	..	676 (2.31)
13	Kannur	22779 (15.19)	8725 (9.36)	15099 (10.80)	46603 (12.17)	14763 (8.01)	8551 (5.73)	15967 (7.27)	39281 (7.11)	2949 (11.68)	2265 (7.74)
14	Kasargode	..	..	..	..	8037 (4.36)	3837 (2.57)	7162 (3.26)	19036 (3.44)	..	1078 (3.68)
	State Domestic Product	149970 (100)	93157 (100)	139727 (100)	382854 (100)	184332 (100)	149212 (100)	219712 (100)	553256 (100)	25244 (100)	292768 (100)

Figures in bracket indicates Percentage to the State total

Q—quick estimate

\*—mid year population

## APPENDIX 2.5

*Distribution of Work Seekers in Kerala by Educational Levels*

Year as on 31st December	Total Work Seekers	Below S.S.L.C.	S.S.L.C.	Pre-Degree	Graduates	Post Graduates	S.S.L.C. & Above	% to Total Work Seekers
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1980	1579164	765141	658652	79310	67841	8220	814023	51.55
1981	1903719	979830	748898	90254	77694	7043	923889	48.53
1982	2086056	1049320	842772	102644	84161	7159	1036736	49.70
1983	2262240	1128860	920622	117161	88557	7040	1133380	50.10
1984	2458206	1194453	1050073	121369	84025	8286	1263753	51.40
1985	2574074	1208724	1116495	148464	90329	10062	1363350	53.05
1986	2704874	1209462	1251793	136193	97217	10209	1495412	55.30
1987	2991022	1270764	1434413	161155	111008	13682	1720258	57.50
1988	2901051	1185145	1438051	160233	100390	17292	1715906	59.10
1989	3092031	1204737	1565709	1888978	111972	21235	1887294	61.04
1990	3320035	1227319	1655465	275725	135213	28313	2092716	63.03
1991	3638804	1318514	1885304	257173	150014	27799	2320290	63.78
1992*	3964101	1385581	2094077	292757	162824	28862	2578520	65.04

Source: Directorate of Employment, Thiruvananthapuram

\*Upto 30-9-1992.

## APPENDIX 2.6

*No. of Professional and Technical Work Seekers Kerala*

Year as on 31st December	Medical Graduates	Engineering Graduates	Diploma holders in Engineering & Technology	ITI Certificate Holders	Agricultural Graduates	Veterinary Graduates	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1980	871	1505	6833	28873	106	17	38205
1981	681	1217	7866	33569	103	14	43450
1982	912	1662	7824	36043	195	15	46651
1983	829	1757	9756	41682	218	14	54256
1984	1035	2312	11646	68452	263	42	83750
1985	1143	2917	11257	53237	149	25	68728
1986	1270	3805	14812	59225	209	14	79335
1987	1728	4916	17062	63056	177	72	87011
1988	1334	4380	16766	64629	324	49	87482
1989	1481	5649	19273	70971	446	26	97846
1990	1559	6093	19068	78212	318	10	105260
1991	1959	6933	19902	71651	331	85	100861
1992*	2873	7920	27126	81536	165	79	119719

\*Upto 30-9-1992

## APPENDIX 2.7

*Employment in the Organised Sector—Kerala**(Index Base 31-3-1985=100)*

Year ending as on 31st December	Public Sector		Private Sector		Total	
	No.	Index	No.	Index	No.	Index
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1970	293318	52.1	409562	80.1	702880	65.4
1975	418151	74.2	462712	90.5	880863	82.0
1980	496659	88.2	526459	103.0	1023118	95.2
1981	516478	91.7	528909	103.4	1044787	97.3
1982	536864	95.3	518282	101.4	1055146	98.2
1983	550670	97.8	519512	101.7	1070182	99.6
1984	56587	100.4	513503	100.5	1079090	100.5
1985	568713	101.0	507375	99.3	1076088	100.2
1986	576784	102.4	519115	101.6	1095899	102.0
1987	585391	104.0	508917	99.6	1094308	101.9
1988	602696	107.0	501653	98.2	1104349	102.8
1989	620254	110.1	486354	95.2	1106608	103.0
1990	634379	112.6	517815	101.3	1152194	107.3
1991	369155	113.5	525900	102.9	1165055	108.4
31-3-1992	653128	116.0	528005	103.3	1181133	109.9

Source: Directorate of Employment, Thiruvananthapuram.

## APPENDIX 2.8

Unemployment Assistance Scheme : Kerala 1982-83 to 1991-92

(Rs. in lakhs)			
Year	Application <sup>a</sup> received	No. of Beneficiaries	Amount disbursed
(1)	(2)	(3)	(4)
1982-83	161211	44011	80.22
1983-84	44744	98261	649.79
1984-85	102939	136471	768.52
1985-86	48715	179140	1012.08
1986-87	113809	218446	835.00
1987-88	92555	205556	1095.65
1988-89	64887	215456	2353.77
1989-90	81159	246040	1996.37
1990-91	118279	264314	1934.88
1991-92	99814	260196	1619.64


Source: Directorate of Employment, Thiruvananthapuram

## APPENDIX 2.9

Category-wise Distribution of Person Deployed by ODEPEC during 1992

Category	No. of Person Deployed
(1)	(2)
Doctors	31
Salesman	16
Labourers	22
Carpenters	7
X-Ray Technician	7
Staff Nurses	7

(1)	(2)
Lab. Technicians	6
Electricians	3
Pharmacist	3
Drivers	3
Accountants	2
Updaters	2
Sales Supervisors	2
Merchandisers	2
Anaesthesia Technicians	2
Fabricators	3
Diet Specialists	2
Forklift Operator	2
Secretary	1
Varnisher	1
House Boy	1
Computer Programmes	1
Operator Theatre Tech	1
Foreman	1
Mechanic	1
Welder	1
Rigger	1
Physiotherapist	1
House Maid	1
Receptionist	1
Chef	1
Baker	1
Cook	1
<b>Total</b>	<b>137</b>

APPENDIX 2.10  
  
 Area and Population — 1991.

District	Area (in Sq. Kms.)			Population (No.)											
	Rural		Total	Rural			Urban			Total					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)		
Kasaragod	1887.22	104.78	1992.00	442648	452694	895282	86155	90071	176226	528808	542705	1071508			
Kannur	2318.86	647.14	2966.00	545613	560698	1106251	592225	592251	1145476	1098888	1152869	2251727			
Wayanad	2096.86	94.14	2191.00	390174	319005	649179	11784	11165	22949	341958	390170	672128			
Kozhikode	2004.99	399.67	2944.00	796989	819061	1615444	496882	508115	1004497	1292765	1327176	2619941			
Malappuram	9378.48	171.52	9550.00	1969418	1444488	2812876	198862	143592	282454	1508280	1588050	3096390			
Palakkad	4258.15	221.85	4480.00	972765	1094899	2007688	189057	191520	374577	1155822	1226419	2982295			
Thiruvnr	2790.80	901.20	3092.00	964599	1052502	2017095	348090	972126	720216	1312683	1424628	2797931			
Ernakulam	1865.98	541.62	2407.00	722790	721329	1444059	685919	887258	197377	1408649	1408587	2817296			
Idukki	4951.57	67.43	5019.00	520908	506877	1027185	25564	25917	50881	545872	532194	1078066			
Kottayam	2094.43	168.57	2209.00	752958	754995	1507953	160502	160416	320918	912860	915411	1828271			
Alappuzha	1125.92	288.08	1414.00	677951	714256	1391607	298594	311076	609610	975885	1025392	2001217			
Pathanamthitta	2541.72	100.28	2642.00	500965	582399	1093298	75211	79823	155094	576176	612156	1188332			
Kollam	2972.56	118.44	2491.00	962181	999549	1961530	220629	223407	446096	1182810	1224756	2407566			
Thiruvananthapuram	1994.51	257.49	2192.00	955901	999106	1948407	492293	505950	998243	1447594	1499056	2946650			
Kerala	35500.79	3962.21	39869.00	10512788	10905496	21418224	9776207	3904087	7680294	14288995	14809523	29098518			

Source: N. I. C. Kerala State Unit.

## APPENDIX 2.11

*Birth, Death and Infant Mortality Rates of Kerala and All India*

Year	Kerala				India			
	Birth rate	Death rate	Natural growth rate	Infant rate	Birth rate	Death rate	Natural growth rate	Infant death rate
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1980	26.8	7.0	1.98	40	33.7	12.6	2.11	114
1981	25.6	6.6	1.90	37	33.9	12.5	2.14	110
1982	26.2	6.6	1.96	30	33.8	11.9	2.19	105
1983	24.9	6.7	1.82	33	33.6	11.9	2.17	105
1984	22.7	6.4	1.63	29	33.8	12.5	2.13	104
1985	22.9	6.4	1.65	32	32.7	11.7	2.10	95
1986	22.5	6.1	1.64	27	32.6	11.1	2.15	96
1987	21.7	6.1	1.56	28	32.2	10.9	2.13	95
1988	20.3	6.4	1.90	28	31.5	11.0	2.05	94
1989	20.3	6.1	1.42	21	30.6	10.3	2.03	91
1990	19.6	6.0	1.36	17	29.9	9.6	2.03	88
19 91	18.1	6.0	1.21	17	29.3	9.8	1.95	80

Source: (1) Statistics for Planning 1988.  
 (2) Sample Registration.  
 (3) Directorate of Economics and Statistics.

## APPENDIX 2.12

*Estimated Annual Live Birth Rates for States and Union Territories—1991**(Provisional)*

States/Union Territories	Combined	Rural	Urban
<b>INDIA*</b>			
Bigger States	29.3	30.8	24.1
Andhra Pradesh	26.6	26.4	24.4
Assam	30.9	31.7	21.3
Bihar	30.5	31.2	25.0
Gujarat	27.5	28.2	25.9
Haryana	33.1	34.7	27.2
Himachal Pradesh	28.4	29.2	18.6
Karnataka	26.8	27.8	23.9
Kerala	18.1	18.2	18.1
Madhya Pradesh	35.8	37.3	29.6
Maharashtra	26.2	28.0	22.9
Orissa	28.8	29.6	21.4
Punjab	28.6	29.8	25.6
Rajasthan	34.3	35.2	30.4
Tamilnadu	20.7	20.8	20.4
Uttar Pradesh	35.1	36.7	28.3
West Bengal	26.7	30.0	18.1
<b>Other States &amp; Union Territories</b>			
Arunachal Pradesh	30.9	31.6	24.0
Goa	16.8	16.7	16.8
Manipur	19.6	20.3	17.3
Meghalaya	32.4	35.4	18.7
Nagaland	18.5	20.4	10.1
Sikkim	26.5	29.1	14.2
Tripura	24.4	25.4	15.5
A & N Islands	19.9	21.5	14.8
Chandigarh	14.1	19.2	13.6
Dadra & Nagar Haveli	13.4	13.4	0.0
Daman & Diu	27.8	34.4	17.0
Delhi	24.1	28.7	23.7
Lakshadweep	27.1	30.0	23.8
Pondicherry	18.9	20.1	18.0

Source: Sample Registration

\*Excludes Jammu &amp; Kashmir.

## APPENDIX 2.13

*Estimated Annual Death Rates for States and Union Territories-1991**(Provisional)*

States/Union Territories	Combined	Rural	Urban
INDIA*	9.8	10.5	7.0
Bigger States			
Andhra Pradesh	9.7	10.5	6.7
Assam	11.5	11.8	6.9
Bihar	9.8	10.2	6.2
Gujarat	8.5	8.8	7.8
Haryana	8.2	8.5	6.8
Himachal Pradesh	8.9	9.1	5.8
Karnataka	9.0	9.7	6.9
Kerala	6.0	6.1	5.2
Madhya Pradesh	13.8	14.9	9.1
Maharashtra	8.2	9.3	6.2
Orissa	12.7	13.4	6.4
Punjab	8.0	8.9	5.7
Rajasthan	9.8	10.2	7.7
Tamilnadu	8.8	9.5	7.3
Uttar Pradesh	11.1	11.8	8.0
West Bengal	8.1	8.7	7.5
Other States & Union Territories			
Arunachal Pradesh	13.5	14.5	3.5
Goa	7.5	8.0	6.4
Manipur	5.5	5.6	5.2
Meghalaya	8.8	9.9	4.0
Nagaland	9.3	3.9	0.8
Sikkim	8.8	10.1	3.0
Tripura	7.6	7.7	6.4
A&N Islands	5.7	6.4	3.7
Chandigarh	4.0	6.2	3.9
Dadra & Nagar Haveli	11.4	11.4	0.0
Daman & Diu	9.0	10.5	6.5
Delhi	6.0	7.3	5.9
Lakshadweep	4.7	6.4	2.7
Pondicherry	6.4	7.2	5.7

Source: Sample Registration

\*Excludes Jammu &amp; Kashmir.



## APPENDIX 2.14

*Estimated Annual Infant Mortality Rates for States—1991**(Provisional)*

States/Union Territories	Combined	Rural	Urban
INDIA*	80	86	52
Andhra Pradesh	73	77	56
Assam	81	83	42
Bihar	69	71	45
Gujarat	69	73	57
Haryana	68	73	49
Himachal Pradesh	75	76	38
Karnataka	77	87	47
Kerala	17	17	16
Madhya Pradesh	222	131	73
Maharashtra	60	69	38
Orissa	126	131	70
Punjab	53	58	40
Rajasthan	77	82	50
Tamil Nadu	57	65	41
Uttar Pradesh	93	97	73
West Bengal	70	76	46

Source: Sample Registration

## APPENDIX 3.1

*Wholesale Price Index of Agricultural Commodities—Kerala 1992*

(Base: 1952-53=100)

Crops (1)	January	February	March	April	May	June	July	Aug- ust	Sept- ember	Octo- ber	Nov- ember	Average*
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1. Rice	638.1	638.1	638.1	638.1	638.1	638.1	638.1	638.1	638.1	638.1	638.1	638.1
2. Molasses	1037.3	968.2	962.4	1019.7	1063.6	1131.8	1174.0	1249.4	1275.7	1046.4	1482.6	1161.0
3. Condiments and spices	1524.2	1572.3	1587.3	1870.0	2028.2	2030.1	1690.2	1587.8	1536.6	1349.2	1596.5	1688.4
4. Fruits & Vegetables	1497.6	1524.7	1534.3	1569.4	1528.1	1514.2	1541.2	1579.4	1633.2	1667.8	1685.0	1570.5
5. Food Crops	940.6	950.8	954.7	1008.5	1028.7	1028.9	979.4	971.5	973.1	985.2	998.3	983.6
6. Oil Seeds	2581.7	2551.6	2365.8	2470.3	2475.0	2489.6	2501.0	2556.8	2607.0	2676.4	2701.3	2543.3
7. Plantation Crops	888.8	921.3	979.8	994.4	999.1	963.3	927.9	935.3	941.2	9564.4	921.1	948.1
8. Non-Food Crops	2070.4	2059.2	1947.2	2024.6	2029.3	2028.7	2026.0	2067.1	2103.9	2157.0	2163.7	2061.6
All Crops	1353.0	1355.4	1317.0	1379.4	1393.9	1393.8	1361.4	1371.4	1385.8	1412.9	1423.7	1377.1

Source: Department of Economics and Statistics

\* Eleven Month's Average

APPENDIX 3.2

Average Retail Prices of Essential Commodities for the year 1992

Sl. No	Name of commodity	Unit	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)	(15)
1.	Rice (OM)	Kg.	7.52	7.40	7.17	7.31	7.54	7.71	7.89	8.05	7.89	7.65	7.55	7.69
2.	Greengram	"	12.28	12.75	13.11	14.78	16.28	19.95	17.43	17.12	15.88	14.44	14.01	14.20
3.	Blackgram (Split without husk)	"	13.93	13.75	13.33	13.58	13.88	14.22	16.64	14.87	14.61	14.40	14.05	13.89
4.	Redgram	"	9.26	9.44	9.05	8.88	8.97	9.00	9.58	10.57	11.25	11.11	10.26	10.25
5.	Dhal	"	19.74	19.42	18.75	18.58	18.77	18.62	19.25	19.71	19.58	19.19	19.22	19.53
6.	Sugar (OM)	"	8.97	9.03	8.83	9.09	9.61	9.42	9.47	9.60	9.95	9.91	9.70	9.66
7.	Milk (Cow's)	Ltr.	6.82	6.86	6.86	6.86	6.86	6.86	6.86	6.86	7.38	7.65	7.68	7.68
8.	Tea (Kannan Devan)	1/2 Kg.	29.50	29.50	29.71	30.78	31.27	31.47	31.47	31.50	31.50	31.50	31.50	31.50
9.	Coffee powder (Brook Brand)	"	24.49	24.50	24.46	24.43	24.43	24.43	24.45	24.50	24.50	24.55	24.93	25.18
10.	Baby Food (Arun)	Kg.	76.28	77.18	77.46	78.49	78.60	78.62	78.62	78.85	80.53	81.15	81.50	81.50
11.	Egg (Hen's)	Doz.	10.80	10.69	10.46	9.46	10.62	11.68	11.95	11.00	11.85	11.75	12.91	13.02
12.	Mutton (with bones)	Kg.	46.16	46.90	47.64	49.08	49.36	50.48	51.40	52.14	52.28	52.77	53.83	54.68
13.	Coconut Oil	"	53.89	51.44	45.57	46.99	46.72	46.98	46.08	50.08	50.47	51.57	51.65	51.94
14.	Ground Oil	"	44.12	43.19	42.42	41.49	41.17	40.72	39.96	41.90	43.34	42.51	41.75	40.61
15.	Refined Oil (Postman)	Kg.	65.39	65.44	65.40	65.32	64.39	64.60	63.92	62.86	62.49	62.23	62.14	62.27
16.	Gingelly Oil	"	44.86	44.45	42.76	42.23	42.31	41.04	40.15	41.09	40.97	40.48	39.90	39.59
17.	Coconut (without husk)	100 Nos.	470.09	458.48	426.43	433.04	436.07	440.89	442.00	455.53	460.47	464.42	470.85	478.49
18.	Corriander	Kg.	17.50	17.33	16.72	16.76	18.24	18.76	18.94	19.01	18.96	18.78	18.61	18.39
19.	Chillies (Dry)	"	51.04	46.50	42.96	46.18	51.15	50.69	50.18	50.57	51.55	49.51	48.18	45.48
20.	Onion (Small)	"	3.90	3.67	3.65	3.74	4.24	4.59	5.16	4.50	4.03	4.11	4.63	6.99
21.	Tamarind	"	12.27	11.82	11.82	12.02	12.30	12.49	12.80	13.30	13.26	13.26	13.47	13.72
22.	Cheennai	"	4.32	4.41	4.72	5.50	5.77	6.79	6.74	5.41	4.97	4.95	4.97	5.16

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
23.	Tapioca (raw)	Kg.	2.28	2.32	2.35	2.43	2.34	2.16	2.18	2.33	2.37	2.49	2.56	2.71
24.	Potato	"	5.52	4.53	3.93	3.86	4.19	4.74	5.64	4.72	4.22	4.13	4.05	4.55
25.	Colocasia	"	5.26	5.13	5.32	5.97	6.50	7.19	7.68	7.67	6.93	6.54	6.09	5.96
26.	Onion (big)	"	2.93	2.60	2.45	2.47	2.87	3.36	4.65	3.51	3.08	3.09	3.48	4.20
27.	Brijal	"	4.53	4.35	4.36	4.27	4.07	4.50	5.23	4.70	5.00	5.03	5.71	7.13
28.	Pumpkin	"	2.82	2.70	2.69	2.84	3.12	3.42	3.86	3.27	3.08	3.12	3.28	3.79
29.	Cucumber	"	3.06	3.28	3.33	3.94	3.60	5.01	4.53	3.31	3.63	4.68	5.62	6.60
30.	Ladies finger	"	6.00	5.58	5.74	5.83	5.43	5.47	5.75	5.11	5.19	5.68	6.78	6.34
31.	Cabbage	"	3.71	2.92	2.74	2.85	3.04	3.39	4.45	4.19	5.04	4.72	4.94	5.92
32.	Bittergourd	"	6.46	6.16	7.31	8.16	10.13	12.08	11.36	7.22	6.26	9.22	10.74	11.65
33.	Ashgourd	"	2.57	2.32	2.43	2.65	3.03	3.58	3.61	3.13	2.88	3.01	3.57	4.10
34.	Snakegourd	"	3.90	3.52	3.49	3.99	4.26	5.06	5.43	4.69	4.69	5.44	6.69	7.62
35.	Chillies (green)	"	9.82	8.35	8.13	8.99	8.29	10.13	14.63	12.17	10.83	8.22	8.39	14.19
36.	Banana (Green)	"	6.26	7.15	5.42	5.25	5.85	6.74	6.67	6.80	7.82	7.87	7.11	6.90
37.	Plantation (green)	"	3.97	3.87	3.89	3.92	4.09	4.04	4.26	4.39	4.51	4.55	4.52	4.46
38.	Tobacco	"	22.23	22.64	23.40	24.26	24.43	24.39	24.75	25.16	25.20	24.98	25.62	25.65
39.	Mundu (mull)	each	28.57	29.16	29.06	29.12	29.75	30.09	30.36	30.68	31.22	30.99	31.17	31.13
40.	Washing soda	Kg.	8.45	8.46	8.43	8.46	8.48	8.62	8.70	8.77	8.90	9.36	9.58	9.62
41.	Washing soap	Bar	4.98	4.97	4.97	4.97	4.97	4.97	4.97	4.98	5.00	5.00	5.00	5.00
42.	Toilet Soap (Lux)	each	5.06	5.00	5.00	5.00	5.00	5.11	5.17	5.24	5.33	5.41	5.50	5.50
43.	Toothpaste (100 gm)	"	11.84	12.12	12.30	12.33	12.96	12.41	12.41	12.42	12.72	12.94	13.00	13.00
44.	Razor Blade	5 Nos.	4.14	4.16	4.16	4.15	4.15	4.17	4.18	4.19	4.19	4.18	4.29	4.30
45.	Capcin	2 tab.	0.56	0.56	0.57	0.57	0.57	0.57	0.57	0.58	0.58	0.58	0.58	0.59
46.	Electric bulb	each	8.39	8.54	8.61	8.63	8.63	8.64	8.71	8.79	8.55	8.83	8.83	8.95
47.	Torch Battery (eveready)	each	5.47	5.48	5.48	5.50	5.50	5.50	5.54	5.61	5.69	5.82	5.85	5.95
48.	Paper	24 sheets	4.61	4.62	4.65	4.72	4.73	4.82	4.83	4.84	4.85	4.84	4.83	4.87
49.	Pine wood	Qtl.	74.79	76.96	77.14	77.32	79.64	81.66	82.00	82.57	84.29	84.29	84.29	84.29
50.	Cement (Ordinary Bag)	each	105.95	108.28	111.83	114.92	116.88	118.63	119.95	121.92	122.26	122.12	122.31	122.13

## APPENDIX 3.3

*Consumer Price index (Cost of Living Index) Numbers for Agricultural and Industrial workers, Kerala—1992**(Base 1970 = 100)*

Centres	January	February	March	April	May	June	July	August	September	October	November
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Thiruvananthapuram	538	539	539	542	546	551	555	553	556	563	568
Kollam	558	558	557	558	563	568	573	572	576	584	589
Punalur	529	531	530	531	535	540	546	547	550	558	563
Alappuzha	534	536	536	539	544	549	554	556	560	568	572
Kottayam	539	541	540	543	548	552	558	559	561	569	574
Mundakkayam	536	538	537	540	543	548	553	556	559	566	571
Mannar	524	527	527	527	531	536	542	544	547	556	561
Ernakulam	522	524	524	527	532	537	543	545	548	557	561
Chalakydy	541	543	542	545	550	555	560	564	567	576	581
Thrisur	522	523	523	526	531	536	542	543	547	556	560
Palakkad	525	528	528	531	534	540	545	547	550	558	562
Malappuram	556	558	557	560	564	569	574	575	578	586	591
Kozhikode	538	540	539	542	546	551	555	556	560	567	571
Meppadi	552	553	552	553	558	562	566	567	570	578	585
Kannur	540	541	540	543	546	551	556	556	559	568	573

Source: Department of Economics and Statistics

1991

1992

Item	Weight	1992											
		October	November	December	January	February	March	April	May	June	July	August	September
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
All Communities	100.00	210.2	212.4	213.2	215.3	216.4	217.7	219.4	221.6	224.1	226.6	227.8	227.8
Primary Article	32.29	221.3	226.5	227.5	229.1	229.3	227.0	226.8	228.7	233.0	237.6	239.3	237.4
I. Food Articles	17.39	46.3	51.8	49.9	252.9	255.3	256.7	258.3	262.4	270.7	274.8	277.2	275.0
(i) Food Grains	7.92	216.0	221.4	230.0	243.90	246.9	245.7	243.5	242.9	245.2	247.7	253.5	248.2
(2) cereals	6.82	209.8	216.0	225.7	242.3	246.5	245.2	241.9	241.1	243.5	245.9	251.2	245.4
(ii) pulses	1.09	254.7	255.2	257.1	254.2	249.7	249.3	253.6	254.1	255.4	258.9	267.7	265.9
(iii) Fruits and Vegetables	4.05	287.6	277.4	252.5	234.6	234.2	239.8	256.7	257.8	280.9	282.9	290.4	280.5
(iv) Milk and Milk products	1.96	237.5	242.4	243.9	190.6	183.7	203.4	251.2	252.4	252.3	252.5	253.3	267.6
(v) Egg, Fish and Meat	1.78	218.8	221.9	223.2	255.00	257.5	236.5	228.9	235.8	240.5	261.6	251.8	253.8
(vi) Condiments and Spices	0.95	446.4	456.8	453.6	242.5	243.1	247.9	459.1	493.0	513.1	515.5	496.3	529.5
(vii) Other Food Articles	0.63	289.7	272.5	268.4	236.9	235.2	237.4	257.9	293.9	300.7	299.3	297.0	277.4
2. Non-Food Article	10.08	229.2	236.5	243.1	242.7	239.3	231.3	226.1	225.1	224.7	231.8	233.7	230.6
(i) Fibres	1.79	242.5	242.0	244.3	251.0	253.9	237.9	225.8	224.6	227.3	238.1	232.6	220.8
(ii) Oil Seeds	3.86	243.1	248.5	259.0	255.5	244.9	227.6	224.6	227.7	225.7	236.6	245.4	249.4
(iii) Other Non-Food Articles	4.43	211.6	223.8	227.9	228.1	228.6	231.8	227.4	222.9	222.7	225.2	223.9	223.6
3. Minerals	4.83	114.6	114.6	114.6	114.6	114.6	114.7	114.7	114.7	114.7	115.6	114.7	116.0
Petroleum Crude and Natural Gas	4.27	101.4	101.4	101.4	101.4	101.4	101.4	101.4	101.4	101.4	102.4	101.4	102.8
II Fuel Power Light and Lubricant	10.66	198.6	199.7	202.2	209.6	209.6	213.5	213.5	214.1	214.1	214.1	214.1	224.5
III Manufactured Products	57.04	206.0	206.7	207.2	208.5	210.3	213.2	216.4	219.0	220.9	222.6	221.8	223.0
1. Manufactured products (Itemwise)													
(i) Food Products	10.14	210.8	211.2	209.6	211.2	212.2	211.2	214.3	218.8	220.8	226.7	230.0	226.1
(ii) Dairy Products	0.64	224.4	232.5	233.1	236.3	244.3	261.5	259.7	262.9	263.9	264.1	266.5	254.1
(iii) Sugar, Khandsari and gas	4.06	157.7	150.2	154.0	152.8	157.0	156.8	158.0	165.2	169.6	180.0	183.5	182.7

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
2. Beverage, Tobacco, Tobacco products		2.15	270.7	271.9	271.9	272.0	272.1	284.9	284.9	291.5	292.8	292.8	292.7	292.7
3. Textiles		11.54	190.1	189.3	191.1	194.2	195.8	197.7	198.9	198.0	196.8	197.1	196.4	198.1
4. Paper and paper products		1.99	268.1	268.1	268.1	269.6	276.0	285.2	300.5	300.5	300.5	300.9	288.4	295.2
5. Leather and Leather products		1.02	231.6	225.2	226.9	227.7	227.7	228.4	228.6	230.5	230.5	226.8	224.0	223.5
6. Rubber and Plastic products		1.59	170.3	170.3	170.3	171.7	176.5	180.4	184.6	184.9	184.9	184.9	184.9	184.9
7. Chemical and Chemical products		7.36	171.6	174.6	174.9	175.7	176.7	177.7	178.6	180.5	182.9	183.7	183.8	184.8
(i) Fertilisers		1.75	136.2	136.2	136.2	136.2	136.2	127.6	127.6	127.6	127.6	127.6	127.6	127.6
(ii) Pesticides		0.20	203.7	203.7	203.7	205.2	206.7	206.7	206.7	206.7	207.9	199.6	206.3	199.6
(iii) Drugs and Medicines		1.06	160.3	161.6	161.7	161.8	162.6	165.8	165.8	166.3	168.4	168.9	168.7	169.3
8. Non-Metallic Minerals products		2.48	217.7	215.8	213.5	213.6	220.7	229.9	230.8	230.3	231.4	233.7	237.2	231.6
9. Basic Metals, Alloys and Metal products		7.63	296.3	237.0	237.1	237.3	239.4	241.5	242.7	244.3	258.9	256.5	253.5	257.4
10. Machinery and Machine Tools		6.27	210.7	214.0	217.0	217.9	218.7	221.7	224.4	225.6	226.2	227.5	226.6	227.5
(i) Motor Vehicles, Motor Cycles, Scooter, Bicycles and parts		2.43	199.1	200.3	200.7	203.4	204.6	206.0	207.0	208.2	208.7	208.2	208.6	208.2
(ii) Other Miscellaneous Manufacturing Industries		0.97	129.1	129.1	131.3	133.7	134.8	137.7	137.7	137.9	137.8	137.7	137.7	137.7

Source: RBI Bulletin

## APPENDIX 3.5

## Consumer Price Index for Industrial workers All India and selected Centres

(Base 1982 = 100)

Centres	1991												1992			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)		
	September	October	November	December	January	February	March	April	May	June	July	August	September			
All India	221	229	225	225	228	229	229	231	234	236	242	242	243			
Ahmedabad	226	227	233	234	235	236	236	238	241	240	246	248	246			
Aluva	200	206	209	212	217	211	210	212	215	218	222	220	223			
Bangalore	209	210	212	216	220	221	224	224	226	229	233	235	234			
Bombay	238	235	239	240	245	241	242	243	256	258	266	263	262			
Calcutta	226	234	234	227	230	230	229	232	232	235	241	242	245			
Coimbatore	201	205	214	216	217	221	222	222	224	224	230	230	232			
Delhi	231	227	227	224	234	235	236	240	242	244	249	250	256			
Hydrabad	214	217	216	215	217	223	223	223	226	228	231	232	230			
Jamshedpur	215	216	217	215	219	220	221	221	222	224	238	230	230			
Madras	211	214	224	224	227	233	231	231	233	236	242	241	242			
Madurai	212	214	222	227	229	228	231	230	234	237	241	244	246			
Mundakayam	210	211	217	222	228	224	224	223	225	228	230	224	227			
Nagpur	234	233	234	233	238	243	242	246	251	254	264	262	263			

Source: RBI Bulletin.



## APPENDIX 3.6

Consumer Price Index Number for Agricultural Labourers—State units

(Base 1960-61 = 100)

State	1991					1992								
	September (1)	October (2)	November (3)	December (4)	January (5)	February (6)	March (7)	April (8)	May (9)	June (10)	July (11)	August (12)	September (13)	September (14)
All India	975	990	999	1000	1015	1038	1046	1046	1058	1068	1080	1114	1112	
Andhra Pradesh	788	813	843	841	838	873	919	931	949	958	993	1017	1028	
Assam	983	1012	1002	1016	1033	1033	1044	1051	1060	1079	1095	1107	1109	
Bihar	1008	1026	1035	1027	1033	1076	1083	1084	1080	1083	1097	1114	1136	
Gujarat	838	848	863	921	931	971	986	999	1042	1044	1069	1081	1085	
Jammu & Kashmir	932	951	967	945	943	966	964	978	974	986	984	1029	1062	
Karnataka	964	975	995	1000	1014	1037	1050	1069	1092	1104	1128	1160	1167	
Kerala	1018	1029	1019	1052	1057	1076	1050	1055	1079	1075	1089	1091	1097	
Madhya Pradesh	980	993	1006	1043	1053	1074	1086	1082	1096	1127	1162	1193	1150	
Madharashtra	987	1009	1046	1060	1079	1100	1192	1144	1176	1206	1222	1260	1234	
Orissa	1079	1072	1080	1061	1025	1032	1012	1007	1029	1046	1075	1085	1094	
Panjab	1048	1054	1051	1050	1049	1060	1049	1052	1069	1086	1101	1129	1128	
Rajasthan	987	987	983	1016	1044	1074	1065	1094	1102	1113	1136	1169	1115	
Tamil Nadu	887	914	931	955	963	993	972	972	995	993	1013	1016	1026	
Uttar Pradesh	1132	1136	1136	1132	1145	1156	1158	1131	1099	1114	1138	1183	1163	
West Bengal	984	960	994	972	987	998	993	984	1003	997	1013	1034	1034	

Source: RBI Bulletin

Centres	1992													
	September	October	November	December	January	February	March	April	May	June	July	August	September	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
1. All India	184	185	187	187	190	191	192	193	195	197	202	203	204	
2. Bombay	180	181	183	183	187	189	191	193	197	199	205	203	202	
3. Delhi—New Delhi	181	179	178	178	184	185	184	188	189	190	196	197	200	
4. Calcutta	182	184	185	185	188	188	189	190	191	194	198	199	199	
5. Madras	188	190	191	193	197	197	198	199	202	203	210	210	211	
6. Hyderabad—Secunderabad	188	190	190	199	194	195	197	198	198	201	207	207	206	
7. Bangalore	182	184	185	186	191	192	192	193	195	196	199	202	202	
8. Lucknow	185	185	185	185	188	188	190	189	189	193	196	198	198	
9. Ahmedabad	175	176	176	177	179	180	180	182	184	188	191	192	192	
10. Jaipur	190	190	191	190	198	196	196	196	198	200	202	207	206	
11. Patna	198	200	206	204	205	205	207	206	205	207	212	214	218	
12. Srinagar	150	150	150	150	150	150	150	150	150	150	150	150	150	
13. Thiruvananthapuram	170	170	173	177	179	180	179	180	181	185	187	186	188	
14. Cuttack-Bhubaneswar	182	185	186	185	186	184	184	186	188	191	195	198	196	
15. Bhopal	193	193	195	197	199	202	201	205	204	207	216	218	219	
16. Chandigarh	202	203	203	203	207	207	208	210	210	212	218	219	219	
17. Shillong	200	202	204	205	207	209	210	212	213	214	217	217	218	

Source: RBI Bulletin

APPENDIX 3.8  
 Whole Sale Price Index of Agricultural Commodities—Kerala 1961-92

Group	Weight	(Base 1952-53=100)													
		1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)		
A. Food Crops															
1. Food grains (Rice)	63.5	417	413	499	597	582	679	709	696	725	835	936	984		
2. Millasses	40.4	319	315	406	442	448	501	529	533	544	592	638	638		
3. Condiments & Spices	2.0	606	412	626	629	709	689	626	881	909	1082	1061	1161		
4. Fruits & Vegetables	10.4	442	439	548	854	637	1324	1435	775	754	1098	1542	1688		
	10.7	728	740	779	913	1008	759	858	1199	1342	1450	1449	1571		
B. Non Food Crops															
1. Oil Seeds	36.5	680	672	930	1477	966	1009	1324	1428	1215	1365	1832	2062		
2. Plantation Crops	25.5	819	796	1112	1863	1142	1227	1650	1795	1411	1562	2240	2543		
C. All Crops	11.0	358	386	508	585	560	509	568	578	761	910	888	948		
	100.00	513	507	656	918	722	800	933	963	904	1028	1263	1377		

Sources: Department of Economics & Statistics

## APPENDIX 4.1

Trend of HYV coverage in Kerala 1980-81 to 1991-92

Year	Coverage in HYV				Percentage to total coverage in HYV area under rice			
	Autumn	Winter	Summer	Total	Autumn	Winter	Summer	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1980-81	136236	92391	51098	279725	48.70	33.03	18.27	100
1981-82	138941	73579	47183	250703	53.50	28.33	18.17	100
1982-83	113088	51867	31440	196395	57.58	26.41	16.01	100
1983-84	101810	62063	48477	212350	47.94	29.23	22.83	100
1984-85	112400	63687	44452	220539	50.97	28.88	20.15	100
1985-86	83782	40650	38846	163278	51.31	24.90	23.79	100
1986-87	80076	44604	41253	165933	48.26	26.88	24.86	100
1987-88	54760	33763	31311	119744	45.70	28.20	26.10	100
1988-89	62354	37971	36691	137016	45.52	27.71	26.77	100
1989-90	78997	36910	39718	155625	50.80	23.70	25.50	100
1990-91	80025	40005	42786	162816	49.15	24.57	26.28	100
1991-92	73304	49745	43287	166336	44.07	29.91	26.02	100

Source: Department of Economics and Statistics, Thiruvananthapuram.

## APPENDIX-4.2

Agency-wise Disbursement of Refinance Assistance by

(Rs. in crores)

Sl. No.	Agencies	1990-91		1991-92	
		India	Kerala	India	Kerala
(1)	(2)	(3)	(4)	(5)	(6)
1.	State Co-operative Agricultural and Rural Development Bank	565	29.68	658	29.69
2.	Commercial Banks	934	31.37	952	31.21
3.	Kerala State Co-operative Bank	114	16.16	149	18.99
4.	Regional Rural Banks	289	4.38	295	4.68
Total:		1902	81.59 (4.28%)	2054 (4.12%)	84.57

Source: NABARD

## APPENDIX 4.3

*Purpose-wise Disbursement by NABARD*

Sl.No.	Purpose	Amount disbursed (Rs.Crores)			
		1990-91	%	1991-92	
(1)	(2)	(3)	(4)	(5)	
1.	Plantation/Horticulture	22.49	27.57	22.50	26.61
2.	IRD P	15.70	19.24	14.27	16.87
3.	Minor Irrigation	15.12	18.54	15.06	17.81
4.	Land Development	1.96	2.40	2.37	2.80
5.	Farm Mechanisation	1.71	2.09	2.55	3.01
6.	Fisheries	1.28	1.58	1.26	1.49
7.	Dairy Development	4.05	4.96	5.05	5.98
8.	Poultry	1.16	1.42	0.67	0.79
9.	Others	4.99	6.12	5.83	6.89
10.	Non farm Sector	13.12	16.08	15.01	17.75
Total		81.58	100.00	84.57	100.00

Source: NABARD

## APPENDIX 4.4

*Selected Indicators of the Performance of Agricultural Credit Societies*

Sl. No.	Indicators	As on 30-6-1990	As on 30-6-1991
(1)	(2)	(3)	(4)
1.	Average Membership per Societies (No)	5221	5722
2.	Average Share Capital per Societies (Rs. lakhs)	5.06	5.74
3.	Average Deposit per Society (Rs. lakhs)	50.46	60.40
4.	Average Deposit per Member (Rs.)	954.00	1056.00
5.	Average Working Capital per Societies (Rs. lakhs)	80.60	115.06
6.	Average Loan per Member (Rs.)	938.00	1088.00
7.	Percentage of Borrowing Members to total Members (Borrowed during the year)	37.30	37.16
8.	Average loan Advanced per Advancing Societies (Rs. lakhs)	49.64	59.74
9.	Average loan Advanced per Borrowing Member (Rs.)	2517	2714
10.	Percentage of Overdue to Outstanding	26.2	28.02
11.	Percentage of Overdue to Demand	26.80	26.45

## APPENDIX 4.5

*Selected Indicators of the Credit Operations of the Primary Agricultural Credit Societies*

Sl.No.	Indicators	As on 30-6-1990	As on 30-6-1991
(1)	(2)	3,	(4)
1.	No. of Societies	1582	1579
2.	No. of Members (Lakhs)	83.17	90.95
	(a) Of Which SC (Lakhs)	8.14	8.76
	(b) Of Which ST "	0.58	0.63
3.	Paid up Share Capital (Rs. lakhs)	8008	9056
4.	Reserves (Rs lakhs)	6461	7396
5.	Deposits "	79833	95379
6.	Working Capital "	122511	181679
7.	Loans issued "	78529	91111
	Short term "	64211	71139
	Medium term "	11869	13771
	Long term "	2449	3181
8.	Loan Outstanding (Rs. lakhs)	93184	103577
9.	Loan overdue "	24444	29024
10.	ST loan for Agricultural purpose alone	22795	26465
11.	ST loan for Non Agricultural purposes	41416	47694
12.	M. T. loans for Agricultureal Purposes	4670	5392
13.	M. T. loans for Non Agrl. Purposes	7199	8371
14.	Value of fertilisers sold	4501	4820
15.	Value of Agricultural produce marketed through societies	5835	5324
16.	Dormant Societies (No.)	31	25
17.	Societies on profit (No.)	686	695
18.	Profit amount (Rs. lakhs)	844	..
19.	Societies on loss (No.)	865	831
20.	Societies without loss or profit (No.)	31	53
21.	Societies having paid secretaries (No.)	1558	1559
22.	Societies having godowns (Owned) (No.)	1413	1423
23.	Societies having godowns (Hired) (No.)	576	558

Source: Registrar of Co-operative Societies.

## APPENDIX 4.6

## Ordinary Loan and Advance by KSCADB

		(Rs. in lakhs)		
Sl.No.	Purpose	1989-90	1990-91	1991-92
(1)	(2)	(3)	(4)	(5)
1.	New Wells	1.59	3.36	20.66
2.	New Tanks	..	..	0.92
3.	Pumpsets & Persian wheels	6.42	4.17	6.72
4.	Agricultural Machinery	16.59	18.25	7.18
5.	Repairs to wells & Tanks	5.65	0.92	0.20
6.	Field channels	..	..	..
7.	Cattle sheds and Farm houses	425.11	344.06	276.2
8.	Fencing	305.73	282.12	261.07
9.	Levelling & Bunding	371.96	306.19	296.47
10.	Terracing	107.04	85.14	86.47
11.	Drainage channels	4.80	1.49	2.46
12.	Plantation	150.19	124.61	126.20
13.	Other Major Programmes	87.15	52.46	48.45
Total		1482.23	1222.77	1133.01

Source: Kerala State Co-operative Agricultural & Rural Development Bank.

## APPENDIX 4.7

## Scheme-Loans Advanced by Kerala State Co-operative Agricultural and Rural Development Bank at Primary level

		(Rs. in lakhs)		
Sl.No.	Schemes	1989-90	1990-91	1991-92
(1)	(2)	(3)	(4)	(5)
1.	Minor Irrigation	508.34	552.67	609.69
2.	Agricultural Machinery	106.83	165.41	250.67
3.	Plantation	1235.70	1350.55	1439.30
4.	Dairy	94.42	90.80	128.39
5.	Poultry	37.55	40.89	31.11
6.	Fisberics	39.74	34.26	61.99
7.	Goat Development	1.78	4.04	3.76
8.	Gobar Gas/Bio Gas	1.44	1.30	1.02
9.	Bullock and Bullock Cart	0.54	0.15	4.52
10.	Marshy Land Reclamation/Inter space filling	113.49	88.96	124.98
11.	SADU	..	..	..
12.	Others	76.97	119.09	77.06
Total		2216.80	2448.12	2732.49

Source: Kerala State Co-operative Agricultural & Rural Development Bank.

## APPENDIX 4.8

*Details of Release of Assistance by NCDC During 1991-92*

Sl.No.	Activity	Target	Achievement	Total
(1)	(2)	(3)	(4)	(5)
<b>A. Central Sector Scheme</b>				
1.	NCDC—III Storage Project	36.00	27.375	..
2.	EEC Coconut Development Project	800.00	1231.11	..
3.	NCDC—III Training	41.14	38.747	..
4.	ICDP	42	16.074	..
5.	Rural Consumer	9.00	3.4	..
6.	Share Capital participation in Weaver's Co-operative Spinning Mills	180.00	..	..
Total—A		1108.14	1816.706	..
<b>B. Corporation Sponsored Scheme</b>				
1.	Margin Money to Marketing Federation	..	..	..
2.	Strengthening the Share Capital Base of Primary Marketing Societies	20.00	32.30	..
3.	Assistance to Processing Unit & Federations	225.00	32.125	..
4.	NCDC—III Storage Project	4.00	..	..
5.	NCDC—III Training	10.00	4.758	..
6.	Coconut Development Project	100.00	..	..
7.	Storage Norms	2.00	0.478	..
8.	ICDP	110.00	85.481	..
9.	Rural Consumer	7.00	1.50	..
10.	Student Stores	1.50	4.50	..
11.	Fishery Co-operatives	150.00	1067.99	..
12.	SC/ST Co-operatives	1.00	..	..
13.	Handloom Co-operatives	2.00	1.92	..
14.	Coir Co-operatives	30.00	15.42	..
15.	Technical & Promotion Cell	..	2.61	..
16.	Assistance to Computerisation	2.00	..	..
17.	Management studies & Market survey	..	0.035	..
Total B		664.50	1249.31	..
Grand Total A+B		1772.64	2566.02	..



## APPENDIX 4.9

District Level Institutions under the Animal Husbandry Department as on 31-3-1992.

Sl.No.	Name of Institution	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	
		Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam	Idukki	Ernakulam	Trichur	Palakkad	Malappuram	Kozhikode	Wayanad	Kannur	Kasaragod	Total			
1.	District Veterinary Centre	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	8
2.	Veterinary Poly Clinics	2	2	4	6	4	3	5	6	4	4	4	2	3	5	1	1	1	51
3.	Veterinary Hospitals	13	11	8	10	11	5	14	14	9	7	6	3	6	3	3	3	3	120
4.	Veterinary Dispensaries	54	48	30	33	36	36	56	53	38	37	37	14	37	28	28	28	28	537
5.	I.C.D.Ps.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	8
6.	R.A.I.Cs.	5	4	3	2	2	4	1	1	2	1	1	1	1	4	2	2	2	33
7.	Veterinary Sub Centres/A.I.Centres/I.C.D.P. sub centres etc.	125	107	73	47	66	2	46	55	49	65	41	97	40	873	40	873	40	873
8.	District Livestock Farms	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9.	Jersey Farms	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
10.	Jersey Farm Extension Centre	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
11.	Buffalo Breeding Farm	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
12.	Goat Farms	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
13.	Pig Farms	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	7
14.	Poultry Farms	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	10
15.	Central Hatchery	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
16.	Livestock Management Training Centre	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3
17.	Rinder pest Eradication Project	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
18.	Institute of Veterinary Biologicals	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
19.	S.L.B. Programme Headquarters	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
20.	Other Institutions/Office	24	9	6	9	7	8	14	5	16	7	6	4	11	2	2	2	2	128
Total:		234	185	125	109	130	61	141	135	123	122	115	66	166	76	1788	76	1788	76

Source: Animal Husbandry Department.

## APPENDIX 4.10

## Animal Husbandry Activities During 1991-92

Sl.No.	Activities	Unit	Performance for the years		
			1989-90	1990-91	1991-92
(1)	(2)	(3)	(4)	(5)	(6)
1.	Cases treated	Nos.	3621295	3866712	3783036
2.	Operations performed	"	118580	121622	118636
3.	Castrations done	"	18391	18502	13626
4.	Vaccinations done	"			
	(i) For Livestock	"	2012020	1942213	2021477
	(ii) For Poultry	"	3119808	4379700	4124485
5.	Anti Rabic Vaccinations done on dogs	"	20861	19596	23220
6.	Artificial inseminations done	"	1267455	1312613	1376761
7.	Calvings Recorded	"	243055	221876	262549
8.	Chicks Hatched out in the Departmental Poultry Farms	"	799931	807400	636503
9.	Eggs produced in the departmental farms	"	1771050	1857271	1887822
10.	Vaccines produced in the Veterinary Biologicals, Palode				
	For Poultry	Doses	6109900	7428500	8558800
	For Livestock	"	2459120	1889700	2558640
11.	Poultry Feed produced in the Departmental production units	MT.	1001	1617	1172

Source: Animal Husbandry Department.

## APPENDIX 4.11

## District-wise Distribution of Fishermen Population in Kerala 1991-92 (Estimated)

Sl.No.	Name of District	Marine				Inland				Marine and Inland district (Total (6+10))
		Male	Female	Children	Total	Male	Female	Children	Total	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1.	Thiruvananthapuram	47792	45962	65531	159285	413	401	438	1252	160537
2.	Kollam	28632	26170	34554	89356	10485	9860	12429	32774	122130
3.	Alappuzha	33178	32198	41105	106481	19607	18680	21129	59416	165897
4.	Pathanamthitta	..	..	..	..	323	397	604	1324	1324
5.	Kottayam	..	..	..	..	7879	7590	8356	23825	23825
6.	Idukki	..	..	..	..	..	..	..	..	..
7.	Ernakulam	22423	21768	24996	69187	21004	20385	20386	61775	130962
8.	Thrissur	20502	20748	25275	66525	6277	6087	6659	19023	85548
9.	Palakkad	..	..	..	..	268	288	403	959	959
10.	Malappuram	22594	22902	30822	76318	1331	1289	1539	4159	80477
11.	Wayanad	..	..	..	..	322	303	353	978	978
12.	Kozhikode	29587	28593	36149	94329	3647	3512	4380	11539	105868
13.	Kannur	16220	15555	21205	52980	360	301	340	1001	53981
14.	Kasaragod	13379	12853	15136	41368	281	264	283	828	42196
	State	234307	226749	294773	755829	72197	68957	77381	218535	974664

## APPENDIX 4.12

*Species-wise composition of Marine Fish Landings in Kerala from 1986-91**(Qty. in tonnes)*

Sl.No.	Species	Kerala					
		1986	1987	1988	1989	1990	1991
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	Elasmobranches	6057	6579	6761	4680	6968	3441
2.	Catfish	5084	8562	9960	4097	2739	1744
3.	Chirocentrus	2237	992	736	1388	724	706
4.	(a) Oil sardine	145259	109610	60508	184879	179276	106263
	(b) Other Sardine	24245	29469	12701	13752	12900	23730
5.	Achoviella	9500	11899	46007	45127	26880	45273
6.	Thrusocles & Other clupeoids	8049	5574	13867	13774	10611	19284
7.	Perches	6577	7225	32304	48986	67356	41122
8.	Redmulletts	6329	316	9836	6017	6919	18824
9.	Sciaenids	4601	4695	8470	11402	10868	8816
10.	Ribbon Fishes	3536	4757	8952	7179	9751	2167
11.	Carangids	1852	2082	23852	37278	51708	67682
12.	Leiognathus	3642	4341	6493	5354	6195	5643
13.	Lactaritus	1194	983	835	1320	2340	623
14.	Pomfrets	1892	2013	1591	1739	2598	1243
15.	Mackerel	17294	15606	49938	85272	78335	53980
16.	Seafish	3005	3492	10162	8029	5372	4600
17.	Tunnies	7042	5402	12913	22288	32615	13111
18.	Soles	5080	6073	12965	20247	15427	14496
19.	(a) Prawn	29817	25443	67661	53335	45485	60594
	(b) Lobster & Crustaceans	1606	1316	13812	16050	21855	14583
20.	Cephalopods	3997	3661	15155	23698	24361	19602
21.	Miscellaneous	37961	29064	49329	31635	41607	36634
<b>Total</b>		<b>335856</b>	<b>283154</b>	<b>468808</b>	<b>647526</b>	<b>662890</b>	<b>564161</b>

\* CMFRI Figures

## APPENDIX—4.13

Species-wise Inland Fish production in Kerala 1988-89, 1989-90, 1990-91 and 1991-92

(Qty in tonnes)

Sl. No.	Species	1989-90		1990-91		1991-92 (Provl.)		Variation	
		Actual	Percentage	Actual	Percentage	Actual	Percentage	Actual	Percentage
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	Prawns	8978	23.38	8732	25.15	9764	24.18	1032	+11.82
2	Entropius	3285	10.47	3496	9.86	3907	9.74	411	+11.75
3	Murrels	2932	8.57	3145	8.80	3512	8.70	367	+11.66
4	Tilapia	5110	17.50	5428	15.34	6047	14.90	619	+11.40
5	Catfish	3224	10.33	8532	9.68	3915	9.69	383	+10.84
6	Jew Fish	1730	5.25	2020	5.19	2099	5.20	79	+3.91
7	Others	8653	24.50	9989	25.98	11121	27.51	1132	+11.33
	Total	33312	100.00	36342	100.00	40365	100.00	4023	+11.07

## APPENDIX—4.14

Export of Marine Products from Kerala/India

Year	Kerala		India	
	Quantity in tonnes	Value Rs. lakhs	Quantity tonnes	Value Rs. lakhs
1981-82	32006	12513	70105	28601
1982-83	32525	14149	78175	36136
1983-84	32840	14085	92691	37302
1984-85	31570	14813	86187	38429
1985-86	29580	13808	83651	38800
1986-87	33906	16457	85843	46067
1987-88	35576	18994	97179	53120
1988-89	45614	22131	89777	59785
1989-90	37194	24082	110788	63476
1990-91	50997	31379	139419	83337
1991-92	58743	44447	171820	137589

## APPENDIX—4.15

Details of Fisherman Co-operatives in Kerala (1991-92)

Sl. No.	Particulars	Total No. of Societies	Total No. of Membership	Paid up share capital
(1)	(2)	(3)	(4)	(5)
1	Credit Societies	21	N.A.	
2	Utpadaka Societies	21		
3	Marketing Societies	4		
4	Federation	1	5	5000
5	District Societies	5	25	2500
6	Harijan/ Girijan Society	71	11484	316109
7	Fishermen Development Welfare Co-operative Societies	81	67298	1496332
8	Inland Fishermen Development Welfare Societies	23	4249	42330
	Total:	227		

## APPENDIX 4.16

Details of Physical & Financial Achievements under the Integrated Fisheries Development Project (NCDC Assisted Phase I, II (Completed) and III as on 31-3-1992.

(Rs. in lakhs.)

Sl. No.	Particulars	Phase I		Phase II		Phase III		Total	
		Physical	Financial	Physical	Financial	Physical	Financial	Physical	Financial
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
<b>I Fishing Inputs</b>									
1.	Grafts (Nos.)	395	94.60	399	152.33	40	18.83	774	265.76
2.	Out Board Motors (Nos.)	819	144.52	725	195.96	91	30.17	1635	370.65
3.	Webbings (Kg.)	64790	110.13	131298.70	248.19	13129.75	28.91	209212.45	387.23
4.	Accessories & Additional loan		56.80	..	109.81	7.26	..	..	173.37
II	Infrastructure		20.84	39.20	..	..	..	..	54.04
III	Fuel Depot		..	..	1.00	..	..	..	1.00
IV	Extension		78.15	..	14.98	..	0.22	..	92.75
V	Training		12.34	..	11.08	..	2.34	..	25.76
VI	Working Capital		8.46	..	4.00	..	..	..	12.46
VII	Pre-operative Expenses		30.00	..	87.75	..	..	..	117.75
VIII	Physical & Price Contingencies		..	..	..	..	..	..	..
<b>IX Project Management*</b>									
1.	Infrastructure		..	..	..	..	1.70	..	1.70
2.	Staff Emoluments		..	..	..	..	10.20	..	10.20
3.	Operational Expenses		..	..	..	..	4.89	..	4.89
X	Fishermen benefited (Nos. 4577)		..	6822	..	426	..	11825	..
	<b>Total:</b>		<b>555.84</b>		<b>857.20</b>		<b>104.52</b>		<b>1517.56</b>

\*For phase III only

Source: Directorate of Fisheries

## APPENDIX 4.17

## Details of Fisheries works under Harbour Engineering Department

Sl. No.	Name of Project	Total estimated cost		Year of Starting	Year of completion targeted	Expenditure upto March 1992 Rs. in lakhs	Remarks
		Original Rs. in lakhs	Revised Rs. in lakhs				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
A.1.	Vizhinjam Fishery Harbour Stage-I	173.00	208.00	1962	1980	..	Completed.
	II & III Stages	704.00	1100.00	1980	1995	819.46	Work in progress. Pontoon fabricated. Sand pump, cable HDPE pipe etc. purchased for dredging works. Land acquisition not completed. Road & surface new proposal is under preparation. Water supply proposed is under preparation.
2.	Neendakara Fishery Harbour	370.00	622.00	1980	1988	720.87	Almost completed.
3.	Thangassery Fishery Harbour	1411.00	..	1991	1994	198.52	Main breakwater work is in progress. Leeward break water work is to be commenced.
4.	Munambam Fishery Harbour	710.00	..	1991	1994	170.22	Preliminary works are in Progress.
5.	Puthiyappa	527.00	Nil	1988	1992	346.85	Work in progress. Core formation upto 380 m & seaside basin upto 335m. completed for the southern breakwater. For Western Breakwater main core upto 350 m. & armour upto 300m. completed. Nylon filter is formed from 275 to 330m.
6.	Mopla Bay	564.00	Nil	1992	1996	..	Preliminary works in Progress.
7.	Chombamal	556.00	Nil	1992	1996	..	Preliminary works in progress.
8.	Ponnani	610.00	..	..	..	..	Project Report forwarded to Government for sanction.
B.	<i>Landing Centre for Mechanised Boats</i>						
1.	New Mahe	28.43	..	1988	..	40.64	Work completed to be commissioned.
2.	Thottappally	25.27	..	1984	..	40.22	Work in Progress.
3.	Palacode	15.00	..	1986	..	3.60	Partially completed.
4.	Cheruvathoor	18.43	..	1982	..	29.37	Project commissioned.
5.	Dharmadam	20.95	..	1986	..	25.79	Project commissioned.
6.	South Parayoor	24.94	..	1989	..	3.49	Scheme deferred.
7.	Chettuvai	19.50	..	1989	..	25.19	Work in progress.

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<b>C. Landing centres for Traditional Fishermen</b>							
1.	Vizhinjam North	18.70	..	1986	..	5.20	Terminated due to objection from locals.
2.	Vizhinjam South	19.10	..	1988	..	21.88	..
3.	Valikkunnu	17.90	...	1985	..	19.42	Project Commissioned.
4.	Vellayil Beach	22.00	..	1988	..	39.13	do
5.	Chalil Gopalapettah	25.00	..	1985	..	21.87	Under preliminary stage.
6.	Quilon Port	22.00	...	..	..	..	Scheme deferred.
7.	Arthungal	32.22	..	..	..	..	Under preliminary stage
8.	Quilandy	23.00	..	..	..	..	do
<b>D. Brackish Water Fish Farms</b>							
1.	Poyya	23.62	111.75	1984	1989	103.43	Work in Progress.
<b>E. National Fish Seed Farms</b>							
1.	Malampuzha	39.00	..	1982	1989	..	..
2.	Polachira	39.02	..	1982	1989	..	..

**Source:**

Office of the Chief Engineer,  
Harbour Engineering Department,  
Thiruvananthapuram.

## APPENDIX 4. 18

Details of selected physical and financial achievements of Kerala Fishermen's Welfare Fund Board

(Rs. lakhs)

Sl.No.	Name of Welfare Scheme	1988-89		1989-90		1990-91		1991-92	
		No. of beneficiaries	Amount	No. of beneficiaries	Amount	No. of beneficiaries	Amount	No. of beneficiaries	Amount
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1.	Group Accident Insurance Scheme								
	(a) Death Cases	95	14.250	96	14.400	105	16.830	114	23.790
	(b) Permanent Total Disability	1	0.150	3	0.450	4	0.600	4	0.660
	(c) Permanent Partial Disability	3	0.225	10	0.750	17	1.275	17	1.545
	Death while fishing or immediately thereafter not due to accident	39	5.850	38	5.700	33	4.950	43	6.450
	Special cases sanctioned by Board for death or disability	25	1.290	24	1.130	7	0.450	7	0.750
4.	Financial Assistance for marriage of daughters of fishermen								
	(a) Loan	1	0.012	210	2.520	396	4.748	560	6.708
	(b) Grant	1	0.002	211	0.633	397	1.191	560	1.680
5.	Financial Assistance for expenses for death of dependents of fishermen	250	0.625	281	0.702	214	0.539	572	1.669
6.	Financial Assistance to dependents for expenses for natural death of fishermen	30	0.075	67	0.167	77	0.207	120	0.567
7.	Financial Assistance for temporary disability of fishermen due to accident	332	0.824	353	0.939	610	1.890	960	3.217
8.	Hit Insurance - 50% Subsidy	832	0.095	323	0.019	151	0.006	99	0.009
	- 50% for renewal of policy	196	0.008	89	0.004	14	0.0005	7	0.0004
	Compensation paid for loss/damages	10	0.151	40	0.624	27	0.616	6	0.145
9.	Insurance of Cattamaram/Craft (No subsidy)	10	..	86	..	64	..	29	..
	Compensation paid for loss/damages	..	..	..	..	8	0.784	10	2.260
10.	Fishermen Pension	19600	82.955	21178	74.352	22740	250.641	25757	204.691
11.	Financial Assistance to fishermen who undergoes sterilisation operations	..	..	..	..	..	..	13	0.032
12.	Cash Awards to SSLC students of fishermen	..	..	..	..	3	0.040	3	0.040



## APPENDIX-4.19

*Average Beach Price of Selected Marine Fishes in Kerala*

S.No.	Species	Average Beach Price					
		1986-87	1987-88	1988-89	1989-90	1990-91	1991-92
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	Elasmobranches	3.60	4.40	5.90	7.00	8.00	12.00
2.	Catfish	3.35	3.70	5.50	6.75	7.50	10.00
3.	Chirocentrus	3.40	4.20	4.95	5.00	6.50	8.00
4.	Oil Sardine	1.85	2.25	3.00	4.00	5.00	7.50
4.	(b) Other Sardine	2.10	2.45	3.25	4.15	4.50	7.50
5.	Sciaenids	3.00	3.10	3.25	4.00	5.00	7.50
6.	Carangids	4.95	5.00	5.25	6.15	7.50	11.50
7.	Leiognathus	2.15	2.60	3.20	3.20	3.50	5.00
8.	Lactarius	4.50	5.20	6.20	8.00	10.00	15.00
9.	Pomfrets	8.00	9.60	11.00	16.80	17.50	22.00
10.	Macjerei	4.00	5.20	6.50	7.30	8.00	11.50
11.	Seerfish	9.30	12.00	13.50	17.00	18.50	22.50
12.	Tunnies	5.60	6.20	7.00	10.50	11.50	14.00
13.	Sales	1.95	2.40	3.25	3.30	3.50	5.50
14.	Cephalopods	5.80	5.80	6.00	7.80	8.25	10.50
15.	Prawn	20.00	21.40	23.00	28.50	32.50	36.50
16.	Miscellaneous	2.45	2.85	3.00	3.20	4.00	6.50

## APPENDIX-4.20

## Division wise area of Forests in Kerala

Area in Ha. as on 31-3-1992					
Sl.No.	Divisions	Reserve Forest	Proposed for reserve forest	Vested forest	Total
(1)	(2)	(3)	(4)	(5)	(6)
<b>A. Territorial Division</b>					
1.	Thiruvananthapuram	360.0790	7.7463	3.9750	371.8003
2.	Thennala	563.1147	..	12.4440	575.5587
3.	Punalur	280.0507	..	0.1690	280.2197
4.	Konni	320.6430	11.0210	..	331.6640
5.	Rahni	1050.2894	7.1670	1.6110	1059.0674
6.	Munnar	662.7502	47.2560	5.8349	715.8411
7.	Kottayam	655.4860	5.2570	31.4090	692.1520
8.	Kothamangalam	316.8560	..	0.1323	317.0173
9.	Malayattoor	617.2411	0.5248	0.0560	617.8219
10.	Vazhachal	413.9438	..	..	413.9438
11.	Chakkudy	354.7098	..	..	354.7098
12.	Thrisur	331.0181	..	6.3430	337.3611
13.	Neemmara	205.5173	..	130.8907	336.3980
14.	Palakkad	73.4100	..	165.9116	239.3216
15.	Mannarkad	208.8637	1.1163	454.7003	664.6803
16.	Nilambur South	267.5110	..	98.6675	366.1785
17.	Nilambur North	57.9196	0.0171	336.1937	394.1304
18.	Kozhikode	..	86.1388	208.3595	294.4983
19.	Wayanad South	67.6005	3.5895	252.4400	323.6300
20.	Wayanad North	133.9031	15.0644	67.1200	216.0875
21.	Kannur	206.5127	..	79.2922	285.8049
<b>Sub Total</b>		<b>7147.4287</b>	<b>184.8962</b>	<b>1855.5597</b>	<b>9187.8866</b>
<b>B. Wild life Division</b>					
1.	Thiruvananthapuram	204.6800	..	..	204.6800
2.	Iduki	289.6020	..	..	289.6020
3.	Thekkady	777.000	0.5438	..	777.5438
4.	Parambikulam	274.1408	..	..	274.1408
5.	Silent Valley	89.5165	..	..	89.5165
6.	Wyanad	366.9074	..	32.6428	399.5502
<b>Sub Total:</b>		<b>2001.8467</b>	<b>0.5438</b>	<b>32.6428</b>	<b>2035.0333</b>
<b>Grand Total</b>		<b>9149.2754</b>	<b>185.4400</b>	<b>1888.2025</b>	<b>11222.9199</b>

Source: Forest Department

## APPENDIX—4.21

*Species wise Area under Forest Plantations*

Sl. No.	Name of Species	Area under Forest Plantations				Area in Hectares		Percentage to total as on 31-3-1992
		1987	1988	1989	1990	1991	1992	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	Tea	79416	78583	78799	76502	76202	75353	49.01
2	Eucalyptus	34728	33986	32095	31609	30675	29923	19.46
6	Softwood	23101	10695	5907	1239	1239	919	0.60
4	Mixed Plantations	5953	17832	23480	30660	31490	32887	21.39
5	Cashew	4658	4157	4138	3784	3784	4558	2.96
6	Bamboo	*3010	280	444	404	509	646	0.42
7	Wattle	3006	3085*	3183	3247	3521	3735	2.43
8	Hardwood	1162	588	718	849	849	849	0.55
9	Fuelwood	1072	1448	385	86	122	596	0.66
10	Pepper	543	508	508	314	314	408	0.27
11	Pine	449	449	449	449	452	452	0.29
12	Mahogany	173	80	89	170	170	169	0.11
13	Rosewood	158	183	193	149	146	155	0.10
14	Balsa	117	81	77	97	97	93	0.06
15	Cardamom	26	..	..	..	..	..	..
16	Sandalwood	15	14	14	12	12	11	0.01
17	Kongu	14	14	..	..	..	..	..
18	Zylousium	..	..	..	..	..	..	..
19	Others	2769	3354	3622	3441	3563	3502	2.28
Total		160372	155337	154101	153012	153148	153758	100.00

\* including bamboo under planting  
Source: Forest Department

## APPENDIX—4.22

*Production of Major Forest produce*

Sl. No.	Items	Unit	Period			Actual increase or decrease over the year
			1988-89	1989-90	1990-91	
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Timber (Roundlog)	cum.	19633	38539	37981	—558
2	Timber (Round Poles)	Nos.	515236	635615	315705	—319910
3	Timber (Sawn & Squard)	cum.	40	38	..	—38
4	Firewood	MT.	19174	11111	9520	—1591
5	Charcoal	Kg.	8750	4860	64695	59835
6	Cardamom	Kg.	13098	6375	2778	—3597
7	Honey	Kg.	27459	50214	16574	—33640
8	Reeds	Nos.	42581161	76510060	76006486	—504374
9	Bamboo	Nos.	373928	1282977	3756175	241398
10	Jungle wood poles	Nos.	517	76947	6702	—70245
11	Sandal wood	Kg.	34176	77398	72276	—5122

Source: Forest Department

APPENDIX 4.23  
Forest Revenue in Kerala

Sl. No.	Items	Sale proceeds (Rs. in lakhs)					Increase or Decrease		
		1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	Actual	Rs. lakhs
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
<b>A. Revenue from Forests</b>									
1.	Timber	3782.34	3356.93	2738.33	2308.84	2962.56	4631.11	1668.54	56.32
2.	Firewood & Charcoal	91.25	98.23	72.15	44.64	53.56	63.55	11.99	22.38
3.	Livestock	0.80	..	..	..	..	..	..	..
4.	Others	802.53	365.05	384.97	479.02	484.35	593.55	190.20	22.54
Sub Total: (A)		4676.92	3820.21	3195.45	2832.50	3500.48	5290.20	1789.72	51.13
B.	Other receipts	185.26	194.32*	182.55*	392.87*	242.14*	288.11*	45.92	18.96
C.	Total (A+B)	4862.18	4014.53	3379.00	3225.37	3742.62	5578.30	1835.68	49.05
D.	Refunds	37.31	9.79	4.57	9.12	9.66	14.62	4.96	0.51
E.	Net Revenue (C-D)	4824.87	4004.74	3374.43	3216.25	3732.96	5563.69†	1830.73	49.04

\*including livestock

†Provisional

Source:—Forest Department

## APPENDIX 4.24

## Physical and Financial Achievements under Social Forestry (1990-91 and 1991-92)

Sl.No.	Particulars	Unit	Physical Achievement		Financial Achievement	
			Achievement		(Rs. in lakhs)	
			1990-91	1991-92	1990-91	1991-92
(1)	(2)	(3)	(4)	(5)	(6)	(7)
<b>A. Social Forestry</b>						
1.	Block Plantations in Government lands					
	a. Large Blocks	Ha.	4365.73	4803.90		
	b. Small Blocks	"	383.01	182.44		
2.	Sirip Plantations	"	29.94+	2.69	408.01	549.81
			24.Km.			
3.	Tribal Fuel Wood Plantations	"	207.15	73.00		
4.	Tribal Medicinal Plantations	"	..	..		
5.	Farm Forestry—Distribution of seedlings	Lakh (Nos.)	129.50	92.50	81.12	104.12
6.	Seedlings production (Govt.)	"	110.50	93.80	59.72	156.35
7.	Rural Fuel Wood Scheme (50% Centrally Sponsored)				Nil	

Source:—Forest Department.

## APPENDIX 4.25

Performance of Kerala Social Forestry Project during 1990-91 and 1991-92

Sl.No.	Item	Unit	1990-91		1991-92		Percentage of Achievement	
			Target	Achievement	Target	Achievement	1990-91	1991-92
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1.	Distribution of Seedlings	Lakh Nos.	140.00	129.50	99.00	92.50	92.50	93.43
2.	Block plantation on Government Land							
a.	Large Block	Ha.	5170.00	4365.72	10000.00	4803.90	84.40	48.04
b.	Small Block	"	120.00	383.01	100.00	182.44	319.20	182.44
3.	Strip Plantations	"	18.00	29.94+ 24 km.	50.00	2.69	166.30	5.38
4.	Tribal Fuel Wood Plantations	"	208.00	207.15	660.0	73.00	99.60	11.06
5.	Tribal Medicinal Plantations	"	..	..	..	..	..	..
6.	Seedlings Production (Governmental)	Lakhs (Nos.)	110.30	110.50	228.30	93.80	100.20	41.09

Source: Forest Department.

## APPENDIX 4.26

Statement showing selected physical achievements (Civil works) under Kerala Social Forestry as on 1992 March

Sl. No.	Name of the work	Year of Commencement/Target	Year of Completion Achievement	If not completed percentage of work completed
(1)	(2)	(3)	(4)	(5)
<b>A. Office Buildings</b>				
1.	Headquarters and Circle Headquarters	3	2	66.67%
2.	Division offices	14	7	50%
3.	Range Offices	47	28	59.57%
4.	Others	327	184	56.27%
<b>B. Quarters</b>				
1.	Chief Conservator of Forests and Conservator of Forests	5	5	100%
2.	Deputy Conservator of Forests and ACFS	36	18	50%
3.	Range Officers	54	36	66.67%
4.	Others	36	17	47.22%
<b>C. Roads (Kms)</b>				
<b>D. Vehicles (Nos)</b>				
<b>E. Others (Specify)</b>				
		327	219	66.97%

Source: Forest Department.

## APPENDIX 4.27

*Details of Physical Achievements under Wildlife Sanctuaries and National Parks during 1991-92*

Sl.No.	Programme	Unit	Wild Life Sanctuaries	National Park
(1)	(2)	(3)	(4)	(5)
1.	Boundary surveyed	KM	..	..
2.	Cairns erected	Nos.	..	..
3.	Roads and paths	KM	52.60	18.00
4.	Construction of walls	KM	..	..
5.	Construction of Watch Towers	Nos.	1	1
6.	Wireless Stations	Nos.	4	—
7.	Fire Protection lines	KM	1263.50	46.00
8.	Lower Fencing	KM	83.10	..
9.	Check Dams	Nos.	1	..
10.	Buildings /quarters	Nos.	34	2
11.	Afforestation	Ha.	1057.50	200.00

Source — Forest Department.

## APPENDIX 5.1

## Major and Medium Irrigation Projects in Kerala

Sl. No.	Name of Scheme Year of Starting Year of Completion	Original estimated cost (Rs. in lakhs)	Latest estimated cost (Rs. in lakhs)	Total Expenditure upto 3/92	Expected Area to be irrigated (Ha)		Cumulative achievement till the end of 3/92 the end (Ha.)		% increase over the original estimated
					Net	Gross	Net	Gross	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
<b>A Completed Schemes</b>									
1.	Chalaky (1949-66)	188	188.25	188.25	26680	39380	18330	27258	..
2.	Pecchi (1947-59)	235	235.00	235.00	17555	28080	15262	23718	..
3.	Malampuzha (1949-66)	388	580.00	580.00	29463	42090	19802	40208	..
4.	Neyyar (1951-73)	248	461.00	461.00	16042	17952	8300	16716	88
5.	Pothundy (1958-71)	234	234.25	234.25	8792	10930	4685	10046	..
6.	Gayathri (1956-70)	220	220.00	220.00	7651	10930	4880	10114	..
7.	Walayar (1953-64)	92	131.66	131.66	4536	6470	3752	6503	43
8.	Vazhani (1951-62)	108	108.00	108.00	3565	7130	2113	4226	..
9.	Mangalam (1953-66)	45	106.00	106.00	4816	6880	3313	6608	13.
10.	Cheerakuzhy (1957-73)	91	90.76	90.76	2268	2828	952	1846	..
Total:		1849	2354.92	2354.92	121368	172670	76589	147143	
<b>B. Ongoing Schemes.</b>									
11.	Kallada (1961-	1328	45780	36126	61630	92800	21092	31638	3347
12.	Pamba (1964-	383	6341	5979	21135	49456	20728	48480	1555
13.	Moovattupuzha (1976-	2086	8925	5232	18616	52200	..	..	327
14.	Periyarvalley (1956-	348	6304	7707	32800	85600	25830	67158	1711
15.	Chimoni-Mulpi (1975-	633	3615	3311	13000	26200	13000	13000	471
16.	Chitturpuzha (1961-	106	2080	2190	15700	29202	14314	26624	1862
17.	Kanhirapuzha (1961-	365	7500	5726	9713	21853	6882	15485	1954
18.	Kuttiady (1962-	496	5500	5064	14570	35850	14111	34710	1008
19.	Pazhasi (1964-	442	7796	7559	11525	23050	5728	11456	1650
20.	Vamanapuram (1981-	1982	3640	382	8803	18014	..	..	83
21.	Idamalayar (1981-	1785	6740	2646	14396	43190	..	..	277
22.	Kuriarkutty-Karappara (1978-	1036	6018	162	11736	23472	..	..	480
23.	Chaliyar (Beyyorepuzha) (1981-	37800	37800	132	73235	108035	..	..	..
24.	Kakkadavu (1979-	1335	9885	215	13986	41760	..	..	640
25.	Attappady (1975-	476	5000	749	4500	8378	..	..	950
26.	Karapuzha (1975-	760	4066	2365	4650	9300	..	..	435
27.	Meenachil (1980-	9300	4956	140	9960	14510	..	..	50
28.	Banasurasagar (1979-	800	1798	156	2800	4800	..	..	124
Total		57310	178993.84	86441	464121	860340	201274	395694	

## APPENDIX 5.2

*Major and Medium Irrigation-Physical and financial achievements during 1991-92*

(Rs. in lakhs, Area in Ha.)

Name of Project	Physical achievement during 1991-92 (Ha.)		Cumulative achievement till the end of 1991-92 (Ha.)		Expenditure 1991-92 (Rs. in lakhs)	Cumulative expenditure till the end of 1991-92 (Rs. in lakhs)
	Net	Gross	Net	Gross		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
<i>On going Schemes</i>						
1. Kallada	5204	7806	21092	31638	3525	96126
2. Pamba	..	..	20728	48480	118	5979
3. Periyar Valley	..	..	25830	67158	453	7707
4. Chimoni-Mupli	..	..	13000	13000	346	3311
5. Chitturpuzha	53	1002	14314	26624	100	2190
6. Kanhirapuzha	..	..	6882	15485	318	5726
7. Kuttiady	..	..	14111	34710	764	5664
8. Pazhassi	..	..	5728	11456	252	7736
9. Muvattupuzha	..	..	..	..	840	5232
10. Vamanapuram	..	..	..	..	42	382
11. Idamalayar	..	..	..	..	210	2646
12. Kuriarkutty-Karappara	..	..	..	..	5	162
13. Chaliyar (Beyporepuzha)	..	..	..	..	26	132
14. Kakkadavu	..	..	..	..	6	215
15. Attappady	..	..	..	..	17	749
16. Karapuzha	..	..	..	..	269	2365
17. Meenachil	..	..	..	..	19	40
18. Banasurasagar	..	..	..	..	4	151
<b>Total</b>	<b>5257</b>	<b>8808</b>	<b>121685</b>	<b>248551</b>	<b>7314</b>	<b>86518</b>

## APPENDIX 5.3

*Physical and Financial Achievement under Minor Irrigation Programme*

Sl.No.	Item	Cumulative achievement till the end of 1990-91 (Ha.)		Actual expenditure during '91-92 (Rs. in lakhs)	Achievement during 1991-92 (Ha.)		Cumulative area brought under irrigation till the end of '91-92	
		Net	Gross		Net	Gross	Net	Gross
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1.	M.I. Class I	29750	35624	282.5	1413	2120	25163	37744
2.	M.I. Class II	61581	61581	265.00	1325	1325	62906	62906
3.	Lift Irrigation	27495	41978	346.42	1732	2598	29227	44576
4.	M.I. works in IPD Yelah	13855	13855	48.48	242	242	14097	14097
5.	Repairs to M.I. structure	..	..	289.52	2895	2895	2895	2895
6.	Community Irrigation	905	3624	13.08	115	115	1020	1020
7.	M.I. Special Component Plan	..	..	108.42	561	561	561	561
8.	M.I. Tribal Sub Plan	..	..	51.12	269	269	269	269



## APPENDIX 5.4

*Details of Minor Irrigation works taken up and completed during 1991-92*

Sl. No.	Item	No. of works pending	No. of works taken up during 1991-92	No. of works completed during 1991-92
(1)	(2)	(3)	(4)	(5)
1.	Minor Irrigation Class I	98	114	29
2.	Minor Irrigation Class II	61	104	78
3.	Lift Irrigation	120	121	25
4.	Minor Irrigation works in IPD Yelah units	73	65	65
5.	Repairs to M.I. Structure	60	6	6
6.	Community Irrigation M.I. works	106	130	11
7.	M.I. works under S.C.P.	47	119	29
8.	M.I. works under T.S.P.	20	42	14

## APPENDIX 5.5

*Physical and Financial Achievement of Flood Control and Anti Sea Erosion Programmes*

Sl. No.	Item	Achievement till the end of 3/91		Achievement during 1991-92		Cumulative achievements till the end of 3/92	
		Expenditure (Rs. in lakhs)	Area benefited	Expenditure (Rs. in lakhs)	Area benefited	Expenditure (Rs. in lakhs)	Area benefited
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	Flood Control Programme	2143.97	34142 (Ha.)	383.46	3050 (Ha.)	2527.43	37192 (Ha.)
2.	Anti Sea Erosion	10043.00	312.47 km. New Sea Wall 44.97 km. Reformation of old sea wall	1228.13	7.95 km. New Sea wall and 4.41 km. Reformation of old sea wall	11271.13	320.42 km. New Sea Wall 49.38 km. Reformation of old sea wall

## APPENDIX 5.6

*Details of Flood Control and Anti Sea Erosion works completed during 1991-92*

Sl. No.	Item	No. of works pending	No. of works taken up during 1991-92	No. of works completed during 1991-92
(1)	(2)	(3)	(4)	(5)
1.	Flood control works	82	96	16
2.	Anti Sea Erosion Programme	55	120	32

## APPENDIX 5.7

*Physical and Financial Achievement of Command Area Development Programme*

Item	Achievement till the end of 3/91		Achievements during 1991-92		Cumulative achievements till the end of 3/92	
	Expenditure (Rs. in lakhs)	Area benefited	Expenditure (Rs. in lakhs)	Area benefited	Expenditure (Rs. in lakhs)	Area benefited
Construction of field channels	2278.35	57038 (Ha)	1240.37	10950 (Ha.)	3518.72	67983 (Ha.)

## APPENDIX 5.8

*Growth of Kerala Power System at a Glance 1991 and 1992*

Particulars	Position as on	
	31-3-1991	31-3-1992
(1)	(2)	(3)
1. Installed capacity—MW	1476.5	1476.5
2. Maximum demand—MW		
(a) System	1147.80	1264.60
(b) Internal	1271.60	1308.80
3. Generation per annum—MU	5490.75	5325.79
4. Import per annum—MU	1303.83	1855.82
5. Export per annum—MU	4.73	2.18
6. Energy sales per annum—MU	5331.86	5596
7. Energy losses of percentage of energy available for sale	21.57%	21.73%
8. Per capita consumption KWH	185.06	193
9. 220 KV lines—CT. KM.	1064.55	1064.55
10. 110 KV lines—CT. KM.	2192.24	2192.24
11. 66 KV lines—CT. KM	2573.10	2606.10
12. 11 KV lines—CT. KM.	20821	21686
13. LT lines—CT. KM.	101884	107408
14. Step up transformer capacity—MVA	1726	1726
15. No. of the EHT substation	140	143
16. Step down transformer capacity—MVA	4831	4994.2
17. Distribution Transformer		
(a) Numbers	17838	18969
(b) Capacity—MVA		2293523
18. No. of Villages electrified	1268	1268
19. No. of consumers (in lakhs)	34.5	37
20. Connected load—MW	4367.45	5526.01
21. No. of street lights	522260	545652
22. No. of irrigation pumps	218446	238206
23. Total revenue per annum (Rs. in lakhs)	29062.32	34326.97

## APPENDIX 5.9

Power Projects and Power Generations as on 31-3-1992

Name of Project	Installed capacity (MW)	Energy potential (MU)	Units generated during 1991-92 (MU)
(1)	(2)	(3)	(4)
1. Pallivasal	37.5	284	240.9523
2. Sengulam	48.0	182	155.2140
3. Neriyanagalam	45.0	237	265.2220
4. Panniar	30.00	158	101.3373
5. Peringalkuthu	32.0	170	196.3937
6. Sabarigiri	300.0	1338	1296.0900
7. Sholayar	54.0	233	235.9879
8. Kuttiady	75.0	268	229.3869
9. Idukki	780.0	2398	2311.2750
10. Idamalayar	75.0	380	293.9560
<b>Total</b>	<b>1476.5</b>	<b>5648</b>	<b>5325.7881</b>

## APPENDIX-5.10

Details of cost expenditure potential expected year of commissioning of Hydro Electric Project in Kerala 1992

SL No.	Name of Project	Year of starting	Original estimated cost (Rs in lakhs)	Latest revised estimate (Rs in lakhs)	Expenditure till the end of 3/92 (Rs. in lakhs)	Expected year of commissioning	% increase of revised estimate over the Original estimate	Energy potential (MU)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	Kakkad	1976	1860	8800	6224	1995-96	373	262
2	Kallada	1981	1180	1437	1161	1993-94	21	53
3	Lower Periyar	1983	8843	18000	10759	1994-95	103	493
4	Malampuzha	1987	295	425	188	1993-94	44	5.6
5	Madupetty	1987	292	365	181	1993-94	25	6.4
6	Peppara	1987	393	580	213	1993-94	47	1.5
7	Chirmoni	1987	314	425	54	1994-95	35	65
8	Malanakara	1987	780	1600	89	1995-96	105	36
9	Pocchi	1989	244	287	..	1994-95	17	5
10	Pooyankutty Stage I	1985	2500	..	450	..	..	645
11	Azhutha Diversion	1988	370	420	242	1994-95	13	57
12	Kuttair Diversion	1988	214	254	64	1994-95	18	36.6
13	Vadakkapuzha Diversion	1989	131	160	..	1994-95	22	12
14	Vazhikkadavu Diversion	1989	185	200	..	1995-96	8	24
15	Peringalkuthu L.B. extension	1989	902	2192	609	1995-96	143	38

## APPENDIX 5.11

*Pattern of Power Consumption and Revenue collected during 1991-92*

Sl. No.	Category	No. of consumers on 31-3-1992 (Nos.)	Connected load as on 31-3-1992	Energy (MU) sold	Consumption as percentage to total	Revenue collected (Rs. lakhs)	Revenue as % to total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	Domestic lights, heat and small power	2761341	1872.74	1693	30.02	8976.53	27.17
2.	Commercial lights, fans, heat, and power	628055	406.50	566	10.11	5017.53	15.19
3.	Industrial (Low and Medium voltage)	66628	927.43	391	6.99	2852.30	8.64
4.	Industrial (High and Extra High voltage)	1119	1728.53	2407	43.02	13668.54	41.37
5.	Irrigation	238206	468.14	224	4.24	550.07	1.65
6.	Public lighting	1398	30.08	111	1.98	885.53	68
7.	Water works and sewerage	959	71.51	84	1.50	632.04	1.92
8.	Bulk supply to licencees	5	21.08	120	2.14	448.67	1.36
9.	Miscellaneous	..	..	..	-	5.63	0.02
Total:		3697711	5526.01	5596	100	33036.84	100.00

## APPENDIX 5.12

*New Electricity tariff rate with effect from 1-1-1992.*

## 1. LTI(A) Domestic Consumers

Slab No.	Average Consumption of slab Flat rate/month (Kwh)	(excluding duty (Rs.))
1.	1-10	Free
2.	11-20	Free
3.	21-30	15
4.	31-40	20
5.	41-50	26
6.	51-65	35
7.	66-80	48
8.	81-100	60

## 2. L.T.I. (B) and (C) Domestic consumers

Average consumption	Energy charges paise per unit (Excluding duty)
101-150	80
151-200	100
above 200	150

Item	Energy charge	
	Paise per unit	
3. L. T. II (Colonies supplied with LT (single or 3 phase)	150	
4. L. T. III (Temporary Illumination Exhibition and Fairs)	300	
5. L.T. IV (Supplies for general purpose industrial loads)	75	
6. L. T. V (Agriculture)	12	
7. L. T. VI (Non-Domestic)	105	—For connected load upto 5 KW
	145	—For connected loads above 5 KW
8. L. T. VII(A) —Display lighting circus etc.	135	—for connected load upto 1 KW
	175	—for connected load above 1 Kw. and up to 10 Kw.
	225	—for connected load above 10 Kw.
9. L. T. VII(B) —Shops and bunks	70	—upto 50 units/month
	135	—beyond 50 units/month
10. L.T. VII (C) Cinema Theatre	150	—for connected load upto 10 Kw.
	200	—for connected load above 10 Kw.
11. H.T.I —Water Works Printing Presses etc.	57	
12. H.T. II —Hotels lodges etc.	78	
13. H.T. III —Aerodromes Radio Station etc.	76	
14. H.T. IV —Agricultural	50	
15. EHT —(66 KV Consumers)	56	
16. EHT —(110 KV Consumers)	55	

## APPENDIX G.1

*Capital Invested and Employment in respect of Government owned Companies*

<i>Name of Company</i>	<i>Capital invested (Rs. in lakhs)</i>		<i>Employment (in Nos)</i>	
	<i>As on 31-3-1991</i>	<i>As on 31-3-1992</i>	<i>As on 31-3-1991</i>	<i>As on 31-3-1992</i>
(1)	(2)	(3)	(4)	(5)
1. Kerala Ceramics Limited	1568.11	1821.65	531	546
2. Kerala Soaps and Oils Limited	1897.31	2060.40	604	590
3. Travancore Plywood Industries Limited	229.45	238.94	575	565
4. Kerala State Drugs & Pharmaceuticals Limited	2000.19	2000.19*	579	579*
5. Kerala State Detergents & Chemicals Limited	827.74	919.11	283	277
6. Kerala State Salicylates and Chemicals Limited	1761.00	2002.00	152	147
7. Kerala Electrical & Allied Engg. Co. Limited	2629.22	3827.21	1125	1108
8. Steel Industrials Kerala Limited	2442.19	2914.20	402	428
9. Autokast Limited	3905.04	4457.79	537	552
10. Steel and Industrial Forgings Limited	1468.00	1547.00	226	220
11. Kerala Minerals and Metals Limited	16147.03	17450.38	1145	1125
12. Malabar Cements Limited	6320.79	6166.32	1078	1065
13. Sitaram Textiles Limited	1591.59	1261.05	607	599
14. Trivandrum Spinning Mills Limited	546.41	610.65	495	481
15. Kerala Agro Machinery Corporation Limited	161.46	161.46	403	464
16. Scooters Kerala Limited	306.55	376.28	100	102
17. Kerala Automobiles Limited	1353.20	1638.41	374	400
18. Kerala Premopipe Factory Limited	177.62	188.00	255	255*
19. Kerala Clays and Ceramic Products Limited	31.61	53.40	392	393
20. Kerala State Wood Industries Limited	816.65	939.55	170	170
21. Meat Products of India Limited	183.71	183.71*	94	94*
<b>Total</b>	<b>46364.87</b>	<b>50817.70</b>	<b>10127</b>	<b>10160</b>

\* Last years figure.

## APPENDIX 6.2

Performance of Government Owned Companies in respect of Value of Production and Sales Turnover-1990-91 and 1991-92.

(Rs. in lakhs)

Name of Company	Value of Production		Sales Turnover	
	1990-91	1991-92	1990-91	1991-92
(1)	(2)	(3)	(4)	(5)
<i>KSIE Group</i>				
1. Kerala Soaps and Oils Limited.	734.00	492.55	688.24	323.00
2. Kerala State Drugs & Pharmaceutical Limited	940.87	..	1106.10	..
3. Kerala State Detergents & Chemicals Limited	35.81	75.96	34.64	67.40
4. Travancore Plywood Industries Limited	328.53	185.00	353.07	182.00
5. Kerala State Salicylates & Chemicals Limited	..	43.19	..	38.77
<i>Electrical</i>				
6. Kerala Electrical & Allied Engineering Co. Ltd.	2631.93	NA	2643.86	3000.63
<i>Steel</i>				
7. Steel Industries Kerala Limited	344.48	1709.93	1443.23	1804.83
8. Autokast Limited	493.92	715.30	464.19	724.14
9. Steel and Industrial Forgings Limited	752.24	905.00	776.52	955.30
<i>Chemicals</i>				
10. Kerala Minerals and Metals Limited	6889.34	7634.24	4233.33	8322.10
11. Malabar Cements Limited	4375.00	5619.27	3386.54	5530.91
<i>Textiles</i>				
12. Sitaram Textiles Limited	740.69	982.16	756.76	916.49
13. Trivandrum Spinning Mills Limited	419.21	509.50	215.97	542.75
<i>Engineering</i>				
14. Kerala Agro Machinery Corporation Limited.	1445.95	1727.82	1542.93	1975.70
15. Scooters Kerala Limited.	75.18	98.80	67.92	86.55
16. Kerala Automobiles Limited	837.00	430.85	811.00	568.09
<i>Ceramics and Refractories</i>				
17. Kerala Ceramics Limited	365.87	466.48	347.09	422.79
18. Kerala Clays and Ceramic Products Limited	87.70	100.96	107.29	118.37
19. Kerala Prunopipe Factory Limited	142.71	NA	141.21	NA
<i>Wood based</i>				
20. Kerala State Wood Industries Limited	401.90	223.20	389.35	223.20
<i>Agro Based</i>				
21. Meat Products of India Limited	108.27	NA	110.33	NA
<b>Total</b>	<b>22150.60</b>	<b>21919.71</b>	<b>19619.57</b>	<b>26903.02</b>

## APPENDIX 6.3

Installed Capacity Utilisation in Government Owned Companies during 1990-91 and 1991-92

Name of Company	Name of Product	Unit	Installed Capacity		Production		Capacity Utilisation (in percentage)	
			1990-91	1991-92	1990-91	1991-92	1990-91	1991-92
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. Kerala Soaps and Oils Limited	(i) Soaps	M.T.	9000	9000	3980	2637	44.22	29.30
	(ii) Glycerine	"	260	260	99	17	15.00	6.54
	(iii) Shark Liver Oil Products	"	300	300	37	47	12.33	15.67
	(iv) Vanaspathi	"	3000	3000	..	..	..	..
2. Kerala State Drugs and Pharmaceuticals Limited	(ii) Vitamin 'A'	M.M.U.	30.00	NA	8.46	NA	28.20	..
	(ii) Tablets	Lakh Nos.	2514	..	2317	..	92.16	..
	(iii) Granules	K.g.	20000	..	..	..	..	..
	(iv) Powders	"	..	..	613256 (Pkts)	..	..	..
	(v) Liquids	Lakh litres	2.25	..	1.47	..	65.33	..
	(vi) Injectibles							
	(a) Bottles	Lakh Nos.	4.50	..	6.52	..	144.89	..
	(b) Vials	"	15.00	..	7.72	..	51.47	..
(c) Ampoules	"	60.00	..	17.74	..	29.57	..	
(vii) Capsules	"	149.00	..	71.81	..	48.19	..	
3. Kerala State Detergents and Chemicals Ltd.	(i) Cake/Bar	M.T.	7200	7200	85	136	1.18	18.89
	(ii) Spray Dried Powder	"	10800	10800	..	394	..	3.65
	(iii) High Density Powder	"	1800	1800	173	383	9.61	21.28
4. Travancore Plywood Industries Limited	Plywood	Lakh sq. metres (4 mm. basis)	27.38	27.38	7.31	3.44	26.70	12.5
5. Kerala State Salicylates And Chemicals Ltd.	(i) Salicylate Acid	M.T.	1000	1000	..	52.37	..	5.24
	(ii) Aspirin	"	1000	1000	..	18.9	..	1.89
	(iii) Sodium Salicylate	"	250	250	..	..	..	..
6. Kerala Electrical and Allied Engg. Co. Ltd.	(i) Distribution of Transformer	KVA	120000	120000	292065	120793	249.99	100.66
	(ii) C.I. Specials	M.T.	1500	1500	704	210	46.93	14.00
	(iii) Steel Structures	"	1200	1200	620	193	51.67	16.08
	(iv) Galvanised Structures	"	..	..	..	..	..	..
	(v) Brushless Alternators	Nos.	1500	1500	1372	1071	91.47	71.40
	(vi) HRC Fuses	"	..	..	..	..	..	..
	(vii) Electrical Wiring Accessories	"	133000	133000	567122	350440	426.41	263.49
7. Steel Industrials Kerala Limited	(i) Fabricated Steel Structural	M.T.	3000	3000	1239	727	41.97	24.23
	(ii) Ferrous Scrap	"	16000	16000	6321	3703	39.51	23.14
	(iii) Castings	"	720	1200	670	675	93.06	56.25



(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
8. Autokast Limited	Heavy Ferrous and non-ferrous Scrap	M.T.	18000	18000	2760	3920	15.33	21.78
	non-ferrous Scrap	"						
9. Steel and Industrial forgings Ltd.	Carbon and Alloy Forgings	"	4790	7500	2827	2800	59.02	37.33
10. Kerala Minerals and Metals Ltd.	(i) Titanium Dioxide	M.T.	22000	22000	9000	10011	40.91	45.50
	(ii) Ilmenite	"						
	(iii) Zircon	"						
	(iv) Leucoxene	"	29740	29740	7417	7452	24.94	25.09
	(v) Monazite	"						
11. Malabar Cements Ltd.	Portland Cement	Lakh M.T.	4.20	4.20	2.55	3.16	60.71	75.1
12. Sitaram Textiles Ltd.	(i) Cotton Yarn	Lakh kg.	15776	16304	9.42	9.86	..	..
			Spindles	spindles				
	(ii) Cotton Fabrics	Lakh Metres	..	..	..	..	..	..
	(iii) Processing	"	40000	40000	45.12	51.54	..	..
			mtrs/day	mtrs/day				
13. Trivandrum Spinning Mills Ltd.	Cotton yarn	Lakh k.g.	25200	25200	6.49	7.09	..	..
			spindles	spindles				
			and 800	and 800				
			double	double				
			spindles	spindles				
14. Kerala Agro Machinery Corporation Ltd.	(i) Power Tillers/ Agri. Tractors	Nos.	3000	3600	3020	3525	100.67	97.92
	(ii) High Speed Diesel Engines	"	..	..	..	..	..	..
15. Scooters Kerala Ltd.	(i) Scooters	Nos.	..	..	..	..	..	..
	(ii) Sheet Metal Items	M.T.	180.07	..	..	..	..	..
16. Kerala Automobiles Ltd.	Three wheelers	Nos.	4200	6000	3011	1490	71.69	24.83
17. Kerala Ceramics Ltd.	(i) Kaolin	M.T.	18000	18000	7684	8898	42.69	49.43
	(ii) Porcelain	"	595	595	461	337	77.48	90.25
	(iii) China clay	"	..	..	..	..	..	..
	(iv) Sanitary wares	"	1200	..	224	..	18.67	..
18. Kerala Clays and Ceramic Products Ltd.	(i) China clay	M.T.	..	..	10238	11451	..	..
19. Kerala Premopipe Factory Limited	Concrete Cement Pipes	Nos	NA	NA	11319	NA	NA	..
20. Kerala State Wood Industries Ltd.	(i) Veneers	Lakh sq.mtrs	37.50	37.5	0.79	0.63	2.11	1.69
	(ii) Joinery Items	Lakh Nos.	1.00	1.00	0.20	0.05	20.00	5.00
	(iii) Scanthings.	Cu. mtrs	..	NA	2321	1615	..	..
21. Meat Products of India Ltd.	(i) Meat and Meat Products	Tonnes	300	NA	215	NA	71.67	..
	(ii) Food	"	7200	NA	1222	NA	16.97	..

## APPENDIX 6.4

*Capital Invested and Employment in respect of Government Majority Companies in Kerala*

Name of Company (1)	Capital Invested (Rs. in lakhs)		Employment (Nos.)	
	As on 31-3-1991 (2)	As on 31-3-1992 (3)	As on 31-3-'91 (4)	As on 31-3-'92 (5)
1. Keltron Counter Limited	717.04	800.04	310	310
2. Keltron Electro Ceramics Limited	432.19	483.74	103	103
3. Keltron Crystals Limited	232.77	359.91	126	126
4. Keltron Magnetics Limited	77.55	85.15	33	33
5. Keltron Power Devices Limited	906.69	906.69*	154	154*
6. Keltron Resistors Limited	269.49	283.95	49	49
7. Keltron Rectifiers Limited	783.14	783.14	107	107*
8. Keltron Component Complex Limited	1306.60	1352.19	370	370
9. Sidkel Televisions Limited	36.00	36.00*	74	78*
10. Steel Complex Limited	459.84	471.89	638	637
11. Metal Industries Limited	61.40	62.70	128	128
12. Travancore Titanium Products Limited	176.75	176.75	1480	1400
13. Travancore Cochin Chemicals Limited	934.49	912.27	1166	1204
14. Travancore Cement Limited	50.00	50.00	580	555
15. Metropolitan Engineering Company Ltd.	249.77	260.00	153	152
16. Traco Cable Company Limited	3578.53	4625.49	273	292
17. United Electrical Industries Limited	408.97	403.76	531	529
18. Transformers and Electricals Kerala Ltd.	5143.84	5490.36	1634	1622
19. Kerala Construction Components Ltd.	49.48	58.03	116	131
20. Chalakudy Refractories Limited	530.79	577.23	127	120
21. Travancore Sugar and Chemicals Ltd.	88.55	107.35	559	500
22. Forest Industries (Travancore) Ltd.	48.18	58.34	131	131
Total	16547.06	18344.98	8792	8729

\*Last Year's figure.

## APPENDIX—6.5

Performance of Government Majority Companies in terms of value of production and sales Turnover  
1990-91 and 1991-92 (Rs. in lakhs)

Name of Company (1)	Value of Production		Sales Turnover	
	1990-91 (2)	1991-92 (3)	1990-91 (4)	1991-92 (5)
<i>Electronics</i>				
1. Keltron Counters Limited	207.27	164.69	257.87	201.93
2. Keltron Electro Ceramics Limited	95.36	214.96	99.42	213.19
3. Keltron Crystals Limited	189.30	170.40	182.43	212.20
4. Keltron Magnetics Limited	62.25	56.75	76.80	80.53
5. Keltron Resistors Limited	70.25	96.23	96.61	112.70
6. Keltron Power Devices Limited	52.41	..	87.44	..
7. Keltron Rectifiers Limited	84.70	..	118.54	..
8. Keltron Component Complex Limited	1497.89	1880.37	1525.11	1940.26
9. SIDKEL Televisions Limited	89.88	..	104.76	..
<i>Iron and Steel</i>				
10. Steel Complex Limited	4420.73	4592.70	4168.75	4888.88
11. Metal Industries Limited	80.57	126.40	110.60	121.73
<i>Chemical</i>				
12. Travancore Titanium Products Limited	3441.10	4612.12	4221.12	5214.69
13. Travancore Cochin Chemicals Limited	4290.06	4470.70	4253.16	5000.77
14. Travancore Cements Limited	1536.23	1762.25	1568.47	1780.72
<i>Electricals and Cables</i>				
15. Metropolitan Engineering Company Ltd.	186.00	188.83	189.25	179.62
16. Traco Cable Company Limited	1154.13	2960.29	1163.05	2737.80
17. United Electrical Industries Limited	690.00	790.77	696.24	802.81
18. Transformers and Electricals Kerala Ltd.	5208.37	5788.50	4541.16	5798.92
<i>Ceramics and Refractories</i>				
19. Kerala Construction Components Limited	45.89	..	53.13	71.50
20. Chalakydy Refractories Limited	20.04	27.75	15.66	26.16
<i>Agrobased Industries</i>				
21. Travancore Sugars and Chemicals Limited	434.22	618.54	511.17	619.87
<i>Wood Based Industries</i>				
22. Forest Industries (Travancore) Limited	70.79	163.22	238.30	168.72
Total	23927.44	28685.47	24279.04	30173.00

## APPENDIX 6.6

Installed Capacity and Capacity Utilisation in Government Majority Companies --1990-91 and 1991-92

Name of Company	Name of Product	Unit	Installed Capacity		Production		Capacity Utilisation%	
			1990-91	1991-92	1990-91	1991-92	1990-91	1991-92
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. Keltron Counters Ltd.	(i) Counting devices, Registering mechanism and	Lakh Nos.	..	..	0.69	0.27	..	..
	(ii) Defence equipment	Nos.	..	..	..	613	..	..
2. Keltron Electro Ceramics Ltd.	(i) Ceramic Capacitors	Million pieces	80	80	33	49	41.25	61.25
	(ii) Thermistors							
	(iii) Transducers	Nos.	..	..	..	242	..	..
3. Keltron Crystals Ltd.	(i) Communication Crystals and watch crystals	Lakh Nos.	20.84	20.84	9.22	11.09	44.24	53.21
	(ii) Digital Electronic Watches	000' Nos.	45	45	34	1	75.56	2.22
4. Keltron Magnetics Ltd.	(i) Colour TV Delay Lines	Lakh Nos.	27.5	27.5	0.02	0.01	0.07	0.04
	(ii) Servo Controlled Voltage stabilizers	Nos.	5000	5000	1300	838	26.00	16.76
	(iii) UPS	..	100	100	9	15	9	15
5. Keltron Power Devices Ltd.	Power Transistors	Lakh Nos.	10.00	NA	2.74	NA	27.00	..
6. Keltron Resistors Ltd.	Carbon and Metal film Resistors	Million Nos.	142.00	142.00	87.10	67.55	61.34	47.57
7. Keltron Rectifiers Ltd.	(i) Silicon Diodes	Lakh Nos.	3.20	NA	1.67	NA	52.19	..
	(ii) Electronic Equipments	Nos.	50.00	NA	6.00	NA	12.00	..
8. Keltron Component Complex Ltd.	Aluminium Electrolytic capacitors	Million Nos.	150	150	70.59	75.02	47.06	50.01
9. SIDKEL Televisions Ltd.	Television Sets	Nos.	20000	NA	2889	NA	14.45	..
10. Steel Complex Ltd.	Steel Billets	Tonnes	35000	35000	50457	46389	91.74	84.34
11. Metal Industries Ltd.	Agricultural Implements	M.T.	250	250	347	515	138.80	206.00
12. Travancore Titanium Products Ltd.	Titanium Dioxide	..	24500	24500	11503	19010	46.95	53.10
13. Travancore Cochin Chemicals Limited	(i) Caustic Soda	..	52800	52800	43469	44480	82.33	84.24
	(ii) Chlorine Products	..	46464	46464	38253	39142	82.33	84.24
14. Travancore Cements Ltd.	(i) White Cement	..	90000	90000	90901	81894	103.00	104.65
	(ii) Cement Paint	..	1050	1050	1329	1600	126.57	152.38
15. Metropolitan Engineering Limited	Switches and Fuses	Nos.	44620	44420	21420	37601	48.01	84.65
16. Traco Cable Company Ltd.	(i) A.A.G. and ACSR	MT	1500	1500	1409	1469	93.93	97.93
	(ii) PVC covered conductors and Bare Copper conductors	MCM	32.92	32.92	10.73	20.25	32.59	61.51
	(iii) Telephone Cable	LCKM	5.00	5.00	0.26	2.27	3.20	43.40

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
17. United Electrical Industries Limited	(i) KWH (Meters)	Nos.	300000	300000	284782	302655	94.93	100.89
	(ii) Motor Control Gears	"	4500	4500	1991	1332	44.24	29.60
	(iii) L.T. Switch Gears	"	..	..	..	..	..	..
	(iv) 11 KV Switch Gears	"	..	..	..	..	..	..
	(v) Plastic Film Capacitors	Million Nos.	15.00	15.00	0.33	0.87	2.20	5.80
	(vi) Carbon film Resistors	"	..	..	..	..	..	..
	(vii) Other Products	Nos.	..	..	1342	1410	..	..
18. Transformers and Electricals Kerala Ltd.	(i) Power Transformers	MVA	4500	4500	3701	3154	82.24	70.09
	(ii) Current and potential Transformers	Nos.	1000	1000	569	509	56.90	50.90
	(iii) Gas circuit Breakers	"	100	100	28	22	28	22
19. Kerala Construction Components Ltd.	Sandlime Bricks	Lakh Nos.	120	NA	71.24	NA	59.37	..
20. Chalakudy Refractories Ltd.	(i) Refractory items	M.T.	2400	2400	902	1162	37.58	47.33
	(ii) Calcined Kaolin	M.T.	..	..	2	..	..	..
21. Travancore Sugars and Chemicals Ltd.	(i) Sugar	Tonnes	900	900	968	1151	..	..
			tonnes of cane/day	tonnes of cane/day				
	(ii) Spirit	Lakh Proof Ltrs.	46.53	46.53	13.56	21.62	29.14	46.46
	(iii) IMFL	"	..	..	1.69	0.22	..	..
	(iv) Arrack	"	..	..	35.65	54.54	..	..
	(v) Molasses	Tonnes	..	..	621	..	..	..
22. Forest Industries (Travancore) Ltd.	Wood Furniture Joinery Items	Cu.M	1500	1500	1275	905	85.00	60.33

*Group-wise Working Results of State Public Sector Industrial Undertakings in Kerala*

(Amount in Rs. Lakhs)

Group	(1)	(2)	Paid up Capital		Total Borrowing		Gross Block		Net Profit earned during 1991-92 No. of companies	Net Loss incurred during 1991-92 No. of companies	Accumulated Loss as on 31-3-1992 No. of companies		
			As on 31-3-1991	As on 31-3-1992	As on 31-3-1991	As on 31-3-1992	As on 31-3-1991	As on 31-3-1992					
	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)		
<b>1. Modern Manufacturing Industries.</b>													
(i) Electronics	6	1139.74	1129.94	2551.89	2875.22	2195.68	2356.16	2	68.15	4	139.53	5	1937.92
(ii) KSI E Group	4	1008.81	1016.81	4523.96	5220.41	2518.70	2565.52	..	..	4	1078.23	4	5220.20
(iii) Chemicals	5	6474.03	6546.03	17396.40	18321.00	22821.48	23101.43	4	1856.85	1	1275.82	2	11660.27
(iv) Textiles	2	466.99	481.99	1728.06	1409.24	792.54	809.59	1	268.00	1	111.52	2	2090.22
(v) Electricals and Cables	4	2675.39	2895.39	9520.36	10978.49	5044.71	5698.21	2	103.57	2	332.56	4	5943.92
(vi) Engineering	8	4440.18	5142.76	7843.70	10862.31	6067.89	6249.70	2	259.47	6	1741.02	7	6639.38
(vii) Ceramics and Refractories	3	1295.42	1410.43	847.36	1054.12	561.16	582.62	1	7.46	2	84.54	2	1884.53
2. Agro based	3	158.00	158.00	164.04	189.84	370.24	372.36	..	..	3	62.14	3	307.75
3. Wood based	2	197.71	202.71	857.50	1001.36	332.87	321.17	1	4.01	1	48.08	2	729.54
4. Trading and Promotional Units	8	11117.50	12128.04	13957.53	13748.68	2006.50	2086.12	3	666.10	5	136.20	8	7585.85
<b>Total</b>	<b>45</b>	<b>28973.77</b>	<b>91112.10</b>	<b>59390.80</b>	<b>65660.67</b>	<b>42711.77</b>	<b>44342.88</b>	<b>16</b>	<b>3233.61</b>	<b>29</b>	<b>5009.64</b>	<b>39</b>	<b>43380.89</b>

## APPENDIX 6.8

*Statewise Value of Property (Gross Block) under Central Public Sector Enterprises**(Amount Rs. Crores)*

State/Union Territory	As on 31-3-1990		As on 31-3-1991	
	Value of Property	Percentage to Total	Value of Property	Percentage to Total
(1)	(2)	(3)	(4)	(5)
1. Andhra Pradesh	11412	10.06	12969	10.00
2. Assam	5050	4.45	5460	4.21
3. Bihar	9638	8.50	10693	8.24
4. Goa	58	0.05	235	0.18
5. Gujarat	5660	5.00	6161	4.75
6. Haryana	899	0.79	1071	0.82
7. Himachal Pradesh	1298	1.14	1385	1.07
8. Jammu and Kashmir	1351	1.19	1271	0.98
9. Karnataka	2589	2.28	2693	2.08
10. Kerala	1701	1.50	1853	1.43
11. Madhya Pradesh	12580	11.09	12900	9.95
12. Maharashtra	19933	17.57	22012	16.97
13. Orissa	5966	5.26	6899	5.32
14. Punjab	837	0.74	890	0.69
15. Rajasthan	1717	1.51	2219	1.71
16. Tamil Nadu	5902	5.20	7139	5.50
17. Uttar Pradesh	8794	7.75	10229	7.89
18. West Bengal	7084	6.25	8784	6.77
19. Delhi	4561	4.02	6707	5.17
20. Other States/Union Territories	784	0.69	988	0.76
21. Unallocated	5617	4.96	7155	5.51
Total	113431	100.00	129713	100.00

Source: Statistical Review of Central Government Enterprises, 1990-91; Centre for Monitoring Indian Economy-April, 1992.

## APPENDIX 6.9

*Capital Invested and Employment in Respect of Govt. of India Companies Working in Kerala*

Name of Companies	Capital invested		Employment	
	(Rs. in lakhs)		(in Nos.)	
	As on 31-3-1991	As on 31-3-1992	As on 31-3-1991	As on 31-3-1992
(1)	(2)	(3)	(4)	(5)
1. Cochin Refineries Limited, Kochi	18506.00	21183.00	1194	1257
2. Cochin Shipyard Limited, Kochi	17117.20	19338.20	2706	2369
3. Fertilisers and Chemicals Travancore Ltd., Aluva	47804.50	47894.87	8610	9148
4. Hindustan Latex Limited, Thiruvananthapuram	2260.67	2106.26	1984	1940
5. Hindustan Newsprint Ltd., Kottayam	8355.99	8321.99	1684	1696
6. Indian Rare Earths Ltd.				
(a) Rare Earth Division, Aluva	NA	NA	605	674
(b) Minerals Division, Chavara	NA	NA	NA	NA
7. Indian Telephone Industries Ltd., Palakkad	NA	NA	NA	889
8. Hindustan Insecticides Ltd., Aluva	NA	NA	853	836
9. Instrumentation Ltd., Palakkad	NA	NA	NA	NA
10. Modern Food Industries (India) Ltd., Kochi	NA	NA	234	227
11. H.M.T. Ltd., Kalamassery	1048.53	1101.41	2895	2858
12. Belmer Lawrie and Co. Ltd., Aroor	818.82	817.47	312	321
13. Hindustan Organic Chemicals Ltd., Kochi	5638.60	NA	421	NA
14. Cannanore Spinning and Weaving Mills, Kannur	NA	NA	NA	NA
15. Parvathy Mills, Kollam	NA	NA	NA	NA
16. Vijayamohini Mills, Thiruvananthapuram	539.76	679.16	NA	622
17. Alagappa Textiles (Cochin) Mills, Thrissur	635.79	696.89	NA	969
18. Kerala Lakshmi Mills, Thrissur	594.85	588.68	747	845



*Performance of Government of India Companies in Kerala in terms of Value of Production and Sales Turnover—1990-91 and 1991-92*

(Amount in Rs. lakhs)

Name of company (1)	Value of Production		Sales Turnover		Export	
	1990-91 (2)	1991-92 (3)	1990-91 (4)	1991-92 (5)	1990-91 (6)	1991-92 (7)
1. Cochin Refineries Limited	149085.00	148222.00	148879.00	148614.00	Nil	Nil
2. Cochin Shipyard Limited	7260.00	90.69	7867.00	4890.00	Nil	100.00
3. Fertilizers and Chemicals Travancore Limited	46460.74	81978.52	44629.59	79450.78	Nil	Nil
4. Hindustan Latex Limited	2781.00	3392.17	2781.00	3392.17	287.00	0.91
5. Hindustan News Print Limited	12948.00	14807.58	12972.07	14777.08	..	..
6. Indian Rare Earths Ltd.						
(a) Rare Earth Division	963.60	968.95	1017.94	1578.77	369.87	974.29
(b) Minerals Division	NA	NA	NA	NA	NA	NA
7. Indian Telephone Industries Limited	NA	8546.50	6140.41	8688.75	Nil	Nil
8. Hindustan Insecticides Limited	2600.00	1770.00	2036.70	2235.56	114.71	84.37
9. Instrumentation Limited	2647.05	NA	2962.36	NA	NA	..
10. Modern Food Industries (India) Limited	814.00	996.00	814.00	996.00	..	..
11. H.M.T. Limited	6207.76	7789.00	6258.12	6724.00	336.00	628.00
12. Balmer Lawrie and Company Limited	1465.72	1912.05	1381.21	1625.00	1063.81	1157.42
13. Hindustan Organic Chemicals Limited	14889.17	NA	11525.00	NA	474.00	..
14. Cannanore Spinning and Weaving Mills	NA	NA	NA	NA	NA	..
15. Parvathi Mills	NA	NA	NA	NA	NA	..
16. Vijayamohini Mills	792.83	954.68	798.88	894.43	..	13.13
17. Alagappa Textiles (Cochin) Mills	1299.29	1496.12	1308.48	1677.25	..	..
18. Kerala Lakshmi Mills	1026.94	1413.69	1014.65	1328.25	..	..

Name of company	Paid up Capital		Share of Government Total Loan Outstanding during 1991-92		Gross Block		Net Fixed Assets as on 31-3-92		Value of major Raw materials Consumed during 199-192		Net Profit (+) Net loss (-)	
	As on 31-3-1991	As on 31-3-1992	From Government	From others	As on 31-3-1991	As on 31-3-1992	As on 31-3-1991	As on 31-3-1992	199-192	1990-91	1991-92	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1. Cochin Refineries Ltd., Kochi	6894.00	6894.00	5913.00	14350.00	Nil	43.01	33459.00	42245.00	30738.00	150113.00	(+)	9684.00 (+) 9804.00
2. Cochin Shipyard Ltd., Kochi	7496.00	7729.00	7729.00	24298.85	1928.00	Nil	13107.83	13223.10	8039.61	2955.01	-	2097.00 - 1491.61
3. Fertilisers and Chemicals, Travancore Ltd. Aluva	NA	34277.20	34190.20	19967.58	65.37	1000.00	61491.26	62310.83	40287.20	45039.49	+	2360.90 + 2899.85
4. Hindustan Latex Ltd., Thiruvananthapuram	1257.51	1257.51	1257.51	848.75	Nil	Nil	3937.65	3950.52	2115.84	668.95	+	275.74 + 373.07
5. Hindustan Newsprint Ltd., Kottayam	8253.99	8253.99	8253.09	1313.48	Nil	Nil	17220.82	18532.63	6811.38	2477.81	+	3101.83 + 3801.10
6. Indian Rare Earth Ltd.												
(a) Rare Earth Division, Aluva	226.50	NA	NA	NA	NA	NA	1017.34	1967.08	1053.42	117.68	(-)	53.19 (-) 113.69
(b) Mineral Division, Chavara	NA	"	"	"	"	"	NA	NA	NA	NA	NA	NA
7. Indian Telephone Industries Ltd., Palakkad	Separate figures not available	Separate figures not available	..	..	..	..	4804.61	5001.57	3031.89	3336.50	(-)	153.78 + 3.32
8. Hindustan Insecticides, Udyogamandal	do.	do.	..	..	..	..	3027.52	3063.98	2474.51	1006.77	(-)	160.00 + 8.74
9. Instrumentation Ltd., Palakkad	do.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
10. Modern Food Industries (India) Ltd., Kochi do.	Not available	Not available	..	..	..	..	211.80	209.70	91.70	602.50	+	53.00 + 65.40
11. HMT Limited Kalamassery	935.00	935.00	935.00	2280.00	Nil	95.00	2353.99	2608.27	806.35	605.77	+	265.32 + 844.30
12. Balmer Lawrie and Co., Ltd., Aroor	Separate figures not available	Not available	..	..	..	..	319.77	339.60	127.38	1188.57	(-)	166.19 + 23.97
13. Hindustan Organic Chemicals Ltd., Kochi	3332.00	"	NA	NA	NA	NA	11346.00	NA	NA	NA	+	2859.00 NA
14. Cannanore Spinning and Weaving mills, Kannur	NA	"	"	"	"	"	NA	"	"	"	NA	"
15. Parvathy Mills, Kollam	NA	"	"	"	"	"	NA	"	"	"	NA	"
16. Vijayamolmi Mills, Thiruvananthapuram	155.87	203.86	199.43	475.30	Nil	Nil	311.04	470.00	265.87	572.06	+	128.28 (-) 128.33
17. Alagappa Textiles (Cochin) Mills, Thrissur	196.53	196.53	196.53	500.36	..	..	662.84	776.10	358.41	1060.54	+	133.10 + 23.37
18. Kerala Lakshmi Mills, Thrissur	144.46	114.46	114.46	474.22	Nil	75.00	591.89	710.24	403.46	884.73	+	129.67 (-) 21.61

## -APPENDIX 6.12

*Production and Capacity Utilisation in Government of India Companies working in Kerala  
1990-91 and 1991-92*

Name of Company	Name of Product	Unit	Installed Capacity		Production		Capacity Utilisation (in Percentage)		
			1990-91	1991-92	1990-91	1991-92	1990-91	1991-92	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
1. Cochin Refineries Ltd.	Petroleum Products	Million M.T.	4.50	4.50	5.01	4.84	111.93	107.56	
2. Cochin Shipyards Ltd.	(1) Ship Building	DWT	150000	150000	38133	32931	25.42	21.95	
	(2) Ship Repair	LakhGRT	10	..	4.64	..	46.40	..	
3. Fertilisers and Chemicals Travancore Limited	(i) Ammonium Sulphate	MT	324000	324000	111193	120936	34.32	37.33	
	(a) Udyogamandal Division	(ii) Ammonium Phosphate 20:20	"	148500	148500	121380	145718	81.74	98.13
		(iii) Super Phosphate	"	..	..	4612	..	..	..
		(iv) Sulphuric Acid	"	379500	379500	249296	270003	65.69	71.15
		(v) Phosphoric Acid	"	33000	33000	17977	15793	54.48	47.86
		(vi) Cryolite	"	..	..	..	..	..	..
		(vii) Ammonia	"	85800	85800	62846	63832	73.25	74.40
	(b) Kochi Division	(i) Ammonia	M.T.	198000	198000	138200	120105	69.80	60.66
		(ii) Sulphuric Acid	"	330000	330000	259200	325000	78.55	98.48
		(iii) Phosphoric Acid	"	115000	115000	49850	53740	43.35	46.73
	(iv) Urea	"	330000	330000	223818	200956	67.82	60.90	
	(v) NPK Fertilisers	"	485000	485000	438667	549986	90.45	113.40	
	Caprolactum	"	50000	50000	5921	26275	11.84	52.55	
4. Hindustan Latex Ltd.	(i) Contraceptive Condoms	Million Pieces	576	576	606	611	105.21	106.08	
	(ii) SAHELI Tablets	Lakh Nos.	..	..	..	3.05	..	..	
5. Hindustan News print Limited	News Print	M.T.	80,000	80,000	90,388	90,181	112.98	112.73	
6. Indian Rare Earths Limited	(a) Rare Earths Division, Aluva	(i) Rare Earths Chloride	"	5,000	5,000	2742	3241	54.84	64.82
		(ii) Trisodium Phosphate	ha	5,600	5,600	3579	4338	62.91	77.46
		(iii) Rare Earths Fluoride	"	180	180	132	174	73.33	96.67
		(iv) Rare Earth Oxide	"	60	60	18	23	30.00	38.33
	(b) Mineral Division, Chavara	(i) Ilmenite	"	NA	NA	NA	NA	NA	..
		(ii) Monazite	"	"	"	"	"	"	..
		(iii) Zircon	"	"	"	"	"	"	..
		(iv) Rutile	"	"	"	"	"	"	..
		(v) Sillimentite	"	"	"	"	"	"	..
		(vi) Zircon	"	"	"	"	"	"	..

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
7. Indian Telephone Industries Limited	Electronic Switching Equipments	Lines	NA	..	NA	1,74,149	..	..
8. Hindustan Insecticides Limited.	(i) Technical DDT	Tonnes	1344	1344	882	1058	65.63	78.72
	(ii) Formulated DDT	"	2688	2688	1857	2126	69.08	79.09
	(iii) Technical BHC	"	3000	3000	2085	1857	69.50	61.90
	(iv) Formulated BHC	"	3000	3000	2534	2809	84.47	93.63
	(v) T. Endosulfan Hildan 35 EC,	"	1600	1600	653	101	40.81	6.31
	(vi) Hildit 35 EC etc.	Kilo Litres	1910	1910	583	48	30.52	2.51
9. Instrumentation Ltd.	(i) Process Control Valves	Nos.	NA	NA	NA	NA	..	..
	(ii) Safety Relief Valves and Pressure Reducing Valves	"	"	"	"	"	..	..
	(iii) Miscellaneous items and Accessories	"	"	"	"	"	..	..
	(iv) Orifice plate/Flow measuring Devices	"	"	"	"	"	..	..
10. Modern Food Industries (India) Limited	(i) Modern Bread	Lakh Nos. of 400 gms.	218.32	218.32	262	288	120.01	131.92
	(ii) Modern Bun	Lakh Nos. of 50 gms.						
11. H.M.T. Limited.	(i) Machine Tools	Nos.	488*	564*	486	618	99.59	91.84
	(ii) Printing Machines	"	108*	127	90	123	83.33	96.85
12. Balmer Lawrie and Company, Limited	Marine Freight and Special containers	Nos.	3600	3600	2447	2356	67.97	65.44
13. Hindustan Organic Chemicals Limited	(i) Phenol	M.T.	4000	NA	31832	NA	79.58	..
	(ii) Acetone	"	24640	"	19864	"	80.62	..
	(iii) Propylen	"	29000	"	24683	"	85.11	..
	(iv) Cumene	"	54000	"	45681	"	84.59	..
14. Cannanore Spinning and Weaving Mills	Cotton Yarn	Lakh Kg.	NA	"	NA	"	..	..
15. Parvathi Mills	(i) Cotton Yarn	"	NA	"	NA	"	..	..
	(ii) Cloth	Lakh Mtrs.	NA	"	NA	"	..	..
16. Vijayamohini Mills	Cotton Yarn	Lakh Kg.	30476 spindles	30476 spindles	NA	13.32	..	..
17. Alagappa (Cochin) Mills	Cotton Yarn	Lakh Kg.	49564 spindles	49564 spindles	18.14	19.85	..	..
18. Kerala Lakshmi Mills	Cotton/Viscos Yarn	Lakh Kg.	41328 spindles	41328 spindles	14.64	17.35	..	..

\*Target for the year.

## APPENDIX 6.13

*District-wise details of Small Scale Industrial Units Registered in Kerala during the year 1991-92 (Provisional)*

Sl. No.	Name of District	Number of SSI Units promoted by				Investment (in lakhs)	Value of goods and Services produced (Rs. lakhs)	Employment provided (Number)
		SC/ST	Women	Others	Total			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1.	Thiruvananthapuram	28	121	1092	1181	1403.44	2723.51	6441
2.	Kollam	62	52	848	962	1247.47	4943.21	8853
3.	Pathanamthitta	27	76	502	605	492.33	156.15	2860
4.	Alappuzha	32	73	955	1070	1204.34	1351.00	4891
5.	Kottayam	15	65	1126	1206	986.69	528.67	4754
6.	Idukki	14	21	365	400	428.25	21.16	1823
7.	Ernakulam	19	129	1663	1805	2685.11	3882.90	7431
8.	Thirissur	43	69	938	1050	1794.02	2602.68	4591
9.	Palakkad	67	45	648	760	742.40	987.29	2911
10.	Malappuram	16	33	393	442	490.18	..	2124
11.	Kozhikode	19	38	563	620	667.53	2439.96	2312
12.	Wayanad	..	16	196	212	154.56	91.73	900
13.	Kannur	3	35	402	440	610.79	2228.97	2130
14.	Kasaragod	..	7	158	165	259.19	..	776
State Total		339	780	9799	10918	13106.90	21957.23	52797

## APPENDIX 6.14

*Achievements under Self Employment Programme during 1991-92 (Provisional)*

Sl. No.	Name of District	Applications sanctioned and amount disbursed during 1991-92			
		Sanctioned		Disbursement	
		Number	Amount (Rs. lakhs)	Number	Amount (Rs. lakhs)
(1)	(2)	(3)	(4)	(5)	(6)
1.	Thiruvananthapuram	539	970.37	238	468.00
2.	Kollam	497	91.50	497	91.50
3.	Pathanamthitta	146	30.29	51	9.39
4.	Alappuzha	478	89.60	395	69.05
5.	Kottayam	441	97.33	441	97.33
6.	Idukki	141	25.85	112	18.19
7.	Ernakulam	588	106.47	422	74.10
8.	Thirissur	588	94.71	NA	NA
9.	Palakkad	405	63.85	370	52.61
10.	Malappuram	243	43.70	196	32.89
11.	Kozhikode	443	73.97	322	51.71
12.	Wayanad	117	13.47	97	9.94
13.	Kannur	300	42.76	283	40.17
14.	Kasaragod	60	9.94	61	9.79
State Total		4985	1759.81	3485	1024.67

## APPENDIX 6.15

District-wise details of Disbursement of Loan by Kerala Financial Corporation 1991-92

(Amount in Rs. lakhs)

Sl. No.	Districts	SSI		Others		Total	
		Number	Amount	Number	Amount	Number	Amount
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Category (A)</i>							
1.	Idukki-KTPNA	37	30.05	25	95.93	62	125.98
2.	Thodupuzha	36	61.58	21	85.00	57	146.58
3.	Wayanad	18	57.47	39	86.40	57	143.87
<i>Category 'B'</i>							
4.	Alleppey	53	286.91	24	78.49	77	365.40
5.	Malappuram	43	235.60	13	111.42	56	347.02
6.	Cannanore	77	217.60	74	228.29	151	445.89
7.	Kasaragode	26	94.88	19	46.95	45	141.83
<i>Category 'C'</i>							
8.	Trivandrum	137	305.21	60	228.63	197	533.84
9.	Trichur	70	381.41	45	99.80	115	481.21
<b>Total:</b>		<b>497</b>	<b>1670.71</b>	<b>320</b>	<b>1060.91</b>	<b>817</b>	<b>2731.62</b>
<i>Non-Backward Districts</i>							
10.	Pathanamthitta	36	99.96	28	119.13	64	219.09
11.	Quilon	80	308.59	72	143.33	152	451.92
12.	Kottayam	86	324.36	36	124.93	122	449.29
13.	Ernakulam	255	798.72	66	317.28	321	1116.00
14.	Palghat	63	214.44	41	105.76	104	320.20
15.	Calicut	91	317.40	108	452.40	199	769.80
<b>Total:</b>		<b>611</b>	<b>2063.47</b>	<b>351</b>	<b>1262.83</b>	<b>962</b>	<b>3326.30</b>
<b>Grand Total:</b>		<b>1108</b>	<b>3734.18</b>	<b>671</b>	<b>2323.74</b>	<b>1779</b>	<b>6057.92</b>

APPENDIX 6.16

Kerala Financial Corporation, Thiruvananthapuram

Summary of loan operations as on 31-3-1992 (1-4-1991 to 31-3-1992)

(Rs. in lakhs)

Sl. No.	Items	During the year, 1991-92				Since inception upto 31-3-1992								
		Small Scale Units		Others		Small Scale Units		Others		Total				
		No.	Amount	No.	Amount	No.	Amount	No.	Amount					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	
1.	Applications pending as on 1-4-1991	84	395.06	104	274.95	188	668.01	..	..	..	..	..	..	..
2.	Applications received	1378	7351.23	694	1752.46	2072	9103.69	17351	50991.38	4375	20456.56	21726	71447.94	
3.	Total Applications for consideration	1462	7744.29	798	2027.41	2260	9771.70	17351	50991.38	4375	20456.56	21652	68795.93	
4.	Applications withdrawn/rejected or otherwise disposed off	86	291.61	67	184.48	153	476.09	3368	9954.44	630	3825.18	3998	13779.62	
5.	Applications sanctioned (Gross)	814	4149.23	937	3085.73	1751	7234.96	13155	37149.96	4217	17887.90	17372	55037.26	
6.	A. Applications cancelled/reduced out of current year's sanction.	91	181.04	122	135.51	213	316.55	..	..	..	..	..	..	
	B. Applications cancelled/reduced out of previous year's sanction	436	730.84	123	150.78	559	881.62	..	..	..	..	..	..	
	C. Total cancellation/reduction (6A+6B)	527	911.88	245	286.29	772	1198.17	2373	6656.39	664	1748.15	3037	8404.54	
7.	Applications sanctioned effectively (5-6A)	723	3968.19	815	2950.22	1538	6918.41	..	..	..	..	..	..	
8.	Net sanction (5-6C)	287	3237.35	692	2799.44	979	6036.79	10782	30492.97	3553	16139.75	14335	46632.71	
9.	Amount disbursed along with number of newly assisted units	1108	3734.18	671	2323.74	1779	6057.92	11361	27164.58	3437	11714.01	14790	38878.59	
10.	Applications pending for sanction as at the end of the period	123	537.36	51	192.64	174	730.00	..	..	..	..	..	..	

## APPENDIX 6.17

*Khadi And Village Industries—Production, Sales, Employment And Wage: During 1991-92*

Sl. No.	Name of Industry	Value of Production (Rs. in lakhs)	Sales Turn Over	Employment (Nos.)			Total	Wages Paid (Rs. in lakhs)
				Full Time	Part Time	Casual		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
A.	Khadi	462.18	658.50	12221	..	..	12221	257.55
B.	Village Industries							
1.	Processing of Cereals and Pulses	440.34	482.34	4482	5721	..	10203	126.16
2.	Village Oil	1399.20	1486.64	736	757	..	1493	43.96
3.	Village Leather	565.05	617.15	1864	963	..	2827	89.72
4.	Cottage Match	515.35	590.70	2842	3519	..	6361	102.82
5.	GlurKhandasari	162.63	181.96	1352	..	552	1907	33.47
6.	Palnigur	226.43	245.51	9625	20215	..	29840	20.69
7.	Non Edible Oil & Soap	213.84	236.63	310	401	..	711	19.01
8.	Handmade Paper	26.71	27.07	59	263	..	322	7.21
9.	Bee keeping	434.74	485.56	3831	10579	..	14410	472.00
10.	Village Pottery	866.42	892.70	17172	3983	..	21155	445.11
11.	Fibre and Screwpine	598.63	639.82	57954	4996	..	62950	401.15
12.	Carpentry and Blacksmithy	759.69	780.41	4748	794	..	5482	224.90
13.	Lime	559.78	687.36	3266	1781	..	5047	173.45
14.	Fruits and Vegetable Preservation	258.91	305.05	925	1241	..	2166	49.25
15.	Cane and Bamboo	232.38	220.54	1121	3234	..	4355	116.40
16.	Aluminium	175.00	175.59	543	193	..	736	55.10
17.	Agarbathy	83.41	87.78	634	124	..	758	11.58
18.	Rubber goods	68.51	75.54	322	180	..	502	10.73
19.	Polivastra	71.75	41.28	614	..	..	614	16.14
20.	Service	150.76	150.76	341	..	..	341	37.74
21.	Ayurvedic Medicine	24.39	26.37	84	222	127	433	6.53
22.	N. V. I. - Paper conversion	11.48	12.19	54	..	..	54	2.78
23.	Textiles	105.94	108.28	1618	20	..	1638	21.45
Total(B)		7971.34	8446.23	114497	59126	682	174305	2490.35
Grand Total (A+B)		8433.52	9104.73	126718	59126	682	186326	2747.90



## APPENDIX 6.18

## Coir Co-operative Societies in Kerala

Sl. No.	Type of Society	Number of Societies as on	
		31-3-1991	31-3-1992
(1)	(2)	(3)	(4)
1.	<i>Primary Coir Co-operative Societies</i>		
(a)	Working	447	452
(b)	New Societies which have not started working	58	57
(c)	Dormant Societies	56	50
	Total:	561	559
2.	<i>Manufacturing Societies</i>		
(a)	Working	22	22
(b)	New Societies which have not started working	20	20
(c)	Dormant Societies	6	6
	Total:	48	48
3.	<i>Small Scale Producer's Co-operative Societies</i>		
(a)	Working	7	7
(b)	New Societies which have not started working	1	1
(c)	Dormant Societies	Nil	Nil
	Total:	8	8
4.	<i>Hand Procurement and Distribution Societies</i>		
(a)	Working	2	2
(b)	New Societies which have not started working	Nil	Nil
(c)	Dormant Societies	..	2
	Total:	2	4
5.	<i>Fibre Societies:</i>		
(a)	Working	Nil	Nil
(b)	New Societies which have not started working	"	"
(c)	Dormant Societies	"	"
	Total:	Nil	Nil
6.	<i>Co-operative Coir Marketing Federation</i>	1	1
7.	<i>Total number of Coir Co-operative Societies:</i>		
(a)	Working	479 (Including Coirfed)	484
(b)	New Societies which have not started Working	79	78
(c)	Dormant Societies	62	58
(d)	Societies under liquidation	202	193
	Total:	822	813

## APPENDIX 6.19

Report of Coir and Coir Products from India during 1990-91 &amp; 1991-92

Item (1)	1990-91		1991-92	
	Quantity (tonnes) (2)	Value (Rs. lakhs) (3)	Quantity (Tonnes) (4)	Value (Rs. lakhs) (5)
1. Coir Fibre	41.00	5.17	5.06	1.14
2. Coir Yarn	14109.70	1705.85	15266.02	2328.23
3. Coir mats	9008.90	2021.86	11162.48	3569.35
4. Coir mattings	3362.70	794.53	3645.06	1193.70
5. Coir Rugs and Carpets	1207.80	268.07	602.45	241.28
6. Coir (Other sorts)	50.70	13.10	39.37	11.36
7. Coir Rope	112.60	15.19	139.00	22.43
8. Rubberised Coir Products	15.70	10.06	61.18	40.00
9. Curled Coir	16.50	1.03	31.94	2.23
10. Coir Pith	..	..	46.55	1.91
<b>Total:</b>	<b>27925.60</b>	<b>4832.85</b>	<b>30990.11</b>	<b>7411.63</b>

## APPENDIX 6.20.

Activities of the Coir-Co-operative Societies\*

## (a) Primary Coir Co-operative Societies:

Year (1)	Number of working Societies (2)	Number of members (*000) (3)	Husk Purchased		Yarn Produced		No. of Workers (*000) (8)	Wages Paid (Rs. lakhs) (9)
			Number (in lakhs) (4)	Value (Rs. lakhs) (5)	Quantity (tonnes) (6)	Value (Rs. lakhs) (7)		
1989-90	423	227	1181	271	11106	702.00	77	431
1990-91	447	246	1554	314	12377	961.00	80	572
1991-92	452	259	1532	325	10493	883.00	74	582

## (b) Manufacturing Societies:

Year (1)	Number of Working Societies (2)	Number of members (*000) (3)	Value of Production (Rs. lakhs) (4)	Number of Workers (5)	Wages Paid (Rs. lakhs) (6)	Value of Export (Rs. lakhs) (7)
1990-91	29	4343	652.54	1898	86.73	"
1991-92	29	4373	710.57	2214	100.02	"

\*Excluding two husk procurement and distribution Societies.

## APPENDIX 6.21

*Production and Productivity under Handloom Industry*

Sl.No.	Item	1990-91	1991-92
(1)	(2)	(3)	(4)
1.	Estimated total No. of Handlooms in the State.	52169	52600
2.	No. of looms in the Co-operative Sector	40591	40979
3.	Percentage of 2 to 1	77.81	77.91
4.	Co-operative Sector:		
	(i) Production of Handloom Cloth (Million Metres)	43.50	45.25
	(ii) Value of production (Rs. in crores)	65.25	81.45
	(iii) Productivity (Metre/loom)	1071	1104
5.	Corporate Sector:		
	(i) No. of looms under the purview of Handloom Development Corporation	6361	6361
	(ii) Production of Handloom Cloth (Million Metres)	1.48	0.93
	(iii) Value of Production (Rs. in crores)	2.22	1.38
	(iv) Productivity (Metre/loom)	233	146
	Unorganised Sector		
	(i) No. of looms in the unorganised/Private Sector	5048	5260
	(ii) Production of Handloom Cloth (Million Metre)	9.60	9.10
	(iii) Value of Production (Rs. in crores)	14.40	16.37
	(iv) Productivity (Metre/loom)	1903	1730
7.	Total (Co-operative, Corporate and Unorganised/Private Sectors)		
	(i) Production of Handloom Cloth	54.60	55.28
	(ii) Value of Production (Rs. in crores)	81.87	99.20
	(iii) Productivity (Metre/loom)	1069	1050
8.	(a) Assistance extended by way of loan and grant for the development of Handloom Industry (Rs. in lakhs)		
	(i) Loan		
	State Government	172.55	74.64
	Central Government	54.00	47.51
	N.C.D.C.	18.00	3.23
	Total	244.55	125.38
	(ii) Grant		
	State Government	115.50	75.03
	Central Government	47.35	26.37
	N.C.D.C.	..	1.29
	Total	162.85	102.69
	(b) Amount spent as Rebate on the Sale of Handloom Cloth:		
	State Government	149.72	249.79
	Central Government	399.64	283.95
	Total	549.36	533.74

<b>9. Value of Unsold Stock (Rs. in Crores)</b>			
(a) In the Co-operative Sector		12.15	16.29
(d) In the Corporate Sector		3.33	2.83
(c) In the Unorganised Sector		.	N.A.
	<b>Total</b>	<u>15.48</u>	<u>19.12</u>
<b>10. No. of Co-operative Societies</b>			
<b>(a) Factory type societies</b>			
(i) Working Societies		110	105
(ii) Dormant		9	9
(iii) Under Liquidation		11	11
	<b>Total (a)</b>	<u>120</u>	<u>125</u>
<b>(b) Cottage type Societies</b>			
(i) Working Societies		361	363
(ii) Dormant		37	37
(iii) Under liquidation		79	79
	<b>Total (b)</b>	<u>477</u>	<u>479</u>
	<b>Grand Total (a+b)</b>	<u>597</u>	<u>604</u>

## APPENDIX 6.22

*Working Results of Handloom Apna Society (HANTEX)*

Sl.No.	Particulars	1990-91	1991-92
(1)	(2)	(3)	(4)
1.	Sales Turn over (Rs. crores)	11.15	11.83
2.	Value of cloth procured (Rs. crores)	8.96	8.13
3.	Value of yarn purchased (Rs. crores)	2.99	1.79
4.	Value of yarn distributed (Rs. crores)	3.90	2.20
5.	Value of Janatha cloth produced (Rs. lakhs)	9.95	1.26
6.	Value of Polyester Shirting, Double Vashty and single vashty produced (Rs. in lakhs)	36.59	41.32
7.	Processed Goods		
	(a) Production (Lakh Metres)	4.95	5.30
	(b) Value (Rs. lakhs)	..	..
8.	No. of exhibitions conducted	66	74

## APPENDIX 6.23

*Working result of Kerala State Handloom Development Corporation Ltd., Kannur**(Rs. in lakhs)*

Sl.No.	Particulars	1990-91	1991-92
(1)	(2)	(3)	(4)
1.	Paid up Capital (as at the end of the year)	388.03	598.03
2.	Total Borrowings ( " )	507.58	556.18
3.	Gross Block ( " )	90.45	92.67
4.	Value of production	221.95	137.97
5.	Income through sale of products	110.94	116.70
6.	Other Income	14.29	47.74
7.	Expenditure on Raw Materials	330.40	209.58
8.	Expenditure on personnel payments	70.29	82.54
9.	Provision for depreciation	5.00	0.00
10.	Expenditure towards interest and Bank charges	25.53	39.34
11.	Other expenses		
12.	Net Profit (+)/Net Loss (-)	(-)-35.03	(-)-16.53
13.	Accumulated loss at the end of the year.	99.43	113.06

## APPENDIX 6.24

*Production and Productivity under Powerloom Industry*

Sl.No.	Item	1990-91	1991-92
(1)	(2)	(3)	(4)
1.	Total No. of Powerlooms in the State (estimated)	4859	4690
2.	No. of looms in the Co-operative Sector	880	599
3.	Percentage of 2 to 1	18.11	12.77
4.	No. of Powerloom Co-operative Societies in the State	21	19
5.	No. of Members in the Co-operative Sector	828	1321
6.	Co-operative Sector:		
1.	Production of cloth (lakh Metres)	38.00	25.85
2.	Value of Production (Rs. lakhs)	360.00	310.20
3.	Productivity (Metre/loom)	4318	4315
7.	Unorganised (Private Sector)		
1.	Production of cloth (lakh Metres)	50.00	60.00
2.	Value of production (Rs. lakhs)	677.00	780.00
3.	Productivity (Metre/loom)	1256	1466
8.	Total (Co-operative & Unorganised Sector)		
1.	Production (lakh metre)	88.00	85.85
2.	Value of Production (Rs. lakhs)	1037.00	1090.20
3.	Productivity (Metre/loom)	1811	1830

## APPENDIX 6.25

*Districtwise Quantity of Ramnuts procured in 1992 cashew season*

District	Quantity (MT)		Procurement price Rs./Kg.	Selling price to factories Rs./Kg.
	Target	Achievement		
(1)	(2)	(3)	(4)	(5)
1. Thiruvananthapuram	**		21.00	23.3
2. Kollam	7000	4644	21.00	23.3
3. Pathanamthitta	2000	1279	21.00	23.3
4. Alappuzha	1500	2354	21.00	23.3
5. Kottayam	**	..	21.00	23.3
6. Idukki	1000	856	21.00	23.3
7. Ernakulam	2500	818	21.00	23.3
8. Thrissur	8500	5046	21.00	23.3
9. Palakkad	3500	3706	22.00	24.3
10. Malappuram	14000	10012	22.00	24.3
11. Kozhikode	7000	5889	22.00	24.3
12. Wynad	1000	1006	22.00	24.3
13. Kannur	**	..	23.00	25.3
14. Kasaragode	14000	8308	23.00	25.3

\*\* Procurement entrusted with MARKETFD, Ernakulam.

## APPENDIX 6.26

## Foreign Exchange Earnings of India from Cashew Industry

(Value Rs. Crores)

Year	Export Value		Total	Import value of Cashewnuts	Net foreign exchange earned
	Cashew Kernels	Cashewnut shell liquid			
(1)	(2)	(3)	(4)	(5)	(6)
1985-86	225.11	1.35	226.46	24.37	202.09
1986-87	327.55	1.48	329.03	71.16	257.87
1987-88	311.29	5.03	316.32	64.38	251.94
1988-89	273.93	2.20	276.13	61.37	214.76
1989-90	365.07	2.56	367.63	76.66	290.97
1990-91	442.24	5.56	447.80	134.00	313.80
1991-92 x	668.45	3.96	672.41	266.68	405.73

Source: D.G.O.I. &amp; S, Calcutta,

x Provisional

## APPENDIX 6.27

## Import of Raw Cashewnuts into India

Year	Quantity (MT)	Index (1976-77=100)	Value (Rs. in Crores)	Index (1976-77=100)
(1)	(2)	(3)	(4)	(5)
1976-77	75122	100.00	18.33	100.00
1977-78	56299	74.94	17.98	98.09
1978-79	20496	27.28	9.16	49.97
1979-80	24232	32.26	11.60	63.28
1980-81	16280	21.67	8.71	47.52
1981-82	16057	21.37	18.37	100.22
1982-83	1485	1.98	1.41	7.69
1983-84	26877	35.78	22.12	120.68
1984-85	56161	74.76	38.84	211.89
1985-86	21945	29.21	24.37	132.95
1986-87	49149	65.43	71.16	388.22
1987-88	42609	56.72	64.38	351.23
1988-89	45130	60.10	61.37	334.81
1989-90	56248	74.88	76.66	418.22
1990-91	82639	110.01	134.00	731.04
1991-92*	106000	141.21	266.68	1454.88

Source: D.G.O.I. &amp; S, Calcutta

\* Provisional

## APPENDIX 6.28

Revenue Collection from Mining Sector 1985-86 to 1991-92

(Rs. in lakhs)

Sl.No.	Year	Minor Minerals	Major Minerals	Total
(1)	(2)	(3)	(4)	(5)
1.	1985-86	5.28	52.34	57.62
2.	1986-87	6.11	44.02	50.13
3.	1987-88	8.79	103.13	111.92
3.	1988-89	15.02	110.55	125.57
5.	1989-90	..	..	145.56
6.	1990-91	..	..	107.91
7.	1991-92	..	..	164.36

Source: Department of Mining and Geology

## APPENDIX 7.1

Distribution of Public Works Department Roads Improved/Development/Taken over during 1991-92

Sl.No.	Name of District	Taken over	
		Number	(Village Roads)* Kms.
1.	Thiruvananthapuram	..	..
2.	Kollam	..	..
3.	Pathanamthitta	..	..
4.	Alappuzha	..	..
5.	Kottayam	..	..
6.	Idukki	1	18.010
7.	Ernakulam	..	..
8.	Thrissur	..	..
9.	Palakkad	..	..
10.	Malappuram	2	17.300
11.	Kozhikode	2	13.515
12.	Wayanad	2	10.190
13.	Kannur	1	13.000
14.	Kasaragod	..	..
Total		8	72.015

Source: Public Works Department

\* Provisional



## APPENDIX 7.2

*Division-wise and Surface-wise Length of Roads Maintained by Public Works Department as on 1-4-1992*  
(Kms.)

Sl.No.	Name of Division	Cement concrete	Black Topped	Water Bound Macadam	Others	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Thiruvananthapuram*	..	1581.582	54.901	90.891	1227.644
2.	Kollam*	..	1494.708	60.577	105.309	1660.594
3.	Pathanamthitta*	0.80	1308.857	30.535	147.327	1487.519
4.	Alappuzha*	..	872.728	9.051	105.238	987.017
5.	Kottayam*	16.00	1861.861	26.100	96.741	2000.702
6.	Idukki	..	1008.093	54.818	456.075	1518.986
7.	Muvattupuzha*	..	1085.888	23.512	38.037	1147.437
8.	Ernakulam*	0.572	729.499	10.840	81.679	822.540
9.	Thrissur*	3.391	1385.576	21.344	129.898	1540.209
10.	Palakkad	..	1421.687	13.330	121.465	1556.482
11.	Manjeri	..	1485.748	80.275	35.076	1601.098
12.	Kozhikode	..	1102.225	10.970	145.297	1258.492
13.	Wayanad	..	517.366	10.650	108.660	636.676
14.	Kannur	4.112	1173.182	8.000	336.926	1522.220
15.	Kasaragod	..	767.967	0.43	177.922	946.319
Total		24.875	17797.187	415.333	2176.540	20413.935

Source: Public Works Department

\* Provisional

## APPENDIX 7.3

*Distribution of Public Works Department Roads Division-wise as on 1-4-1992.*

(Kms.)

Sl.No.	Name of Division	State Highways	Major District Roads	Other District Roads	Village Roads	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Thiruvananthapuram*	80.70	292.766	1256.437	97.741	1727.644
2.	Kollam*	167.576	446.992	1033.436	12.590	1660.594
3.	Pathanamthitta*	176.022	449.284	727.410	136.807	1487.519
4.	Alappuzha*	112.525	122.920	652.489	99.083	987.017
5.	Kottayam*	256.911	682.817	908.778	152.196	2000.702
6.	Idukki	238.119	511.860	390.703	378.304	1518.986
7.	Muvattupuzha*	89.760	502.840	526.944	27.899	1147.986
8.	Ernakulam*	56.412	359.500	395.523	11.105	822.540
9.	Thrissur*	211.636	470.225	754.284	104.064	1540.209
10.	Palakkad	143.507	748.925	464.340	199.710	1556.482
11.	Manjeri	164.438	407.746	825.529	203.385	1601.098
12.	Kozhikode	70.579	312.134	248.149	627.630	1258.492
13.	Wayanad	40.070	327.631	148.456	120.519	636.676
14.	Kannur	55.127	290.019	845.648	331.426	1522.220
15.	Kasaragod	28.969	84.593	378.636	454.121	946.319
Total		1890.351	6010.252	9556.762	2956.570	20413.935

Source: Public Works Department.

\* Provisional

## APPENDIX 7.4

Surface-wise Length of Roads under Public Works Department—Roads by category

Item	Category of Roads (Kms.)				
	State Highways	Major District Roads	Other District Roads	Village Roads	Total
(1)	(2)	(3)	(4)	(5)	(6)
<i>Cement Concrete</i>					
Length as on 1-4-1991	16.612	8.263	..	..	24.875
Length added in 1991-92	..	..	..	..	..
Length as on 31-3-1992	16.612	8.263	..	..	24.875
<i>Black Topped</i>					
Length as on 1-4-1991	1857.969	5896.230	9215.020	422.151	17391.370*
Length added in 1991-92	(-) 0.015	..	..	(-)405.802	(+)405.817*
Length as on 31-3-1992	1857.984	5896.230	9215.020	827.953	17797.187*
<i>Water Bound Macadam</i>					
Length as on 1-4-1991	8.350	54.464	258.002	252.845	573.661*
Length added in 1991-92	..	..	(-)100.000	(-)58.828	(-)158.828*
Length as on 31-3-1992	8.350	54.464	158.002	194.517	415.333*
<i>Others:</i>					
Length as on 1-4-1991	7.405	12.971	461.059	1812.086	2293.521*
Length added in 1991-92	..	(+)38.324	(-)277.319	(+)122.014	(-)116.981*
Length as on 31-3-1992	7.405	51.295	183.740	1934.100	2176.540*
<i>Total</i>					
Length as on 1-4-1991	1890.336	5971.928	9934.081	2487.082	20283.427*
Length added in 1991-92	(+)0.015	(+)38.324	(-)377.319	(+)469.488	(+)130.508*
Length as on 31-3-1992	1890.351	6010.252	9556.762	2956.570	20413.935*
<i>Total No. of Bridges</i>					
					2137*
No. of Major Bridges					637*
No. of Culverts					41803*
No. of Unsafe bridges					243*
No. of Unsafe culverts					3021*

Source: Public Works Department

\* Provisional.

## APPENDIX 7.5

*Type-wise Length of Roads under Panchayat-*

(Kms.)

Sl.No.	Name of District	Black topped and metalled		Gravelled		Earthen		Total	
		as on 1-4-1991	as on 1-4-1992	as on 1-4-1991	as on 1-4-1992	as on 1-4-1991	as on 1-4-1992	as on 1-4-1991	as on 1-4-1992
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1.	Thiruvananthapuram	978	947	1716	1669	7188	7406	9882	10022
2.	Kollam	591	622	4385	4386	8366	8366	13342	13374
3.	Pathanamthitta	87	212	2207	2206	4850	4730	7144	7148
4.	Alappuzha	246	586	3108	2938	2406	2440	5760	5964
5.	Kottayam	351	361	1333	1324	4148	4191	5832	5876
6.	Idukki	112	215	554	245	4901	5325	5567	578
7.	Ernakulam	1086	1086	2446	2437	3831	3840	7363	736
8.	Thiruvananthapuram	1322	1521	4240	3743	5723	6021	11285	1128
9.	Palakkad	1245	1336	1087	1199	3598	3845	5870	638
10.	Malappuram	521	776	1711	1456	5011	5517	7243	774
11.	Kozhikode	610	727	1822	2088	3529	3382	5961	619
12.	Wayanadu	950	950	..	382	1890	1524	2840	285
13.	Kannur	368	540	1737	1743	4651	4468	6736	675
14.	Kasaragod	326	670	1961	2106	1910	1541	4197	431
Total		8793	10549	28307	27922	61922	62596	99022	10106

## APPENDIX 7.8

*Motor Vehicle Accidents in Kerala by Primary Cause of Accidents—1991-92*

Serial No.	District	Fault of driver of motor vehicle	Fault of driver of vehicle other than motor vehicle	Fault of cyclist	Fault of pedestrian	Fault of passengers	Defect in Mechanical condition of motor vehicle	Defect in road surface	Bad weather condition	Other Causes	Causes not known	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1.	Thiruvananthapuram City	1561	..	8	6	9	14	..	..	115	..	1713
2.	Thiruvananthapuram Rural	1137	..	9	20	13	15	..	..	..	12	1206
3.	Kollam	2154	2	6	12	8	3	12	..	12	..	2209
4.	Pathanamthitta	729	..	22	35	28	24	20	13	9	11	891
5.	Alapuzha	1857	..	2	9	2	..	..	..	11	9	1890
6.	Kottayam	1974	6	4	8	5	24	..	1	31	16	2069
7.	Idukki	363	17	2	8	3	39	5	1	4	6	448
8.	Ernakulam City	962	..	74	106	82	..	..	..	189	91	1504
9.	Ernakulam Rural	1372	..	88	64	61	11	7	..	110	65	1778
10.	Thirsur	1758	1	1	2	3	2	4	..	6	..	1777
11.	Palakkad	1752	1	3	2	..	1	1	..	1	3	1764
12.	Malappuram	2283	15	2	15	7	11	3	..	3	4	2343
13.	Kozhikode City	1524	..	17	83	24	..	..	..	..	..	1648
14.	Kozhikode Rural	1267	..	2	3	2	5	1	..	1	1	1282
15.	Wayanadu	478	..	20	2	2	..	..	..	..	1	503
16.	Kannur	1236	..	7	1	..	1	..	..	5	..	1250
17.	Kasaragod	393	..	..	9	1	1	..	..	1	..	399
18.	Railways	3	..	..	..	..	..	..	..	..	..	3
Total		22809	42	267	379	250	151	53	15	498	219	24677

## APPENDIX—7.9

*Number of Road Accidents by class of vehicles involved during 1991-92*

Sl. No.	District	K.S.R.T.C.	Other Buses	Goods Vehicles	Taxi Cars	Motor Cars	Auto rickshaws	Jeeps	Two wheelers	Miscellaneous vehicles	Class not known	Total
(1e)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1.	Thiruvananthapuram City	242	11	91	107	151	461	22	486	143	..	1714
2.	Thiruvananthapuram Rural	155	58	169	279	97	154	29	253	..	12	1206
3.	Kollam	161	258	373	199	131	377	84	482	144	..	2209
4.	Pathanamthitta	63	114	88	118	38	159	52	189	59	11	891
5.	Alappuzha	174	145	326	94	212	354	114	393	148	7	1967
6.	Kottayam	123	290	225	194	245	473	73	529	140	..	2292
7.	Idukki	10	78	54	5	21	92	137	97	96	..	530
8.	Ernakulam City	37	334	199	5	138	258	13	594	100	15	1702
9.	Ernakulam Rural	118	274	117	18	244	281	40	489	175	22	1778
10.	Thrissur	49	480	372	189	30	425	61	426	89	11	2132
11.	Palakkad	22	417	288	74	90	289	140	343	83	18	1764
12.	Malappuram	26	556	299	66	66	594	440	214	128	6	2404
13.	Kozhikode City	21	548	154	2	127	257	27	358	154	..	1648
14.	Kozhikode Rural	23	368	153	14	61	267	230	184	90	1	1391
15.	Wayanad	29	38	51	10	10	118	140	79	27	1	503
16.	Kannur	5	379	125	7	83	208	96	40	307	..	1230
17.	Kasaragod	7	83	60	18	22	84	51	55	17	2	389
18.	Railways	..	..	..	..	..	1	..	..	2	..	3
Total		1265	4431	3144	1399	1766	4852	1758	5211	1851	106	25783

## APPENDIX 7.6

*District-wise Length of roads maintained by the Irrigation Department—1990-91 and 1991-92*

Sl. No.	Name of District	Total Length (kms.)	
		1990-91	1991-92
(1)	(2)	(3)	(4)
1.	Thiruvananthapuram	9.96	9.96
2.	Kollam	115.18	122.57
3.	Pathanamthitta	128.91	128.91
4.	Alappuzha	83.91	83.91
5.	Kottayam	2.00	2.00
6.	Idukki	8.09	8.09
7.	Ernakulam	357.95	357.95
8.	Thrisur	289.20	286.08
9.	Palakkad	306.42	306.52
10.	Malappuram	30.30	30.30
11.	Kozhikode	26.14	26.14
12.	Wayanad	24.38	24.38
13.	Kannur	128.71	128.71
14.	Kasaragod	17.67	17.67
Total		1528.82	1533.19

## APPENDIX 7.7

*Road accidents in which Motor Vehicles were involved in Kerala during 1991-92*

Sl. No.	Name of District	No. of accidents		No. of Persons injured		No. of Persons killed	
		1990-91	1991-92	1990-91	1991-92	1990-91	1991-92
(1)	(2)	(3)	(4)	(5)	(6)	(a)	(b)
1.	Thiruvananthapuram City	1279	1713	1264	1522	72	70
2.	Thiruvananthapuram Rural	925	1206	1131	1399	109	102
3.	Kollam	1739	2209	2533	3140	131	148
4.	Pathanamthitta	807	891	893	952	56	63
5.	Alappuzha	1627	1890	1997	2353	118	161
6.	Kottayam	1824	2069	2286	2645	144	155
7.	Idukki	337	448	828	991	36	37
8.	Ernakulam City	1261	1504	1386	1553	84	97
9.	Ernakulam Rural	1438	1778	1676	908	146	126
10.	Thrisur	1389	1777	2055	2519	186	253
11.	Palakkad	1581	1764	2408	2921	156	199
12.	Malappuram	2011	2344	3266	3848	179	157
13.	Kozhikode City	1768	1648	1756	2205	71	60
14.	Kozhikode Rural	1042	1282	1564	1879	57	86
15.	Wayanad	448	503	609	732	33	29
16.	Kannur	1105	1250	1911	2270	87	89
17.	Kasaragod	314	399	408	584	52	52
18.	Railways	5	3	1	..	..	..
Total		20900	24677	27972	32421	1717	1886

## APPENDIX 7.10

*Motor Vehicle Accidents by time of day 1991-92*

Sl. No.	District	Day light	Darkness	Time not known	Total
(1)	(2)	(3)	(4)	(5)	(6)
1.	Thiruvananthapuram City	1065	648	..	1713
2.	Thiruvananthapuram Rural	885	309	12	1206
3.	Kollam	1664	545	..	2209
4.	Pathanamthitta	638	242	11	891
5.	Alappuzha	1384	502	4	1890
6.	Kottayam	1946	123	..	2069
7.	Idukki	377	71	..	448
8.	Ernakulam City	1053	714	11	1778
9.	Ernakulam Rural	989	498	17	1504
10.	Thrissur	1198	579	..	1777
11.	Palakkad	1342	419	3	1764
12.	Malappuram	1740	601	2	2343
13.	Kozhikode City	1276	371	1	1648
14.	Kozhikode Rural	1056	226	..	1282
15.	Wayanad	395	108	..	503
16.	Kannur	1116	134	..	1250
17.	Kasaragod	324	72	3	399
18.	Railways	3	..	..	3
Total		18451	6162	64	24677

## APPENDIX 7.11

*Growth of Motor Vehicles in Kerala since 1975*

Sl. No.	Type of Vehicles	1975	1980	1985	1986	1987	1988	1989	1990	1991	1992
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1.	Goods vehicles										
	i. Four Wheelers and above	15785	20128	36699	40398	45144	49779	50027	51530	54753	57370
	ii. Three wheelers including Tempos	..	993	4170	4929	6140	7609	8501	9576	11437	13719
2.	Buses										
	i. Stage Carriages	7028	8705	12910	13497	13102	13741	14432	15056	15606	15852
	ii. Contract Carriages/ Omni Buses	..	842	2324	2652	3602	4380	4602	5234	5848	6981
3.	Cars and Station Wagons										
	i. Cars	44497	54381	75731	82222	89023	101731	109814	116676	125769	129232
	ii. Station Wagons	..	196	507	664	682	777	855	849	891	946
	iii. Taxi Cars	11525	17780	28189	30201	32458	33856	36200	37638	37830	36998
	iv. Jeeps	5859	7023	12972	14721	17012	19893	22225	24351	26133	27902
4.	Three Wheelers										
	i. Autorickshaw	3125	7397	24383	30537	35838	41116	49396	58165	67317	75244
	ii. Motorised Cycle-rickshaws	..	38	34	55	58	59	59	62	53	57
5.	Two Wheelers										
	i. Motorised Cycles	..	58	73	73	73	75	72	70	63	63
	ii. Scooter/ Motor Cycles	25769	50493	11629	130992	159863	185349	213849	248374	288498	330316
6.	Tractor, Tractor, Trailer, Articulated	2735	1864	2104	2236	2490	2504	2565	2661	2660	2781
7.	Tractors	..	1892	3089	3268	3457	3657	3968	41155	4305	4573
8.	Tillers	..	469	1118	1214	1379	1640	1788	1927	2069	2330
9.	Trailers	..	260	416	441	498	541	559	580	556	592
10.	Others	2507	1735	2891	3219	3572	4077	4431	4190	3954	3815
	<b>Total:</b>	<b>119720</b>	<b>174704</b>	<b>319259</b>	<b>361317</b>	<b>414310</b>	<b>473789</b>	<b>523343</b>	<b>581054</b>	<b>647742</b>	<b>708172</b>
	Percentage increase over the previous year	..	13.01	15.26	13.27	14.57	14.36	10.46	11.03	11.48	9.93



## APPENDIX 7.12

Number of Motor Vehicles having valid Registration as on 31-3-1992

Sl. No.	District	Goods Vehicles		Buses		Four wheelers-Cars & Station wagons				Three wheelers	
		Four wheelers and above	Three wheelers including Tempos	Stage carriages	Contact carriages/ omnibus	Cars	Station wagons	Taxis	Jeeps	Authorick-shaws	Motorised cycle rick-shaws
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1.	Thiruvananthapuram	4486	1799	248	1925	22619	107	9944	3452	8747	6
2.	Kollam	4673	238	483	820	13576	39	2533	1612	4864	13
3.	Pathanamthitta	4411	1038	393	201	10038	57	2766	1016	3599	3
4.	Alappuzha	2866	1076	550	464	8055	9	3172	418	4414	2
5.	Kottayam	4538	743	1005	523	7148	..	2634	2113	4900	5
6.	Idukki	2154	38	393	159	2678	12	2001	1785	836	1
7.	Ernakulam	10885	4260	1632	815	21029	57	4218	2362	7538	7
8.	Thirissur	5677	1230	1949	770	9905	26	6089	795	11802	18
9.	Palakkad	2925	155	887	396	6128	16	1850	1046	3874	..
10.	Malappuram	4155	729	891	151	5653	6	2749	3738	7075	..
11.	Kozhikode	4593	1413	1323	406	16333	220	1951	4109	5578	1
12.	Wayanadu	978	120	97	27	761	24	900	1614	1005	..
13.	Kannur	3766	646	1174	209	3068	368	2302	1839	7358	1
14.	Kasaragod	1247	234	336	115	2233	3	490	1370	3654	..
15.	Thiruvananthapuram (Nationalised Sector)	16	..	4489	..	8	2	..	33	..	..
Total		57370	19719	15852	6981	129232	946	36999	27302	75244	57

## APPENDIX 7.12 (Contd.)

Sl. No.	District	Two wheelers		Tractors			Others	Total	No. of vehicles per km length of FWD road (Surfaced roads)	No. of vehicles per km length of surfaced roads (including Panchayat roads)	
		Motor Cycles	Scooters/ Motor Cycles	Tractor, Trailers Articulated	Tractors	Tillers					Trailers
(1)	(2)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
1.	Thiruvananthapuram	..	61174	162	129	62	39	971	109270	63	41
2.	Kollam	9	28424	220	91	117	89	222	58023	35	25
3.	Pathanamthitta	..	16339	37	68	38	16	28	40048	27	24
4.	Alappuzha	3	21795	19	216	112	55	62	43288	44	28
5.	Kottayam	..	20190	106	282	279	44	185	44695	22	19
6.	Idukki	4	3201	161	172	52	28	137	13819	9	8
7.	Ernakulam	3	61208	429	292	335	81	234	115605	59	38
8.	Thirissur	33	39189	438	719	409	26	248	79421	32	26
9.	Palakkad	5	21851	405	2042	496	68	128	42272	27	15
10.	Malappuram	..	9127	126	372	55	31	154	35032	22	15
11.	Kozhikode	1	25071	81	110	58	48	809	62105	49	31
12.	Wayanadu	..	2993	445	298	27	24	38	9082	14	6
13.	Kannur	..	13367	146	5	20	6	489	34764	23	17
14.	Kasaragod	..	6385	6	46	50	17	10	16196	17	10
15.	Thiruvananthapuram (Nationalised Sector)	..	4	..	..	..	..	..	4552	..	..
Total		63	330316	2781	4573	2330	592	3815	708172	35	23

## APPENDIX 7.13

District-wise and category-wise distribution of Motor Vehicles in Kerala during 1991-92

Sl.No.	District	Goods vehicles	Buses	Cars & Station wagons including Taxis & Jeeps	Three wheelers	Two wheelers	Others	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1.	Thiruvananthapuram	6285 (8.84)	2173 (9.52)	29522 (15.18)	8759 (11.62)	61174 (18.52)	1363 (9.67)	109270 (15.48)
2.	Kollam	4911 (6.91)	1003 (5.71)	17760 (9.13)	4677 (6.48)	28433 (8.61)	799 (5.24)	50023 (6.19)
3.	Pathanamthitta	5449 (7.67)	594 (2.60)	19877 (7.14)	3602 (4.76)	16339 (4.95)	187 (1.33)	40048 (5.66)
4.	Alappuzha	3942 (5.55)	1014 (4.44)	11654 (5.99)	4416 (5.86)	21798 (6.60)	464 (3.29)	43288 (6.11)
5.	Kottayam	5281 (7.49)	1528 (6.69)	11895 (6.12)	4905 (6.51)	20190 (6.11)	896 (6.36)	44685 (6.31)
6.	Idukki	2192 (3.08)	554 (2.48)	6476 (3.33)	837 (1.11)	3210 (0.97)	350 (3.90)	13019 (1.95)
7.	Ernakulam	15145 (21.30)	2447 (10.72)	27666 (14.23)	7545 (10.02)	61211 (18.53)	1591 (11.29)	115605 (16.32)
8.	Thrissur	6907 (9.72)	2719 (11.91)	16815 (8.65)	11820 (15.70)	39222 (11.87)	1940 (18.77)	79421 (11.21)
9.	Palakkad	3089 (4.33)	1283 (5.62)	9040 (4.63)	3874 (5.14)	21856 (6.62)	3139 (22.28)	42272 (5.97)
10.	Malappuram	4884 (6.87)	1042 (4.56)	12146 (6.25)	7073 (9.40)	9127 (2.76)	738 (5.38)	33082 (4.85)
11.	Kozhikode	6006 (8.45)	1729 (7.57)	22613 (11.63)	5579 (7.41)	25072 (7.59)	1106 (7.85)	62105 (8.77)
12.	Wayanadu	1098 (1.54)	124 (0.54)	3299 (1.70)	1005 (1.33)	2993 (0.91)	563 (4.00)	9082 (1.28)
13.	Kannur	4412 (6.21)	1983 (6.06)	7577 (3.90)	7359 (9.77)	13367 (4.05)	666 (4.73)	34764 (4.91)
14.	Kasaragode	1481 (2.08)	451 (1.98)	4086 (2.11)	3654 (4.85)	6985 (1.93)	129 (0.92)	16196 (2.29)
15.	Thiruvananthapuram (Nationalised Sector)	16 (0.02)	449 (19.66)	--	43 (0.06)	4 (0.001)	--	452 (0.64)
Total		71089 (100.00)	22833 (100.00)	194479 (100.00)	75301 (100.00)	330379 (100.00)	14081 (100.00)	708172 (100.00)

Figures in brackets represent percentage.

## APPENDIX 7.14

No. of vehicles newly registered in the State during the year 1991-92 (District wise)

Sl. No.	District	Goods Vehicles			Buses	Cars & Station Wagons			Three wheelers		Two Wheelers		
		Four Wheelers & above	Three Wheelers including Tempos	Stage Carriages	Contract carriages/Omini buses	Cars	Station wagons	Taxis Jeeps	Auto rickshaws	Motoised Cycle rickshaws	Motorised Cycles	Scooter/Motor cycles	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1.	Thiruvananthapuram	622	195	9	177	786	..	169	143	923	-	-	6625
2.	Kollam	329	49	2	48	380	-	-	47	872	4	-	2631
3.	Pathanamthitta	263	273	5	16	747	7	142	74	260	-	-	2784
4.	Alappuzha	276	22	4	31	285	-	4	19	336	-	-	2678
5.	Kottayam	367	50	55	178	399	..	126	119	851	-	..	2620
6.	Idukki	160	4	33	48	99	..	45	91	33	-	..	392
7.	Ernakulam	1077	139	51	175	909	-	352	137	923	..	..	8732
8.	Thrissur	145	437	102	107	423	5	290	44	1750	..	..	4460
9.	Palakkad	220	43	43	43	222	1	1	29	470	..	..	2432
10.	Malappuram	460	280	25	7	320	..	..	120	1620	..	..	1340
11.	Kozhikode	409	124	46	73	348	..	111	83	513	..	..	3286
12.	Wayanadu	20	13	1	2	39	..	1	68	94	..	..	284
13.	Kannur	244	40	62	17	139	34	47	47	448	..	..	1616
14.	Kasaragod	77	23	5	9	103	..	21	35	463	..	..	862
15.	K. S. R. T. C. Nationalised Sector	..	..	284	..	..	..	..	..	..	..	..	..
<b>Total</b>		<b>4669</b>	<b>1692</b>	<b>727</b>	<b>931</b>	<b>5199</b>	<b>47</b>	<b>1309</b>	<b>1056</b>	<b>9556</b>	<b>4</b>	<b>..</b>	<b>40742</b>

## APPENDIX 7.14 (Contd....)

Sl. No.	District	Tractors					Total
		Tractor Tractor Articulated	Tractors	Tillers	Trailors	Others	
(1)	(2)	(15)	(16)	(17)	(18)	(19)	(20)
1.	Thiruvananthapuram	5	10	6	4	94	9768
2.	Kollam	2	13	7	9	1	4391
3.	Pathanamthitta	6	9	3	2	2	4593
	Alappuzha	..	14	27	..	2	3968
	Kottayam	2	8	19	..	6	4800
	Idukki	1	15	3	..	11	935
	Ernakulam	..	41	155	..	18	12709
	Thrissur	44	58	30	1	30	7926
	Palakkad	36	116	65	..	29	3750
10.	Malappuram	13	52	10	7	3	4257
11.	Kozhikode	16	5	5	..	3	5022
12.	Wayanad	18	5	8	..	2	555
13.	Kannur	3	1	9	..	4	2711
14.	Kasargodu	..	3	5	4	..	1610
15.	Thiruvananthapuram (Nationalised Sector)	..	..	..	..	..	284
Total		146	350	352	27	205	67012

## APPENDIX 7.15

District-wise Index of Increase in the number of Motor Vehicles in Kerala—1980-81 to 1991-92

Sl. No.	District	1980-81		1981-82		1982-83		1983-84	
		No. of vehicles	Index	No. of vehicles	Index	No. of vehicles	Index	No. of vehicles	Index
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1.	Thiruvananthapuram	38673	100.00	42096	108.85	46159	119.36	49690	128.49
2.	Kollam	18853	100.00	20779	110.22	23899	126.76	26297	139.48
3.	Pathanamthitta	..	..	..	..	2223	100.00	5266	236.89
4.	Alappuzha	15549	100.00	17132	110.18	19049	122.51	20768	133.55
5.	Kottayam	12647	100.00	14888	117.72	16086	127.19	18094	143.07
6.	Idukki	4656	100.00	5319	114.24	5856	125.77	6556	140.81
7.	Ernakulam	34128	100.00	37276	109.24	41898	122.77	47328	138.68
8.	Thrissur	19083	100.00	22137	116.00	24710	129.49	27796	145.66
9.	Palakkad	11656	100.00	14300	122.68	15208	130.47	16627	142.65
10.	Malappuram	7926	100.00	8969	113.16	10592	132.88	12329	155.55
11.	Kozhikode	17930	100.00	18906	109.09	20199	116.56	22884	132.05
12.	Wayanad	..	..	2319	100.00	2491	107.05	2898	124.54
13.	Kannur	14096	100.00	16612	117.85	18619	132.04	20447	145.06
14.	Kasargodu	..	..	..	..	..	..	..	..
Total		194597	100.00	220793	113.43	246923	126.89	276980	142.36

## APPENDIX 7.15

*District-wise Index of Increase in the number of Motor Vehicles in Kerala 1980-81 to 1991-92 (Contd.)*

Sl. No.	District	1984-85		1985-86		1986-87		1987-88	
		No. of vehicles	Index	No. of vehicles	Index	No. of vehicles	Index	No. of vehicles	Index
(1)	(2)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
1.	Thiruvananthapuram	56714	146.65	61484	158.98	69325	179.26	77425	200.20
2.	Kollam	28836	152.95	34212	181.47	40552	214.03	45485	241.26
3.	Pathanamthitta	10890	487.18	13316	599.01	16913	760.82	20651	928.96
4.	Alappuzha	22856	146.99	25025	160.94	27994	180.04	30598	196.78
5.	Kottayam	19525	154.38	21041	166.37	24356	192.58	28870	228.27
6.	Idukki	5713	122.70	8097	173.90	8964	192.53	9962	213.96
7.	Ernakulam	53093	155.39	59611	174.67	68261	200.01	74780	219.12
8.	Thrissur	32632	171.00	36693	192.28	42254	221.42	50460	264.42
9.	Palakkad	19307	165.64	20041	171.94	23659	202.98	26319	225.80
10.	Malappuram	14952	181.07	16605	209.50	18786	237.02	21403	270.03
11.	Kozhikode	26407	152.38	29448	169.92	32608	188.16	42598	245.80
12.	Wayanad	3742	160.81	4703	202.11	5366	230.50	5918	254.32
13.	Kannur	21798	154.64	24478	173.65	26661	189.14	28821	204.46
14.	Kasaragod	5514	100.00	6863	124.46	28811	159.79	10499	190.41
	Total	319259	164.08	361617	185.83	414310	212.91	473789	243.47

## APPENDIX 7.15

*District-wise Index of Increase in the Number of Motor Vehicles in Kerala—1980-81 to 1991-92(Contd.)*

Sl. No.	District	1988-89		1989-90		1990-91		1991-92	
		No. of vehicles	Index	No. of vehicles	Index	No. of vehicles	Index	No. of vehicles	Index
(1)	(2)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)
1.	Thiruvananthapuram	83201	215.14	92069	238.07	101980	263.70	113822	294.31
2.	Kollam	49632	262.41	54379	288.44	57694	306.02	58023	307.76
3.	Pathanamthitta	24044	108.60	28221	1269.05	35555	1599.42	40048	180.52
4.	Alappuzha	33182	213.40	36057	231.89	39545	254.33	43288	278.39
5.	Kottayam	32385	256.07	35793	283.02	39758	314.37	44695	353.40
6.	Idukki	11302	242.74	11871	254.96	12812	275.17	13819	296.79
7.	Ernakulam	83577	244.89	94205	276.03	105622	309.49	115605	338.73
8.	Thrissur	56175	294.37	63026	330.27	70831	371.17	79421	416.18
9.	Palakkad	30144	258.61	33225	285.05	37623	322.78	42272	362.86
10.	Malappuram	24111	304.20	26724	337.17	30671	386.97	35032	441.98
11.	Kozhikode	45944	265.11	50583	291.88	55939	322.79	62105	358.36
12.	Wayanad	6838	293.85	7675	329.82	8379	360.08	9082	390.28
13.	Kannur	31608	224.23	33949	240.78	36540	259.22	34764	216.62
14.	Kasaragod	11200	203.12	13286	240.95	14793	268.28	16196	293.72
	Total	523343	268.86	581054	298.59	647742	332.86	708172	363.91

## Kerala State Road Transport Corporation-Operational Statistics 1991-92

Sl. No.	Name of Transport Unit	No. of Buses held as on 31-3-1992	No. of schedule as on 31-3-1992	No. of Routes as on 31-3-1992	Route Distance (Kms)	Gross Kms Operated (lakhs)	Effective Kms. Operated (lakhs)	Passengers carried (lakhs)	Average carrying capacity per bus
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1.	Parassala	60	55	155	6751	60.90	60.61	156.7	55.3
2.	Neyyattinkara	110	98	252	7588	95.29	95.10	329.7	57.4
3.	Poovar	64	55	52	1460	48.15	48.00	190.7	57.8
4.	Vizhinjam	65	56	120	4478	48.40	48.01	157.0	58.4
5.	Kattakkada	75	67	172	4816	54.86	54.51	201.0	55.1
6.	Thiruvananthapuram Central	133	108	167	15492	135.40	135.19	259.9	57.6
7.	Pappanamcode	134	125	225	2700	76.85	76.44	456.5	35.0
8.	Thiruvananthapuram City	164	152	584	4895	89.80	89.33	687.9	53.8
9.	Vikas Bhavan	103	95	274	4144	56.43	56.24	348.7	55.3
10.	Peroorkada	73	65	219	3416	36.53	36.43	257.1	54.3
11.	Nedumangad & Palode	122	112	289	9391	97.67	97.56	334.4	55.1
12.	Kilimanoor	51	50	207	6305	41.83	41.57	119.0	55.2
13.	Attingal	98	91	169	5635	81.20	80.97	241.6	60.3
14.	Kollam	102	92	151	6752	92.91	92.60	282.4	55.6
15.	Kottarakara	101	89	199	6726	76.31	75.88	221.1	55.1
16.	Punalur	62	50	153	5278	48.93	48.43	162.1	55.7
17.	Pathanamthitta	56	50	107	5988	47.51	47.06	115.4	58.8
18.	Adoor & Pandala	43	35	125	5507	31.65	31.50	116.0	57.4
19.	Karunagappally	52	49	107	3462	41.32	41.24	185.4	55.6
20.	Kayamkulam	62	53	96	4113	54.97	54.66	191.1	58.7
21.	Haripad	25	22	40	2255	25.26	24.59	72.2	57.2
22.	Mavelikara	27	23	58	3211	24.11	24.04	56.5	56.4
23.	Alappuzha	95	83	104	3794	80.96	80.80	259.9	56.0
24.	Sherthalai	62	62	148	6273	61.35	61.03	210.0	59.8
25.	Chengannur	62	47	158	5621	45.06	44.75	158.9	54.7
26.	Thiruvalla	57	51	132	4855	45.29	45.04	169.6	57.2
27.	Changanassery	60	49	91	4502	46.56	46.42	172.3	55.3
28.	Kottayam	92	80	170	10829	82.76	82.38	366.3	61.7

## APPENDIX 7.16

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
29.	Ponkunnara	28	22	24	2515	25.34	25.02	99.9	57.3
30.	Palai	51	45	77	5056	45.23	45.13	120.3	57.8
31.	Erattupetta	31	30	70	4153	29.52	29.42	70.6	55.4
32.	Vaikom	32	30	94	2014	29.07	28.89	67.0	55.4
33.	Moovattupuzha	50	45	62	3186	42.48	42.31	132.6	56.1
34.	Thedupuzha-Moolamattom	34	27	61	5744	32.99	32.98	56.9	57.5
35.	Eranakulam	56	48	101	6209	57.01	56.85	95.3	55.3
36.	Kothamangalam-Moonnar	35	32	52	4844	33.13	33.08	71.8	53.3
37.	Aluva & Angalamali	81	73	116	3534	56.81	56.76	251.6	54.6
38.	North Panur & Kodungalloor	49	44	58	2287	40.82	40.74	105.7	55.5
39.	Perumbavoor	47	40	65	4553	41.96	41.86	146.2	58.4
40.	Chalaky & Irinjalakuda	51	44	105	4012	41.93	41.79	108.8	55.6
41.	Mala	33	27	45	1184	29.18	28.95	61.8	53.9
42.	Thrissur & Amlalloor	56	50	54	7317	64.51	64.42	133.2	58.2
43.	Puthukadu	13	12	16	538	11.27	11.26	32.6	57.1
44.	Guruvayoor	46	37	37	5893	57.92	57.78	57.4	57.3
45.	Ponnani	25	18	21	3419	25.99	25.97	27.7	57.4
46.	Perinthalmanna	30	22	23	4793	28.43	28.29	40.0	56.5
47.	Palakkad, Chittur & Vadakkancherry	101	74	69	9734	104.98	104.95	111.1	53.7
48.	Malappuram	33	29	23	3393	34.52	34.37	52.6	57.0
49.	Kozhikode	92	78	91	6409	77.72	77.42	130.9	57.0
50.	Thamarassery	25	20	68	2788	20.65	20.44	73.2	56.6
51.	Sultan Bathery	84	76	208	8470	72.34	72.34	206.7	61.2
52.	Kalpetta	33	32	154	7442	22.34	22.34	76.6	53.9
53.	Kannur	80	65	79	7346	75.86	75.46	149.6	59.2
54.	Payyannur	43	33	46	3156	35.03	34.86	83.3	57.1
55.	Kasaragode	46	35	26	3142	36.28	26.22	97.8	62.5
56.	Mananthavady	39	37	45	1682	30.06	30.00	98.1	55.9
Total		3534	3089	3919	175571	2931.68	2920.28	9118.7	56.7

## APPENDIX 7.17

Kerala State Road Transport Corporation - Operational Ratios 1991-92

Sl. No.	Name of Transport Unit	Average No. of buses held daily	Average Kms. run per day per bus	Percentage vehicular utilisation	Average Routelength (Kms)	Average distance travelled by a Passenger (Kms)	Average earnings per passenger (Paise)	Earnings per km of buses operated (Paise)	Earnings per vehicle on road per day (Rs.)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1.	Parassala	59.8	311.9	88.8	43.6	17.8	226.3	585.1	1925
2.	Neyyattinkara	109.2	269.3	83.7	30.0	13.3	167.1	579.1	1647
3.	Poovar	61.0	237.2	90.7	28.1	11.3	144.3	573.1	135
4.	Vizhinjam	63.9	290.2	70.7	34.8	14.1	185.2	605.6	1758
5.	Kattakada	71.3	257.2	81.2	28.0	13.4	168.4	621.0	1598
6.	Thiruvananthapuram Central	125.7	384.8	76.4	92.7	23.7	364.7	701.1	2698
7.	Pappanamcode	128.7	178.5	90.9	12.1	8.12	598.2	586.1	1046
8.	Thiruvananthapuram City	178.1	170.0	80.6	8.4	7.7	87.9	676.8	1150
9.	Vikhas Bhavan	89.5	207.1	82.9	15.1	7.8	93.6	580.0	1202
10.	Peroorkada	59.0	184.3	91.5	15.6	7.4	78.3	552.3	1018
11.	Nedumangadu & Palode	119.8	261.6	85.1	34.9	13.9	176.8	606.0	1585
12.	Kilimanoor	46.7	285.4	85.2	30.5	15.7	214.5	614.4	1753
13.	Attingal	77.7	335.2	84.9	33.3	17.5	244.4	729.2	2444
14.	Kollam	106.2	303.4	78.5	44.7	16.9	239.2	729.5	2213
15.	Kottarakara	83.2	273.9	91.0	33.8	18.0	236.8	691.5	1894
16.	Punalur	56.0	292.7	80.7	34.5	16.1	222.8	745.6	2183
17.	Pathanamthitta	58.9	290.9	75.0	56.0	19.2	305.4	749.0	2179
18.	Adoor & Pan alam	43.0	248.7	80.5	44.1	14.3	195.6	720.4	1792
19.	Karunagappally	48.0	298.9	78.51	32.3	13.2	169.8	764.0	2282
20.	Kayamkulam	62.6	287.2	83.1	42.8	22.1	165.6	731.7	2102
21.	Harippad	26.3	316.9	80.6	56.3	18.8	254.3	747.3	2368
22.	Mavelikara	26.0	338.6	74.6	55.3	20.1	301.3	708.7	2399
23.	Alappuzha	85.8	294.0	87.5	36.5	16.7	230.2	740.5	2177
24.	Sherthalai	67.3	287.0	86.3	36.4	14.5	194.9	171.0	1925
25.	Chengannur	64.5	251.6	75.3	35.6	13.3	183.8	652.7	1642
26.	Thiruvalla	57.4	276.5	77.5	36.7	13.5	182.5	687.0	1901
27.	Changanassery	57.7	255.2	86.1	49.4	14.1	195.7	727.0	1854
28.	Kottayam	92.2	281.4	86.8	63.7	11.7	169.5	753.4	2120
29.	Ponkunnam	27.1	312.1	80.8	104.8	31.6	444.74	710.0	2215
30.	Palai	48.7	288.8	87.7	65.7	18.9	277.1	738.2	2192
31.	Erattupetta	32.0	296.6	84.7	39.3	21.3	315.8	757.5	2247
32.	Vaikom	32.8	292.3	82.3	59.2	21.8	305.0	707.2	2067
33.	Moovattupuzha	49.0	295.7	79.8	51.4	17.1	247.6	776.0	2294
34.	Thodupuzha & Moolamattom	34.7	319.5	81.3	94.1	28.4	440.6	760.0	2428
35.	Kothamangalam & Moonmer	36.8	305.3	80.4	93.2	22.5	335.1	727.2	2220
36.	Ernakulam	55.8	347.5	80.1	61.5	31.7	483.9	811.3	2819



(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
37.	Aluva L& Ankamaly	78.9	249.7	78.7	30.5	24.9	320.7	582.0	1681
38.	North Paravoor & Kodungalloor	47.3	281.1	83.7	39.4	16.6	230.6	598.4	1682
39.	Perumbavoor	47.4	278.3	96.7	70.0	14.2	280.0	698.2	1943
40.	Chalaky & Irnjalakuda	47.1	319.8	75.8	62.1	19.9	282.4	735.0	2351
41.	Mala	30.1	315.1	83.4	26.3	21.8	315.5	673.0	2121
42.	Thirissur & Amballoor	56.5	361.4	86.2	72.2	23.9	340.8	704.4	2546
43.	Puthukkad	14.7	265.2	78.9	33.6	17.8	251.4	727.0	1928
44.	Guruvayoor	46.0	456.3	75.2	159.3	42.0	657.1	653.4	2981
45.	Ponnani	25.0	392.0	72.4	162.8	44.5	719.4	767.1	3008
46.	Perinthalmanna	31.0	349.8	71.3	208.4	31.0	476.3	674.2	2358
47.	Palakkad, Chittoor & Vadakkancherry	100.4	353.6	80.8	141.1	40.8	624.0	661.0	2336
48.	Malappuram	34.3	311.0	88.0	147.5	28.6	442.3	667.3	2106
49.	Kozhikode	92.0	301.8	76.2	70.4	26.5	292.1	663.0	2001
50.	Thamarassery	26.0	293.9	73.1	41.0	12.5	166.4	597.0	1754
51.	Sultan Bathery	82.7	280.0	85.4	40.7	15.6	202.3	578.1	1619
52.	Kalpetta	34.0	227.8	78.8	48.2	14.1	192.4	660.0	1503
53.	Kannur	77.6	205.4	89.9	93.0	20.7	304.1	603.0	1780
54.	Payyannur	41.2	274.5	84.2	68.6	17.0	243.0	581.0	1594
55.	Kasarode	43.4	262.5	86.9	120.8	16.7	237.7	642.2	1686
56.	Mananthavady	42.3	236.2	82.0	36.4	18.8	84.1	602.0	1422
Total:		3440.3	281.2	82.5	44.8	15.6	215.9	702.0	1981

## APPENDIX 7.18

Air Traffic (Indian Airlines) from Thiruvananthapuram-Cochin 1990-91 and 1991-92

Sector	Originating Traffic				Terminating Traffic			
	1990-91		1991-92		1990-91		1991-92	
	Passenger (Nos.)	Freight (Tonnes)	Passenger (Nos.)	Freight (Tonnes)	Passenger (Nos.)	Freight (Tonnes)	Passenger (Nos.)	Freight (Tonnes)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Cochin-Madras	14482	25.09	15047	16.82	16433	119.09	16698	132.84
Cochin-Bangalore	20698	42.81	22606	12.72	20751	46.65	21868	45.07
Cochin-Trivandrum	4791	78.84	4800	41.17	4509	52.40	4790	38.24
Cochin-Bombay	71474	561.37	72215	414.68	84353	313.07	76979	322.82
Cochin-Delhi	14431	27.91	13109	37.01	15255	119.84	13149	116.70
Cochin-Goa	7964	10.70	10664	87.25	7549	18.97	6460	19.28
Sub-Total	134035	746.72	138441	609.65	148850	670.02	139335	689.43
Trivandrum-Madras	19332	31.11	22524	39.29	21757	244.90	22053	189.09
Trivandrum-Bangalore	1809	3.29	11054	8.54	1960	7.23	11544	32.87
Trivandrum-Columb	5365	11.68	6788	55.30	7662	0.79	8818	1.84
Trivandrum-Male	15417	428.97	19918	796.43	15698	4.39	23904	39.88
Trivandrum-Bombay	62600	931.18	49307	805.72	73133	1292.94	54100	889.67
Trivandrum-Delhi	8193	33.02	10112	29.99	8167	71.92	9422	97.96
Sub-Total	112716	1439.25	119703	1735.27	1278.377	1622.17	129841	1251.29
Kozhikode-Sharja	..	..	2389	3.48	..	..	2516	0.86
Kozhikode-Bombay	32149	69.29	47382	41.55	48671	44.87	54532	64.08
Sub-Total—	32149	69.29	49771	45.03	48671	44.87	57048	64.94
Grand-Total	278900	2255.26	307915	2389.95	315898	2337.06	326842	2005.66

## APPENDIX 7.19

No. of Passports issued by the Passport Offices at Trivandrum, Cochin and Kozhikode and Emigration clearances granted from the office of Trivandrum 1991-92.

Year and Month	Number of fresh applications received				No. of passports issued				No. of Emi- gration clear- ances granted
	Trivand- rum*	Cochin	Kozhikode	Total	Trivand- rum*	Cochin	Kozhikode	Total	Trivand- rum**
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
<b>1991</b>									
April	..	20776	12040	32816	..	11954	5490	16784	860
May	..	15665	15050	30715	..	11538	7006	18544	814
June	..	28344	15350	43694	..	12001	8038	20039	783
July	..	25427	20075	45502	..	17107	10039	27146	878
August	..	33415	21055	54470	..	11217	12090	23247	790
September	..	35165	15350	50515	..	13185	8799	21984	984
October	..	30008	15110	45118	..	15001	10060	26061	1191
November	..	28575	18000	46575	..	10666	10005	20671	1172
December	..	29835	51075	80910	..	11435	7890	19265	1218
<b>1992</b>									
January	9902	21718	4535	36155	10	13435	10080	23525	1596
February	19759	16556	13295	49610	946	12720	10110	23776	1361
March	10858	19099	28030	57727	2244	12475	20000	34719	1545
<b>Total</b>	<b>84919</b>	<b>394523</b>	<b>228965</b>	<b>567807</b>	<b>3200</b>	<b>153194</b>	<b>119427</b>	<b>275761</b>	<b>13072</b>

\* Thiruvananthapuram Passport Office was upgraded as a full fledged one on 10-1-1992.

\*\* Including the Emigration Clearance Not Required (ECNR).

## APPENDIX 7.20

Number of ships that called at Cochin Port during 1990-91 and 1991-92 and their Net Registered Tonnage

Type of Vessels	No. of ships		% variation increase (+) decrease (-)	Net Registered Tonnage		% variation increase (+) decrease (-)
	1990-91	1991-92		1990-91	1991-92	
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Tankers	208	220	(+)5.8	3325563	3350512	+6.76
2. Colliers	1	1	..	11675	9293	(-)20.4
3. Foodgrain ships	1	..	(-)100.0	6914	..	..
4. Fertiliser Ships	69	86	(+)24.6	525088	613356	(+)16.81
5. General Cargo Ships	288	239	(-)17.0	1176652	900742	(-)23.44
6. Container ships	287	250	(-)12.9	804284	770383	(-)44.22
7. Passenger ships	4	5	+25.0	38608	48918	(+)26.70
Total	858	801	(-)6.6	5888784	5893204	(+)0.08

Source: Administration Report of Cochin Port Trust 1991-92.

## APPENDIX 7.21

Commodity-wise Cargo handled at the Intermediate and Minor Ports of Kerala during 1991-92

(in tonnes)

Sl. No.	Name of Port	Commodity	Imports			Exports			Grand Total
			Coastal	Foreign	Total	Coastal	Foreign	Total	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1.	Alappuzha	..	..	..	..	..	..	..	..
2.	Kozhikode	1. Timber	..	..	..	7878	..	7878	7878
		2. Cement	136	..	136	4509	..	4509	4645
		3. Bricks	12	..	12	1751	..	1751	1763
		4. Granite Metal	85	..	85	3129	..	3129	3214
		5. River Sand	41	..	41	1513	..	1513	1554
		6. Rice	44	..	44	2891	..	2891	2875
		7. Soda ash	2037	..	2037	..	..	..	2037
		8. Iron Scarp	94	1860	1954	..	..	..	1954
		9. HSD Oil	..	..	..	1945	..	1945	1945
		10. Miscellaneous	1357	..	1357	4595	..	4595	5952
	Total: Kozhikode		3806	1860	5666	28151	..	28151	33817
3.	Neendakara	1. Ilmenite	..	..	..	..	93950	93950	93950
		2. Silliminate	..	..	..	..	1700	1700	1700
		3. Zircon	..	..	..	..	1500	1500	1500
	Total: Neendakara						97150	97150	97150
4.	Azheekal	1. Timber				6829	..	6829	6829
	Total: Azheekal					6829	..	6829	6289
5.	Kovalam-Vizhinjam IBauxite		3867	..	3867	..	..	..	3867
	Total: Kovalam		3867	..	3867	..	..	..	3867
	Grand Total		7673	1860	9533	34980	97150	132130	141663

## APPENDIX 7.22

*Number and Tonnage of Steamers and sailing vessels which called at the intermediate and Minor Ports of Kerala during 1991-92*

Name of Port (1)	Coastal/ Foreign (2)	Steamers		Sailing Vessels		Total No. of Vessels (7)	Total tonnage (8)
		No. (3)	Tonnage (4)	No. (5)	Tonnage (6)		
1. Calicut	Coastal	38	6905	100	11737	138	18642
	Foreign	1	2377	197	23987	198	26364
2. Neendakara	Coastal	..	..	..	..	..	..
	Foreign	5	61588	..	..	5	61588
3. Azhikkal	Coastal	..	..	115	9855	115	9855
	Foreign	..	..	..	..	..	..
4. Kovalam-Vizhinjam	Coastal	3	2850	1	400	4	3250
	Foreign	..	..	..	..	..	..
5. All Other Ports	Coastal	..	..	..	..	..	..
	Foreign	..	..	..	..	..	..
Total:	Coastal	41	9755	216	21992	257	31747
	Foreign	6	63965	197	23987	203	87952
Grand Total 1991-92		47	72720	413	45979	460	119699

Source: Directorate of Ports.

## APPENDIX 7.23

*Details of dredging operations conducted at the Intermediate and Minor Ports of Kerala during 1991-92*

Sl. No.	Name of dredger	Capacity of dredger	Ports dredged	Quantity dredged		Dredging done for others		
				Time in hours	Quantity dredged	Agency	Quantity dredged	Amount valued
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
1. CSD Meena-Kerala	600M 3/H	1. Azhikkal Bar	240 Hrs 30 Minutes	144180 M3	..	..	CSD 'Meena Kerala' with Dredge Tender Kozhikode Rs. 7200 per hour	
		2. Munambom	166 hrs 10 Minutes	99660 M3	..	..		
		Total	406 Hrs 40 Minutes	243840 M3	..	..		
2. CSD Neendakara	200 M 3/H	1. Ponnani Port	92 Hrs 55 Minutes	18510 M3 work	Departmental work	..	CSD Neendakara Rs. 1600 per hour	
		2. Neendakara Port	375 Hrs 16 Minutes	75020 M3				
3. Grab Dreddger	50 M3/H	1. Neendakara Port	499 Hrs. 15 Minutes	24957.5 M3	..	..	Grab Dreddger Rs. 350 per hour	
		2. Beypore Port	467 Hrs.	23950 M3				
Total:			1840 Hrs 20 minutes	385677.5 M3				

The quantity dredged has been worked-out on the basis of rated output of dredgers.

## APPENDIX 7.24

*Number of Harbour crafts registered at the Intermediate and Minor Ports of Kerala during 1991-92*

Name of Port	Cargo boats including barges	Canoes including boats	Mechanised fishing vessels	Others	Total
(1)	(2)	(3)	(4)	(5)	(6)
1. Alappuzha	..	..	108	..	108
2. Kozhikode	..	3	11	..	14
3. Neendakara	..	..	194	..	194
4. Azhikkal	..	..	..	..	..
5. Vadakara	..	..	..	..	..
6. Kannur	..	..	..	..	..
7. Kasaragod	..	95	..	..	95
8. Kodungallore	..	..	104	..	104
9. Kovalam-Vizhinjam	..	..	..	..	..
10. Ponnani	2	..	..	..	2
11. Tellicherry	..	..	..	..	..
12. Trivandrum	..	..	..	..	..
<b>Total:</b>	<b>2</b>	<b>98</b>	<b>417</b>	<b>..</b>	<b>517</b>

## APPENDIX 7.25

*Category-wise break-up of Revenue Collected at the Intermediate and Minor Ports of Kerala during 1991-92*

(Rs. in lakhs)

Name of Port	Port dues	Export/Import dues	Tug hire charges	Pilotage fees	Miscellaneous			Total
					Ground rent, shed rent etc.	Registration and other fees	Private dredging charges	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. Alappuzha	..	..	..	..	32907	55990	..	88897
2. Kozhikode	27777	196172	44736	5880	326989	15298	..	616852
3. Neendakara (including Kollam)	65354	460750	1426401	..	696085	131820	..	2780410
4. Azhikkal	5485	47940	..	..	28365	..	..	81790
5. Vadakara	..	..	..	..	13842	..	..	13842
6. Kannur	..	..	..	..	6511	..	..	6511
7. Kasaragode	..	..	..	..	25824	6665	..	32489
8. Kodungallore	..	..	..	..	..	51720	..	51720
9. Kovalam-Vizhinjam	2853	38666	..	..	11732	..	..	53251
10. Ponnani	..	..	..	..	8675	..	..	8675
11. Tellicherry	..	..	..	..	15687	..	..	15687
12. Trivandrum	..	..	..	..	17012	..	..	17012
13. Directorate of Ports	..	..	..	..	731592	..	..	731592
14. Receipt from Private Dredging	..	..	..	..	186424	..	..	186424
<b>Total:</b>	<b>101469</b>	<b>749528</b>	<b>1471197</b>	<b>5880</b>	<b>2101645</b>	<b>261493</b>	<b>..</b>	<b>4685152</b>

Source: Directorate of Ports.

## APPENDIX 7.26

*Category-wise offices in postal and other postal Services*

Category of office (1)	As on 1st April	
	1991 (2)	1992 (3)
(a) Postal Services		
1. Head Post Offices	50	51
2. Sub Post Offices		
(i) Departmental	1418	1416
(ii) Extra departmental	555	552
3. Branch Offices	2882	2959
<b>Total (a)</b>	<b>4905</b>	<b>4978</b>
(b) Speed Post Centres	6	6
(c) Other Postal Services		
1. Railway Mail Service Offices		
(i) Head record office	3	3
(ii) Sorting Mail Office	29	28
(iii) Sub Record Office	23	23
(iv) Transit Mail Office	9	9
(v) R.M.S. Sections	18	18
(vi) Press Sorting Office	2	2
(vii) Parcel Sorting Office	3	3
<b>Total (1)</b>	<b>87</b>	<b>86</b>
2. Mail Motor Service Division Unit	1 Unit	1 Unit
3. Central stamp depot	1 „	1 „
<b>Total (c)</b>	<b>89</b>	<b>88</b>

Source: G.P.M.G. Kerala Circle, Thiruvananthapuram.

## APPENDIX 7.27

*Growth of Postal System in Kerala during the last ten years*

Category (1)	As on 1st April									
	1983 (2)	1984 (3)	1985 (4)	1986 (5)	1987 (6)	1988 (7)	1989 (8)	1990 (9)	1991 (10)	1992 (11)
<b>Postal Services:</b>										
Head Post Offices	51	51	51	51	50	50	50	50	50	51
Sub Offices (Departmental and extra-departmental)	2151	2187	2026	2026	1971	1971	1971	1971	1971	1968
Branch Offices together with speed post centres	2500	2512	2674	2672	2727	2761	2761	2840	2883	2959
Speed Post Centres	..	--	--	--	1	3	4	4	6	6
<b>Total</b>	<b>4682</b>	<b>4750</b>	<b>4751</b>	<b>4749</b>	<b>4749</b>	<b>4785</b>	<b>4786</b>	<b>4865</b>	<b>4910</b>	<b>4984</b>

Source: G.P.M.G. Kerala Circle, Thiruvananthapuram.

## APPENDIX 7.28

*Names of Speed Post Centres*

Inland		International	
Sl.No.	Name	Sl.No.	Name
(1)	(2)	(3)	(4)
1.	Agarthala	1.	Argenteena
2.	Agra	2.	Australia
3.	Ahmedabad	3.	Austria
4.	Aluva	4.	Beharin
5.	Allahabad	5.	Behrain
6.	Bangalore	6.	Egypt
7.	Bhopal	7.	France
8.	Bhubaneswar	8.	Greece
9.	Bombay	9.	Germany
10.	Calcutta	10.	Hongkong
11.	Kozhikode	11.	Iraq
12.	Chandigarh	12.	Ireland
13.	Kochi	13.	Indonesia
14.	Coimbatore	14.	Japan
15.	Cuttack	15.	Luxumburg
16.	Dhanbad	16.	Malacca
17.	Delhi	17.	Mali
18.	Gauhati	18.	Netherlands
19.	Goa	19.	Nigeria
20.	Gorakhpur	20.	Norway
21.	Gwalior	21.	Oman
22.	Faridabad	22.	Pakistan
23.	Hyderabad	23.	Portugal
24.	Howrah	24.	Peoples Republic of China
25.	Imphal	25.	Qatar
26.	Indore	26.	Republic of Korea
27.	Jaipur	27.	Rurwanda
28.	Jammu	28.	Senigal
29.	Jamshedpur	29.	Singapore
30.	Jalandher	30.	Spain
31.	Kancheepuram	31.	Sreelanka
32.	Kanpur	32.	Sweden
33.	Ludhiana	33.	Switzerland
34.	Lucknow	34.	Thailand
35.	Madras	35.	Tunessia
36.	Madur	36.	Turkey



(1)	(2)	(3)	(4)
37.	Mangalore	37.	U.A.E.
38.	Meerut	38.	U.K.
39.	Morabad	39.	U.S.A.
40.	Mysore	40.	U.S.S.R.
41.	Nagpur	41.	Saudi Arabia
42.	Patna	42.	Canada
43.	Pondichery	43.	Cyprus
44.	Pune	44.	Ethiopia
45.	Kollam	45.	Malawi
46.	Raipur	46.	Newzeland
47.	Ranchi	47.	Sudan
48.	Salem	48.	Ghana
49.	Shillong	49.	Guyana
50.	Simla	50.	Denmark
51.	Silchar	51.	Hungary
52.	Srinagar	52.	Iran
53.	Suret	53.	Malayasia
54.	Thiruppathi	54.	Maxico
55.	Trichi	55.	Morocco
56.	Tiruppur	56.	Niger
57.	Thrisur	57.	Panama
58.	Thiruvananthapuram	58.	Papua New Guines
59.	Vadodara	59.	Uganda
60.	Varanasi	60.	Zaire
61.	Vijayavada		
62.	Vishakapatanam		

## APPENDIX 7.29

*District-wise details of area and Population served by one Post Office during 1991-92*

name of District/Island	Number of Post Offices	Area (Sq.kms)	Area served by each post office (Sq.kms)	Population* (in 1000s)	Population served by each post
(1)	(2)	(3)	(4)	(5)	(6)
Thiruvananthapuram	414	2192	5.295	2998	7099
Kollam	827	2491	7.618	2998	7333
Pathanamthitta	241	2462	10.216	1187	4925
Alappuzha	360	1414	3.928	1991	5531
Kottayam	420	2203	5.245	1820	4933
Idukki	293	5019	17.130	1077	3676
Ernakulam	378	2407	6.368	2798	7402
Thrisur	487	3032	6.226	2734	5614
Palghat	442	4480	10.136	2976	5876
Malappuram	427	3550	8.314	3098	7244
Kozhikode	431	2344	5.439	2613	6063
Wayanadu	142	2131	15.007	671	4725
Kannoor	410	2966	7.234	2245	5476
Kasaragod	196	1992	10.163	1071	5464
Lakshadweep	10	30	3.000	52	5200
Mahe	4	9	2.250	95	8750
Kerala—including Lakshadweep and Mahe	4982	38902	7.809	29100	5841
Kerala—Excluding Lakshadweep and Mahe	4968	38863	7.823	29013	5840

Figures as per Census of India 1991, Provisional Population totals of Kerala Paper I of 1991—series—12

Source: C.P.M.G. Kerala Circle, Thiruvananthapuram.

## APPENDIX 7.30

*Division-wise Post Offices in different categories as on 1-4-1992*

Sl. No.	Name of Division	Head Offices	Departmental	Sub Offices			Total
				Extra-departmental	Branch	Mobile Post Offices	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	Thiruvananthapuram South	2	65	16	194	..	217
2.	Thiruvananthapuram North	2	26	8	111	..	197
3.	Quilon	3	83	21	114	..	221
4.	Pathanamthitta	3	69	54	170	..	296
5.	Thiruvalla	2	62	32	59	..	155
6.	Mavelikara	2	49	24	47	..	122
7.	Alleppey	2	46	31	45	..	124
8.	Kottayam	3	79	44	129	..	255
9.	Changanacherry	2	48	12	103	..	165
10.	Idukki	2	52	19	226	..	293
11.	Ernakulam	2	70	5	60	..	137
12.	Alwaye	3	67	34	140	..	244
13.	Irinjalakuda	2	62	23	104	..	191
14.	Trichur	3	103	33	157	..	296
15.	Ottapalam	1	52	23	140	..	216
16.	Palghat	3	85	21	122	..	231
17.	Thirur	2	51	23	96	..	172
18.	Manjeri	2	44	31	180	..	257
19.	Calicut	3	73	14	210	..	300
20.	Badagara	2	41	37	142	..	222
21.	Tellicherry	1	43	8	154	..	206
22.	Cannanore	2	61	25	137	..	225
23.	Kasaragod	2	29	17	178	..	226
24.	Lakshadweep	..	6	3	1	—	10
<b>Total</b>		<b>51</b>	<b>1416</b>	<b>552</b>	<b>2959</b>	<b>..</b>	<b>4978</b>

## APPENDIX 7.31

Statistics relating to Telecommunication system in Kerala for the years 1991 and 1992

Secondary Switching Areas (SSAs)		As on 31st March									
		No. of Exchanges		Total equipped capacity		Total Working connections		Total applications in wait list		Public call offices	
		1991	1992	1991	1992	1991	1992	1991	1992	1991	1992
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	
1	Thiruvananthapuram	35	40	31913	44756	30009	39342	20275	18389	579	653
2	Kollam	52	52	18107	21975	16632	20181	9625	12295	344	397
3	Pathanamthitta	36	37	9687	14861	9197	12961	9625	9615	232	344
4	Alappuzha	38	39	15080	19745	14317	16367	8831	11157	288	296
	Kottayam	58	59	24948	32684	23503	28595	18032	19206	477	609
	Ernakulam	125	131	65236	76718	59020	68029	30277	37985	987	1248
7	Thrissur	46	47	26792	29034	25833	27400	18707	24611	479	620
8	Palakkad	62	63	15197	19612	14016	16662	5882	9064	376	488
9	Kozhikode	104	108	42127	47360	37819	42706	29407	40867	703	896
10	Kannur	93	99	32220	37791	29915	33362	24172	31645	493	704
Totam		649	675	280707	344536	260261	305605	174833	214834	4958	6253
			(4.01)*		(22.74)*		(17.42)*		(22.88)*		(26.16)*

\*Figures in brackets show the percentage increase over the Previous year.

Source:—Chief General Manager, Kerala Telecommunication, Thiruvananthapuram.

## APPENDIX 7.32

Income and Expenditure of Kerala Tourism Development Corporation and Accommodation details in the Hotels of KTDC-1991-92

(Rs. in lakhs)

Sl. No.	Name of hotel unit	No. of beds available	Total No. of visitors		Occupancy ratio (in %)	Annual Expenditure			
			Domestic	Foreign		Annual income (Rs. in lakhs)	Adminis-tration	Operating	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1.	Hotel Samudra	100	7034	5159	33.33	44.66	13.27	20.08	33.35
2.	Hotel Chaithram	176	17625	965	51.58	143.11	34.26	118.77	153.03
3.	Mascot Hotel	88	3413	911	26.76	96.85	37.73	50.79	88.52
4.	Aranya Nivas Hotel	72	4592	5691	39.04	81.41	25.39	28.78	54.17
5.	Periyar House	96	11797	2260	64.75	28.57	12.81	11.61	24.42
6	Kumarakom Tourist Complex	..	334	291	28.99	8.46	3.39	4.89	8.28
	Hotel Ayswarya	68	..	..	..	3.21	0.57	2.07	2.64
	Bolgatty Palace Hotel	24	852	1751	60.43	31.78	11.07	16.17	27.24
	Hotel Nandavanam	90	14720	18	39.29	11.88	4.77	5.99	10.76
	Mangalya	16	5034	Nil	43.74	31.53	6.48	22.18	28.66
	Garden House	34	6145	45	53.04	23.02	4.41	11.23	15.64
	Malabar Mansion	34	1301	76	33.90	33.40	5.01	26.05	31.
13.	Yatri Nivas, Trissur	68	662	9	38.27	21.02	3.88	15.06	18.94
	Yatri Nivas, Kannur	70	6532	13	26.06	23.95	4.07	17.07	21.14
	Motel Araam, Kottarakkara	4	..	..	..	3.21	0.57	2.07	2.64
	Motel, Araam, Alleppey	4	..	..	48.45	7.73	1.74	4.25	5.99
	Motel Araam, Palghat	4	..	..	..	8.24	1.44	5.69	7.13
	Sabala, Ponmudi	..	..	..	..	5.31	1.10	3.11	4.21
	Sabala, Statue	..	..	..	..	16.25	2.87	10.51	13.38
	Sabala, Museum	..	..	..	..	10.10	1.24	7.62	8.86
	Sabala, Veli	..	..	..	..	7.90	1.92	4.66	6.58
	Sabalakuttikanam	4	1122	4	72.82	4.44	0.46	2.97	3.43
Sub Total:		952	81163	17193	43.95	646.03	178.45	391.63	570.08
	Transport Division	..	..	..	..	31.86	11.42	17.26	28.68
	Tourist Reception Centre, Kochi.	..	..	..	..	18.22	4.83	8.56	13.39
	Boat Club, Veli	..	..	..	..	9.32	3.08	1.89	4.97
	Tourist Reception Centre, Calicut	..	..	..	..	2.68	0.37	0.74	1.11
Total:		952	81163	17193	43.95	708.11	198.15	420.08	618.23

## APPENDIX 8.1

Commodity-wise Distribution of Imports During the Past 10 years

(In Tonnes)

Sl. No.	Commodities	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92
1.	Rice & Paddy	..	58958	48804	5265	11	4000	46690	25221	15146	16463
2.	Other Grains including Pulses & Flour	91274	46951	..	..	329	1494	117036	17660	12162	..
3.	Cashewnuts	886	17736	9813	6959	26529	30499	21847	21060	4809	1361
4.	Machinery	4283	6879	11842	4996	3616	8490	7688	5813	3454	826
5.	Iron & Steel	57257	50401	8438	3511	5969	17039	6490	14959	3095	1232
6.	Tin Plate	980	959	773	182	524	767	391	245	276	117
7.	Motor Vehicles & Parts	200	470	875	745	710	445	170	85	22	35
8.	Chemical & Chemical Preparations	1187	10734	17315	1671	1409	6789	7796	2656	3689	19350
9.	Oil Seeds including Copra & Ground Nuts	111	3	981	..	..	6011	319	1400	5596	1383
10.	Drugs & Medicines	26	36	5	..	..	..	..	189	51	..
11.	Paper, Old Newspaper & Stationery	13539	16217	32126	29438	21445	5807	21957	18153	22721	20860
12.	Cotton, Raw & Waste	..	..	..	517	..	289	5694	700	4	..
13.	Oilseeds Stores, Provision and Spices	..	..	..	334	..	88	..	228	98	..
14.	Sulphur	146381	114245	178646	175890	190570	191164	221184	209258	175195	213192
15.	Rock Phosphate	263662	206833	232376	193249	223030	294597	163956	270363	258994	251059
16.	Fertilisers	74768	81842	146675	221328	151916	110567	138766	209005	180812	148349
17.	Liquid Ammonia	59289	100285	110106	92355	147705	141497	136635	97574	131532	173289
18.	Phosphoric Acid	..	..	115861	86263	172981	128751	163919	163229	117898	183609
19.	Salt	..	..	..	..	..	..	..	..	..	..
20.	Zinc Concentrate	24753	16468	17001	23066	38605	21940	35231	11313	15535	7200
21.	Calcined Haumite	13554	7000	13710	5895	6091	12809	2103	9726	12181	4354
22.	Coal	..	..	..	..	..	..	..	..	20372	17240
23.	Candles, Paraffin Wax & Tallow	14754	9523	..	1030	500	..	..	..	..	..
24.	Cement	197766	118664	22182	27561	26412	..	..	..	2238	..
25.	Sugar	..	..	24685	100072	23635	..	..	41016	..	..
26.	Miscellaneous	3326777	3237928	2684871	3579346	4559302	4601844	5443945	4993304	3264417	5379465
Total Imports		4471447	4102152	3676785	4559013	5600089	3584907	6541158	6053159	6250317	6433384

Source: Administration Report 1991-92, Cochin Port Trust.

## APPENDIX 8.2

*Commodity-wise Distribution of Exports During the Past 10 Years**(In Tonne)*

Sl.No. Commodities	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92
1. Coir Products	30070	28474	27083	25795	24677	25393	24116	26117	24198	21639
2. Tea	41138	37067	57585	26178	22307	15971	22884	12347	9530	17906
3. Rubber & Rubber Products	455	634	1514	1246	774	1727	2159	4576	5372	6468
4. Coffee	34365	29216	33477	46456	31056	47058	41248	57852	35892	42008
5. Cashew Kernels	32455	38501	35776	36391	42685	37323	33932	46095	49970	36630
6. Chemicals	7513	6478	5701	6923	6565	7216	9901	6992	10133	14620
7. Cotton, Raw & Waste	4106	12431	3183	90	520	486	..	847	660	3
8. Cotton Piece Goods	10502	10571	17130	13020	8401	11296	9885	11647	13191	6635
9. Rice and other Food Grains	4282	2105	1648	150	949	959	1405	1935	12797	3657
10. Pepper	22714	25389	25023	36388	36547	42077	35281	34664	30443	21284
11. Ginger	3063	3463	4741	3458	2335	1924	3882	4414	2878	3601
12. Cardamom	450	198	710	817	320	79	120	66	79	145
13. Turmeric	1877	1301	2151	1827	2189	1690	2034	2124	2576	2678
14. Coconut Oil	3	3	..	..	..	..	..	..	..	..
15. Cashew Shell Liquid	4579	2233	3493	1633	1888	5372	915	1919	2855	2756
16. Lemongrass Oil	205	39	227	12	13	34	44	162	19	136
17. Timber	4283	3505	2440	2304	2492	3930	4170	3915	2752	1935
18. Marine Products	42422	36780	37413	34947	40235	42516	52810	53123	38598	63800
19. Machinery	3403	2856	3079	1899	1909	2188	1587	3297	4132	4115
20. Iron & Steel	2746	2115	1372	1389	608	971	1184	2054	1961	2229
21. Mineral Sand including Granite	3988	4488	6306	5569	1477	4719	1747	1086	1112	1419
22. Cement	1907	2729	4150	1685	2040	240	975	..	..	1317
23. Miscellaneous	982198	651518	123507	469071	1053216	964068	1092691	796238	755538	788750
<b>Total</b>	<b>1238724</b>	<b>902094</b>	<b>397709</b>	<b>719198</b>	<b>1283203</b>	<b>1216637</b>	<b>1282970</b>	<b>1071468</b>	<b>1024986</b>	<b>1047731</b>
<b>Total Traffic (Import &amp; Export)</b>	<b>5710171</b>	<b>5004246</b>	<b>4074494</b>	<b>5278211</b>	<b>6883292</b>	<b>6801544</b>	<b>7824128</b>	<b>7124627</b>	<b>7275303</b>	<b>7481115</b>

Source: Administration Report 1991-92, Cochin Port Trust.

## APPENDIX B.3

Port-wise export of Marine Products

Q: Quantity in Tonnes

V: Value in Rs. lakhs

Name of Port		1991-92	Share%	1990-91	Share%
Cochin	Q:	58743	34.19	50997	36.58
	V:	44416.73	32.30	31379.13	35.12
Mangalore	Q:	1474	0.86	846	0.61
	V:	1499.34	1.09	593.03	0.66
Bombay	Q:	26454	15.42	16781	12.04
	V:	16502.52	11.99	8304.67	9.85
JNP (Bombay)	Q:	5973	3.48	3784	2.71
	V:	3819.72	2.78	1931.26	2.16
Goa	Q:	4236	2.47	1966	1.41
	V:	815.81	0.62	337.25	0.38
Porbandar	Q:	19386	11.28	11541	8.28
	V:	7831.40	5.69	3652.97	4.09
Kandla	Q:	11704	6.81	10927	7.84
	V:	5546.56	4.82	4052.62	4.54
Madras	Q:	17988	10.47	22699	16.28
	V:	17502.21	12.72	19446.87	15.05
Tuticorin	Q:	7060	4.11	4641	3.33
	V:	5550.68	4.04	3141.41	3.52
Vizag	Q:	10349	6.02	8562	6.14
	V:	20218.76	14.69	12595.33	14.10
New Delhi	Q:	6	..	..	..
	V:	4.88	..	..	..
Calcutta	Q:	7921	4.61	6001	4.30
	V:	13071.96	9.50	8662.05	9.70
Paradeep	Q:	438	0.25	163	0.12
	V:	681.20	0.50	285.95	0.32
Haldia (Calcutta)	Q:	88	0.05	511	0.36
	V:	97.35	0.06	454.44	0.51
Total	Q:	171820	100.00	139419	100.00
	V:	137589.08	100.00	89336.98	100.00

Source: Marine Products Export Review, 1991-92.

Marine Products Export Development Authority, Kochi.

(....Negligible)

## APPENDIX 8.4

*Export Growth of Indian Marine Products (1961-62 to 1991-92)*

Year	Quantity in Tonnes	Value in Rs. Crores	Average Unit Value realisation (Rs./Kg.)	Growth Rate (%)	
				Quantity%	Value %
1961-62	15732	3.92	2.49	-21.30	-15.52
1962-63	11161	4.20	3.76	-29.06	+ 7.13
1963-64	19057	6.09	3.19	+70.04	+44.96
1964-65	21122	7.14	3.38	+10.84	+17.44
1965-66	15295	7.06	4.62	+27.59	- 1.20
1966-67	21116	17.37	8.23	+38.06	+145.90
1967-68	21907	19.72	9.00	+37.74	+13.53
1968-69	26811	24.70	9.21	+22.39	+25.26
1969-70	31695	33.46	10.56	+18.22	+35.47
1970-71	35883	35.07	9.77	+13.21	+ 4.83
1971-72	35523	44.55	12.54	- 1.00	+27.03
1972-73	38903	59.72	15.35	+ 9.52	+34.08
1973-74	52279	89.51	17.12	+34.38	+49.88
1974-75	45099	68.41	15.17	-13.73	-23.57
1975-76	54463	124.53	22.86	+20.76	+82.03
1976-77	66750	189.12	28.33	+22.56	+ 5.87
1977-78	65967	180.95	27.43	- 1.17	- 4.32
1978-79	86894	234.62	27.00	+31.72	+29.66
1979-80	86401	248.82	28.80	- 0.57	+ 6.65
1980-81	75591	234.84	31.07	-12.51	-5.62
1981-82	70105	286.01	40.80	- 7.26	+21.79
1982-83	78175	361.36	46.22	+11.51	+26.35
1983-84	92691	373.02	40.24	+18.57	+ 3.23
1984-85	86187	384.29	44.59	- 7.02	+ 3.02
1985-86	83651	398.00	47.58	- 2.94	+ 3.57
1986-87	85843	460.06	53.66	+ 2.62	+15.75
1987-88	97179	531.20	54.66	+13.21	+15.31
1988-89	99777	597.85	59.92	+ 2.67	+12.55
1989-90	110843	634.99	57.29	+11.09	+ 6.21
1990-91	139419	893.37	64.08	+25.78	+40.69
1991-92	171820	1375.89	80.08	+23.24	+54.01

Source: Marine Products Export Review, 1991-92..

Marine Products Export Development Authority, Kochi.



## APPENDIX 8.5

*Marine Products—Changing Pattern of Major Markets*

Q: Quantity in Tonnes; V: Value in Rs. Lakhs)

Year		Japan	Share %	U.S.A.	Share %	West Europe	Share %	Other Countries	Share %	Total
1981-82	Q:	40011	57.07	10528	15.02	9202	13.13	10364	14.78	70105
	V:	20287	70.83	3498	12.23	2755	9.63	2061	7.21	28601
1982-83	Q:	41196	52.62	12276	15.70	7409	9.48	17354	22.20	78175
	V:	26263	72.68	4258	11.78	2734	7.57	2881	7.97	36136
1983-84	Q:	37424	40.38	13496	14.56	9493	10.24	32278	34.82	92691
	V:	24023	64.40	4981	13.35	3763	10.09	4535	12.16	37302
1984-85	Q:	41536	48.19	15647	15.84	8896	10.32	22108	25.65	86187
	V:	26096	67.75	5654	14.71	3471	9.03	3268	8.51	38429
1985-86	Q:	40327	48.21	9319	11.38	14231	17.01	19574	23.40	83651
	V:	27771	68.78	4606	11.57	4316	10.84	3107	7.81	39800
1986-87	Q:	37287	43.44	11374	13.25	17868	20.81	19314	22.50	85843
	V:	31068	67.42	5630	12.22	5944	12.90	3435	7.46	46067
1987-88	Q:	38738	39.86	14444	14.86	22816	23.48	21181	21.80	97179
	V:	32618	61.40	7515	14.15	8426	15.86	4561	8.59	53120
1988-89	Q:	35811	35.89	19531	19.56	33824	33.90	16611	16.65	99777
	V:	35684	59.69	7012	11.23	12449	20.82	4640	7.76	59785
1989-90	Q:	38763	34.97	13802	12.45	36970	33.36	21308	19.22	110843
	V:	34566	54.44	7893	12.38	15530	24.46	5570	8.77	63499
1990-91	Q:	38092	27.32	16155	11.59	42964	30.82	42208	30.27	139419
	V:	45827	51.30	10931	12.23	23189	25.96	9390	10.51	89337
1991-92	Q:	39480	22.98	20844	12.13	55604	32.36	55892	32.53	171820
	V:	63345	46.04	15464	11.24	39587	28.77	19193	13.96	137589

Source: Marine Products Export Review, 1991-92

Marine Products Export Development Authority, Kochi.

## APPENDIX B.6

*Export of Spices from India by Major Commodity Groups*

Commodity	1987-88		1988-89		1989-90(P)		1990-91		1991-92	
	Qty (M.T)	Value (Rs.'000)	Qty (M.T)	Value (Rs.'000)	Qty (M.T)	Value (Rs.'000)	Qty (M.T.)	Value (Rs.'000)	Qty (M.T)	Value (Rs.'000)
Pepper	41011	2405778	36981	1646316	34482	1529659	29985	1023993	20565	742082
Cardamom (small)	270	34003	787	109736	180	30668	400	108661	553	160674
Cardamom Large	155	7022	464	20010	787	29482	1077	49053	982	47625
Chillies	6122	83345	7876	171837	11983	258531	24534	275555	33398	979064
Ginger	2628	48899	6368	94082	9037	126896	6555	117579	13396	203245
Turmeric	8747	92272	18968	199928	16860	161528	13624	154848	16565	315757
Joriander	892	13947	8175	59104	2664	27850	3488	40545	9228	119039
Cumin	913	24822	1213	39163	4090	69506	1029	30495	1460	58958
Celery	2492	24063	2997	31589	3106	37886	3199	41403	2782	46369
Fennel	802	15382	1099	20837	2284	31125	1163	20122	1663	36273
Fenugreek	2194	19984	3575	36672	6241	44143	3748	30456	4941	42409
Other Seed Spices	415	7386	1384	18878	1578	17405	1035	12259	1340	28047
Garlic	242	1944	4178	23015	2241	17680	4023	25689	9884	76325
Other Misc. Spices	409	8469	2239	46541	2660	796632	11740	104906	9650	117900
Curry Powder	2559	43810	3066	56626	3320	67542	3144	66004	3068	86392
Spices Oils & Oleoresi	428	149677	576	185732	717	228577	892	319874	1132	560263
<b>Grand Total</b>	<b>70279</b>	<b>2980803</b>	<b>99946</b>	<b>2748066</b>	<b>102170</b>	<b>2757609</b>	<b>109636</b>	<b>2421442</b>	<b>130567</b>	<b>3620417</b>

(P) Provisional

Source: Spices Export Review-1991-92, Spices Board, Kochi.

## APPENDIX 9.1

*Human Development Index for 17 States in India 1987*

States	Life Expectancy of Birth	Literacy Rate	Real GDP per capita (PPPS)		Deprivation			Human Development Index	SDP per capita Rank 1987	HDI Rate minus SDP Rates
			Actual	Log.	Adult literacy	North Minimum Purchasing power	Average of the three			
1. Uttarpradesh	49.1	35.3	787	2.90	0.80	0.59	0.708	0.292	5	4
2. Bihar	54.1	33.6	625	2.80	0.66	0.66	0.694	0.306	1	-1
3. Madhya Pradesh	52.4	42.4	756	2.88	0.71	0.60	0.656	0.344	3	0
4. Rajasthan	55.1	32.7	864	2.94	0.64	0.56	0.633	0.367	7	3
5. Orissa	53.0	44.2	694	2.89	0.69	0.63	0.652	0.348	2	3
6. Assam	52.4	48.5	785	2.95	0.71	0.59	0.628	0.372	4	-2
7. Jammu & Kashmir	56.8	36.9	887	2.99	0.58	0.55	0.619	0.381	8	1
8. Andhra Pradesh	58.0	35.3	983	3.03	0.56	0.51	0.608	0.397	9	1
9. Himachal Pradesh	56.6	52.2	1109	3.05	0.60	0.47	0.538	0.462	12	3
10. Gujarat	56.8	52.9	1116	3.05	0.59	0.47	0.535	0.465	13	3
11. West Bengal	56.6	53.3	1116	3.02	0.59	0.47	0.533	0.467	13	2
12. Karnataka	60.6	48.0	1037	3.02	0.49	0.50	0.525	0.475	10	-2
13. Tamil Nadu	58.1	55.4	1074	3.03	0.56	0.49	0.517	0.483	11	-2
14. Haryana	60.6	46.2	1600	3.20	0.49	0.36	0.486	0.514	16	2
15. Maharashtra	60.2	56.3	1348	3.13	0.50	0.41	0.468	0.532	15	0
16. Punjab	64.3	47.7	2143	3.33	0.38	0.26	0.414	0.586	17	1
17. Kerala	67.6	84.1	829	2.92	0.30	0.57	0.349	0.651	6	-11

## APPENDIX 9.2

*District-wise Literacy Status of Kerala 1991*

Districts	Population (in lakhs)			Rate of Literacy (Literate exclude children in the age group 0-6 who are treated as illiterates in the 1991 Census)	
	Rural	Urban	Total	Rural	Urban
Thiruvananthapuram	19.41	9.98	29.38	76.29	80.76
Kollam	19.52	4.46	23.98	79.41	79.37
Pathanamthitta	10.32	1.55	11.87	84.11	85.16
Allappuzha	13.81	6.09	19.90	83.85	89.09
Kottayam	15.04	3.21	18.25	85.17	85.36
Idukki	10.26	0.51	10.77	75.73	80.39
Ernakulam	14.40	13.72	28.12	80.90	83.38
Thirissur	20.15	7.20	27.35	78.31	82.08
Palakkad	20.02	3.74	23.76	68.68	75.93
Malappuram	28.11	2.82	30.93	71.61	74.47
Kozhikode	16.10	10.04	26.14	78.32	80.28
Wayanad	6.48	0.23	6.71	70.37	73.91
Kannur	10.99	11.45	22.44	77.34	81.40
Kasaragod	8.94	1.76	10.70	69.24	75.00
Total	213.56	76.76	290.32	77.00	81.14

## APPENDIX 9.3

Number of Schools in Kerala—District-wise 1991-92

Sl. No.	Name of District	High Schools				U.P. Schools				L.P. Schools				Total			
		Govt.	Aided	Un-aided	Total	Govt.	Aided	Un-aided	Total	Govt.	Aided	Un-aided	Total	Govt.	Aided	Un-aided	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
1.	Thiruvananthapuram	118	94	18	230	98	103	12	213	306	182	18	506	522	379	46	949
2.	Kollam	75	125	8	208	62	143	7	212	277	191	13	481	414	459	28	901
3.	Pathanamthitta	47	113	7	167	44	83	15	142	171	243	13	427	262	439	35	736
4.	Alappuzha	58	125	5	188	67	78	3	148	198	199	13	410	323	402	21	746
5.	Kottayam	58	166	14	238	68	130	7	205	175	280	23	478	301	576	44	921
6.	Idukki	53	70	6	129	47	63	4	114	74	141	3	218	174	274	13	461
7.	Ernakulam	86	172	26	284	89	100	18	207	194	279	23	496	369	551	67	987
8.	Thrissur	77	148	15	240	55	166	7	228	124	397	12	533	256	711	34	1001
9.	Palakkad	57	73	10	140	63	159	6	228	188	351	9	548	308	583	25	916
10.	Malappuram	81	73	6	160	109	225	6	340	345	478	7	890	535	776	19	1330
11.	Kozhikode	65	94	10	169	76	241	5	322	188	538	2	728	329	873	17	1219
12.	Wayanad	34	22	2	58	34	40	2	76	68	52	5	125	136	114	9	259
13.	Kannur	80	72	1	153	77	279	..	356	121	622	6	749	278	973	7	1238
14.	Kasargode	74	33	1	108	71	73	..	144	136	114	4	254	281	220	3	506
Grand Total:		963	1380	129	2472	960	1883	92	2935	2563	4067	151	6783	4488	7330	372	12190

Note:— Besides there are 7 Anglo Indian High Schools and 1 Anglo Indian U.P. School

## APPENDIX 9.4

Standard-wise Strength of Students—1992.

(in lakhs).

Standard	Govt. Schools			Private Aided Schools			Private Unaided Schools			Total		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
I	1.16	1.11	2.27	1.66	1.62	3.28	0.11	0.12	0.23	2.99	2.85	5.77
II	1.30	1.22	2.52	1.80	1.73	3.53	0.10	0.11	0.21	3.20	3.06	6.25
III	1.27	1.19	2.46	1.75	1.66	3.41	0.09	0.09	0.18	3.11	2.94	6.08
IV	1.30	1.22	2.52	1.78	1.69	3.47	0.09	0.08	0.17	3.17	2.98	6.16
V	1.20	1.11	2.31	2.03	1.91	3.94	0.08	0.07	0.15	3.31	3.09	6.39
VI	1.17	1.11	2.28	2.05	1.96	4.01	0.08	0.07	0.15	3.30	3.14	6.44
VII	1.16	1.12	2.28	2.06	1.99	4.05	0.08	0.06	0.14	3.30	3.17	6.47
VIII	1.23	1.16	2.39	1.73	1.70	3.43	0.07	0.06	0.13	3.03	2.92	5.95
XI	1.09	1.06	2.15	1.58	1.57	3.15	0.06	0.05	0.11	2.73	2.68	5.41
X	0.81	0.85	1.66	1.16	1.25	2.41	0.05	0.04	0.09	2.02	2.14	4.16
Total:	11.69	11.15	22.84	17.60	17.08	34.68	0.81	0.75	1.56	30.10	28.97	59.07

Source: Directorate of Public Instruction.

## APPENDIX 9.5

*Details of S.S.L.C. Examinations in Kerala from 1989-90 to 1991-92*

Year	Number of students appeared					Number of students passed				
	Boys	Girls	Sch.C.	Sch.T.	Total	Boys	Girls	Sch.C.	Sch.T.	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
March, 1989	201759	192687	33136	3890	394446	116329	110698	9235	573	227027
September, 1989	8053	3963	1117	213	12016	1417	815	158	19	2232
March 1990	254947	252690	48379	4717	507037	141366	139147	13022	625	280513
September, 1990	7325	4205	935	182	11530	1680	1051	137	13	2731
March, 1991	265239	293813	51212	4935	529052	136535	133376	9835	543	269911
September, 1991	2936	1549	385	112	4485	783	531	88	12	1314
March, 1992	275639	273736	50235	3893	549375	143423	141044	12263	526	284467

## APPENDIX 9.6

*Number of Arts and science colleges in Kerala 1992*

Sl. No.	District	Government	Private	Total
1.	Thiruvanthapuram	8	11	19
2.	Kollam	1	12	13
3.	Pathanamthitta	..	8	8
4.	Alappuzha	..	11	11
5.	Ernakulam	5	19	24
6.	Kottayam	1	20	21
7.	Idukki	1	4	5
8.	Thiruvur	4	16	20
9.	Malappuram	3	8	11
10.	Palakkad	3	7	10
11.	Kohikode	7	7	14
12.	Wayanad	2	2	4
13.	Kannur	2	7	9
14.	Kasaragod	3	1	4
Total		40	133	173

Source: Directorate of Collegiate Education.

## APPENDIX 9.7

*Enrolment by stages in Arts and Science Colleges in Kerala 1992—University-wise*

Name of University	Pre-degree			Degree			Post-graduate			Total		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Kerala University	16081	21018	37099	6625	9262	15887	581	976	1557	23287	31256	54543
M.G. University	22697	17084	39781	7061	6962	14023	679	656	1335	30437	24702	55139
Calicut University	15884	19537	35421	6268	8790	15048	779	1394	2173	22931	29721	52652
Total:	54662	57639	112301	19854	25014	44858	2039	3026	5065	76655	85679	162334

Source: Directorate of Collegiate Education.

## APPENDIX 9.8

Year-wise breakup of Private registration

Year	Kerala University						Calicut University							
	Pre-degree	B.A.	M.A.	B.Com.	M.Com.	Total	Pre-degree	B.A.	B.Sc.	B.Com.	M.A.	MSC.	M.Com.	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
1987	38000	2900	3800	7200	1500	53400	33792	6081	489	4500	1204	527	970	46963
1988	26841	4697	5120	8724	1575	46967	36547	7650	852	6086	1464	616	670	53885
1989	26440	3250	5325	6170	2000	43185	39771	11700	1173	8066	2021	738	663	64194
1990	26329	4200	5636	6920	2500	44985	44762	13217	1647	9875	2338	809	716	73964
1991	28000	4283	6580	5977	2324	47164	60753	14836	1800	10400	2658	1179	864	92490

Source: University of Kerala and Calicut

## APPENDIX 9.9

Enrolment, Annual Intake and number of Teachers in Technical Education Institutions in Kerala -1992

Category	No. of Institutions	Enrolment				Annual intake (Actual)	No. of Teachers			
		Boys	Girls	Total	of which SC/ST		Men	Women	Total	Of which SC/ST
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Engineering Colleges	9	8228	3241	11469+	909	2781+	1322	287	1609	..
Polytechnics	32	7641	7595	15236+	369	4166+	1100	224	1324	78
Technical High Schools	51	6900	1029	7929+	801	2711+	962	166	1128	75

Source: Directorate of Technical Education.

\* Shows enrolment and annual in take under JHRDE.

## APPENDIX 9.10

Polytechnics in Kerala (District-wise)

Sl. No.	District	1991			1992		
		Government	Private	Total	Government	Private	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	Thiruvananthapuram	3	..	3	4	..	4
2.	Kollam	..	1	1	..	..	1
3.	Pathanamthitta	1	1	2	1	1	2
4.	Alappuzha	1	1	2	1	1	2
5.	Kottayam	2	..	2	2	..	2
6.	Idukki	1	..	1	1	..	1
7.	Ernakulam	3	..	3	3	..	3
8.	Thrissur	3	1	4	3	1	4
9.	Palakkad	2	..	2	2	..	2
10.	Malappuram	1	1	2	1	1	2
11.	Kozhikode	2+1*	..	3	2+1*	..	3
12.	Wayanad	1	..	1	1	..	1
13.	Kannur	1	..	1	2	..	2
14.	Kasaragod	2	1	3	2	1	3
Total		24	6	30	26	6	32

3\*Quasi  
1 Govt

## APPENDIX 9.11

State Government Expenditure on Education—1970-71 to 1990-91

(Revenue and Capital Accounts Combined)

States	Total Expenditure (Rs. crores)					Per capita expenditure (Rs.)				
	1970-71	1975-76	1980-81	1985-86	1990-91	1970-71	1975-76	1980-81	1985-86	1990-91
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Andhra Pradesh	62	95	231	599	1186	14.3	19.6	43.1	90.5	171.4
Assam	25	44	97	221	492	17.2	26.8	53.8	110.2	220.7
Bihar	48	90	236	539	1,228	8.6	14.3	33.8	69.2	142.3
Goa	..	..	..	..	76	..	..	..	..	653.0
Gujarat	42	74	181	476	990	15.9	24.7	53.1	127.1	226.0
Haryana	19	32	73	155	329	18.5	28.2	56.5	106.7	201.7
Himachal Pradesh	4	20	45	80	197	11.4	51.7	105.1	171.0	385.3
Jammu & Kashmir	9	18	44	93	226	20.1	34.5	78.5	136.8	292.5
Karnataka	54	83	173	382	839	18.4	25.2	46.6	93.6	187.3
Kerala	60	105	217	425	779	28.1	45.2	85.3	156.4	268.6
Madhya Pradesh	49	93	172	388	929	11.9	20.0	33.0	66.0	140.5
Maharashtra	98	164	382	795	1,749	19.5	29.1	60.8	113.1	222.2
Manipur	5	7	20	41	80	43.8	56.6	140.7	254.5	438.3
Meghalaya	2	4	10	23	67	16.5	31.7	74.9	149.9	378.7
Mizoram	..	..	..	21	48	..	..	..	360.7	703.8
Nagaland	3	5	13	32	56	57.6	80.0	167.7	329.6	460.8
Orissa	24	47	108	208	599	10.8	19.6	41.0	72.2	171.1
Punjab	30	55	139	241	566	22.2	36.6	82.8	130.9	280.6
Rajasthan	42	69	146	328	859	16.1	23.2	42.6	84.6	195.8
Sikkim	..	..	4	13	29	..	..	126.6	363.8	716.8
Tamil Nadu	73	116	242	564	1,121	17.6	26.1	50.0	108.7	201.4
Tripura	..	8	17	41	115	..	43.4	82.8	172.7	417.5
Uttar Pradesh	75	171	351	787	2,141	8.5	17.2	31.7	63.5	154.3
West Bengal	70	106	247	539	1,481	15.7	21.6	45.3	88.5	217.9
All India	799	1,406	3,148	6,930	16,066	14.5	23.0	46.1	91.3	190.4

Source: Basic statistics relating to Indian Economy Vol. II September 1992.

## APPENDIX 9.12

*Medical Institutions and Beds in Kerala-Categories, 1982*

District	Hospitals		Primary Health Centres including MCH Units		Community health Centres		Dispensaries		Other Categories			
	No.	Beds	No.	Beds	No.	Beds	No.	Beds	T.B. Centres/Clinics		Leprosy Control Units	
									No.	Beds	No.	Beds
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1. Thiruvananthapuram	19	5833	76	300	6	251	6	34	1	28	1	..
2. Kollam	9	1501	63	266	4	70	1	15	3	73	3	..
3. Alappuzha	11	3332	64	287	3	178	1	..	2	76	1	..
4. Pathanamthitta	5	479	45	273	3	175	1	..	1	12	..	..
5. Kottayam	13	2295	58	419	3	272	..	..	2	60	..	..
6. Idukki	3	328	56	357	2	120	1	..	1	..	..	..
7. Ernakulam	21	2715	79	606	6	280	3	68	4	64	..	..
8. Thrissur	19	3339	80	495	3	149	6	..	1	..	2	..
9. Palakkad	8	1054	80	755	3	238	8	..	1	54	1	..
10. Malappuram	7	974	91	562	5	266	5	..	2	52	3	..
11. Kozhikode	10	3972	66	184	6	128	3	..	1	..	2	..
12. Wayanad	3	390	30	180	3	179	6	..	1	..	..	..
13. Kanour	10	1530	71	236	4	625	10	46	1	28	..	..
14. Kasaragod	3	257	48	111	3	285	3	..	1	..	2	..
Total:	141	27999	907	5031	54	3216	54	163	22	453	15	..

N.B. (1) Government Dispensary Attingal converted to hospital, Viliparaplan.

(2) Dispensary, Kasaragode converted to PHC.

(3) In Pathanamthitta District, Kokothode PHC and Naduvathunmodu PHC are not two PHC but one.

(4) In Palakkad District Vadanmod and Erathiampathi PHC are not 2 PHC but one PHC.

(5) In Trivandrum district, bed decreased due to wrong report from the department.

(6) Wayanad-2, Kozhikode-1, Idukki-1 dispensary increased.

(7) In Malappuram district, 45 beds from the T.B. Centres have transferred to Manjeri District Hospital

## APPENDIX 9.13

*District-wise Availability of Vehicles under Directorate of Health Services*

District	Vehicles in running conditions	Vehicles in Workshop	Others kept for Condemnation	Total
(1)	(2)	(3)	(4)	(5)
1. Thiruvananthapuram	103	28	31	162
2. Kollam	32	9	8	49
3. Alappuzha	40	11+2 boats	22	73
4. Pathanamthitta	21	4	2	27
5. Kottayam	39	9	25	67
6. Idukki	31	9	4	44
7. Ernakulam	48	1	13	62
8. Thrissur	39	7	13	59
9. Palakkad	81	6	7	94
10. Malappuram	66	10	3	79
11. Kozhikode	40	6	40	86
12. Wayanad	27	7	14	48
13. Kannur	38	13	5	56
14. Kasaragode	21	4	9	34
Total:	626	118	196	940



## APPENDIX 9.14

Statement showing No. of Attacks and Deaths due to Principal diseases during 1991 and 1992

Name of Disease (1)	Patients treated during 1991		1992	
	Attack	Death	Attack	Death
	(2)	(3)	(4)	(5)
1. Diphtheria	25	5	14	2
2. Dysentery	869832	133	931929	203
3. Whooping Cough	3160	1	4313	4
4. Gastro-Enteritis	19132	52	..	..
5. Tetanus	73	16	43	10
6. Meningococcal Infection	181	10	85	8
7. Measles	11110	3	15899	6
8. Syphilis	460	..	473	..
9. Poliomyelitis	39	..	..	..
10. Gonococcal Infection	2136	..	1458	..
11. Tuberculosis	49420	216	55851	247
12. Rabies	425	34	114	29
13. Enteric Fever	6221	9	12066	10
14. Chicken Pox	5322	11	..	..
15. Pneumonia	9037	42	13479	64
16. Encephalitis	..	..	..	..
17. Infective Hepatitis	9287	15	9245	20
18. Acute Respiratory Infection	2329479	275	2876763	194
19. Acute-Poliangetitis	39	..	29	..
20. All Other diseases	11908648	3527	12202016	4543

## APPENDIX 9.15

Statement showing the number of delivery cases attended during 1991-92 under various Medical Institutions

Sl. No.	Name of district	Number of cases attended during 1991-92				Total
		Attended by Medical Officers	Attended by Medical Officers and Midwives	Attended by Medical Officers and outside Midwives	Attended by Midwives alone	
1.	Thiruvananthapuram	1973	19923	..	1949	23845
2.	Kollam	6964	14046	18	97	21125
3.	Pathanamthitta	395	3572	..	103	4070
4.	Alappuzha	5466	7308	14	86	12874
5.	Kottayam	406	5839	..	420	6165
6.	Idukki	424	3493	..	474	4391
7.	Ernakulam	4714	9757	..	2390	16861
8.	Thiruv	2624	5413	947	1096	10080
9.	Palakkad	1245	10111	..	7641	19027
10.	Malappuram	9633	2498	9008	1402	22541
11.	Kozhikode	..	..	N.A.	..	..
12.	Wayanad	2292	359	..	342	3193
13.	Kannur	..	..	N.A.	..	..
14.	Kasaragode	2202	1960	..	18	4180

## APPENDIX 9.16

*District-wise distribution of institutions, beds and patients treated under Ayurvedic systems of medicine in Kerala 1991 & 1992*

District	No. of hospitals		No. of beds		No. of Dispensaries		Total no. of institutions		No. of patients treated (1992)		Total
	1991	1992	1991	1992	1991	1992	1991	1992	Inpatients	Out-patients	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
1. Thiruvananthapuram	12	12	235	235	49	50	61	62	3630	485328	488958
2. Kollam	9	9	190	190	37	38	46	47	2172	346560	348732
3. Alappuzha	10	10	180	180	36	37	46	47	1761	368643	370404
4. Pathanamthitta	4	4	80	80	24	23	28	33	504	151977	152481
5. Kottayam	8	8	150	150	27	30	35	38	928	279511	280439
6. Idukki	3	3	110	110	25	26	28	29	1521	148988	149519
7. Ernakulam	12	12	200	200	45	46	58	58	1483	470867	472350
8. Thrissur	14	14	223	223	64	65	78	79	1638	408615	410273
9. Palakkad	5	5	130	130	40	51	54	56	1620	100883	101083
10. Malappuram	10	10	200	200	51	52	61	62	1162	233283	234445
11. Kozhikode	6	6	120	120	35	37	41	43	1080	251383	252463
12. Wayanad	2	2	100	100	17	18	19	20	1104	68085	67199
13. Kannur	6	6	211	211	48	42	46	46	1211	197707	198918
14. Kasaragode	5	5	100	100	28	29	34	34	758	145295	146053
<b>Total</b>	<b>106</b>	<b>106</b>	<b>2229</b>	<b>2229</b>	<b>527</b>	<b>550</b>	<b>633</b>	<b>656</b>	<b>20192</b>	<b>3636525</b>	<b>3656717</b>

## APPENDIX 9.17

*District-wise distribution of institutions, beds and patients treated under Homeopathy 1991 and 1992*

District	No. of hospitals		No. of beds		No. of dispensaries		Total No. of Institutions		No. of patients treated		Total
	1991	1992	1991	1992	1991	1992	1991	1992	In patients 1992	Out-patients 1992	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
1. Thiruvananthapuram	4	4	150	150	31	33	35	37	2864	1776548	1779007
2. Kollam	3	3	75	75	21	23	24	26	264	4076256	4076500
3. Alappuzha	3	3	75	75	25	27	28	30	714	8562057	8562771
4. Pathanamthitta	1	1	25	25	13	16	14	17	12	4175574	4175886
5. Kottayam	3	3	175	175	22	27	25	30	1213	4452839	4454112
6. Idukki	2	2	50	50	22	24	24	26	5000	3648932	3653932
7. Ernakulam	2	2	50	50	35	36	37	38	1412	6673638	6675050
8. Thrissur	1	1	25	25	22	23	23	24	3222	3752572	3755794
9. Palakkad	1	1	25	25	21	22	22	23	220	3516499	3516719
10. Malappuram	2	2	50	50	29	30	31	32	428	4091939	4092367
11. Kozhikode	3	3	75	75	28	29	31	32	712	5714046	5714758
12. Wayanadu	1	1	25	25	9	11	10	12	..	1065182	1065182
13. Kannur	1	1	25	25	21	22	22	23	..	7335792	7335792
14. Kasaragode	3	3	75	75	13	15	16	18	150	20631	20781
<b>Total</b>	<b>30</b>	<b>30</b>	<b>900</b>	<b>900</b>	<b>312</b>	<b>338</b>	<b>342</b>	<b>368</b>	<b>15611</b>	<b>58862534</b>	<b>58878345</b>

## APPENDIX 9.18

Family welfare programme in 1992 District-wise

District	Vasectomy	P.P.S.	P.P.S. minilap	Laproscopic	Total (col 2-5)	L.L.	IOD cut	Col. 7-8	Nirodh supplied	Oral pills supplied	Induced abortion	C.C uses	O.P. uses
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1. Thiruvananthapuram	73	17077	9795	2582	29417		11173	11173	3657956	52806	6066	50793	4032
2. Kollam	69	11086	1704	2497	15296	..	9733	9733	2481797	57805	3129	34458	4447
3. Alappuzha	502	4411	3011	414	8938	..	8030	8030	1237200	37188	1382	17100	2861
4. Pathanamthitta	39	4209	673	1952	6873	..	4402	4402	756064	20626	1803	10494	1571
5. Kottayam	146	6206	442	3669	10468	..	9973	9973	1543669	38938	4362	17100	2861
6. Idappi	46	4091	1224	1503	6864	..	5483	5483	941105	20296	718	21416	2995
7. Ernakulam	154	10142	531	2812	13639	..	8622	8622	1610658	31310	5693	13063	1561
8. Thiruvananthapuram	168	12153	1583	3477	17381	..	11532	11532	1699467	42769	2943	22345	2409
9. Palakkad	32	6069	912	5406	12419	..	8814	8814	1425620	33655	3937	23576	3290
10. Malappuram	33	8556	2592	3872	15053	..	10209	10209	1181071	51270	719	19795	2589
11. Kozhikode	340	15219	2979	2278	20816	..	10575	10575	1639404	38041	2600	16398	3944
12. Wayanad	116	3051	411	1404	4982	..	3621	3721	75851	17699	775	22713	2926
13. Kannur	121	9159	646	3172	13098	..	9798	9798	1692658	43850	1635	10484	1361
14. Kannur	60	2875	183	1837	4455	..	3381	3381	737654	20556	965	10235	1581
Total	1899	113804	20691	36765	173099	..	115446	115446	21360574	506609	36727	296359	38970

## APPENDIX 9.19

*State Government Expenditure on Health Programmes*

States	Health Expenditure (Rs. crores)				
	1970	1975	1980	1985	1991
Andhra Pradesh	32	52	125	283	331
Arunachal Pradesh	..	..	7	15	16
Assam	14	18	37	97	125
Bihar	27	43	86	222	336
Goa	2	3	7	15	33
Gujarat	23	44	91	203	247
Haryana	9	19	43	92	97
Himachal Pradesh	6	10	20	42	74
Jammu & Kashmir	10	18	31	66	100
Karnataka	27	42	91	214	276
Kerala	17	32	64	131	268
Madhya Pradesh	22	47	101	232	311
Maharashtra	48	87	189	451	510
Manipur	2	4	9	18	20
Meghalaya	..	3	6	15	28
Mizoram	—	3	6	12	12
Nagaland	8	5	9	23	28
Orissa	15	27	58	113	183
Punjab	13	26	57	118	179
Rajasthan	25	37	77	153	271
Sikkim	..	..	4	6	10
Tamil Nadu	39	57	92	238	369
Tripura	2	4	8	19	28
Uttar Pradesh	45	86	179	405	545
West Bengal	30	50	106	225	473
<i>Union Territories</i>					
Andaman	..	..	..	..	..
Chandigarh	..	..	..	..	..
Dadra & Nagar	..	..	..	..	—
Daman & Diu	—	—	—	—	..
Delhi	—	—	—	—	..
Lakshadweep	..	..	..	..	..
Pondicherry	—	—	..	..	..
All States	403	716	1,501	3,408	4,870
Relatively rich States	70	132	288	661	780
Relatively Poor States	133	240	501	1,125	1,646

## APPENDIX 9.20

## State Government Expenditure on Water Supply and Sanitation

Rs. crores					States	Per capita expenditure (Rs.)				
1970-1971	1975-76	1980-81	1985-86	1990-91		1970-71	1975-76	1980-81	1985-86	1990-91
0.47	10.39	26.21	62.68	97.38	Andhra Pradesh	0.11	2.15	4.89	10.52	14.69
n.a	n.a	1.55	6.22	14.85	Arunachal Pradesh	0.00	0.00	24.56	84.40	170.75
n.a	3.45	7.82	38.63	74.29	Assam	0.00	2.12	4.33	19.26	33.32
2.08	7.95	26.44	53.31	84.77	Bihar	0.37	1.27	3.78	6.86	9.82
0.70	1.50	3.69	11.11	25.50	Goa	8.75	16.76	36.56	102.35	218.91
1.46	5.70	16.73	49.02	97.64	Gujarat	0.55	1.89	4.91	13.09	23.71
n.a	1.55	9.98	33.85	59.05	Haryana	0.00	1.36	7.72	23.31	36.19
0.32	1.80	12.74	29.45	57.95	Himachal Pradesh	0.91	4.67	29.75	62.96	113.38
0.96	4.00	19.58	53.05	88.02	Jammu & Kashmir	2.07	7.61	32.70	78.03	114.03
1.47	4.78	9.72	18.87	77.25	Karnataka	0.50	1.45	2.62	4.63	17.24
1.99	13.24	17.90	40.80	60.75	Kerala	0.93	5.68	7.03	15.01	20.94
0.48	13.02	38.43	80.11	131.52	Madhya Pradesh	0.12	2.79	7.36	13.64	19.89
2.99	30.12	49.19	126.54	222.21	Maharashtra	0.59	5.85	7.83	18.00	28.23
0.07	0.54	5.24	9.06	15.99	Manipur	0.63	4.95	36.89	56.25	87.52
n.a	1.45	6.60	10.09	32.72	Maghalaya	0.00	12.49	49.41	65.80	185.80
n.a	0.10	1.54	6.76	18.13	Mizoram	0.00	2.54	31.11	116.12	264.29
n.a	1.31	5.59	13.02	23.28	Nagaland	0.00	20.75	72.10	134.11	191.45
0.21	3.94	12.93	34.97	55.89	Orissa	0.09	1.64	4.90	12.13	17.74
n.a	4.90	11.82	20.46	45.19	Punjab	0.00	3.25	7.04	11.11	22.38
1.26	17.79	39.04	140.98	246.18	Rajasthan	0.49	5.99	11.40	36.36	56.10
n.a	n.a	0.47	1.04	10.84	Sikkim	0.00	0.00	14.75	29.00	268.32
0.51	4.59	11.62	60.32	146.42	TamilNadu	0.12	1.03	2.40	11.62	26.32
0.05	0.28	1.63	3.71	14.25	Tripura	0.33	1.55	7.93	15.64	51.91
0.002	9.53	35.23	0.09	222.41	Uttar Pradesh	0.00	0.96	3.18	0.01	16.03
n.a	3.52	11.08	45.86	70.10	West Bengal	0.00	0.72	2.03	7.53	10.31
15.01	145.44	382.74	949.98	1,992.47	All States	0.27	2.38	5.60	12.51	23.61
2.99	36.57	70.99	180.85	326.45	Relatively rich States	0.40	4.42	7.67	17.52	28.33
4.03	52.22	152.07	309.45	740.77	Relatively poor States	0.17	1.99	5.18	9.43	20.20

Source : Basic statistics relating to Indian Economy Vol. 2 States, September 1992.

## APPENDIX 10.1

*Disposal of Cases relating to Tenancy and Kudikidappu*

Sl. No.	Item	Tenancy		Kudikidappu	
		As on 30-11-1991	As on 30-11-1992	As on 30-11-1991	As on 30-11-1992
1.	Total number of Applications filed	3950512	3970820	474158	475688
2.	Disposal of cases				
	(i) Allowed	2605020	2618430	288349	289375
	(ii) Rejected	776228	782667	161195	162098
	(iii) Other disposals	551910	552371	20895	20898
	Total	9933158	9953668	470379	472911
3.	Balance of Applications to be disposed of	17354	17152	3779	3937
4.	Number of certificates of purchase issued	2598652	2599348	278982	285472

Source: Land Board—Kerala

## APPENDIX 10.2

*Distribution of Surplus Land*

Sl. No.	Item	Unit	As on 30-11-1991	As on 30-11-1992
(1)	(2)	(3)	(4)	(5)
1.	Total ceiling returns filed	No.	71259	71404
2.	Total ceiling returns decided	"	70324	70467
3.	Balance to be decided	"	935	937
4.	Area ordered to be surrendered	Acres	168428	169215
5.	Area reduced on orders of High Court	"	33957	34037
6.	Net extent of land ordered for surrender	"	134471	135178
7.	Extent of land taken over	"	93178	93654
8.	Area reconveyed on order of High Court	"	..	..
9.	Net extent taken over	"	93178	93654
10.	Balance extent to be taken over			
	(i) Covered by stay against taking possession	"	22710	23729
	(ii) Not to be taken over by gift dispute, vested forest etc.	"	17923	17441
	(iii) Extent available for taking over	"	660	804
11.	Surplus land distributed	"	63045	63764
12.	Balance extent taking over pending distribution			
	(i) Covered by stay against assignment	Acres	3678	3947
	(ii) Not distributed due to gift, vested forest etc.	"	5134	4799
	(iii) Reserved for public purposes	"	20221	20897
	(iv) Available for distribution	"	1100	847

Source: Land Board, Kerala.

## APPENDIX 10.3

Beneficiaries of Surplus Land and Extent Distributed As on 30-11-1992 (Acres)

District	Scheduled Castes		Scheduled Tribes		Others		Total	
	Number	Extent	Number	Extent	Number	Extent	Number	Extent
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. Thiruvananthapuram	3099	335	--	--	2390	275	5489	610
2. Kollam	3419	775	--	--	3208	821	6627	1596
3. Pathanamthitta	330	86	--	--	394	68	724	154
4. Alappuzha	3897	2120	48	7	4243	2293	8188	4420
5. Kottayam	2417	1245	76	60	2841	1232	5334	2537
6. Idukki	2218	2042	360	315	2411	2138	4989	4495
7. Ernakulam	3900	735	40	5	2442	417	6382	1157
8. Thriuvur	7230	1395	51	50	11934	2205	19215	3650
9. Palakkad	12247	5544	1201	945	12738	6222	26186	12711
10. Malappuram	8041	3349	34	12	7547	3955	15622	7316
11. Kozhikode	4936	1235	240	101	5885	1268	11061	2604
12. Wayanad	1332	475	2622	1520	2824	1322	6778	3317
13. Kannur	3864	2434	1839	1462	8208	5720	13911	9616
14. Kasargode	3698	3194	778	655	6790	5722	11266	9581
<b>Total</b>	<b>60628</b>	<b>24964</b>	<b>7289</b>	<b>5142</b>	<b>79855</b>	<b>33658</b>	<b>141772</b>	<b>63764</b>

Source: Land Board Kerala.

## APPENDIX 10.4

The Kerala State Development Corporation for Scheduled Castes and Scheduled Tribes,  
Physical and Financial Achievements during and 1990-91 and 1991-92

Name of Scheme	No. of Beneficiaries		Amount Spent (Rs. in lakhs)	
	1990-91	1991-92	1990-91	1991-92
1. Agricultural Land purchase scheme	736	66	105.20	9.55
2. Scheme for employment in foreign countries	130	184	13.00	18.40
3. Margin Money Scheme under SCA	2194	1886	71.47	78.50
4. Subsidised Seed Money scheme	56	6	1.47	0.14
5. Margin Money Loan Scheme				
(a) For dealership in Petrol, Diesel, cooking Gas etc.	2	4	1.03	2.00
(b) For purchase of 4 wheelers	1	--	1.50	--
6. Training Programmes				
(a) Beauty Parlour Management	20	20	0.32	0.81
(b) Entrepreneurs Development programme	--	25	--	0.28
7. Housing Schemes	1249	739	69.81	110.44
<b>Total:</b>	<b>4388</b>	<b>2930</b>	<b>263.80</b>	<b>220.12</b>

## APPENDIX 10.5

*District-wise details of enrolments of SC/ST students at School Level as on 1-7-1992*(a) *L. P. Section*

Districts	General	SC	ST
Thiruvananthapuram	212180	31405	1484
Kollam	174589	28963	396
Pathanamthitta	73615	13233	535
Alappuzha	129044	14504	266
Kottayam	127422	12367	1609
Idukki	75476	14751	3969
Ernakulam	180788	20265	553
Thrissur	219390	29806	505
Palakkad	224494	38716	3797
Malappuram	352489	28515	1045
Kozhikode	224254	15839	889
Wayanad	64395	3440	19398
Kannur	197659	9312	2995
Kasaragod	106515	9449	2801
<b>Total:</b>	<b>2362250</b>	<b>270565</b>	<b>39642</b>

(b) *U. P. Section*

Districts	General	SC	ST
Thiruvananthapuram	167921	26196	1326
Kollam	151891	24248	287
Pathanamthitta	66645	13543	447
Alappuzha	114284	13962	241
Kottayam	109476	11217	1397
Idukki	61217	9886	2372
Ernakulam	156451	16559	585
Thrissur	171254	23945	235
Palakkad	167288	25172	1686
Malappuram	260791	21114	445
Kozhikode	187661	13732	374
Wayanad	47693	2538	6505
Kannur	167101	8171	1256
Kasaragod	80348	5544	2090
<b>Total:</b>	<b>1903330</b>	<b>215847</b>	<b>19196</b>

(c) *High School Section*

Districts	General	SC	ST
Thiruvananthapuram	145236	20836	987
Kollam	137450	19512	111
Pathanamthitta	63512	12104	268
Alappuzha	110591	13672	136
Kottayam	98426	10301	1218
Idukki	51332	5950	1540
Ernakulam	146070	19314	291
Thrissur	142187	17639	170
Palakkad	119872	15521	571
Malappuram	184203	15054	201
Kozhikode	157416	11886	219
Wayanad	35440	1848	3618
Kannur	137077	6101	471
Kasaragod	56975	3054	1450
<b>Total:</b>	<b>1583777</b>	<b>166792</b>	<b>11461</b>



## APPENDIX 10.6

*Number of SC/ST Students who passed the S.S.L.C. Examination*

Year	Scheduled Castes						Scheduled Tribes					
	Number appeared			Number passed			Number appeared			Number passed		
	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)
1991 March	26817	24405	51218	5427	4408	9835	2621	2814	4935	302	241	543
1991 September	261	124	385	63	25	88	78	34	112	8	4	12
1992 March	31638	18597	40235	8137	4126	12263	2924	969	3893	437	89	526
1992 September	168	95	263	35	12	47	86	21	107	8	5	13

## APPENDIX 10.7

*Number of Scheduled Caste/Scheduled Tribe Candidates registered with the Employment Exchange in the State as on 30-9-1992*

District	Scheduled Castes	Scheduled Tribes
1. Thiruvananthapuram	58805	2829
2. Kollam	45238	265
3. Pathanamthitta	31530	497
4. Alappuzha	20199	443
5. Kottayam	21886	2270
6. Idukki	9009	4509
7. Ernakulam	35289	834
8. Thrissur	39289	269
9. Palakkad	25547	615
10. Malappuram	28253	281
11. Kozhikode	28464	129
12. Wayanad	2471	3787
13. Kannur	12010	532
14. Kasargode	3617	1414
- Total	361607	18674

## APPENDIX 10.8

*District-wise details of Institutions under Scheduled Caste Development Department as on 31-12-1992*

Districts	Balwadias/ feeding centres	Boys hostel	Girls hostel	Schools if any	Other Institutions
1. Thiruvananthapuram	12	6	5	..	11
2. Kollam	7	7	5	..	3
3. Pathanamthitta	8	2	4	..	2
4. Alappuzha	7	0	4	..	4
5. Kottayam	3	4	2	..	4
6. Idukki	2	2	3	..	..
7. Ernakulam	15	3	4	..	2
8. Thrissur	10	5	3	..	8
9. Palakkad	3	13	6	..	3
10. Malappuram	3	7	5	..	4
11. Kozhikode	1	6	4	..	3
12. Wayanad	0	1	0	..	0
13. Kannur	5	5	4	..	2
14. Kasargode	5	6	2	..	2
Total	81	67	51	..	48

Other Institutions are: 41 ITCs, 9 PCTGS, 3 PETCs and One IAS Coaching Centre.

## APPENDIX 10.9

Number of houses constructed by the Scheduled Caste Development Department

District	1990-91	1991-92	1992-93 Upto October
1. Thiruvananthapuram	236	111	95
2. Kollam	70	98	82
3. Pathanamthitta	..	63	57
4. Alappuzha	60	29	53
5. Kottayam	30	61	57
6. Idukki	42	61	42
7. Ernakulam	83	33	70
8. Thrissur	96	130	99
9. Palakkad	..	166	123
10. Malappuram	54	73	68
11. Kozhikode	76	106	52
12. Wayanad	10	9	9
13. Kannur	31	31	25
14. Kasargod	30	14	22
<b>Total:</b>	<b>818</b>	<b>965*</b>	<b>835</b>

\*The total number includes the spill over from the previous year.

## APPENDIX 10.10

District-wise details of Institutions under the S.C. Development Department as on 31-12-1992

District	Bala- vadi- es/fo oding cent- res	Boys Hos- tel	Girls Hos- tel	Nur- sery - Resi- den- tial school/ Ashram School	Model Pro- duct- ion-cum train- ing Centres	Model Welfa- re train- ing centres	Tailor- ing re school	Exa- mina- tion centre	Ayur- veda Dispen- sary	Allo- pathy Dis- pen- sary	Ayur- veda Hospi- tal	Mobile Medical Unit	Allo- pathy Hospi- tal	Mid- wifery cen- ter	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Thiruvananthapuram	6	2	1	3	1	2	1	..	3	2	..	..	1	..	..
Kollam	4	2	2	1	..	..	2	..	..	1	..	..	..	..	1
Pathanamthitta	4	2	1	..	..	..	..	1	3	1	..	..	..	..	..
Alappuzha	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Kottayam	3	1	2	..	..	..	1	3	..	..	..	..	..	..	..
Idukki	8	15	5	3	..	1	..	..	1	6	1	..	1	..	..
Ernakulam	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Thrissur	1	2	1	..	..	..	..	..	..	..	..	..	..	..	..
Palakkad	1	10	2	1	..	..	4	1	2	1	1	..	..	..	..
Malappuram	11	9	3	..	..	..	..	2	..	1	..	..	..	..	..
Kozhikode	1	3	..	..	..	..	..	..	..	..	..	..	..	..	..
Wayanad	..	25	8	5	2	..	1	1	3	3	1	..	1	1	3
Kannur	12	9	2	1	..	..	..	..	2	1	..	1	..	..	1
Kasargod	2	2	..	..	..	..	..	..	..	1	..	..	..	..	..
<b>Total</b>	<b>58</b>	<b>86</b>	<b>27</b>	<b>14</b>	<b>3</b>	<b>3</b>	<b>9</b>	<b>8</b>	<b>14</b>	<b>17</b>	<b>9</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>5</b>
		(82+4)													

In addition to the above, the Department is running 12 single teacher Tribal School, 12 Craft centres and one Vidyavady.

Appendix 11.1

State-wise Financial Assistance Disbursed by All India Financial Institutions during 1990-91

(Rs. Crores)

Sl. No.	States	IDBI total	% to total	IFCI	% to total	ICICI	% to total	UTI	% to total	GIC	% to total	LIC	% to total	NABARD	% to total	NCDC	% to total	grand total	% to total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
1	Andhra Pradesh	487.3	12.7	150.4	9.9	123.0	8.7	36.1	2.9	7.96	5.03	13.7	3.2	190.52	10.02	28.09	10.8	1096.47	9.95
2	Assam	31.3	0.8	40.8	2.7	13.5	0.9	..	..	0.07	0.05	0.2	0.1	32.54	1.71	12.11	4.7	130.52	1.18
3	Bihar	42.8	1.1	5.4	0.4	9.1	0.6	2.7	0.2	0.85	0.58	5.5	1.2	81.08	4.26	3.68	1.4	151.11	1.36
4	Gujarat	459.8	12.3	187.0	12.3	220.3	15.7	199.7	8.8	29.54	20.17	147.0	34.4	84.94	4.47	6.91	2.7	1285.19	11.60
5	Haryana	145.7	3.8	53.9	3.5	41.8	3.0	20.0	1.3	1.50	1.02	0.7	0.2	84.34	4.43	5.61	2.1	353.55	3.19
6	Karnataka	208.7	5.5	80.9	5.3	59.8	4.3	91.2	1.9	12.88	8.80	11.9	2.8	143.57	7.55	17.06	6.5	566.01	5.11
7	Kerala	76.2	2.0	10.9	0.7	8.5	0.6	1.0	0.1	1.79	1.22	5.4	1.3	81.58	4.29	26.41	10.2	211.78	1.91
8	Madhya Pradesh	300.0	7.8	128.6	8.4	85.7	6.1	19.4	1.2	2.64	1.80	3.2	0.7	196.31	7.11	24.59	9.5	639.44	6.34
9	Orissa	129.5	3.4	62.6	4.1	37.1	2.6	12.3	0.8	..	..	5.5	1.9	39.46	2.07	2.40	0.9	288.86	2.61
10	Punjab	108.4	2.8	105.0	6.9	43.7	3.1	8.9	0.6	1.22	0.83	4.8	1.1	108.93	5.73	7.93	3.0	388.88	3.51
11	Rajasthan	157.9	4.1	80.5	5.9	62.9	4.5	20.2	1.3	6.42	4.38	17.2	4.0	80.46	4.23	11.33	4.4	496.91	3.94
12	Maharashtra	678.7	17.7	234.1	15.3	379.3	27.0	901.6	56.9	52.25	35.68	110.6	25.9	239.50	12.53	45.06	17.3	2641.11	23.83
13	Tamil Nadu	361.1	9.4	124.2	7.1	127.4	9.1	59.4	3.7	13.93	9.51	45.7	10.7	140.69	7.39	17.44	6.7	889.16	8.03
14	Uttar Pradesh	340.2	8.9	172.0	11.3	77.2	5.5	75.4	4.8	2.88	1.97	9.3	2.2	339.47	17.85	29.65	11.4	1046.10	9.44
15	West Bengal	155.9	4.1	46.1	3.0	54.1	3.8	36.7	2.3	9.05	6.18	30.9	7.2	82.18	4.32	7.12	2.7	422.05	3.81
	Total	3693.5	96.4	1482.4	97.2	1364.6	95.5	1364.6	86.2	142.38	97.22	411.6	96.3	1864.57	98.02	245.39	94.4	10547.84	95.18
	All India	3832.5	100.0	1524.9	100.00	1406.4	100.0	1582.7	100.00	146.44	100.0	427.4	100.00	1902.17	100.0	260.03	100.00	11082.54	100.00

Sources 1. IDBI Report (1990-91)

2. NCDC

3. NABARD—Annual Report 1990-91

## State wise Financial Assistance Disbursed by All India Financial Institutions as at the end of March 1991 (cumulative)

(Rs. Crores)

Sl. No.	States	IDBI	% to total	IFCI	% to total	ICICI	% to total	NABARD	% to total	NCDC	% to total	LIC	% to total	Grand Total	% to total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
1.	Andhra Pradesh	2835.2	8.8	658.4	9.5	633.4	7.2	1529.95	10.69	187.78	7.15	319.4	9.7	6114.13	9.07
2.	Assam	292.2	0.9	58.0	0.9	43.4	0.5	194.66	1.36	61.15	3.17	15.4	0.5	664.81	0.99
3.	Bihar	641.5	2.0	109.5	1.5	222.7	2.5	834.19	5.83	53.02	2.75	184.6	5.6	2039.51	3.03
4.	Gujarat	4018.2	12.5	807.9	11.7	1334.0	15.1	700.59	4.89	60.80	3.16	582.1	17.7	7503.79	11.13
5.	Haryana	1008.9	3.1	252.2	3.7	234.1	2.7	842.28	5.89	48.42	2.51	14.1	0.4	2400.00	3.56
6.	Karnataka	2235.9	7.0	380.0	5.5	519.3	5.9	1095.58	7.66	118.89	6.17	172.5	5.2	4522.7	6.71
7.	Kerala	970.5	3.0	117.9	1.7	99.3	1.1	541.40	3.78	87.42	4.54	36.5	1.1	1853.02	2.75
8.	Madhya Pradesh	1766.1	5.5	408.6	5.9	450.4	5.1	1028.52	7.19	208.87	10.84	99.9	3.0	3062.39	5.88
9.	Maharashtra	4658.7	14.5	1087.4	15.7	2311.3	26.1	1428.99	9.99	255.81	13.28	784.7	23.8	10526.90	15.62
10.	Orissa	1064.7	3.3	193.9	2.8	199.8	2.3	449.26	3.14	67.43	3.50	56.6	1.7	2031.09	3.01
11.	Punjab	1084.0	3.4	451.4	6.5	251.5	2.8	1207.03	8.43	130.49	6.78	42.8	1.3	3167.32	4.70
12.	Rajasthan	1323.8	4.1	948.4	5.0	358.6	4.1	687.53	4.80	130.16	6.76	91.2	2.8	2939.59	4.96
13.	Tamil Nadu	3408.1	10.6	549.7	7.9	880.8	9.9	894.63	6.25	119.62	6.22	293.6	8.9	6146.65	9.12
14.	Uttar Pradesh	3293.7	10.3	904.1	13.1	656.6	7.4	2166.11	15.14	296.44	15.39	154.4	4.7	7471.35	11.08
15.	West Bengal	1626.6	5.1	259.0	3.7	353.4	4.0	481.57	3.37	75.15	3.90	268.9	8.2	3064.82	4.55
	Total	9028.3	94.1	6580.4	95.1	8548.5	96.7	14082.29	94.81	1851.75	96.11	3116.9	94.6	64408.14	95.55
	All India	32114.5	100.0	6918.3	100.00	8844.0	100.0	14309.64	100.00	1926.70	100.00	3296.2	100.0	67409.34	100.0

Source: 1. IDBI Report 1990-91  
2. NCDC  
3. NABARD—Annual Report 1990-91

## State-wise deposits disbursed by All India Financial Institutions during 1989-90 &amp; 1990-91

(Rupees)

Sl. No	States	IDBI		IFCI		IOICI		LIC		UTI		GIC		Total	
		1989-90	1990-91	1989-90	1990-91	1989-90	1990-91	1989-90	1990-91	1989-90	1990-91	1989-90	1990-91	1989-90	1990-91
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
1.	Andhra Pradesh	67.0	77.2	18.2	23.8	19.5	19.5	2.7	2.2	4.6	5.7	0.8	1.2	106.03	129.6
2.	Assam	17.0	12.8	3.8	6.0	3.4	5.5	0.3	0.1	0.2	..	..	..	24.7	24.4
3.	Bihar	10.0	5.1	1.4	0.6	1.0	1.1	3.3	0.7	6.1	0.3	0.1	0.1	23.90	7.9
4.	Gujarat	135.5	116.3	30.6	46.3	32.2	54.5	14.1	36.4	17.5	34.6	2.7	7.3	232.60	295.4
5.	Haryana	112.9	89.9	34.5	33.8	16.5	25.8	2.5	0.4	5.5	12.3	1.3	0.9	173.2	162.6
6.	Karnataka	65.7	46.8	13.1	18.1	10.9	13.4	1.3	2.7	1.6	7.0	0.3	2.9	92.9	90.9
7.	Kerala	47.9	25.7	5.8	3.7	2.9	2.9	0.5	1.8	0.6	0.3	..	0.6	57.7	35.0
8.	Madhya Pradesh	45.3	47.5	8.5	20.4	6.6	13.6	4.8	0.5	3.8	3.1	1.0	0.4	70.0	85.5
9.	Madharashtra	85.8	91.5	2.9	31.5	33.4	51.1	23.8	14.9	71.6	121.5	13.2	7.0	230.7	317.5
10.	Orissa	86.6	41.9	6.4	20.3	7.0	12.0	0.7	1.8	4.2	4.0	0.4	..	57.3	80.00
11.	Punjab	95.6	55.3	53.0	53.6	18.8	22.3	5.0	2.5	10.4	4.5	2.6	0.6	185.4	138.80
12.	Rajasthan	41.1	36.3	10.3	18.5	8.2	14.5	3.2	4.0	8.0	4.6	0.6	1.5	71.4	79.4
13.	Tamil Nadu	95.1	64.8	16.5	22.3	17.2	22.9	7.2	8.2	12.9	10.7	2.9	2.5	151.8	131.4
14.	Uttar Pradesh	31.7	25.5	8.9	12.9	5.8	7.3	1.1	0.7	5.0	6.5	1.3	0.2	53.8	52.2
15.	West Bengal	35.8	24.1	5.9	7.1	3.7	8.4	5.5	4.8	9.6	5.7	1.7	1.4	62.2	51.5
16.	All India	55.8	46.6	13.9	18.5	11.3	17.1	5.6	5.2	13.4	19.2	2.2	1.8	102.2	108.4

Source: Economic Survey of India 1990-91.

## APPENDIX 11.4

*State-wise growth of Bank Offices in India (Including Private Scheduled Commercial Banks)*

Major States	No. of Banks as at the end of				% to total No. of Offices				No. of Offices per lakh of Population			
	June 1969	June 1990	June 1991	March 1992	June 1969	June 1990	June 1991	March 1992	June 1969	June 1990	June 1991	March 1992
1. Andhra Pradesh	567	4553	4585	4620	6.9	7.7	7.6	7.6	1.4	8.3	8.3	8.4
2. Assam	74	1167	1211	1218	0.9	2.0	2.0	2.0	0.5	5.9	6.3	6.3
3. Bihar	273	4690	4850	4862	3.3	7.9	8.0	8.0	0.5	6.3	7.1	7.1
4. Gujarat	752	3346	3365	3374	9.1	5.6	5.6	5.6	3.0	10.0	10.0	10.0
5. Haryana	172	1256	1262	1269	2.1	2.1	2.1	2.1	1.8	10.0	10.0	10.0
6. Karnataka	756	4230	4266	4281	9.1	7.1	7.1	7.1	2.7	11.1	12.5	12.5
7. Kerala	601	2829	2831	2842	7.3	4.8	4.7	4.7	2.9	11.1	11.1	12.5
8. Madhya Pradesh	343	4295	4329	4358	4.2	7.2	7.2	7.2	0.9	8.3	8.3	8.3
9. Maharashtra	1118	5507	5580	5596	13.5	9.3	9.3	9.3	9.3	8.3	9.1	9.1
10. Orissa	100	1992	2081	2098	1.2	3.4	3.5	3.5	0.5	7.7	7.7	7.7
11. Punjab	346	2134	2138	2140	4.2	3.6	3.5	3.5	2.4	12.5	12.5	12.5
12. Rajasthan	364	3032	3044	3058	4.4	5.1	5.0	5.0	1.5	9.1	9.1	9.1
13. Tamil Nadu	1060	4261	4283	4299	12.8	7.2	7.1	7.1	2.7	9.1	9.1	9.1
14. Uttar Pradesh	747	8355	8456	8499	9.0	14.1	14.0	14.0	0.9	7.7	7.7	7.7
15. West Bengal	504	4058	4195	4208	6.1	6.7	7.0	7.0	1.2	7.7	7.7	7.7
Total	7777	55705	56476	56722	94.1	93.8	93.7	93.7				
All India	8262	59388	60251	60528	100	100	100	100	1.6	8.3	9.1	9.1

Source: RBI Bulletin.

APPENDIX 11.5

Banking statistics of Kerala during 1988-1992

(Rs. crores)

Year (Ending March)	State Bank Group				Other Nationalised Banks				Cooperative Banks			
	Total Deposits	Of which NRE Deposits	Total Advances	C.D. Ratio	Total Deposits	Of which NRE Deposits	Total Advances	C.D. Ratio	Total Deposits	Of which NRE Deposits	Total Advances	C.D. Ratio
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1988	1757.73	572.72	1141.47	63.69	1956.24	565.76	1170.69	59.84	57.98	..	124.57	217.10
1989	2082.18	666.94	1346.26	66.25	2318.32	670.49	1482.66	63.95	71.20	..	148.67	208.08
1990	2406.71	800.30	1551.12	64.44	2718.06	832.34	1595.29	58.69	87.739	..	179.83	204.98
1991	2854.66	949.38	1797.91	63.00	3205.41	997.48	1749.20	54.61	108.78	..	195.81	178.4
1992	3410.27	1196.69	1850.95	54.28	3965.81	1262.86	1830.93	47.36	142.30	..	213.97	149.90
1992 ending (September)	3883.01	1499.37	2017.30	52.63	4244.21	1346.14	1959.30	46.16	154.14	..	218.58	141.80

Source : A Banking Profile 1992—SLBC

APPENDIX 11.5 contd.

Year (Ending March)	Total Public Sector Banks				Private Banks				Grand Total			
	Total Deposits	Of which NRE Deposits	Total Advances	C.D. Ratio	Total Deposits	Of which NRE Deposits	Total Advances	C.D. Ratio	Total Deposits	Of which NRE Deposits	Total Advances	C.D. Ratio
	(1)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
1988	3751.35	1158.48	2436.73	64.96	1059.96	210.76	679.32	64.09	4811.32	1369.24	3116.05	64.77
1989	4421.70	1337.43	2977.59	67.34	1245.05	246.32	723.56	58.11	5666.75	1383.75	3701.15	63.31
1990	5212.50	1632.64	3326.24	63.81	1407.58	286.09	791.92	56.26	6620.68	2012.21	4118.16	62.20
1991	6169.85	1947.06	3742.92	60.56	1687.81	357.29	895.27	53.80	7857.67	2304.35	4638.19	59.00
1992	7418.38	2459.55	3895.25	52.51	2252.55	579.33	1107.71	49.18	9670.93	3038.88	5002.96	51.73
1992 ending (September)	8231.36	2845.51	4195.18	50.97	2414.46	644.05	1089.17	44.86	10645.82	3489.56	5278.35	49.58