

**Mid Term Appraisal of  
the XI Plan of Kerala**

**Study I**

**Monitorable Indicators**

Prepared

**for the Planning Commission, Government of India**

at

**Centre for Development Studies,  
Trivandrum, Kerala.**

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## **Preface**

The Draft Report on the Mid-term appraisal of the 11<sup>th</sup> five Year plan of Kerala State was prepared by a team of researchers at the Centre for Development Studies for the Planning Commission of India during mid-September 2009 to June 2010. The Revised Draft was completed in December 2010. The Report is organized in two parts: Study 1 on the Monitorable Indicators and Study 2 on the Performance of Flagship Programmes. This Draft Report is the outcome of the first part of the Study.

The Eleventh Five Year Plan had identified a list of 13 monitorable indicators for the States such as; i) GDP growth rate; ii) Agricultural growth rate; iii) New work opportunities; iv) Poverty ratio; v) Dropout rate in elementary schools; vi) Literacy rate; vii) Gender gap in literacy rate; viii) Infant mortality rate; ix) Maternal mortality rate; x) Total Fertility Rate; xi) Child malnutrition; xii) Anaemia among women and girls; and xiii) Sex ratio.

The Report attempts to study the trends in these indicators from the Ninth Plan period onwards, subject to data availability, and also the likelihood of the State to achieve the targets for the Eleventh Plan.

## Study Team

### **M Parameswaran**

- (i) GDP growth rate
- (ii) Agricultural growth rate
- (iii) New work opportunities

### **Anupkumar Bhandari**

- (iv) Poverty ratio

### **Chinnappan Gasper**

- (v) Dropout rate in elementary schools
- (vi) Literacy rate
- (vii) Gender gap in literacy rate

### **TR Dilip and Udaya Sankar Mishra**

- (viii) Infant mortality rate (IMR)
- (ix) Maternal mortality rate (MMR)
- (x) Total Fertility Rate (TFR)
- (xi) Child malnutrition
- (xii) Anaemia among women and girls
- (xiii) Sex ratio

### **Research Associate: Reghu G.**

**Study 1**  
**Summary of the Chapters in the Study**

**Chapter 1**  
**State of the economy**

During the 9<sup>th</sup> plan period the Kerala economy grew by 5.1% per annum. It is the tertiary sector which contributed largely to the aggregate growth of the economy with a growth rate of 7.7% per annum. Performance of the primary sector, with a growth rate of 0.7 per cent, was quite disappointing during this period. During the 10<sup>th</sup> plan, the growth rate of the economy increased to 8.4 per cent. Compared to the ninth plan period, the growth was more evenly spread across the three sectors with the average growth rates being 3.0, 13.2 and 8.2 for the primary, secondary and tertiary sectors respectively.

**Agriculture**

A large portion of plan expenditure on agriculture is revenue expenditure. In all the years, crop husbandry received more financial resources. Major crops of the state such as rice, coconut and pepper have seen production levels either decreasing or stagnant at best. The area under rice and coconut has fallen sharply over the years. Kerala joined the Rashtriya Krishi Vikas Yojana (RKVY) in 2007-08 and its fund utilization in this year is only 43 per cent. Another programme which the State has joined (in 2008-09) is the National Food Security Mission (NFSM) which, in the context of Kerala, aims at increasing the production of rice. Another important indicator of economic activity is the credit deposit ratio(CD ratio). A higher CD ratio is an indicator of a higher level of economic activity. Even though the ratio is increasing in the State over time, it is still lower than the All India level.

**New Work Opportunities.**

The largest share of workers in rural areas is still in the agriculture sector accounting for 38 percent of the rural working population. But the share of agricultural workers has declined greatly during the period 1993-94 to 2004-05. Thus the relative importance of agriculture as a source of employment is declining in Kerala even in the rural areas. Thus the share of employment is shifting away from primary and secondary sector towards services. In the urban areas the largest employment was provided by trade, at 24 percent followed by public administration and the manufacturing sector.

Newer employment opportunities seem to come from all services. Even within services the largest increase in the decade 1993-94 to 2004-05 was in trade and transport. Females seem to be withdrawing from the manufacturing and secondary activities, while getting into more of services employment.

## **Poverty Alleviation Programmes and Their Consequences**

The monitorable targets for the Tenth Five Year Plan included quantitative targets for reduction in the incidence of poverty, according to which poverty was targeted to be reduced by 5 percentage points by 2007 and by 15 percentage point by 2012. . While there is a consensus that there has been a decline in the incidence of poverty during 1990s, it is difficult to assess the extent of this decline as there has been considerable debate regarding comparability of data due to changes in the methodology adopted by the National Sample Survey Organisation (NSSO) between 1993-94 and 1999-2000. We could, however, measure their impact indirectly, e.g., by measuring the degree of available resource utilization by the state, extent to which physical targets are achieved and so on in respect of such different schemes.

The period of evaluation of the schemes is from 1997-98 to 2009 (for those schemes which were started later, the period is from the year of start to 2009). Under the SGSY scheme overall degree of utilization of available funds is about 91%. Under SGRY, the utilization is only 79% of the available resources, whereas the physical performance is very good with the state exceeding the targets fixed. In case of IAY, the state was able to utilize 88.4% of total available fund. As far as the National Rural Employment Guarantee Programme (NREGP) is concerned, till June, 2009 a total amount of Rs. 619.8 crore was available to the state of which only Rs. 344.8 crore has been spent by it showing merely 56% utilization of total available financial resources. Even though total amount received by the state and average number of days of employment provided to those who reported for work are less compared to other states, Kerala has been praised by the central government for corruption free implementation, involving the LSGIs in a big way, giving women a lot of responsibilities in running the scheme and paying wages to all the workers through their bank account. The Kudumbasree experiment involving poor women organized in self-help groups has not only been a remarkable success, but has also brought to the fore the enormous managerial and entrepreneurial talent that remains untapped. Under the Kudumbashree programme, percentage utilization of the total budgetary allocation of the two financial years 2007-08 and 2008-09 were 97.1% and 100% respectively out of total allocations of INR 257.7 million and INR 300 million respectively. Under the Swarna Jayanti Shahari Rozgar Yojana (SJSRY), the state was able to utilize only 63.1% of the resources available to it.

## **Chapter 2 Education**

The average annual growth in the total expenditure on General Education is around 10 percent during VIII Plan, IX Plan, and X Plan periods. On the other hand, the average annual growth in the total expenditure on General Education in the first half of XI Plan period is 16 percent. Compared to the earlier Plan periods, the growth rate in the first half of XI Plan period is very high. The Plan component of the total expenditure on Education is very small. It never rises above a 5 percent mark. The expenditure on Secondary Education has grown at the rate much higher than that of Elementary Education. The major share of the growth in the expenditure on education in the XI Plan

period has gone to secondary and higher education components. Government's investment in elementary education has gradually declined to zero. Elementary education remains neglected. Unlike other categories of Education, relatively larger share of the total budget on Technical Education is allocated for Plan expenditure. Total expenditure on Polytechnic and Engineering institutions has been stepped up, while the expenditure on universities and private colleges has declined in the XI Plan period as compared to the earlier Plan periods.

During the initial years of the Sarva Shiksha Abhiyan(SSA), the state had been falling behind in the utilization of resources. However it is now moving towards maximum utilization under the SSA. . The percentage of unaided private schools in the state is on the rise. The enrolment in schools is on the decline. However, percentage of students who complete school education is on the rise.

### **Chapter 3**

#### **Health**

The indicators chosen for the study are the Infant Mortality Rate(IMR) the Maternal Mortality Rate (MMR), the Total Fertility Rate(TFR), child malnutrition, anaemia among women and children and the sex ratio. The IMR is seen to be stagnating around 12 per 1000 live births between 1997 and 2008. IMR is marginally higher in rural areas than in urban areas. The minor nature of female disadvantage in IMR too is continuing during the eleventh plan period in Kerala. Another feature which merits attention and corrective action is the wide inter-district disparities as shown in the district-wise estimates of IMR based on District Level Reproductive and Child Health Survey (Ram et 2005). Wayand district has an IMR of 38/1000 live births which is way higher than the State level figure.

As per the India's millennium development goals (MDGs), the country is targeting a reduction in maternal mortality rate to 200 per 100,000 live birth by 2007 and to 107 per 100,000 live births by 2015. Kerala appears to have attained the target for the year 2015 even before making the commitment toward the MDG. MMR has come down drastically in the above five year observation period and has reached 95 per 100,000 live birth for the years 2004-2006. However policy makers should note that despite nearly 100 percent institutional delivery, the maternal mortality rate estimate for the state is high and the reasons for the same needs to be investigated.

Kerala being one of the low fertility states in India, the reduction in TFR is nominal. The total fertility rate has declined from 1.8 children per women in 1997 to 1.7 children per women in 2007(Sample Registration System) . There is no difference in fertility between rural and urban areas in the state, which is a unique phenomenon in India. However according to the NFHS, the TFR in Kerala is 1.9, which is comparatively higher than that for Andhra Pradesh, Tamil Nadu and Goa, where fertility rate is 1.8 children per women (IIPS 2008). NFHS data also show that TFR just declined from 2.0 in 1992-93 to 1.9 by 2005-06. Regional and inter-religious differences in TFR were quite significant. Muslim women on an average have one child more than Hindu women. Though the Christian

women have just attained the replacement level fertility, their fertility is higher than the state average. Huge inter district variations in Total Fertility Rate is noted in Kerala. TFR in northern districts is higher than that in southern districts.

Malnutrition is a major issue among children in Kerala and the three anthropometric indicators examined reveal that the state could not make any significant progress on this front between 1998-99 and 2005-06. One out of every 4 children aged below 5 years are stunted or too short (height for age  $< -2SD$ ) for their age. Stunting is comparatively higher in rural areas than urban areas and among male children than female children. Caste wise differentials are very severe, with 34 % among Scheduled castes being stunted, followed by other backward castes (26 percent) and other castes (20 percent). The indicator of recent food intake or illness i.e wasting or too thin for their height (weight for height below  $- 2 SD$ ) is prevalent in one out every 6 children in Kerala. Unlike stunting, the rural (18 percent)- Urban (12 percent) differentials are notable. . More than one fifth of the children below 5 years in Kerala are under weight (weight for age below  $-2SD$ ). Under weight is observed to be much more in rural areas than urban areas, male children than female children and within children in lower strata as per the social group classification. NFHS data on anaemia too substantiate the poor nutritional status of Kerala's children. Between the NFHS – 2 (1998-99) and NFHS – 3 (2005-06) surveys the percentage of children with anaemia increased from 44 percent to 56 percent. The poor performance on the major anthropometric indicators also raises questions on quality and outreach of existing ICDS programmes in Kerala. Further the role of changing food habits and breastfeeding practices, in contributing to this scenario needs to be investigated.

Malnutrition is a major problem among women aged 15-49 years. Nearly one out of every five women is too thin (BMI  $< 18.5$ ). In fact the women at the reproductive age group are at high risk of being thin, which has a crucial bearing on maternal mortality and infant health in the state. Proportion suffering from under weight or low BMI is more in rural areas than in urban areas and in low socio-economic groups than among the higher socio economic categories. The reverse scenario is noted in the case of risk of being over weight or obesity. Eleventh plan has to have two entirely different focus in order to tackle these two nutritional problems observed among women in the state. Anaemia continues to be a major health problem among women in Kerala. One third of women aged 15-49 years are anaemic. In fact the situation in Kerala has worsened over time. This is another issue which eleventh plan has to tackle effectively.

Kerala is the only state in India where females outnumber males, among all the Indian states. According to 2001 census the sex ratio in Kerala is 1058 females per 1000 males. Though Kerala has higher child sex ratio in comparison to other Indian states, only a minor improvement in this indicator is noted between 1991 Census (958) and 2001 Census (960). Another vital indicator of child sex ratio is the sex ratio at birth, i.e. number of female births per 1000 male births. The situation is favorable for more female births as per this survey. To conclude there is no need to provide an unwarranted attention to sex ratio situation in Kerala. The sex ratio levels have been at reasonable level in this low fertility state, which is an outcome of its unique socio and programmatic factors

# **Study I**

## **Monitorable Indicators**

**Chapter 1: Status of the economy - an overview.**

**Chapter 2: Education**

**Chapter 3: Health**



## **Chapter 1**

### **Status of the Economy – an overview**

#### **1. Performance of the Aggregate Economy**

Table 1.1 presents the average growth rate of sectors of the economy during 9<sup>th</sup>, 10<sup>th</sup> and first year of the 11<sup>th</sup> plan. The data for estimating the growth rates are obtained from Economic and Political Weekly Research Foundation's electronic data set *Domestic Product of States of India: 1960-61 to 2000-01*. The data for the year after 2000-01 are obtained from various issues of *Economic Review* of Kerala. During the 9<sup>th</sup> plan the economy grew by 5.1 per cent per annum. The faster growing sectors include Banking Insurance and communication. It is very clear that it is the tertiary sector that contributed largely to the aggregate growth of the economy. Tertiary sector grew by 7.7 per cent per annum. With an average share of 54 per cent in NSDP, tertiary sector on average contributed 86 per cent to aggregate NSDP growth rate (see table 2 and 3) during 9<sup>th</sup> plan period. Within the tertiary sector, the faster growing sectors are transport, storage and communication, Banking Insurance, and public administration. It is also to be noted that performance of the primary sector, with a growth rate of 0.7 per cent, was quite disappointing during this period.

During the 10<sup>th</sup> plan, the growth rate of the economy increased to 8.4 per cent. Growth rate of the primary sector improved in this period compared to the 9<sup>th</sup> plan period. Agriculture growth rate increased to 3.2 per cent and mining and quarrying increased to 17.1 per cent. These higher growth rates offset the lower growth rates in forestry and logging and Fishing, maintaining a higher growth rate in the primary sector. Secondary sector also performed very well in this plan period. The growth rate increased to 13.2 per cent, with increased growth rate in all the sectors, except in Electricity, Gas and Water Supply. Growth rate in the tertiary sector increased to 8.2 per cent. Primary sector with a share of 17.7 per cent contributed 5.6 per cent of the aggregate growth, secondary sector with share of 22.6 per cent contributed 35.7 per cent of the aggregate growth and tertiary sector 58.7 per cent of the aggregate growth. Table 1.1 shows that aggregate NSDP registered a growth rate of 10.1 per cent.

Table 1.1 NSDP Growth Rate (average for each period in per cent)

	Sector	1997-98 to 2001-02	2002-03 to 2006-07	2007-08
1	Agriculture	0.3	3.2	1.4
2	Forestry and Logging	3.5	2.3	4.6
3	Fishing	0.7	-1.3	1.0
4	Mining and Quarrying	10.7	17.1	27.4
<b>I</b>	<b>Primary</b>	<b>0.7</b>	<b>3.0</b>	<b>2.6</b>
5	Manufacturing	1.3	6.0	10.4
5.1	Registered	3.4	3.7	10.0
5.2	Unregistered	-0.9	8.7	10.8
6	Construction	4.0	18.2	20.0
7	Electricity, Gas and Water Supply	18.5	1.2	5.2
<b>II</b>	<b>Secondary</b>	<b>3.9</b>	<b>13.2</b>	<b>16.8</b>
8	Transport, Storage and Communication	9.7	12.3	15.2
8.1	Railways	3.2	10.0	8.2
8.2	Transport by other means and Storage	6.6	7.0	11.2
8.3	Communication	19.4	21.9	20.5
9	Trade, Hotels and Restaurants	6.2	7.8	8.5
10	Banking and Insurance	10.5	10.2	4.6
11	Real Estate, Ownership of Dwellings and Business Services	6.2	7.2	12.4
12	Public Administration	10.4	8.5	5.3
13	Other Services	6.7	3.7	2.9
<b>III</b>	<b>Tertiary</b>	<b>7.7</b>	<b>8.2</b>	<b>9.0</b>
	Net State Domestic Product (NSDP)	5.1	8.4	10.1

Note: NSDP figures for 2006-07 and 2007-08 are respectively provisional and quick estimates.

Table 1.2 Sectoral Share of NSDP (average for each period, in per cent)

	Sector	1997-98 to 2001-02	2002-03 to 2006-07	2007-08
1	Agriculture	21.07	14.13	11.57
2	Forestry and Logging	2.29	1.55	1.27
3	Fishing	2.03	1.57	1.16
4	Mining and Quarrying	0.24	0.42	0.59
<b>I</b>	<b>Primary</b>	<b>25.62</b>	<b>17.67</b>	<b>14.60</b>
5	Manufacturing	10.53	7.26	7.05
5.1	Registered	5.73	3.81	3.53
5.2	Unregistered	4.80	3.45	3.52
6	Construction	8.42	14.13	18.97
7	Electricity, Gas and Water Supply	1.23	1.18	0.93
<b>II</b>	<b>Secondary</b>	<b>20.18</b>	<b>22.57</b>	<b>26.95</b>
8	Transport, Storage and Communication	7.69	10.44	11.64
8.1	Railways	0.31	0.51	0.49
8.2	Transport by other means and Storage	5.37	5.85	5.73
8.3	Communication	1.96	4.03	5.36
9	Trade, Hotels and Restaurants	20.59	22.61	21.92
10	Banking and Insurance	6.34	6.10	5.88
11	Real Estate, Ownership of Dwellings and Business Services	6.21	7.88	7.94
12	Public Administration	4.59	4.15	3.99
13	Other Services	8.78	8.56	7.08
<b>II</b>	<b>Tertiary</b>	<b>54.20</b>	<b>59.76</b>	<b>58.45</b>

Note: NSDP figures for 2006-07 and 2007-08 are respectively provisional and quick estimates.

Table 1.3 Contribution to NSDP Growth

	Sector	1997-98 to 2001-02	2002-03 to 2006-07	2007-08
1	Agriculture	-4.17	4.35	1.44
2	Forestry and Logging	0.88	0.52	0.54
3	Fishing	-0.93	-0.23	0.11
4	Mining and Quarrying	0.57	0.97	1.69
<b>I</b>	<b>Primary</b>	<b>-3.66</b>	<b>5.60</b>	<b>3.78</b>
5	Manufacturing	1.04	4.86	6.97
5.1	Registered	3.75	1.56	3.36
5.2	Unregistered	-2.70	3.29	3.62
6	Construction	11.66	30.48	37.90
7	Electricity, Gas and Water Supply	5.00	0.33	0.44
<b>II</b>	<b>Secondary</b>	<b>17.70</b>	<b>35.66</b>	<b>45.32</b>
8	Transport, Storage and Communication	16.90	16.26	17.57
8.1	Railways	0.11	0.62	0.38
8.2	Transport by other means and Storage	8.03	4.67	6.16
8.3	Communication	8.77	10.97	11.04
9	Trade, Hotels and Restaurants	25.92	20.87	17.48
10	Banking and Insurance	10.20	7.54	2.49
11	Real Estate, Ownership of Dwellings and Business Services	9.00	6.60	9.50
12	Public Administration	10.95	4.00	1.96
13	Other Services	12.98	3.46	1.90
<b>III</b>	<b>Tertiary</b>	<b>85.95</b>	<b>58.73</b>	<b>50.91</b>
	NSDP	100.00	100.00	100.00

Note: NSDP figures for 2006-07 and 2007-08 are respectively provisional and quick estimates.

Table 1.4 presents the growth rate of district domestic product and of its three major sectors, namely primary, secondary and tertiary. The table shows that in 2007-08 Trichur district registered highest growth rate of income, 20.56 per cent and Idukki has the lowest growth rate

Table 1.4 Growth Rate of District Domestic Product

		TVM	KLM	PTA	ALPA	KTM	IDK	EKM	TSR	PLKD	MLPM	KKD	WYD	KNR	KSD
2007-08															
1	Primary	2.23	1.99	2.28	1.95	1.74	2.10	2.51	2.62	2.43	2.60	3.67	1.89	3.68	2.54
2	Secondary	15.44	16.13	16.74	15.76	15.98	13.65	15.22	16.32	14.32	17.45	17.56	16.91	17.76	18.84
3	Tertiary	9.21	9.30	9.44	9.20	9.40	8.91	9.64	9.35	8.88	8.71	9.02	8.78	8.82	9.05
4	DDP	10.30	9.38	9.03	10.15	9.25	7.03	11.32	20.56	9.33	9.44	10.64	6.95	10.06	9.19
5	Per capita Income	9.48	8.75	8.80	9.69	8.66	6.68	10.46	9.80	8.50	7.98	9.82	5.78	14.78	8.18
2006-07															
1	Primary	3.44	3.70	3.94	3.93	2.83	3.93	3.42	19.78	3.70	3.56	4.14	7.04	3.72	3.07
2	Secondary	14.04	14.26	14.36	14.21	14.16	12.13	14.46	-2.41	13.88	15.48	15.37	15.16	15.66	16.05
3	Tertiary	11.25	10.77	11.24	10.86	11.06	10.45	11.18	14.08	10.68	9.99	10.54	16.92	10.39	8.33
4	DDP	11.22	10.06	9.97	10.93	9.93	8.04	11.78	0.00	10.33	9.80	10.91	24.45	10.37	19.41
5	Per Capita Income	10.39	9.42	9.73	10.52	9.34	7.69	10.88	10.35	9.49	8.30	10.05	6.66	9.77	8.50

Note: Data for the year 2006-07 and 2007-08 are respectively provisional and quick estimates.

Source: Data obtained from Economic Review, 2008.

Table 1.5 presents the growth rate of district domestic product during the period 2001-02 to 2008-09. The Table also provides the distribution of district domestic product across primary, secondary and tertiary sectors. The table shows that all districts except Idukki and Wayanad recorded growth rate more or less close to the growth rate of the state as whole. Idukki and Wayanad recorded growth rate of 3.9%, well below the growth rate of the state during this period. It is also important to note that six districts registered growth rate above 9 per cent during this period.

Table 1.5 Growth rate and Sectoral Distribution of District Domestic Product  
(Average for the period 2001-02 to 2008-09)

District	Sector	Average Growth (%)	Average Share (%)
Trivandrum	Primary	1.8	11.1
	Secondary	11.3	23.3
	Tertiary	10.2	65.6
	Total	9.6	100.0
Kollam	Primary	1.0	20.0
	Secondary	11.0	20.1
	Tertiary	10.1	59.9
	Total	8.5	100.0
Pathanamthitta	Primary	-1.3	23.7
	Secondary	12.6	14.7
	Tertiary	10.4	61.6
	Total	8.1	100.0
Alapuzha	Primary	2.4	11.2
	Secondary	10.5	24.0
	Tertiary	10.3	64.8
	Total	9.4	100.0
Kotayam	Primary	2.5	19.1
	Secondary	11.7	17.8
	Tertiary	10.5	63.2
	Total	9.2	100.0
Idukki	Primary	-6.6	41.7
	Secondary	11.8	14.8
	Tertiary	10.2	43.5
	Total	3.9	100.0
Ernakulam	Primary	4.5	10.4
	Secondary	10.4	32.4
	Tertiary	10.6	57.1
	Total	10.1	100.0

Trichur	Primary	-0.4	11.3
	Secondary	11.0	24.4
	Tertiary	10.6	64.3
	Total	9.4	100.0
Palakkad	Primary	1.6	17.6
	Secondary	9.7	22.1
	Tertiary	9.3	60.3
	Total	8.1	100.0
Malappuram	Primary	-3.3	17.7
	Secondary	12.0	18.0
	Tertiary	10.2	64.2
	Total	8.2	100.0
Kozhikode	Primary	-0.3	14.3
	Secondary	12.3	22.2
	Tertiary	10.2	63.5
	Total	9.3	100.0
Wayanad	Primary	-10.1	33.3
	Secondary	11.9	10.5
	Tertiary	10.9	57.8
	Total	3.9	100.0
Kannoor	Primary	-2.5	15.5
	Secondary	11.8	21.3
	Tertiary	10.0	63.2
	Total	8.5	100.0
Kasargod	Primary	1.8	24.0
	Secondary	12.3	17.8
	Tertiary	10.3	59.7
	Total	8.4	100.0
Kerala	Primary	-0.5	16.6
	Secondary	11.1	22.3
	Tertiary	10.3	61.5
	Total	8.8	100.0

## 1. Agriculture

Table 1.5 presents the total plan expenditure on agriculture in the state. Total expenditure includes revenue and capital expenditure. The first five years in the table corresponds to 10<sup>th</sup> five year plan and the last two years belong to 11<sup>th</sup> five year plan. In all the years crop-husbandry received more financial resources, precisely during the 10<sup>th</sup> five-year plan crop husbandry received 49 per cent of total expenditure and in the first two years of 11<sup>th</sup> plan this is 52 per cent (see Table 1.6). Other major heads of plan expenditure are Soil and water conservation, Agriculture Research and Education, and Minor Irrigation. The table 1.7 and 1.8 show that a larger portion of plan expenditure on agriculture is revenue expenditure. Capital expenditure, which generates physical assets, is more in the head of Soil and Water conservation and Minor Irrigation.

Table 1.9 presents the physical targets for the production of various crops set for the 11<sup>th</sup> plan and table 1.10 presents the actual production, productivity and area under cultivation till 2007-08. For rice what we can see is that the area under cultivation is declining over time, resulting in a declining rice production in the state. It is also to be noted that rice productivity in the state is almost stagnant in this period. Therefore, the 11<sup>th</sup> plan target of 9.45 lakh tones of rice production seems to be difficult to achieve. Similarly, area under coconut production is coming down and coconut production and productivity is almost stagnant. In this case also achieving 11<sup>th</sup> plan target of 8000 million nuts needs more intensive effort. Recently, pepper also shows a decline in production and 2007-08 production is much lower than the plan target of 1.04 lakh tons. Similarly, pulses, tapioca, and cashew also exhibit almost stagnant production.

Table 1.11 presents consumption of fertilizer per hectare of gross cropped are in Kerala. The table shows that consumption of total fertilizer (N+P+K) is not only lower than that of India and it is also not showing any catching up sign with the all India level.

### *Performance of RKVY and NFSM.*

National Development Council (NDC) has come out with a new initiative named National Agricultural Development Programme (NADP)/Rashtriya Krishi Vikas Yojana (RKVY) to stimulate growth in agriculture and it is expected that agriculture would post a growth rate of 4 per cent per annum by the end of 11<sup>th</sup> plan period. Kerala joined RKVY in 2007-08 and its fund utilization in this year is only 43 per cent (Rajakutty, 2009). However, Kerala has completed the preparation of comprehensive District Agricultural Plan (C-DAP) and it also placed before the District Planning Committee.

Another programme is the National Food Security Mission (NFSM). In this, Kerala joined NFSM-rice in 2008-09. The 1.12 provides the details and achievements of NFSM-rice in Kerala in 2008-09.



Table 1.6 Total Plan Expenditure on Agriculture (Revenue plus Capital Expenditure) (Rs in Crores)

		10th Plan					11th Plan	
		2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
1	Crop husbandry	89.23	62.54	93.42	93.49	232.58	149.44	186.23
2	Soil and water conservation	16.34	19.83	16.86	30.31	32.23	23.70	30.45
3	Agricultural research and education	28.29	23.55	20.54	2.94	25.78	23.88	34.15
4	Other agricultural programmes	31.68	0.43	20.15	18.27	10.79	26.12	14.95
5	Hill areas	12.36	12.63	12.54	11.46	19.38	21.63	20.00
6	Other special area programmes	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	Minor irrigation	27.77	35.39	21.65	18.61	18.30	26.32	71.10
8	Command area development	17.14	14.76	2.01	8.55	6.42	10.16	12.60
9	Loans for crop husbandry	1.51	0.25	0.27	2.61	0.80	0.00	0.00
10	Loans for soil and water conservation	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	Loans for other special area programmes	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	Loans for command area development	0.12	0.00	0.00	0.00	0.00	0.00	0.00
	Total	224.43	169.37	187.43	186.23	346.26	281.24	369.48

Note: Figures for the year 2007-08 and 2008-09 are respectively revised estimates and budget estimates and for other years are accruals.  
Source: Kerala Budget Documents.

Table 1.7 Share in total plan expenditure (Revenue plus capital) (in per cent)

		1996-97	1998-99	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
1	Crop husbandry	53.1	24.3	55.8	39.8	36.9	49.8	50.2	67.2	53.1	50.4
2	Soil and water conservation	4.9	2.6	4.8	7.3	11.7	9.0	16.3	9.3	8.4	8.2
3	Agricultural research and education	6.5	53.8	9.4	12.6	13.9	11.0	1.6	7.4	8.5	9.2
4	Other agricultural programmes	5.5	1.6	5.3	14.1	0.3	10.8	9.8	3.1	9.3	4.0
5	Hill areas	4.1	2.6	6.8	5.5	7.5	6.7	6.2	5.6	7.7	5.4
6	Other special area programmes	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	Minor irrigation	21.2	10.0	17.9	12.4	20.9	11.6	10.0	5.3	9.4	19.2
8	Command area development	4.6	4.9	0.1	7.6	8.7	1.1	4.6	1.9	3.6	3.4
9	Loans for crop husbandry	0.0	0.2	0.0	0.7	0.1	0.1	1.4	0.2	0.0	0.0
10	Loans for soil and water conservation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	Loans for other special area programmes	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	Loans for command area development	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
13	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: Figures for the year 2007-08 and 2008-09 are respectively revised estimates and budget estimates and for other years are accruals.

Source: Kerala Budget Documents.

Table 1.8 Plan Expenditure on Agriculture- Revenue (Rs in crores)

Item of Expenditure		10 <sup>th</sup> Plan					11 <sup>th</sup> Plan	
		2002-03	2003-2004	2004-05	2005-2006	2006-07	2007-08	2008-09
1	Crop husbandry	88.7	62.3	93.0	92.2	231.3	140.2	180.5
2	Soil and water conservation	13.7	12.4	13.4	20.7	16.4	12.6	18.5
3	Agricultural research and education	28.3	23.5	20.5	2.9	25.8	23.9	34.2
4	Other agricultural programmes	31.7	0.4	20.2	16.1	10.8	21.1	10.0
5	Hill areas	12.4	12.6	12.5	11.5	19.4	21.6	20.0
6	Other special area programmes	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	Minor irrigation	13.7	19.0	8.0	8.6	11.8	13.3	32.9
8	Command area development	17.1	14.8	2.0	8.5	6.4	10.2	12.6
9	Loans for crop husbandry	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	Loans for soil and water conservation	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	Loans for other special area programmes	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	Loans for command area development	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	Total	205.6	145.0	169.6	160.5	321.9	242.9	308.5

Note: Figures for the year 2007-08 and 2008-09 are respectively revised estimates and budget estimates and for other years are accruals.

Source: Kerala Budget Documents.

Table 1.9 Plan Expenditure on agriculture- Capital (Rs in Crores)

		10 <sup>th</sup> Plan					11 <sup>th</sup> Plan	
		2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
1	Crop husbandry	0.56	0.28	0.42	1.30	1.25	0.01	0.01
2	Soil and water conservation	2.59	7.41	3.50	9.65	15.87	0.01	0.01
3	Agricultural research and education	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	Other agricultural programmes	0.00	0.00	0.00	2.20	0.00	0.01	0.01
5	Hill areas	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	Other special area programmes	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	Minor irrigation	14.02	16.41	13.69	10.02	6.48	0.01	0.04
8	Command area development	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	Loans for crop husbandry	1.51	0.25	0.27	2.61	0.80	0.00	0.00
10	Loans for soil and water conservation	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	Loans for other special area programmes	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	Loans for command area development	0.12	0.00	0.00	0.00	0.00	0.00	0.00
	<b>Total</b>	<b>18.81</b>	<b>24.35</b>	<b>17.85</b>	<b>25.77</b>	<b>24.39</b>	<b>0.04</b>	<b>0.06</b>

Note: Figures for the year 2007-08 and 2008-09 are respectively revised estimates and budget estimates and for other years are accruals.

Source: Kerala Budget Documents.

Table 1.10 Physical Target During XI<sup>th</sup> Plan

Sl.No	Item	Base level	XI <sup>th</sup> Plan Target
1	Rice	6.30	9.45
2	Coconut	6020	8000.
	Pulses	0.08	0.16
4	Tapioca	27.14	28.50
5	Banana and other Plantain	9.55	15.00
6	Cashew	0.58	0.80
7	Pepper	0.76	1.04

Note: All figures are in lakh tonnes except coconut which is in million nuts.  
 Source: XI<sup>th</sup> Plan document of Kerala.

Table 1.11 Area, Production and Productivity of Crops.

Area under Cultivation (in Hectare)										
	Item	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08
1	Rice	349774	347455	322368	310521	287340	289974	275742	263529	228937.6
2	Coconut	925035	925783	905718	899198	898498	899267	897833	872943	802330
3	Pulses	10985	6986	8191	5764	5998	8428	10562	6870	4478
4	Tapioca	111922	114609	111189	104179	94297	88486	90539	87128	83336
5	Banana	39046	45059	50871	55668	55906	58866	61400	59143	56489
6	Other Plantain	53252	54353	55183	54811	53496	54612	55222	53096	49803
7	Cashew	89403	92100	89718	88548	86376	81547	78285	70463	58183
8	Pepper	198406	202133	203956	208607	216440	237669	237998	216709	215154
Production (in Metric Ton)										
	Item	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08
1	Rice	770686	751328	703504	688859	570045	667105	629987	641575	528488
2	Coconut#	5680	5536	5479	5709	5876	6001	6326	6054	5564
3	Pulses	8571	5472	6281	4615	4930	8390	7940	5211	3399
4	Tapioca	2531752	2586903	2455880	2413217	2540790	2400043	2568284	2518999	2409327
5	Banana	398145	327955	375903	421809	442220	475371	491823	463766	442930
6	Other Plantain	410566	403695	393182	409282	399717	416115	445333	435636	408634
7	Cashew	65547	66200	65867	66087	65655	60584	68262	61680	50910
8	Pepper	47543	60929	58240	67358	69015	74980	87605	64264	63901
Productivity (Kg/Hectare)										
	Item	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08
1	Rice	2203	2162	2182	2218	1984	2301	2285	2435	2308
2	Coconut#	6140	5980	6049	6349	6540	6673	7046	6935	6935
3	Pulses	780	783	767	801	822	995	752	759	759
4	Tapioca	22621	22572	22087	23164	26945	27123	28367	28911	28911
5	Banana	10197	7278	7389	7577	7910	8075	8010	7841	7841
6	Other Plantain	7710	7427	7125	7467	7472	7619	8064	8205	8205
7	Cashew	733	718	734	746	760	743	872	875	875
8	Pepper	240	301	286	323	319	315	368	297	297

Notes: # Production of Coconut is in Million nuts and productivity is nuts/hectare.

Source: Economic Review, various issues

Table 1.12. Consumption of Fertilizer/Hectare of Gross Cropped Area in Kerala (in Kg)

Year	N	P	K	Total (N+P+K)	
				Kerala	India
1995-96	28.6	14.2	24.1	66.9	74.4
1996-97	28.3	13.6	19.6	61.5	75.5
1997-98	29.3	15.2	29.4	73.9	85.0
1998-99	29.5	14.6	18.1	62.2	87.1
1999-00	29.9	15.1	27.5	72.5	93.8
2000-01	28.4	12.7	20.8	58.3	86.3
2001-02	25.5	12.4	21.2	59.2	90.1
2002-03	29.2	13.5	26.2	68.9	86.0
2003-04	28.9	13.2	22.9	65.1	89.8
2004-05	29.9	14.1	24.2	68.2	98.3
2005-06	28.0	15.0	25.0	68.0	104.5
2006-07	31.0	16.0	43.0	89.0	113.3
2007-08	32.0	15.0	25.0	72.0	-
2008-09	38.0	19.0	32.0	89.0	-

Source: Economic Review, 2009

Table 1.13 Implementation of NFSM-Rice in Kerala.

Sl. No.	Interventions	Approved Rate of Assistance	Unit	T	Physical Achievement 2008-09	Financial Achievement 2008-09
				A		
1	Demonstrations on Improved Package of Practices (One demon. of 0.4 ha at every 100 ha of Rice area)	Rs. 2500/-per Demon.	Nos.	T	120	3
				A	120	3
				%	100.00	100.00
2	Demonstrations on System of Rice Intensification (SRI)-one demon. Of 0.4 ha at every 100 ha of Rice area.	Rs. 3000/-per Demon.	Nos.	T	60	1.8
				A	60	1.8
				%	100.00	100.00
3	Assistance for Distribution of HYVs Seeds.	Rs. 500/-per Qtl.	Qtl.	T	15000	75
				A	15000	75
				%	100.00	100.00
4	Incentive for Micro-nutrients.	Rs. 500/-per ha.	Ha	T	5000	25
				A	2644	11.52
				%	52.88	46.08
5	Incentive for Liming in Acidic Soils	Rs. 500/-per ha.	Ha	T	5000	25
				A	4613	23.065
				%	92.26	92.26
6	Incentive for Cono-weeders & Other Implements	Rs. 3000/-per farmer	Nos.	T	999	29.97
				A	1300	50.926
				%	130.13	169.92
7	Assistance for Plant Protection Chemicals and bio-agents.	Rs. 500/-per ha	Ha.	T	5000	25
				A	3892	19.459
				%	77.84	77.84
8	Farmers Trainings.	Rs. 17000/-per training.	Nos.	T	24	4.08
				A	24	4.08
				%	100.00	100.00
9	Seed Minikits of Rice (5 kg each) (a) NSC	Full Cost	Nos.	T	2400	
				A	2400	
				%		
Total				T	33603	188.85
				A	27653	188.85
				%	82.29	100.00

2. Note: T = targeted, and A = Achieved.



## **Risk Mitigation Measures in Agriculture**

### **Crop Insurance**

Two crop insurance schemes are currently in operation in the State, viz., The State Crop Insurance Scheme and The National Agricultural Insurance Scheme.

The State Crop Insurance Scheme, being implemented since 1995, provides insurance cover to 24 major crops against crop loss due to natural calamities like drought, storm, cyclone, flood, landslip, forest fire, sea erosion, earth quake and lightning. The scheme does not cover any of the crop losses or damages due to pest and disease infestation. The insurance coverage is done at panchayat level through Krishi Bhavans. The Crop Insurance Fund established for the scheme consists of the amount deposited by the State Government, the amount collected as premium from the insured and the interest accrued from the fund. The State Crop Insurance Scheme had enrolled 150370 farmers by 2007-08.

A study<sup>1</sup> conducted on the Crop Insurance Scheme found that the scheme is seen to have been a failure considering the normal objectives of a crop insurance scheme. The normal concept of a crop insurance scheme is that risks are spread horizontally to all the farmers of the area and vertically over a period of years. The ratio of indemnity sanctioned to premium collected was extra-ordinarily high, of an order of 3.3:1 for the State. This shows that the scheme was not financially viable and that it caused a heavy burden to the government, the implementing agency. Damages and losses due to pests and diseases were not covered under the scheme. The number of farmers enrolled in the scheme was also found to be low as a ratio of the total number of farmers engaged in the cultivation. The study suggests that the scheme could be made viable by spreading the risks horizontally by including all the farmers in a locality in the scheme. The scheme should be attractive, credit-linked, and should have support facilities like a reinsurance package. Damages caused by pests and diseases also have to be brought under the cover of the insurance scheme.

### **National Agriculture Insurance Scheme**

The National Agricultural Insurance Scheme (NAIS), was introduced from 1999-2000, replacing the Comprehensive Crop Insurance Scheme (CCIS) which was in operation since 1985. NAIS is implemented in the State through the GIC of India, and provides insurance cover to Paddy, Banana, Tapioca, Pineapple, Ginger and Turmeric against risks such as natural fire and lightning, storm, hailstorm, cyclone, typhoon, tempest, hurricane, tornado, flood, inundation and land slide, drought, dry spells, pests and diseases. Small and marginal farmers are eligible for 50 per cent subsidy on premium, which is equally shared by the State and Central Governments. The scheme is being implemented in 23 States and 2 Union Territories.

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<sup>1</sup> Crop Insurance Scheme: A case study of banana farmers in Wayanad district by Manojkumar.K , Sreekumar.B, and Ajithkumar.C.S, discussion paper no 54, Kerala Research Programme on Local Level Development, Centre for Development Studies Trivandrum.

Table 1.14 - Crops covered under NAIS in Kerala

Parameters	Kharif Season 2009	Rabi Season 2009-10
Crops Covered	Paddy, Banana, Ginger, Turmeric, Tapioca, Pineapple	Paddy, Banana, Tapioca, Rabi-II, Paddy, Banana (Plantain), Tapioca
Unit of Insurance	Zone(Nyayapanchayat) Except Wayanad Dist/Block	Zone/Block

Source - [http://www.aicofindia.org/file\\_sp35\\_nais.html](http://www.aicofindia.org/file_sp35_nais.html)

Table 1.15 – Details of the NAIS in Kerala from Rabi 1999-2000 to Rabi 2008-09 (Till 17.02.2010)

Details	Kharif	Rabi	Total
Farmers Covered	124253	193519	317772
Area Covered (Hectares)	106523.45	163645.12	270168.6
Sum Insured (Rs. in Lakh)	18966.18	24665.35	43631.53
Premium (Rs. in Lakh)	425.06	496.96	922.02
Claims (Rs. in Lakh)	1219.16	973.23	2192.39
Farmers benefitted	35028	29224	64252

Source- [http://www.aicofindia.org/file\\_sp35\\_nais.html](http://www.aicofindia.org/file_sp35_nais.html)

From the table above it can be seen that a total of 317772 farmers have been covered under the scheme (both seasons included) in the State. The premium collected was Rs922.02 lakhs while the claims distributed was Rs2192.39lakhs giving a premium to claims ratio of 1:2.37. A total of 64252 farmers have been given claims under the scheme.

### Weather Based Crop Insurance System

The Agriculture Insurance Company of India Ltd. has initiated a Weather Based Crop Insurance Scheme (WBCIS) in the state during 2008-09. The scheme is being implemented on pilot basis in Palakkad district for paddy and mango, Idukki district for pepper and Kasaragod district for cashew. The weather data generated from the Automatic Weather Stations installed by ISRO in collaboration with State Planning Board or by IMD at block level (or sub block level if AWS is available) is taken for consideration of claims. During Kharif 2009 season in Palakkad district alone 3927 farmers were insured under the WBCIS covering an area of 3254.04 ha. The sum insured for the district was Rs. 81350644 and the total claims from the district during the season amount to Rs. 7598247. Total premium was Rs. 8135060 and farmer's share of premium was Rs. 1749038. In Idukki district, 1273 pepper farmers were insured during the Kharif season under the WBCIS covering an area of 1178.49 ha. Total claims amount to Rs. 957373 during the season. Total premium amount was Rs. 3535470 out of which the farmers share was 1767735. During the Rabi season 2008-09, 953 farmers in Palakkad were insured under WBCIS for paddy, covering an area of 706.63 ha. Number of beneficiaries was 830, total payout /ha was Rs. 11021 and total claims amount to Rs. 383439 during the season in the district. There was no claim for mango from the district during the season. During Rabi 2008-09, 52 cashew farmers in

Kasaragod district were insured covering an area of 421.9 ha. The no. of beneficiaries was 52, total payout /ha was 75600 and total claims were Rs. 6897620.

The notification of the climate-based crop insurance system being implemented jointly by the Central and the State governments and the Agricultural Insurance Company of India for the year 2010 has been issued. It will be available for the pepper cultivators of Wayanad and Idukki districts and the paddy cultivators of Palakkad district. The scheme provides for the payment of compensation for variation of rainfall during the period insured. The premium to be paid by the farmers is Rs.662 per acre for pepper and Rs.243 per acre for paddy. The Centre and the State will provide 50 per cent of the premium for pepper and 78 per cent of the premium for paddy as subsidy. The maximum compensation to be paid is Rs.10,000 per acre.

### Financial Outlay for Various Agricultural Risk Mitigation Measures

Table 1.16 – Financial Outlay for Various Risk Mitigation Measures

Major Head/Minor Head of Development/Name of Project/Scheme/Programme	Eleventh Five year plan 2007-12 (Outlay)	Annual Plan 2007-08		Annual Plan 2008-09		Annual Plan 2009-10			Balance available for the last two years of the 11th plan Col.3-5+8+11)
		Approved Outlay	Actual Expedr	Approved Outlay	Actual Exped	Approved Outlay	Anticipated Exped	Likely Percentage of Exepr during 2007-10	
Crop Insurance Programme	800.00	110.00	110.00	100.00	100.00	100.00	100.00	38.75	490.00
National Agricultural Insurance Programme	1500.00	200.00	114.07	200.00	267.23	200.00	200.00	38.75	918.70
Contingency Plan to Meet Natural Calamities (Agricultural Disaster Management)	200.00	20.00	1220.78	20.00	1300.00	20.00	20.00	1270.39	-2340.78

Source : Kerala Planning Board MTA of the 11<sup>th</sup> plan

From the table it can be seen that the expenditure under the head “Contingency plan to meet natural calamities (agricultural disaster management)” has been far in excess of the outlay committed to it under the eleventh plan. The likely percentage of expenditure as a percentage of outlay during 2007-10 has been 1270.39%. The Scheme is intended for creating a buffer stock of seeds of paddy and other annual crops for distribution to affected farmers in the event of natural calamities and resultant crop damages. Assistance for strengthening of bunds to prevent breaches during floods and for removal of debris will be provided in a need based manner.

## **Minimum Support Price Operations in Kerala Support Price Operations for Paddy**

The Report of the Expert Committee on Paddy Production in Kerala, constituted by the Government of Kerala(GoK) in 1999 made the following observations

- 1) The number of person days engaged in paddy cultivation as well as the proportion of hired labour is the highest in Kerala
- 2) While the cost per unit area is almost 3 times the all-State average(Rs20224 as against Rs7154), the productivity is only about one fourth higher than that of the country(38.78q per ha as against 30.43 per ha).
- 3) As a result the cost of production per quintal in Kerala is just about double (Rs522 against Rs268).<sup>2</sup>

The committee recommended that the GoK declare an MSP equal to 150% of support price announced by GoI every year. It also recommends the positioning of a mechanism well in advance of the season involving farmer groups, cooperatives, rice processing mills, civil supplies corporation and state warehousing corporation for the procurement of paddy. In support of access to adequate resources, the non-availability of which often militates against timely intervention, the committee also recommends establishment of a price stabilization fund.

As remuneration from paddy cultivation began to drop, paddy acreage in the State plummeted as farmers shifted to more remunerative crops like banana, vegetables etc, diverted farmland for non-agricultural practices or left fields fallow. The State produced only about 15% of its requirement in 2008, compared to 45 percent in 1991<sup>3</sup>. In 2007, the Kerala Assembly passed a legislation prohibiting the indiscriminate reclamation of paddy lands. The enactment of the “Kerala Conservation of Paddy Land and Wetland Bill 2007” was prompted by the precarious situation in which the State found itself, with regard to production of its staple food. There are close to 3 lakh paddy farmers in the State, but most of them are marginal farmers with average holdings of 0.33 ha — just one-fifth the national average. While the production cost of paddy is one of the highest in the country, the support price for rice has not changed much over the years. From Rs 5.34 a kg in 1995, it had gone up to just Rs 10 a kg in 2007, about 87 per cent, not enough to keep pace with the escalation in input and labour costs.

From the above discussion, it can be reasonably concluded that an effective support price mechanism, in combination with other support measures is essential to encourage farmers to cultivate paddy.

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<sup>2</sup> Calculations based on 1995-96 prices

<sup>3</sup> This section draws heavily from the article titled “Bailout Rice in Kerala” which appeared in the Businessline daily dated October 10, 2008.

## Minimum Support prices(MSP)announced by the Centre and the State

Table 1.17 – MSP for paddy announced by the Centre and by Kerala

Year	Procurement Price* per Quintal for Common Paddy Variety	
	India	Kerala
2005-06	570	700
2006-07	620	800
2007-08	745	850
2008-09	900	1000
2009-10	950	1200

Source – Commission for Agricultural Costs and Prices for central prices and Kerala budget documents for Kerala prices

\*Procurement price inclusive of bonus in those years in which bonus was applicable.

From the prices as shown in the table below, it can be seen that the procurement prices in the State were far lower than that recommended by the expert commission on paddy production. A study titled “Agricultural Crisis, Credit and Indebtedness of Farmers in Palakkad District: Findings of a Field Survey”<sup>4</sup> by the University of Kerala cited the inadequacies in support price operations as one of the reasons behind the crisis faced by paddy farmers in Palakkad district, considered to be the rice bowl of the State. The problems cited are

- 1)Delays in transferring the amounts to the farmers’ bank accounts.
- 2)Absence of the procurement agency in some villages.
- 3)Certain varieties were not procured
- 4) The agency collected transportation charges from the farmers

### Mode of Procurement

The Kerala State Civil Supplies Department is the sole procurement agency for paddy in the State. In this scheme Supplyco purchases paddy from the farmers at rates fixed by Government

<sup>4</sup> “Agricultural Crisis ,Credit and Indebtedness of Farmers in Palakkad District : Findings of a Field Survey” by B.A.Prakash, Dept.of Economics, University of Kerala.

of Kerala. The Mills selected by Supplyco directly lifts the paddy from the paddy fields and process to rice and issue this rice to the Authorized Ration Wholesalers for distributing the rice to the common people of Kerala under various Government schemes like Annapoorna, Andhyodaya etc. The intervention of Supplyco has been made possible by the application of Information Technology tools developed by the Kerala State IT mission. The system works as follows. Procurement is made directly by Supplyco and the farmer receives a Paddy Receipt Sheet (PRS). The duplicate goes to the Paddy Payment Officer (PPO) of Supplyco, before the paddy is sent to the mill. The miller in turn enters the details of paddy that is processed online and this is reconciled with the PRS, before the payment is transferred electronically to the farmer. The processed rice is checked by Quality Assurance Officers before it is shipped to Supplyco's outlets and the public distribution system. The system has registered over 50,000 farmers and over 60 rice mills, who process 250000 metric tonnes in every crop season.

Table1.18 - Paddy Procurement by the Kerala State Civil Supplies Corporation(Supplyco) during the years 2008-09 and 2009-10

Sl no	Year/ Season	Taluks of Procurement	Paddy lifted (in metric tonnes)
1	2008/09 first season	50	100,062
2	2008/09 second season	42	254,235
3	2009/10 first season	38	120,937
4	2009/10 second season	38	268,308

Source <http://supplycopaddy.com/>

Both production and procurement of paddy has witnessed a revival of sorts during the last two years. This has been attributed to the higher procurement price and the improved procurement process adopted by the State Government.

### **Consumption of Fertilisers in Kerala**

The per hectare fertilizer consumption in Kerala has remained below the national average during the period 1995-96 to 2008-09. This can be compared with the per hectare consumption in the other four southern states. The per hectare consumption of total fertilizer nutrients was 206.4 kg in Andhra Pradesh during 2005-06. This was 93.4% higher than All-India average. The per hectare consumption in Karnataka and TamilNadu was 133.2 kg and 206.8 kg , respectively during 2005-06 which were higher than the All-India average. On the other hand, the per hectare consumption in Kerala at 68.5 kg during 2005-06 was lower than the All-India average.

The Fertilisers and Chemicals Travancore(FACT), a large public sector undertaking in the State produces fertilizers which are used by farmers in the State as well in Tamil Nadu and other southern states. Its flagship product called 'Factamfos', a complex NPK fertilizer, is in great demand among the paddy farmers of the State. However the State faced a severe shortage of the fertilizer in 2007-08 when the FACT unit making the fertilizer had to either cut down production or stop it altogether. This was because the high price of sulphur, used in the manufacture of the

fertilizer, was making production unviable. The unit was already incurring heavy losses and the hike in sulphur prices further deteriorated the situation. The State government demanded subsidies for the unit which was not granted. While Factamfos production came down by more than half, production of urea, ammonium sulphate, etc. had been completely shut down. However the situation has improved considerably over the last one year. The Minister of State for Chemicals and Fertilizers, in a written reply in the Lok Sabha informed the house that the State was not facing any shortage of Factamfos fertiliser. However the month wise requirement and availability of NPK fertilisers in the State was as follows

Table 1.19 Current Season Requirement and Availability of Fertilisers in Kerala(Qty in '000MT)

Month	Requirement	Availability
April'10	16.25	15.49
May'10	16.75	19.08
June'10	31.25	31.7
July'10(as on 26.7.2010)	28.25	28.43

Source: Written reply given by the Minister of State for Chemicals and Fertilizers in the Lok Sabha on July29,2010

Table 1.20: Consumption of Fertilizers/Ha. of gross cropped area in Kerala ( 1995-96 to 2008-09)

Year	N	P	K	Total (N+P+K)		N:(P+K)% (Kerala)
				Kerala	India	
1	2	3	4	5	6	7
1995-96	28.62	14.15	24.11	66.88	74.38	75
1996-97	28.33	13.59	19.60	61.52	75.49	85
1997-98	29.29	15.23	29.40	73.92	84.98	66
1998-99	29.50	14.58	18.14	62.22	87.08	90
1999-00	29.85	15.08	27.54	72.47	93.81	70
2000-01	28.43	12.66	20.82	58.32	86.34	85
2001-02	25.54	12.44	21.21	59.19	90.12	76
2002-03	29.18	13.53	26.19	68.90	86.00	73
2003-04	28.92	13.20	22.93	65.05	89.80	80
2004-05	29.87	14.14	24.2	68.21	98.34	78
2005-06	28.00	15.00	25.00	68.00	104.50	70
2006-07	31.00	16.00	43.00	89.00	113.26	53
2007-08	32.00	15.00	25.00	72.00	-	80
2008-09	38.00	19.00	32.00	89.00	-	75

Source- Kerala Economic Review, various years

The table above shows that the consumption of fertilisers (per unit area) in Kerala shows a fluctuating pattern over the years. The total consumption of fertilisers per unit area has increased from 66.88kg per ha in 1995-96 to 89kg per ha in 2008-09.

Year	2004-05	2005-06	2006-07	2007-08	2008-09
Nitrogen	88252	88485	88660	93263	111734.2
Phosphorus	41783	44243	45607	42725	55014.9
Potash	71488	75728	74650	72305	94147.9
Total	201523	208456	208917	208293	260897

Source- Kerala Economic Review, various years

The above table shows that the total fertilizer consumption per year in Kerala has shown considerable increase in 2008-09 as compared to the preceding two years. This could be due to the fact that in the years 2006-07 and 2007-08 the State had been facing shortage of fertilizers. However with the revival of production in the FACT units, the availability situation had eased to a large extent.

Table 1.22: Fertiliser Prices in Kerala

Year	2005-06	2006-07	2007-08	2008-09
Urea	5023	5023	5025	5023
Ammonium Sulphate	6673	7488	10350	10350
Super Phosphate	3545	3545	3400	3070
Muriate of potash	4455	4455	4455	4455

Source- Kerala Economic Review, various years

The prices of all major classes of fertilizers have remained constant in Kerala except for ammonium sulphate which increased from Rs6673 per MT in 2005-06 to Rs10350 per MT in 2008-09.



### **Agriculture Extension in Kerala.**

The growing gap between field level know-how and the technology developments in agriculture research centres has been growing. The Report of the National Commission on Farmers “Serving Farmers and Saving Farming”, presented to the Government in 2006 has also highlighted the lacunae in abundant measure. It says that this knowledge deficit should be overcome speedily in order to enhance the productivity and profitability of small farms and launch a Small Farm Management Revolution. Post-harvest technology wings must be added to Krishi Vigyan Kendras urgently and lab to land demonstrations in the area of post-harvest technology, agro-processing and value addition to primary products must be taken up to provide skilled jobs in villages to landless labour families. In addition to the retraining and retooling of existing extension personnel, there is a need to promote farmer to farmer learning. It has also highlighted the growing importance of ICT in agricultural extension by calling for the establishment of “Gyan Chaupals” in every village. The structure of the ICT based knowledge system, as suggested by the report is as follows

- i) **Block level:** Village Resource Centre (VRC) established with the help of the Indian Space Research Organisation.
- ii) **Village level:** *Gyan Chaupals* established with the help of the CSC Programme of the Department of Information Technology.
- iii) **Last mile and the last person connectivity:** This can be accomplished through either internet – community radio or internet – mobile phone synergy.

The Kerala State Planning Board, in its Mid Term Appraisal of the Eleventh Plan says that the extension system is very weak in the State. It says that the system requires a thorough revamp and makes a call for the extension system to be made field visit oriented in the State.

### **Schemes and Programmes**

Government of India during Tenth plan period, subsumed various extension programmes under a new scheme for extension reforms. As a part of the scheme it is proposed to establish SAMETI(State Agricultural Management and Extension Training Institute), for training at State Level and Agricultural Technology Management Agency (ATMA) at the district level. The district level activities are further categorized in to farmer oriented activities, farm information dissemination and Research Extension linkages. It is proposed to utilize the services of the Agro clinics to facilitate technology transfer for farmers. The existing Regional Agricultural Technical Training Centre (RATTC), Thiruvananthapuram would be upgraded as SAMETI. An outlay of Rs50lakhs was made for the Support to State Extension Programmes for Extension Reforms which is a 90% CSS. The outlay will be utilized for meeting the operational cost of SAMETI and ATMA excluding salary, awareness and training programme and production of extension materials including preparation of model projects for credit support. The outlay is to meet the state share of the scheme.

.Table 1.23 Financial Outlay for agricultural extension during the Eleventh Plan

Name of Programme	Eleventh Five year plan 2007-12 (Outlay)	Annual Plan 2007-08		Annual Plan 2008-09		Annual Plan 2009-10			Balance available for the last two years of the 11th plan Col.3-5+8+11)
		Approved Outlay	Actual Expedr	Approved Outlay	Actual Exped	Approved Outlay	Anticipated Exped	Likely Percentage of Exepr during 2007-10	
2	3	4	5	7	8	10	11	12	13
Strengthening Agricultural Extension	800.00	135.00	132.43	275.00	268.25	300.00	300.00	87.59	99.32
Farm Information and Communication	690.00	115.00	115.00	115.00	114.95	120.00	120.00	50.72	340.05
On Farm Trials, Front line demonstrations and PTD	550.00	50.00	50.00	50.00	50.00	25.00	25.00	22.73	425.00
<b>Total</b>	<b>2040.00</b>	<b>300.00</b>	<b>297.43</b>	<b>440.00</b>	<b>433.20</b>	<b>445.00</b>	<b>445.00</b>	<b>161.04</b>	<b>864.37</b>

Source – Mid Term Appraisal of the Eleventh Plan, Kerala Planning Board

An amount of Rs. 445.00 lakh is set apart for agricultural extension and communication during 2009-10 apart from the expected funds from the Government of India for the implementation of extension reforms. The outlay proposed is for the following three schemes viz., strengthening Agricultural extension, Farm information and Communication and on farm trials, Frontline demonstration and Participatory Technology Development(PTD).

### Information Technology in Agricultural Extension

E-krishi is a market driven agricultural initiative through IT enabled Agri-Business Centres to address the existing gap in agriculture information flow and transaction management. The project envisages facilitating and enabling farmers and other stakeholders through Agri Business Centres to interact with agricultural service providers in the private, Government and Non Government sectors. E-krishi envisions a connected farmers' community throughout Kerala with access to information on market demand, prices, good agricultural practices and quality agricultural inputs supported by a technology enabled robust transaction platform that facilitates all their offline activities.

The e-krishi project was implemented in Malappuram district of Kerala during 2006 – 09 period through 146 e-krishi centres (CSC) spread over 99 Panchayats. Seeing the benefits of the project the Government expanded the e-krishi activities to 5 more districts in the State namely Kasargod, Kannur, Calicut, Ernakulam and Kollam during the 2008-09 financial year. The project will be further extended to the remaining districts during 2010-11. E-krishi bagged the CSI-Nihilent e-governance award for 2008-09 in project category - G2B(Government to Business).

**Karshaka Information Systems Services And Networking (KISSAN)** is an integrated, multi-modal delivery of agricultural information system, which provides several dynamic and useful information and advisory services for the farming community across Kerala. It is one of the leading citizen centric e-governance projects of the Department of Agriculture, Govt. of Kerala.

## Conclusion

The agriculture extension system in the State is poised to undergo a major revamp. The absence of a field visit oriented extension system has been pointed out as a major shortcoming in the extension services. However, the State has made major strides forward in the field of harnessing information technology for farm extension services. The same initiative now needs to be applied in the field as well.

## Animal Husbandry and Dairy Development Livestock Sector in Kerala

Livestock has always been an integral part of the farming system in Kerala, complementing crop production, providing essential animal proteins through milk, meat and eggs, providing draught power for cultivation and acting as valuable liquid assets in times of need for the farmer. They also occupy a prominent place in the cultural traditions of the State occupying a place of pride in the various rituals associated with the farm festivals of the State and figuring prominently in folk songs, stories and literature. Livestock sector in Kerala is extremely livelihood intensive and also a major contributor to gross state domestic product (GSDP); it could be as high as 40% of the agricultural GSDP in Kerala. However the cattle population in Kerala has been decreasing since the early 1990's. The livestock census gives the picture of a decreasing trend : from 38,20,200 in 1992 to 25,35,947 in 1997 to 21,22,453 in 2003. This can be closely read with the decline in paddy cultivation in the State. Acute shortage of paddy straw and high cost of manufactured feed force the farmers to cut down on their livestock numbers. Fall in demand for draught power meant that adult male cattle population has decreased by a much higher percentage. The composition of cattle population has also undergone a huge change. The crossbred cattle population constituted 67% of total cattle population in 1997 and increased to 83% by 2003.

## Dairy Development

The dairy sector in Kerala could maintain a higher growth rate of 4.24% in the 1990s compared to the All India level of 4.16 %, in spite of a weak fodder base. In the ninth plan period Kerala slipped behind the all India growth rate (3.72% as against 4.32%). During the period 2001-02 to 2006-07 a negative growth rate was recorded in the milk production of Kerala(-4.86%) as compared to All India level growth rate of 3.64%. However the period 2006-07 to end of 2008-09 marked a recovery in the milk production of Kerala with an average growth rate of 6.12%, the highest rate in recent years. However, Kerala still ranks lowest among all four southern states in terms of per capita milk availability (182gm per day), which points towards the need for upgrading production to meet the minimum nutritional standards.

Table 1.24 Estimated Milk Production in the State (in '000 tonnes)

Sl no	Year	Cows		Buffalo	Goat	Total
		Indigenous	Cross Bred			
1	2005-06	108.176	1839.340	36.474	79.21	2063.200
2	2006-07	98.268	1904.675	29.846	86.086	2118.875
3	2007-08	98.049	2025.343	27.346	96.897	2247.635
4	2008-09	143.049	2168.078	36.312	103.089	2450.528

Source : - Report on Integrated sample survey for milk meat and egg production, Directorate of Animal husbandry Kerala

In Kerala there are 3382 dairy cooperatives including 2546 Anand pattern cooperative societies. OF the 22 dairies functioning in the State 10 are in the cooperative sector (MILMA) and the remaining 12 are in the private sector. The production of milk in the State falls short of the demand by a huge margin. The federation is thus forced to import milk form neighbouring states during lean periods when the internal supplies used to shrink. The procurement of milk by MILMA stood at 2712 and 2676 ltrs respectively against the sale of 3467 and 3516 ltrs during 2007 and 2008.

The major issues faced by the sector in Kerala are

- 1) Over the past ten years a third among the marginal farmers has moved away from dairy farming driven by mounting costs and stagnant returns.
- 2) Dairy cattle have to be fed concentrates even for fulfilling their dry matter intake due to acute shortage of paddy straw in the State.
- 3) The farmers have generally moved towards keeping lower number of livestock and investing in fewer, high yielding animals. These animals require prompt and quality extension services for their veterinary care and artificial breeding requirements.

### Financial Performance of Tenth Five Year Plan

Table 1.25 : Outlay and Expenditure of Tenth Plan and Outlay of Eleventh Plan

Sl No	Head of Development	X Plan Outlay	2002-07		Exp as % to X Plan	Exp as % to BE	Outlay for 11 <sup>th</sup> Plan
			Budgeted Exp(BE)	Total Exp			
1	Animal Husbandry	14000	23534	16356.46	117	69	49076
2	Dairy Development	700	1539	1265.86	181	82	6700
	Total Livestock Sector	14700	25073	17622.32	119.9	70.28	55776
	T o t a l Agriculture & Allied Sectors	95000	101608	116014.64	122.12	114.18	233111

Source : Mid Term Appraisal of the Eleventh Plan Kerala Planning Board

The budgeted outlay for the 10<sup>th</sup> plan was Rs235.34cr and expenditure was Rs163.56cr which is 69.5% of the budgeted outlay Under dairy development, the expenditure(Rs12.66cr) was 82% of the budgeted outlay(Rs15.39cr). As part of strengthening decentralized planning in Kerala, nearly one third of plan funds have been transferred to local governments since the 9<sup>th</sup> Plan. The eleventh play outlay for the livestock sector has been stepped up significantly from the outlay of Rs147cr during the Tenth Plan.

Table 1.26 : Target and Achievements of livestock products during the Tenth Five Year Plan

Livestock Products	Production Unit	Tenth Plan	
		Target(per year)	Achievement for the Year 2006-07
Milk	Lakh tonnes	35.05	21.19
Egg	Million Nos	2255	1199
Meat	Lakh tonnes	1.74	1.97

Source : Mid Term Appraisal of the Eleventh Plan Kerala Planning Board  
From the above table it can be seen that the targets were met (even exceeded) only in the case of meat production while falling short for both milk and egg production.

### Performance in the Eleventh Plan

The financial outlay and expenditure under livestock sector during the first three years of the eleventh plan is shown in the table below. The expenditure as a percentage of budgeted outlay for the three years is quite high with dairy development expenditure exceeding the outlay. However, it remains a matter of concern that the expenditure as a percentage of outlay is less than 40%, even though three years of the present plan period is over.

Table 1.27 Outlay and expenditure under Livestock Sector during the first three years of Eleventh Plan (Rs.lakh)

Sub Sector	Eleventh Plan Outlay	2007-2010			
		BE	Exp	Exp as % to BE	Exp as % to XI Plan Outlay
Animal Husbandry	49076	19150	15842.17	82.73	32.28
Dairy Development	6700	2300	2501.70	108.76	37.33
<b>Total</b>	<b>55776</b>	<b>21450</b>	<b>18343.87</b>	<b>85.52</b>	<b>32.88</b>

Source : Mid Term Appraisal of the 11<sup>th</sup> plan - Kerala State Planning Board

The table shows that the expenditure during the first three years of the plan is 85% of the budgeted outlay. However as a percentage of the total outlay for the entire plan, the expenditure is 32%. This means that close to 70% of the funds would be spend during the last two years of the 11<sup>th</sup> plan.

Table 1.28 Financial and Physical Achievement of Major Schemes under Animal Husbandry and Dairy Development – 2007-10. (in Rs Lakh)

SI No	Name of Scheme	XI Plan Outlay/Physical target		Achievement during			
				2007-08	2008-09	2009-10	2007-10
1	Extension & Training	Financial Achievement	2700	240.44	267.19	300	567.19
		<b>Physical Achievement</b>					
		Training to (no. of persons) farmers women SC/ST beneficiaries, officers	30000	31086	98437	-	129523
		Etabt. of Vignana vyapana kerdras (nos)	-	50	50	-	100
2	Strengthening of Veterinary Services	Financial Achievement	10600	847.77	742.11	1700	3290
		<b>Physical Achievement</b>					
		Infertility camps conducted (nos)	-	1000	500	-	1500
		Rabies Vaccination (lakh nos)	-	1.5	2	2	5.5
		Distribution of mastitis kits	-	1 lakh	0.30	-	1.30
3	Establishment of Animal Disease Control zone with assistance from NDDB	Financial Achievement	430	215	215	215	645
		<b>Physical Achievement</b>					
		Vaccination against FMD (lakh)	-	17.45	21.44	-	38.89
4	Assistance to state for control of	Financial Achievement	155	26.05	34.70	34.70	95.45
		<b>Physical Achievement</b>					

	<b>animal diseases (ASCAD)</b>	Vaccination conducted against Animal diseases (lakh nos)	-	78.31	7.42	-	85.73
<b>5</b>	<b>Biological Production complex</b>	<b>Financial Achievement</b>	750	48.26	100.22	210	358.48
		<b>Physical Achievement</b>					
		Total vaccine production (lakh dos)	-	196	201.76	200	597.76
<b>Cattle Development Programmes</b>							
<b>6</b>	<b>Expansion of cross breeding facilities</b>	<b>Financial Achievement</b>	5000	573.66	556.76	576.50	1706.72
		<b>Physical Achievement</b>					
		No.of AI done (lakh)	-	10.6	11.98	13	35.58
		Awareness camps (no)	-	73	73	-	146
		No. of animals dewormed (lakh)	-	2	3	4.5	9.5
<b>7</b>	<b>Special livestock development programme</b>	<b>Financial Achievement</b>	7500	424.06	824.93	850	2098.99
		<b>Physical Achievement</b>					
		No. of calves enrolled		23604	21690	21000	66294
<b>Poultry Development Programme</b>							
<b>8</b>	<b>Poultry Sector Poultry farms &amp; expansion of poultry production</b>	<b>Financial Achievement</b>	875	154.03	128.79	100	382.82
		<b>Physical Achievement</b>					
		Chick produced (lakh nos)	-	9.54	11.65	-	21.19
		Backyard Poultry units established (no)	-	5000	6000	5000	16000
	Turkey Pullets produced (no)	-	7171	7632	10000	24803	

<b>Dairy Development</b>							
<b>1</b>	<b>Commercial Fodder production programme</b>	<b>Financial Achievement</b>	3000	189.76	199.95	200	590
		<b>Physical Achievement</b>					
		Root slips (Ha)	-	1655	1805	-	3460
		Azola cultivation (nos)	-	7000	5000	-	12000
		Maize (Ha)	-	288	190	-	478
		Cowpea (Ha)	-	-	191	-	191
		Fodder tree (nos)	-	14000	14000	-	28000
		Root slips (without subsidy) Ha	-	115	440	-	555
<b>2</b>	<b>Rural Dairy</b>	<b>Financial Achievement</b>	650	19.91	30	75	5 <sup>2</sup>
		<b>Physical Achievement</b>					
	<b>Extension and Farm Advisory Service</b>	<b>Achievement</b>					
		<b>Physical Achievement</b>					
		Farmers contact programmes (Nos)	-	613	607	-	1220
		Quality awareness programmes (Nos)	-	69	140	-	209
		Training Programmes no. of persons	-	7864	7000	-	14864
<b>3</b>	<b>Assistance to dairy Co-operatives</b>	<b>Financial Achievement</b>	1000	30.09	45	60	135.09
		<b>Physical Achievement</b>					
		Assistance for purchase of computer (no)	-	19	49	-	68
		Assistance to newly opened societies (no)	-	62	76	-	138
		Purchase of milk tester (No)	-	102	80	-	182
<b>4</b>	<b>Commercial dairy and milk shed development programme</b>	<b>Financial Achievement</b>	5000	489.40	600	600	1689.4

Source – MTA of the eleventh Plan – Kerala planning Board



The largest outlay under animal husbandry programme is in the strengthening of veterinary services scheme (Rs 106cr for the entire plan). However it can be seen that the expenditure has been just 32.90cr for the first three years of the plan. Under the dairy development programme, commercial dairy and milk shed development programme has received the highest outlay. In order to ensure that milk is produced in the required quantity in all seasons, a gradual shift from the marginal farmer led milk production pattern in the State to that of small commercial farms may be inevitable. The outlay of Rs50crore could be aimed at this shift. The Kerala Livestock Development Board has announced plans to set up a chain of hi-tech dairy farms in the State. The project is funded by the National Project for Cattle and Buffalo Breeding (NPCBB).

### Physical achievement during eleventh Plan

Table 1.29 – Production of Livestock Products during 2007-08 and 2008-09 (First two years of 11<sup>th</sup> plan)

Live stock Products	Production Unit	Physical target during 11th plan(per year)	Year	
			2007-08	2008-09
Milk	Lakh tons	35.00	22.47	24.63
Egg	Million Nos.	2395	1379	1900
Meat	Lakh Tons	3.00	1.80	2.50

Source : MTA of the 11<sup>th</sup> plan – Kerala Planning Board

The production targets for milk and egg are considerably short of the targets set for the 11<sup>th</sup> plan. The meat production seems to be on course for achieving the target, showing a healthy growth rate over the first two years.

### Poultry Rearing and Meat Production.

Poultry eggs and meat provide major sources of animal protein for large sections of the population in the State. The Kerala State Poultry Development Corporation (known as KEPCO) was established in 1989 to give special emphasis to the revival of poultry farming in the state. The eleventh plan outlay for the poultry sector is Rs8.75cr. During 2007-08, a project for promoting backyard poultry farming for the development of poultry as a part of the State food security project was launched in the State. The broiler production sector in the State provides direct employment to 40000-50000 people in the State.

Table 1.30 Year wise estimate of egg and meat production in Kerala

Sl no	Year	Eggs	Poultry Meat Production(tonnes)	Meat other than Poultry Meat Production (tonnes)
1	2004-05	1197	32704	162567
2	2005-06	1196	27609	167763
3	2006-07	1199	16184	180342
4	2007-08	1379	17390	180579
5	2008-09	1507	19268	181103

Source : Kerala Economic Review

### **Fisheries Development**

In Kerala, fishing Industry occupies an important position in its economy. Kerala's share in the national marine fish production is about 20-25%. The water resources of this state comprise of a coastline of 590 km length having a continental shelf area of the sea adjoining the Kerala state is 39139 sq.kms. The inland water resources of the State having much fishery importance are the 44 rivers, 53 reservoirs and 53 backwaters and other brackish water bodies. The polders of Kuttanad and kole lands of Thrissur are also very famous for the combined paddy-aquaculture system practiced.

Fisheries sector contribute 3% of the economy of the State. The estimated fisher folk population of Kerala during 2008-09 is about 11.33lakhs which includes 8.28 lakh in marine & 3.28 lakh in Inland sector. The sector provides employment to fishermen, women who vend the fish and others engaged in fishery-allied activities including those working in ice factories, boat making and repairing etc. The significance of the sector in the economy of the State can be gauged from the fact that it contributes 8% of the GSDP from the agriculture sector. The nutritional significance of fish and fish products is very high as it is very often the only source of animal protein for the poor in the State, especially among the poorer sections of the coastal population in the State.

### **Fish Production in the State.**

The National Agriculture Policy, which aims to attain a growth rate in excess of four per cent annum in the agriculture sector, stresses the importance of food and nutritional security issues and the importance of animal husbandry and fisheries sectors in generating wealth and employment. Kerala is at the forefront of marine fish production in the country contributing 21% of the total. Kerala state contributes to about 25% fish production for export from India even though Kerala is having only 7% of the coastline in the country. The annual per capita consumption of fishes of Kerala is 27 Kg/yr and this is fourfold when compared to national average. The state earns foreign exchange to the tune of Rs.1250 crores from the export of marine products. Contrary to the all India production pattern in which inland fish production(53.12% of the total;2008-09) is always higher than marine fish production(46.88%), marine fish occupies a lion's share of the production (87.8% as against 12.2% for inland fish;2008-09)

Table 1.31 Fish Production in Kerala during the last seven years ( in lakh tonnes)

<b>Year</b>	<b>Marine</b>	<b>Inland</b>	<b>Total</b>
2002-03	6.03	0.75	6.78
2003-04	6.09	0.76	6.85
2004-05	6.02	0.76	6.78
2005-06	5.59	0.78	6.37
2006-07	5.98	0.80	6.78
2007-08	5.86	0.81	6.67
2008-09	5.83	0.83	6.66

Source : Kerala economic review 2009

Table 1.32 Summary of Financial Performance during Xth Plan and XIth Plan upto 2009-10

Sl. No	Major Programmes	Xth plan		XI <sup>th</sup> plan	2007-08		2008-09		2009-10		Total for 3 years	
		Approved outlay	Exp	Approved outlay	Approved Outlay	Exp	Approved Outlay	Exp	Approved Outlay	Anticipated Exp	Outlay	Exp
1	Resource Conservation Enhancement and Management	500	389.84	1400	120	118.02	160	159.38	160	160.00	440	437.4
2	Marine fishery, Technology of Credit	540	3394.49	1475	175	581.8	330	330.09	270	270	775	1181.84
3	Inland fishery	3600	973.37	800	120	120	160	160	310	310	540	590
4	Fishing Harbours and landing centres (50% CSS)	4195	2707.02	4400	430.5	914.83	793.5	561.42	495.5	495.5	1719.5	1971.75
5	Infrastructure / Supporting facilities	3040	1850.13	8700	1575	1084.77	700	1449.44	1650.00	1650.00	3925	4184.21
6	Social Security and livelihood support	5625	9740.88	4873	725	855.79	855	1019.24	1960	1960.00	3540	3835.03
7	Other Programmes			3877	2020.5	2032.06	6070.5	7289.43	154.5	154.5	8245.5	9475.99
	<b>Total</b>	<b>17500</b>	<b>19055.73</b>	<b>25525</b>	<b>5166</b>	<b>5707.27</b>	<b>9069</b>	<b>10969</b>	<b>5000</b>	<b>5000</b>	<b>19235</b>	<b>21676.27</b>

Source : Mid Term Appraisal of the eleventh plan – Kerala Planning Board

The approved outlay for XIth Five year plan for Fisheries sector for 58 schemes was Rs255.25crore which accounts for 0.63% of the total state plan outlay and 10.95% of outlay under agriculture and allied sectors. Infrastructure/Supporting facilities have been given the highest outlay of Rs87crores. The total expenditure for the first three years of the plan is Rs41.84cr which is about 50% of the outlay. Social security and livelihood support has also received a huge outlay of Rs4873cr. Programmes like saving cum relief scheme, National Fishermen Welfare Fund(NFWF) housing, group insurance to fishermen insurance coverage for fishing implements were under implementation under the social security schemes. Construction/modernisation of fishing harbours has also been taken up on a large scale in the 11th plan with a total plan outlay of Rs44cr.

Table 1.33 Financial Performance of CSS in fisheries sector during 11<sup>th</sup> Plan (State Share) (Rs in Lakhs)

Sl No	Name of Scheme	Eleventh Five Year Plan Outlay (2007-12)	Annual Plan 2007-08		Annual Plan 2008-09		Annual Plan 2009-10		Total for 3 years	
			Approved Outlay	Actual Exp	Approved Outlay	Actual Expenditure	Approved Outlay	Anticipated Expenditure	Outlay	Exp
	<b>50% CSS</b>									
1	Distribution of suitable complements of Fishing Gear (SS 50%)	25.00	5.00	5.00	10.00	10.00	10.00	10.00	25.00	25.00
2	Fishery Harbours (SS 50%)	2000.00	380.50	693.51	608.50	435.46	330.50	330.50	1319.50	1459.47
3	Fish Landing Centres for Traditional Fishermen (SS 50%)	50.00	5.00	5.77	5.00	0.33	5.00	5.00	15.00	11.10
4	Saving cum relief scheme to fishermen (SS 50%)	1500.00	250.00	350.00	250.00	520.28	280.00	280.00	780.00	1150.28
5	NFWF Assisted Housing (SS 50%)	1500.00	300.00	299.67	300.00	300.00	350.00	350.00	950.00	949.67
6	NFWF Group Insurance Scheme for fishermen	200.00	40.00	56.96	60.00	54.44	60.00	60.00	160.00	171.40
7	Modernisation and Hygienic Improvement of Fishing Harbours and Landing Centres (SS 50%)	125.00	0.00	33.63	80.00	42.06	50.00	50.00	130.00	125.69
8	Repairs and renovation of completed fishing harbours			33.27						33.27
	<b>Sub Total</b>	<b>5400.00</b>	<b>980.50</b>	<b>1477.81</b>	<b>1313.50</b>	<b>1362.57</b>	<b>1085.50</b>	<b>1085.50</b>	<b>3379.50</b>	<b>3925.88</b>
	<b>Other CSS</b>									
1	NFDB Assisted Scheme (All aquaculture schemes merged) (75%)	400.00	60.00	60.00	100.00	100.00	100.00	100.00	260.00	260.00
2	Rebate on HSD oil to fishermen (80%)	198.00	40.00	29.98	40.00	9.45	25.00	25.00	105.00	64.43
3	Publication of hand books (80%)	2.00	0.50	0.50	0.50	0.00	0.50	0.50	1.50	01.00
	<b>Sub Total</b>	<b>600.00</b>	<b>100.50</b>	<b>90.48</b>	<b>140.50</b>	<b>109.45</b>	<b>125.50</b>	<b>125.50</b>	<b>366.50</b>	<b>325.43</b>
	<b>TOTAL</b>	<b>6000.00</b>	<b>1081.00</b>	<b>1568.29</b>	<b>1454.00</b>	<b>1472.02</b>	<b>1211.00</b>	<b>1211.00</b>	<b>3746.00</b>	<b>4251.31</b>

Source – Mid Term Appraisal of the 11<sup>th</sup> plan – Kerala Planning Board.

### Trends in Credit Deposit Ratio

An important indicator of intensity of economic activity in a region is the credit-deposit ratio. For a region this rate indicates the amount of loan provided by the banks in that region to the deposits collected by them. The credit-deposit ratio may be written as (number of credit accounts  $\times$  average credit amount per account) divided by (number of deposit account  $\times$  average deposit amount per account). (Narayana, 2003) Table 1.13 presents the credit-deposit ratio of Kerala, two neighboring states and of all India for the period 1997 to 2009. The table shows that credit deposit ratio is increasing in Kerala over time. However, still it is less than that of All India and that of Tamil Nadu and Karnataka.

Table 1.34 Credit-Deposit Ratio

Year	Kerala	Tamil Nadu	Karnataka	All India
1997	46.9	100.3	71.5	57.3
1998	44.3	96.1	68.2	55.5
1999	41.1	93.0	64.5	55.5
2000	42.3	88.0	61.0	57.1
2001	43.1	90.6	59.3	58.5
2002	42.8	84.3	59.8	62.3
2003	43.3	86.5	60.9	59.4
2004	47.3	89.6	62.9	58.7
2005	55.8	98.4	74.1	66.0
2006	61.7	105.9	76.8	72.5
2007	63.6	112.3	77.5	75.0
2008	65.3	113.4	78.0	74.2

### 3. New work opportunities

The largest share of workers in rural areas is still in the agriculture sector accounting for 38 percent of the rural working population. Other important rural sectors of employment are manufacturing, construction, trade and public administration. But the share of agricultural workers has declined greatly during the period 1993-94 to 2004-05. Thus the relative importance of agriculture as a source of employment is declining in Kerala even in the rural areas.

In the urban areas the largest employment was provided by trade, at 24 percent followed by public administration and manufacturing sector. This also represents a shift from the earlier patterns in 1993-94. While in 1993-94 the largest employment was in manufacturing sector and public administration, the relative importance of the manufacturing sector is declining in the urban areas also.

	1	2	3	4	5	6	7	8	9	10
	Agri-culture	mining& quarrying	Manufa-cturing	Electricity water	construction	trade	transport	financial intermediation	Public admin	total
Rural Male	361	21	103	3	152	159	101	31	71	1000
Rural female	435	3	236	3	18	57	18	21	209	1000
Rural Persons	381	16	139	3	116	131	78	27	109	1000
Urban Males	122	7	146	5	152	274	136	57	102	1000
Urban Females	105	0	231	2	35	122	19	60	426	1000
Urban Persons	118	5	166	4	125	240	109	57	175	1000

Source: NSSO various employment –unemployment rounds

Thus the share of employment is shifting away from primary and secondary sector towards services. Newer employment opportunities seem to come from all services. But within services the largest increase in the decade 1993-94 to 2004-05 was trade and transport. Females seem to be withdrawing from the manufacturing and secondary activities, while getting in more of services employment.



Table 1.36 Shift in employment pattern during 1993-94 to 2004-05									
	1	2	3	4	5	6	7	8	9
	Agri-	mining& quarrying	Manufa- cturing	Electricity water	construction	trade	transport	financial intermediation	Public admin
Rural Male	-161	0	4	-1	77	40	42	17	-16
Rural female	-73	-3	-5	1	-14	9	11	14	60
Rural Persons	-137	-1	5	0	52	29	32	15	7
Urban Males	-87	2	-19	-1	50	65	29	21	-59
Urban Females	-105	-6	-56	-7	-4	50	6	41	81
Urban Persons	-91	0	-27	-3	38	62	24	25	-28

Source: NSSO various employment –unemployment rounds

Within rural areas the largest rise in employment during 1993-94 to 2004-05 was in construction sector, an increase of 5.2 percent points. While there was a decline in the agriculture sector of 13.7 per cent points. Other growing sectors included trade at 2.9 percent points, transport at 3.2 percent and financial intermediaries at 1.5 per cent points. However the rise in construction employment was concentrated entirely within males, while for females their share in fact declined. For rural areas the most promising employment opportunity was in public administration.

In the urban areas also there was a shift from agriculture employment to other types of employment. However the largest rise was in case of trade, an increase of 6.2 percent. There was also an increase in construction employment by 3.8 percent points. Other important sectors include transport and financial intermediation, while there had been a decline in manufacturing and public administration by near about 2.8 percent. In the urban areas also the largest employment increase for women was in public administration, with some increase in trade and financial intermediation as well. For urban males the largest increase was in case of construction , trade and transport.

	1	2	3	4	5	6	7	8	9	10
	Agri- culture	mining& quarrying	Manufa- cturing	Electricity water	construction	trade	transport	financial intermediation	Public admin	total
Rural Male	413	21	96	3	130	163	93	21	59	1000
Rural female	452	11	251	0	38	51	3	17	178	1000
Rural Persons	423	19	135	2	107	135	70	20	89	1000
Urban Males	70	4	181	7	145	314	118	47	114	1000
Urban Females	77	2	330	2	28	186	23	47	305	1000
Urban Persons	71	4	217	6	117	283	95	47	160	1000

Source: NSSO various employment –unemployment rounds

	1	2	3	4	5	6	7	8	9	10
	agri	min& quarr	manufa	Electricity water	construction	trade	transport	financial intermediation	Public admin	total
Rural Male	522	21	99	4	75	119	59	14	87	1000
Rural female	508	6	241	2	32	48	7	7	149	1000
Rural Persons	518	17	134	3	64	102	46	12	102	1000
Urban Males	209	5	165	6	102	209	107	36	161	1000
Urban Females	210	6	287	9	39	72	13	19	345	1000
Urban Persons	209	5	193	7	87	178	85	32	203	1000

Source: NSSO various employment –unemployment rounds

	1	2	3	4	5	6	7	8	9	10
	Agric - ulture	mining& quarryin g	Manufa - cturing	Electricit y water	constructio n	trad e	transpor t	financial intermediatio n	Public admin	tota l
Rural Male	-52	0	7	0	22	-4	8	10	12	0
Rural female	-17	-8	-15	3	-20	6	15	4	31	0
Rural Persons	-42	-3	4	1	9	-4	8	7	20	0
Urban Males	52	3	-35	-2	7	-40	18	10	-12	0
Urban Females	28	-2	-99	0	7	-64	-4	13	121	0
Urban Persons	47	1	-51	-2	8	-43	14	10	15	0

Source: NSSO various employment –unemployment rounds

	1	2	3	4	5	6	7	8	9	10
	agri	min&quarr	manufa	Electricity water	construction	trade	transport	financial intermediation	Pblic admin	total
Rural Male	-109	0	-3	-1	55	44	34	7	-28	0
Rural female	-56	5	10	-2	6	3	-4	10	29	0
Rural Persons	-95	2	1	-1	43	33	24	8	-13	0
Urban Males	-139	-1	16	1	43	105	11	11	-47	0
Urban Females	-133	-4	43	-7	-11	114	10	28	-40	0
Urban Persons	-138	-1	24	-1	30	105	10	15	-43	0

Source: NSSO various employment –unemployment rounds

## Skilled Labour Market in Kerala – An overview

### 1. Skill Development Mission in Kerala

The National Skill Development Mission, under the direct stewardship of the Prime Minister envisaged a “Coordinated Action Plan for Skill Development” to develop 500 million skilled persons by the year 2022. A three tier institutional structure consisting of (i) the Prime Minister’s National Council on Skill Development, (ii) National Skill Development Coordination Board and (iii) National Skill Development Corporation, was set up for the purpose. All states were expected to establish their own State Skill Development Missions (SSDM) for skill development. Twenty one States and four Union Territories have either set up State Skill Development Missions or are in the process of setting up the same. Kerala had established a State Council for Skill Development directly under the headship of the chief minister<sup>5</sup>. The council has been established only in 2009 and the institution is only taking root to have serious impact on the Kerala economy.

### 2. Skill Profile of workers in Kerala

Compared to All India, the share of workers in Kerala who are illiterate is very low. For Kerala it was only 7.5 percent compared to All India share of 36.4 percent of the working population (Table 1). This very high share of illiterate working population at the All India level is contributed by mainly females, wherein more than 61 percent of the female workers were illiterate. However, in Kerala the share of workers with less than secondary sector still consists of nearly 57 percent. Below secondary level consists of another 22 percent of the workers. Skilled workforce, those that have a technical / professional/ other graduates were only nearly 12 percent of the total workers in Kerala. These

<sup>5</sup> From the Mid term Appraisal of the Eleventh Five year Plan, Planning Commission of India

proportions do not reflect a healthy knowledge based economy. Apparently there seems to be a bulge in the workers with only middle level of skills, while the higher level of skills are still relatively scarce in the economy.

Table 1.41 Distribution of Main Workers according to level of Education 2001

	Kerala			India		
	Persons	Males	Females	Persons	Males	Females
Illiterate	7.5	5.0	16.6	36.4	28.7	61.7
Literate	92.5	95.0	83.4	63.6	71.3	38.3
Literate but below matric/secondary	56.9	59.6	47.2	36.4	40.2	23.8
Matric/ secondary but below graduate	22.4	23.9	16.9	16.3	19.3	6.4
Technical diploma or certificate not equal to degree	3.6	3.2	5.0	0.7	0.8	0.5
Graduate and above other than technical degree	6.7	6.0	9.1	5.9	6.7	3.5
Technical degree or diploma equal to degree or post-graduate	1.8	1.2	3.8	1.1	1.1	0.9

Source: Census of India 2001

In general, both in the larger Indian economy and the regional economy of Kerala display a specific pattern in education specific WPR ratios. The WPRs seem to have two peaks; one at the low end of low level of education, at literate up to primary. The other peak appears at the high end of the education spectrum, at diploma certificate course or graduate and above. The WPR is lowest at the higher secondary level, probably due to preference for education than workers. However it is to be noted that even at high levels of skills, the WPR is lower than full utilization for Kerala. Therefore there seems to be some excess supply in the economy, even at high levels of education. The skills are more used at very low levels of education or at high levels of education.

Table 1.42 Education-specific worker population ratio for persons of age 15 years and above 2004-05

	not literate	literate & upto primary	middle	secondary	higher secondary	diploma/ certificate course	graduate & above	all
<b>Rural Male</b>								
Kerala	573	780	782	628	475	743	716	721
all-India	887	887	781	699	664	783	818	830
<b>Rural Female</b>								
Kerala	263	279	203	169	82	311	388	232
all-India	416	327	253	204	169	396	285	359
<b>Rural Persons</b>								
Kerala	360	512	495	381	257	528	540	458
all-India	583	654	585	527	501	664	685	595
<b>Urban Male</b>								
Kerala	615	730	767	587	427	765	738	698
all-India	824	851	750	662	591	772	785	752
<b>Urban Female</b>								
Kerala	273	201	125	128	82	286	383	191
all-India	250	186	117	95	103	423	265	185
<b>Urban Persons</b>								
Kerala	369	453	450	350	226	574	554	434
all-India	433	536	469	422	388	670	580	480

**Source: National Sample Survey Report 515, 2004-05**

Next we turn to specific professional degree and diploma holders and their employment profile. This Table 3 shows the profile of people that passed out in 2008 with different professional degrees. The survey conducted in 2008 showed that 54 percent of the engineering graduates were able to find employment in the same year of their graduation. The highest employment probability was in case of Hotel Management where 82 percent of the graduated found employment. While, Masters in Business Administration provided employment only less than 50 percent of the students. Moreover, 48 percent of the surveyed student was still unemployed. Migration of graduated students was substantial with the highest at 52 percent for engineering.

Table1.43 Summary of employment profile of Batch of 2008 – Degree

		Engineering	MBA	Pharmacy	Hotel Management
1	Percentage of employment for the batch passed in 2008	53.9	49.8	49.3	81.5
2	Percentage of unemployment for the batch passed in 2008	30.5	47.8	22.4	0
3	Percentage of higher studies for the batch passed in 2008	13.8	2.4	26.4	18.5
4	Percentage of self-employment for the batch passed in 2008	0.06	0	0	0
5	Migration for employment to other states for the batch passed in 2008	2618 (51.8%)	110 (17.5%)	17 (5%)	15 (34%)
6	Migration for employment to other Countries for the batch passed in 2008	394 (7.8%)	79 (12.5%)	20 (6%)	3 (6.8%)
7	Average emoluments for the batch passed in 2008	16,160	13,927	5,815	7,227

National Technical Manpower Information System 2009, Kerala

Among Diploma holders the next best option other than getting employed was to go higher education (Table 4) . Diploma in engineering is seen by many as a stepping stone to a higher degree. Migration among Diploma holders was substantial but not as severe as among engineering graduates.

Table 1.44 Summary of employment profile of Batch of 2008 – Diploma

		Engineering	Pharmacy	Hotel Management
1	Percentage of employment for the batch passed in 2008	43.8	57.5	86.3
2	Percentage of unemployment for the batch passed in 2008	17.4	36.4	3
3	Percentage of higher studies for the batch passed in 2008	31.1	6	10.6
4	Percentage of self-employment for the batch passed in 2008	0	0	0
5	Migration for employment to other states for the batch passed in 2008	644 (26.5%)	8 (1.5%)	81 (71%)
6	Migration for employment to other Countries for the batch passed in 2008	181 (7.4%)	0	2 (1.8%)
7	Average emoluments for the batch passed in 2008	6,333	4,104	6,519

National Technical Manpower Information System 2009, Kerala

The largest number of engineering degrees in recent years is Electronics and communications and Mechanical engineering courses (Table 5). Computer Sciences also have a high priority in the recent years. However being employed soon after degree being awarded is not very common in most trades. In most new age courses such as computer science, biotechnology, biomedical engineering, electronics, etc the share of workers employed soon after graduation is less than 50 percent. Unemployment rates are also high in these courses when compared to traditional courses.

Table 1.45 Employment profile of Batch of 2008 –Degree Holders by Trade

		Employed (%)		Unemployed(%)		Studying further (%)		Total (numbers)			Persons
		Male	Female	Male	Female	Male	Female	Male	Female	Persons	In% share
1	AGRICULTURE	33.3	85.7	0	0	66.7	14.3	9	14	23	0.2
2	APPLIED ELECTRONICS & INSTRUMENTATION	68.2	38.3	10.9	37.2	20.9	24.5	129	94	223	2.4
3	ARCHITECTURE	45.8	76.2	12.5	9.5	41.7	14.3	24	42	66	0.7
4	AUTOMOBILE	54.1	0	27	0	18.9	0	37	0	37	0.4
5	BIO MEDICAL	65.2	76.1	8.7	13	26.1	10.9	23	46	69	0.7
6	BIOTECHNOLOGY	50	41.1	42.1	36.9	7.9	20.6	38	141	179	1.9
7	CHEMICAL	54.4	47.1	24.1	47.1	21.5	5.9	79	34	113	1.2
8	CIVIL	67.6	62	14.7	17.1	17.7	20.4	327	368	695	7.4
9	COMPUTER SCIENCE & ENGINEERING	51.7	51.1	36.7	37.7	11.3	10.8	891	1110	2001	21.3
10	ELECTRICAL & ELECTRONICS	59	55.3	31.9	37.6	8.6	6.7	827	492	1319	14.1
11	ELECTRONICS & COMMUNICATION	54.2	45.2	29	40.4	16.8	13.7	1413	1167	2580	27.5
12	ELECTRONICS & INSTRUMENTATION	51.1	45.8	44.7	50	4.3	4.2	47	24	71	0.8
13	INDUSTRIAL ENGG.	83.3	62.5	0	0	16.7	37.5	18	8	26	0.3
14	INFORMATION TECHNOLOGY	55	53.4	41.7	37.9	3.3	8	180	264	444	4.7
15	INSTRUMENTATION	95.8	100	0	0	4.2	0	24	3	27	0.3
16	INSTRUMENTATION & CONTROL.	57.7	77.8	38.5	22.2	3.8	0	26	18	44	0.5
18	MECHANICAL	64.5	50	15.4	50	20.1	0	1228	10	1238	13.2
19	MECHANICAL AUTOMOBILE	32.4	0	62.2	0	5.4	0	37	0	37	0.4
20	MECHANICAL PRODUCTION	37	0	63	100	0	0	27	6	33	0.4
21	NAVAL ARCH.& SHIP BUILDING	100	0	0	0	0	0	22	0	22	0.2
25	PRODUCTION ENGG.	56.3	0	43.8	0	0	100	64	2	66	0.7
26	Others	84.6	33.3	3.8	41.7	11.5	25.0	52.0	12	64	0.7
	Total	58.4	51	26.8	35.9	14.7	12.6	5522	3855	9377	100

National Technical Manpower Information System 2009, Kerala

### 3. Skill Training Facilities

In 2005-06 there were seven universities in Kerala, and two deemed universities (Table 6). There were 189 colleges of general education and 125 medical colleges. Technical educational institutions such as engineering and architectural colleges increased from 43 in 2001-02 to 99 in 2005-06. Similarly the professional medical colleges increased from 23 to 125 during the same period. There were also 410

Table 1.47 Enrolment during the year in Kerala

industrial  
schools in  
Kerala

2005-06. In short, the presence of technical and professional educational institutions have increased substantially in the recent years, especially after 2004-05, while there is only a marginal increase in general education colleges, from 186 to 189 during the same period. This changing profile of the institutional structure of higher education in Kerala represents a paradigm shift in the policy giving a clear fillip for technical and professional education in Kerala. Rather than increasing the general education colleges, which was the policy till recent years, this diversification towards professional and technical education would bring in the much wanted skills for economic development.

Table 1.46 Number of Institutions in Kerala  
Figures in numbers)

Institutions/Universities	2001-02	2002-03	2003-04	2004-05	2005-06
Universities	7	7	7	7	7
Deemed to be Universities	0	1	1	1	2
Instt. of National Importance	0	1	1	1	1
Research Institutes	1	1	1	1	1
Colleges for General Education	186	186	186	186	189
Engg., Tech & Arch. Collages	43	66	66	66	99
Medical Colleges (Allo./ Ayur./ Homeo/ Unani)	23	40	40	40	125
Teacher Training Colleges					21
Polytechnics					56
Others (Includes Law, Management, MCA/IT, Agriculture etc.)					82
Teacher Training Schools					204
Technical/ Industrial / Arts & Craft Schools#					410

**Source : Selected Education Statistics, HRD Ministry , India**

The enrolment for higher education has increased substantially in the recent years. In 2001 -02 the enrolment for higher education was 240038 students, which increased to 450577 students by 2005-06, a percent increase of 87.7% (Table 7). The paradigm shift mentioned earlier is visible in the enrolment increase also. The increase in enrolment during 2001-05 in the engineering and technical degree streams were to the tune of 255 percent during the period 2001-02 to 2005-06. Similarly, Post graduate degrees enrolment also recorded very high growth during this period. Similarly enrolment in 'Others' that includes professional courses such as Law, Management, MCA/IT, Agriculture etc also recorded very high growth rates at 171 percent during this period.

(Figures in numbers)						
	2001-02	2002-03	2003-04	2004-05	2005-06	percent change during 2001 to 06
Ph.D/D.Sc./D.Phill.	340	2752	336	417	338	-0.6
M.A.	6725	8552	7164	7443	8460	25.8
M.Sc.	5875	7823	6953	8192	10663	81.5
M.Com.	2197	2264	2501	2591	3625	65.0
B.A./B.A. (Hons)	61951	62019	63646	68622	67536	9.0
B.Sc./B.Sc.(Hons.)	61361	62322	65841	65905	64170	4.6
B.Com./B.Com(Hons.)	22272	22107	23697	24217	24323	9.2
B.E./B.Sc.(Engg/B.Arch.)	25865	29834	29834	20862	91818	255.0
Medicine, Dentistry, Nursing, Pharmacy, Ayurvedic & Unani	8056	8259	8259	8259	9246	14.8
B.Ed.& BT	7270	8566	3298	3317	3451	-52.5
Open	-	-	-	-	36377	
Polytechniques	-	-	-	-	27240	
Others	38126	30448	85864	103330	103330	171.0
Total	240038	244946	297393	313155	450577	87.7

Source :

Selected Education Statistics, HRD Ministry , India

The above said shift in institutional structure and change in the enrolment growth rates have changed the proportion of higher education enrolment in the state. Engineering education which represented only 10.8 percent of all higher education enrolment in 2001-02 increased to a whopping 23.7 percent in 2005-06. Similarly 'Others' that includes professional courses such as Law, Management, MCA/IT, Agriculture etc increased from 15.9 percent to 26.7 percent. While all graduates recorded a decline in their share. B.A enrolment declined from 25.8 to 17.5 %, B.Sc declined from 25.6% to 16.6% and B.Com declined from 9.3% to 6.3%. This change represents the shift from general education to technical and professional education. This augurs well for Kerala. This shift towards technical education may reduce the educational unemployment in Kerala in future.

Table 1.48 Enrolment Distribution in Kerala

	2001-02	2002-03	2003-04	2004-05	2005-06
Ph.D/D.Sc./D.Phill.	0.1	1.1	0.1	0.1	0.1
M.A.	2.8	3.5	2.4	2.4	2.2
M.Sc.	2.4	3.2	2.3	2.6	2.8
M.Com.	0.9	0.9	0.8	0.8	0.9
B.A./B.A. (Hons)	25.8	25.3	21.4	21.9	17.5
B.Sc./B.Sc.(Hons.)	25.6	25.4	22.1	21.0	16.6
B.Com./B.Com(Hons.)	9.3	9.0	8.0	7.7	6.3
B.E./B.Sc.(Engg/B.Arch.)	10.8	12.2	10.0	6.7	23.7
Medicine, Dentistry, Nursing, Pharmacy, Ayurvedic & Unani	3.4	3.4	2.8	2.6	2.4
B.Ed.& BT	3.0	3.5	1.1	1.1	0.9
Others	15.9	12.4	28.9	33.0	26.7
Total	100.0	100.0	100.0	100.0	100.0



Source : Selected Education Statistics, HRD Ministry , India

#### 4. Skilled Workers- Job Search and Unemployment

Table 1.49 : Number of Work Seekers in Kerala (in lakhs)

	Below SSLC		SSLC and Above		Total Work Seekers	Professional and technical work seekers	
	Persons	Percentage	Persons	Percentage to		person	Percentage
		to Total		Total			to Total
2001	9.67	21.8	34.64	78.2	44.31	1.8	4.00
2002	7.12	19.3	29.68	80.7	36.8	1.8	4.89
2003	7.46	18.6	32.58	81.4	40.05	1.6	3.97
2004	6.73	17.9	30.83	82.1	37.56	1.8	4.70
2005	6.29	17.1	30.41	82.9	36.7	1.8	4.82
2006	6.37	16.5	32.19	83.5	38.57	1.6	4.26
2007	6.31	15.8	33.58	84.2	39.89	1.5	3.75
2008	6.24	15.1	34.96	84.9	41.2	1.4	3.46
2009- Jun	6.37	14.63	37.191	85.3	43.56	1.4	3.36

Source: Directorate of Employment 2009 as reported in Economic Review of Kerala 2009

Table 9 shows the number of work seekers in each year according to the live register of the Employment Exchange. The table shows that while the total number of work seekers have fluctuated between 44.3 lakh in 2001, 36.7 lakh in 2005 and increased to 43.5 lakh in June 2009, a definite trend had been the steady decline in the number of work seekers who had not crossed secondary level of education. From 9.67 lakh work seekers without secondary level of education the number declined to 6.37 lakh in June 2009. This represents a decline in the overall share of work seekers from 22 percent in 2001 to 14.63 percent in 2009. At the same time the number of work seekers who had passed the secondary level of examination increased from 34.6 lakh to 37.19 lakh during 2001 to 2009. This meant that the share of work seekers with a secondary level of education increased from 78 percent to 85 percent. From this table it may be inferred that the supply of educated people is on the ascendancy in Kerala, while commensurate demand for educated people is not yet present in the economy.

Among the professional and technically qualified work seekers the largest share of workers are among the diploma holders and ITI certificate holders (Table 10). Among ITI certificate holders approximately 65 to 70 percent of them are work seekers. Among diploma holders in engineering nearly 25 percent are work seekers. While in all other professional courses the work seekers are very less. This points to the fact that while at higher levels of skills and training there is a robust demand for the same, at the mid level the demand for such workers is not strong to absorb the work seekers entirely.

**Table 1.50 Profession wise Share of Professional & Technical Work Seekers**

Year (at the end of December)	Medical Graduates	Engg. Graduates	Diploma Holders in Engg.	ITI Certificate Holders	Agricultural Graduates	Veterinary Graduates	Total
2001	1.5	5.8	26.2	65.4	0.8	0.2	100
2002	2.1	4.7	23.9	68.5	0.5	0.3	100
2003	2.2	5.1	25.6	66.2	0.6	0.3	100
2004	2.2	5.2	24.1	67.1	0.9	0.5	100
2005	1.9	3.6	23.4	70.3	0.5	0.3	100
2006	1.8	5.2	25.4	66.9	0.5	0.3	100
2007	1.6	5.1	23.6	68.9	0.5	0.4	100
2008	1.6	5.5	22.2	69.8	0.5	0.4	100
2009-Jun	1.6	5.9	23.6	68.0	0.4	0.5	100

Source: Directorate of Employment 2009 as reported in Economic Review of Kerala 2009

This lack of demand for workers at the middle level skills is also visible in case of general education as well. While the work seekers below Secondary had declined from 22 to 14.6 percent during 2001 to 2009, the share of work seekers with SSLC qualification had increased from 58 percent to 62 percent (Table 11) . Similarly for Pre-degree ( +2) level also the share increased from 12.2 to 16.4 percent in the state, while for higher levels of education the share of work seekers declined.

**Table1.51 : Distribution of Work Seekers in Kerala by Educational Level**

Year	Below SSLC	SSLC	Pre-Degree	Degree	Post graduate	Total
2001	21.8	58.1	12.2	6.3	1.5	100.00
2002	19.3	58.8	13.9	6.6	1.5	100.00
2003	18.6	59.0	14.1	6.7	1.5	100.00
2004	17.9	59.2	14.9	6.4	1.6	100.00
2005	17.1	59.4	15.7	6.3	1.5	100.00
2006	16.5	60.0	16.0	6.0	1.4	99.99
2007	15.8	60.7	16.2	6.0	1.3	100.00
2008	15.0	61.5	16.5	5.7	1.3	100.00
Jun-09	14.6	62.2	16.4	5.5	1.3	100.00

Source: Directorate of Employment 2009 as reported in Economic Review of Kerala 2009

## 5. Skill Matching in Kerala

Another aspect to notice is the lack of skill match in employment. While many are trained in different trades, the share of workers who claim that they work in their own field is very low. In new courses such as Biotechnology and Biomedical engineering only 15 percent to 41 percent was able to find employment in their own field. While computer and information technology and other such field have high levels of skill match , the other trades don't have that.

Table 1.52 Employed Engineering Degree Holders Working in their Own Field

		Number	Percentage
1	MECHANICAL PRODUCTION	1	10
2	BIOTECHNOLOGY	11	14.7
3	BIO MEDICAL	19	41.3
4	MECHANICAL AUTOMOBILE	5	41.7
5	ELECTRONICS & INSTRUMENTATION	16	47.1
6	APPLIED ELECTRONICS & INSTRUMENTATION	58	50.9
7	PRODUCTION ENGG.	19	55.9
8	ELECTRICAL & ELECTRONICS	445	61.8
9	INDUSTRIAL ENGG.	13	65
10	INSTRUMENTATION	17	65.4
11	INSTRUMENTATION & CONTROL.	24	82.8
12	MECHANICAL	646	85.7
13	CIVIL	393	87.5
14	CHEMICAL	41	91.1
15	INFORMATION TECHNOLOGY	220	91.7
16	COMPUTER SCIENCE & ENGINEERING	949	93.4
17	AUTOMOBILE	19	95
18	ARCHITECTURE	41	95.3
19	ELECTRONICS & COMMUNICATION	1230	96.1
20	AGRICULTURE	15	100
21	MARINE ENGINEERING	18	100
22	NAVAL ARCH.& SHIP BUILDING	22	100
23	POLYMER ENGG	5	100
24	POLYMER SCIENCE & RUBBER TECHNOLOGY	5	100
25	PRINTING	2	100
26	SAFTEY & FIRE ENGG	18	100
		4252	84.2

**6. Concluding observations:** In Kerala educational unemployment is very severe. The shift in educational institutional pattern towards technical and professional education may solve this problem to a large extent. Demand side analysis also shows that there is rising demand for professional and technical skills in the Kerala economy. However, there is still a slack in demand for the middle level skills, such as workers with secondary or higher secondary level of education. Other problems relates to job search, waiting period for employment and skill mismatch.

#### **4. Poverty Alleviation Programmes and Their Consequences**

Eradication of poverty remains a major challenge of planned economic development. Experiences of different states of India have been varied substantially in this respect. There are states that followed the path of high agricultural growth and succeeded in reducing poverty (Punjab and Haryana). Also there have been states that implemented land reforms with vigor, empowered the panchayats, mobilized the poor and implemented poverty-alleviation programmes effectively (West Bengal) and states that brought about reduction in poverty by direct public intervention in the form of public distribution of foodgrains (Andhra Pradesh). In case of Kerala it is the human resource development on which the state provided major emphasis and became able to reduce poverty.

Since the late 1970s the poverty reduction strategies in Kerala have moved in tandem with the national policy of direct attack on poverty. The direct attack is basically launched through two modes – one providing subsidized assets for self-employment at the individual level or at the level of the group and the other providing wage employment with or without food security through a public works programme. Over the last two decades the schemes have undergone various modifications but the essential approach has remained the same.

In rural areas the key schemes under implementation are Swarnajayanthi Gram Swarozgar Yojana (SGSY) for self-employment and Sampoorna Gramin Rozgar Yojana (SGRY) for providing wage employment. SGSY marks an improvement over the earlier scheme Integrated Rural Development Programme (IRDP) with insistence on the process aspects of group formation as well as on the concept of economic clustering for identification of activities. SGRY, on the other hand, is basically a rural public works programme with a strong food for work component.

Beside the two major schemes discussed above the Rural Development Department of Kerala has been implementing as well some other centrally sponsored programmes focused towards poverty alleviation in rural areas, through employment and income generation and infrastructure development. These are Indira Awas Yojana (IAY), National Rural Employment Guarantee Scheme etc. Furthermore, under the Community Development Programme, some important schemes are being implemented also by the State. One of the most innovative schemes implemented under this head is the State Poverty Eradication Mission, known as Kudumbashree. Swarna Jayanthi Sahari Rozgar Yojana (SJSRY) is another poverty eradication programme introduced to provide employment to the urban unemployed and under-employed poor. Schematic representation of all these poverty eradication programmes (including the share of financial liability of the State) is provided below.

***Swarnajayanti Gram Swarozgar Yojana (SGSY) (25% State Share):***

The Swarnajayanti Gram Swarozgar Yojana (SGSY) is an integrated programme for self-employment of the rural poor launched on 1<sup>st</sup> April 1999 following the restructuring of the erstwhile Integrated Rural Development Programme (IRDP) and allied schemes. The objective of the SGSY is to bring the assisted poor families (Swarozgaris) above the poverty line by organizing them into self-help groups (SHGs), training them and helping them in capacity building and provision of income generating assets through bank credit and government subsidy. ***Total outlay under this scheme during the 11<sup>th</sup> Plan period is set to Rs. 74 Crore.*** This scheme has the following activities.

- (a) Establishing viable micro enterprises by the poor in the rural areas, by utilizing the local economic potential. Emphasis is also given to group approach under the programme.
- (b) Covering all aspects of self employment viz. formation of self help groups, capacity building, planning activity in clusters, infrastructure build up and arranging technology, credit and marketing. This programme adopts a project approach for each key activity.

The objective is to cover 30% of the rural poor in each Block Panchayat in the Eleventh Plan period. Subsidy under SGSY is uniform at 30% of the project cost subject to a maximum of Rs. 7500. In respect of SC/STs this is 50% subject to a maximum of Rs. 10000. Group Swarozgaris are eligible for availing 50% subsidy of the project cost subject to a maximum of Rs. 1.25 lakh. The programme is also to cover at least 50% of the beneficiaries from Scheduled Castes and Scheduled Tribes, 40% from women and 3% from disabled. ***During the 11<sup>th</sup> Plan Period, it is proposed to assist 300000 families under SGSY. It is also proposed to assist 42000 families during the Annual Plan Period 2007-08.***

***Swarnajayanti Gram Swarozgar Yojana (SGSY) Special Project:***

Under the scheme of SGSY, funds are released to Poverty Alleviation Units and are utilized as per the decisions taken at the local level. Sometimes, the poverty reduction efforts require coordinated action by different departments and may call for planning and coordination which may extend beyond the individual districts. There may also be occasions when the different Departments, Government agencies or Poverty Alleviation Units might want to try out new initiatives which are in the nature of pioneer projects, capable of triggering much needed growth impulses. The Ministry of Rural Development, Government of India sets apart 15% of the funds under SGSY for such initiatives.

In the 11<sup>th</sup> Plan, it is proposed to draw up SGSY Special Projects with specific focus to value addition of certain specific agricultural products and also that of various activities relating to the development of Dairy, Horticulture, Handicrafts, Handlooms, traditional Industries and Cottage Industries. Total outlay under this scheme during the 11<sup>th</sup> Plan period is set to Rs. 54 Crore.

***Sampoorna Gramin Rozgar Yojana (SGRY) (25% State Share):***

The objective of this scheme is to provide additional wage employment opportunities in rural areas through creation of durable public assets. This is a Centrally Sponsored scheme introduced in August 2001, by merging two erstwhile poverty reduction schemes namely Employment Assurance Scheme and Jawahar Gram Samridhi Yojana. ***The target fixed for 11<sup>th</sup> Plan is generation of 600 lakh mandays of***

*employment to the rural poor and 100 lakh mandays of employment for the Annual Plan Period 2007-08. Total outlay under this scheme during the 11<sup>th</sup> Plan period is set to Rs. 210 Crore.*

**The scheme provides the following:**

- Additional wage employment in rural areas, and food security along with creation of durable social, economic and community assets and infrastructure development for the benefit of the poor.
- Priority would be given for the protection of traditional water resources, water harvesting, afforestation and creation of infrastructure like link road, primary schools, markets, anganwadis, schools, dispensaries, veterinary hospitals etc. The programme is implemented through 3-tier Panchayats. The distribution of funds among District Panchayat, Block Panchayat and Village Panchayat are as indicated below.

**District Panchayat** – 20% of the funds will be reserved at the District level to be utilized by the District Panchayat preferably in areas suffering from endemic labour exodus, areas of distress as per the Annual Action Plan approved by District Panchayat. The works under the programme will be taken up on the watershed basis. There will be no sectoral earmarking of the resources except that the 22.5% of the annual allocation to the District Panchayat.

**Block Panchayats** – 30% of the funds would be allocated among the Block Panchayats. While allocating the funds, equal weightage will be given to the proportion of SC/ST population and of rural population of the respective Block Panchayat areas to those of the districts. The works will be taken as per their own Annual Action Plan approved by the concerned Block Panchayat. However, while selecting the works for inclusion in the Action Plan, preference will be given to the areas which are backward, calamity prone or face migration of labour.

**Village Panchayat** – 50% of funds would be allocated among the Village Panchayats for generation of supplementary wage employment and creation of demand driven community village infrastructure which includes durable assets to enable the rural poor to increase opportunities of sustained employment. However, it will be ensured that each Village Panchayat receiving less than Rs. 25,000 will get minimum Rs. 25,000 keeping in view, adjusted base level allocation as on 31.03.2002. Thereafter, each year, the allocation to the Village Panchayats will be made in proportion to their previous year allocations. The provision is meant for 25% State Share of the cash component.

***Indira Awas Yojana (IAY) (25% State Share):***

The objective of this scheme is to provide dwelling units to the homeless Scheduled Castes and Scheduled Tribes, freed bonded labourers and other rural poor below poverty line by providing grant at the rate of Rs. 27500 per house. The beneficiaries should have at least two cents of land for house construction. The house constructed under this scheme should have not less than 20 sq. mts. of plinth area, but no plan or design is prescribed.

Of the total allocation for Indira Awas Yojana, 20% is earmarked for upgradation of existing kutcha houses into pucca houses. The houses constructed under various schemes before 12 years and not fit for occupation at present will also be supported under this scheme. The maximum assistance under

upgradation is Rs.12500 as grant under the Scheme. *It is proposed to assist 150000 households during the 11<sup>th</sup> Plan Period and 30000 (construction of new houses) families during the Annual Plan Period 2007-08. Total outlay under this scheme during the 11<sup>th</sup> Plan period is set to be Rs. 130 Crore.*

***National Rural Employment Guarantee Programme (NREGP) (10% State Share):***

The provision is for meeting the state share for implementing the scheme under National Rural Employment Guarantee Act, 2005 and for establishing the State Employment Guarantee Fund. ***Total outlay under this scheme during the 11<sup>th</sup> Plan period is set to Rs. 470 Crore.***

The NREG Act, 2005 enacted by the Parliament is considered as the harbinger of transformative changes and Participatory Democracy in rural India. The Act guarantees 100 days of Employment in a financial year to any rural household whose adult members are willing to do unskilled manual work. The Act has come into force initially in 200 districts, and will be extended gradually to other areas notified by the Central Government. Wayanad and Palakkad Districts of Kerala were selected for implementation initially.

Every person working under the Scheme shall be entitled to get wages at the minimum wage rate for agricultural labourers under the Minimum Wages Act, 1948. Under the Act both male and female workers are eligible for equal pay. In Kerala the minimum agricultural wage rate is Rs. 125 daily and that is made applicable to the unskilled workers under this scheme.

**Salient Features**

- Any adult member of a household whose members are willing to do unskilled manual work can apply for registration to the Grama Panchayath of their household.
- The Grama Panchayath will issue the Job Card to each household who has been registered. Photo of the applicant and photos of adult members who are willing to do unskilled manual labour shall be affixed in the household job card.
- Any job cardholder may give his application to the Panchayath requesting for job indicating the days during which he/she requires job.
- The Grama Panchayath Secretary shall direct the applicants in writing to work in any ongoing work or by starting a new work, within 15 days of receiving applications seeking work or from the date of work being sought in case of advance application, whichever is later.
- If an applicant for employment under the scheme is not provided with employment within 15 days of the receipt of the application seeking employment or from the date on which the employment has been sought in the case of an advance application, whichever is later, he/she shall be entitled for unemployment allowance.

**The Focus of the Scheme will be on following Works in their Order of Priority:**

- Water conservation and water harvesting.

- Drought proofing (including afforestation and tree plantation).
- Irrigation canals, including micro and minor irrigation works.
- Provision of irrigation facility to land owned by households belonging to the Scheduled Castes and Scheduled Tribes or to land of beneficiaries of land reforms or that of the beneficiaries of Indira Awas Yojana programme.
- Renovation of traditional water bodies including desilting of tanks.
- Land development.
- Flood control and protection works, including drainage in waterlogged areas.
- Rural connectivity to provide all weather access. Roads can be taken up as last priority not exceeding 10% value of all types of works taken up.
- Any other work, which may be notified by the Central Government in consultation with the State Government.
- The proposed outlay is for meeting the state share of the scheme.

### ***Kudumbashree:***

The failure of anti-poverty programmes in the past can be attributed to the fixation of target, lack of involvement of beneficiaries, poor understanding of poverty and its causes and manifestations, the top down approach and the over dependency on bureaucracy, Kerala is now seeking to achieve a break in participatory poverty reduction through Kudumbashree, which is implemented by the State Poverty Eradication Mission (SPEM) through the local self governments. Kudumbashree is an innovative poverty eradication programme which is a community based, women oriented, and participatory programme in every respect. The three-tier community based organisation of women such as Neighbourhood Groups at the neighbourhood level, Area Development Societies at the local level and Community Development Societies at the Village Panchayat/ Municipality level under the aegis of the SPEM, act as the community wings of the local self governments. 'Self-Help' is the key to the success of the programme. The SPEM launched this Programme on April 1, 1999 by, as discussed above, organizing the poor by creating community based structures of women below poverty line with focus on self help, demand-led convergence of available services and resources under the leadership of the Local Governments of the State. Subsequently, all urban local governments and Village panchayats have been included under Kudumbashree. ***Total outlay under this scheme during the 11<sup>th</sup> Plan period is set to more than Rs. 453 Crore.*** The key components of the programmes are:

- Enabling certain minimum needs infrastructure, setting up of micro enterprises and capacity building of the poor



- Providing high quality support services for the design and implementation of self employment ventures.
- Setting up of Challenge Fund to support pro-poor policies of the Local Governments, a Technology fund to support transfer of technology relevant for poverty reduction, an innovation fund to support path breaking innovations in poverty reduction and a common revolving fund to provide seed capital for micro enterprises.
- Generating jobs for educated youth.
- Special schools for physically and mentally challenged.
- Hiring young professionals to work in the District missions for one or two years on payment of honorarium.

**Expansion of Asraya:** State Poverty Eradication Mission has formulated a specific project for destitute identification, rehabilitation and monitoring called “Ashraya” with the assistance of the Central Government to reach out the downtrodden and neglected destitute through out the State. The Destitute Identification Rehabilitation and Monitoring Project was launched during 2002-03 in 101 Grama Panchayats and later expanded to all Grama Panchayaths.

**During the 11<sup>th</sup> Plan Period, SPEM concentrates the following activities:**

*Human Resource Development*

- Strengthening of Community Based Organization (CBO)
- Honorarium for Community Development Societies (CDS) Chairpersons
- HRD for Micro Enterprise Development

*Economic Development of the poor*

- Micro Enterprises – clustering and networking
- Rural Business Hubs
- Marketing strategies for Kudumbashree products
- Lease Land / Group Farming – 'Haritharsha'
- Linkage Banking
- Micro Finance Company
- Livelihood Oriented Business School (LOBS)

*Social Development of the poor*

- Destitute from Kerala through package of care services under Asraya
- Gender Resource Centre
- Child Centered Activities
- Geriatric Care.

### ***Swarna Jayanthi Sahari Rozgar Yojana (SJSRY) (25% State Share):***

Swarna Jayanthi Sahari Rozgar Yojana (SJSRY) is a Centrally Sponsored Scheme launched in December 1997. It is shared on 75:25 basis by both Central and State Governments. The objective of this integrated poverty alleviation programme is to provide gainful employment to the urban unemployed and under employed poor by setting up self employment ventures and taking up wage employment in public works. The programme is being implemented by the Urban Local Bodies (ULBs) through Community Based Organization (CBOs) of the poor. SJSRY has three sub components namely Urban Self Employment Programme (USEP), Urban Wage Employment Programme (UWEP) and Community Structure.

Beside these major poverty eradication schemes taken by the Kerala State Government (jointly with the Central government), there are few other programmes as well such as Attappady Environmental Conservation and Wasteland Development Project (11<sup>th</sup> Plan outlay is Rs. 61.33 crore), National Slum Development Programme (NSDP) for providing minimum needs infrastructure and housing in the urban areas, Valmiki Ambedkar Awas Yojana (VAMBAY), Renovation of Food Processing and Nutrition Centre, Balussery (11<sup>th</sup> Plan outlay is Rs. 1 million) etc are to be mentioned. From 2006-07 the NSDP and VAMBAY are combined to form Integrated Housing and Slum Development Programme (IHSDP) with pattern of funding share between the centre and the state being 80:20 (state share is again equally divided between state government and the participatory Urban Local Self Government with 10% each). Kudumbashree is the Nodal Agency of the IHSDP to which the central fund goes directly.

## **Performance Review of the Major Poverty Alleviation Programmes**

The monitorable targets for the Tenth Five Year Plan included quantitative targets for reduction in the incidence of poverty, according to which poverty was targeted to be reduced by 5 percentage points by 2007 and by 15 percentage point by 2012. While there is a consensus that there has been a decline in the incidence of poverty during 1990s, it is difficult to assess the extent of this decline as there has been considerable debate regarding comparability of data due to changes in the methodology adopted by the National Sample Survey Organisation (NSSO) between 1993-94 and 1999-2000. If we consider the method adopted in 1993-94, Kerala's combined (for both rural and urban areas) Head Count Ratio (HCR)<sup>6</sup> falls from 25.43% in 1993-94 to 15% in 2004-05 showing an average reduction of the incidence of poverty by 0.95% per year during the said 11-years period. On the other hand, if we consider the method adopted in the 1999-2000, it falls from 12.72% in 1999-2000 to 11.4% in 2004-05 showing an average reduction of only 0.264% per year during the mentioned 5-years period. In fact, rural poverty has even marginally increased during this time.

However, according to the Planning Commission's estimate, the rural poverty ratio in Kerala went down from 25.8 percent in 1993-94 to a mere 9.4 percent in 1999-2000. But while rural poverty is officially defined in terms of a calorie norm of 2400 per person per day, these poverty percentages do not actually refer to the population falling below this norm on the two dates. They refer to the population below a "poverty line". This "line" corresponded to the level of expenditure at which a person got 2400 calories per day in the base year, and is updated for every subsequent year by using the Consumer Price Index for Agricultural Labourers (CPIAL). There would be no problem with the use of this "poverty line" if it was the case that those on this line on any date were actually accessing at least 2400 calories

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<sup>6</sup> The HCR measures the percentage of population living below the stipulated poverty line.

per person per day.<sup>7</sup> But the amounts of calories accessed in Kerala at the “poverty lines” corresponding to the two dates mentioned above were only 1526 and 1440 respectively. Not only are both these figures way below the 2400 calorie norm, but these figures themselves are different from one another. Thus not only are the absolute levels of poverty estimated on these two dates gross underestimates of poverty as defined officially, but even the trend they reveal is meaningless (since the calorie yardstick itself has changed between these two dates). If we make direct estimates of the proportion of rural population accessing less than 2400 calories per person per day on these two dates, the figures come to 84.0% and 82.5% respectively. Even if we take a lower calorie “norm”, of 2100 calories per person per day,<sup>8</sup> the figures come to 64.0% and 60.0% respectively. And at a still lower “norm” of 1800 calories, the figures are still 40% and 38% respectively. No doubt Kerala has always been, intriguingly (in view of its apparently better anthropometric indicators than other states), a low calorie intake state, which is why these absolute figures are so high. But the notion that Kerala has overcome rural poverty does not stand scrutiny. Therefore, the problem of poverty in Kerala is much more severe than that revealed through the estimated poverty ratio figures published by the Planning Commission of India.

In any case, we could not be able to gauge the direct impact of different poverty alleviation programmes on the incidence of poverty as measured by the HCR. We could, however, measure their impact indirectly, e.g., by measuring the degree of available resource utilization by the state, extent to which physical targets are achieved and so on in respect of such different schemes. We have presented below a broad overview of these measures for different poverty reduction schemes implemented by the state since the 9<sup>th</sup> Five Year Plan.

## **SGSY**

Under this scheme overall degree of utilization of available funds is about 91% from the 9<sup>th</sup> Five Year Plan onwards (up to the November, 2009). The picture is even worse if we consider the 11<sup>th</sup> Plan alone. So, the State Government and other implementing agencies, if any, are responsible for being unable to spend much scarce resources (in a developing economy like us) available to them. Although this extent of utilization is much higher than those utilized in many other Indian states, but that cannot be any excuse. Details of financial performance of the state about the implementation of the SGSY are given below in Table 1.20

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<sup>7</sup> This method is extremely unsatisfactory since the CPIAL, for instance, is a Laspeyre price index with 1973-74 as its base year. When the poverty line updates using this index, the presumption is that the weighted average price increase of this commodity bundle is a measure of the “true” cost-of-living increase of the rural poor. This presumption is entirely unfounded for a number of reasons. First, there has been a significant increase in monetization in the economy. In the transition from kind to cash payments, traders’ margin gets added which the CPIAL cannot possibly reflect. Secondly, the poor who had access to common resources earlier are now excluded from them and have to purchase them from the market which makes the increase in their cost of living much greater than what the CPIAL indicates. Thirdly, greater awareness of health needs, together with shrinking public health-care facilities, enforces larger health expenditures on the people, which again are not reflected in the CPIAL. For all these reasons the official poverty estimates based on the updating of a three decades-old “poverty line” represent gross underestimates.

<sup>8</sup> This is the norm for minimum calorie intake in the urban areas.

We may now provide a look at the targets fixed and achievements in physical terms. These are given below in details. From the Table 1.21 it can be easily observed that the rate of fulfillment of the physical targets set is very poor.

**Table 1.53: Financial Achievement under SGSY Scheme**

Year	Fund Available	Fund Spent	% of Utilization
1997-98	2689.19	2531.96	94.2
1998-99	3093.78	2769.01	89.5
1999-00	4393.57	2506.81	57.1
2000-01	3692.73	3489.56	94.5
2001-02	2160.95	1998.68	92.5
2002-03	2103.3	2062.5	98.1
2003-04	2127.44	2054.13	96.6
2004-05	2514.48	2445.14	97.2
2005-06	2491.03	2420.47	97.2
2006-07	2772.86	2717.76	98.0
2007-08	4112.51	3932.07	95.6
2008-09	5043.83	4721.31	93.6
2009-10*	2781.87	2247.97	80.8

\*:Upto November 2009. Amounts are in Rs. Lakh.

**Table 1.54 : Physical Achievement under Erstwhile Schemes of SGSY during the 9<sup>th</sup> Plan**

Programme	Unit	Physical Achievement				
		1997-98	1998-99	1999-2000	2000-01	Total
1	2	3	4	5	6	7
<b>I. IRDP</b>						
Families/Swarozgar's Assisted	No	44191	39836	24796	37926	146749
SC/ST Assisted	„	15556	13625	7659	11464	48304
Women Assisted	„	22050	18594	11353	20790	72787
<b>II. TRYSEM</b>						
1. Youths Trained	No	3846	2995	--	--	6841
2. SC/ST Assisted	„	1547	1295	--	--	2842
3. Women Assisted	„	2740	1959	--	--	4699
4. Youths Self Employed	„	1068	989	--	--	2057
5. Youths Wage Employed	„	1824	1551	--	--	3375
6. Youths Settled	„	2892	2540	--	--	5432
<b>III. DWCRA</b>						
1. Groups Formed	No	1355	1397	--	--	2752
<b>IV. Million Wells Scheme</b>						
1. Wells constructed	No	3976	4070	--	--	8046

**Table 1.55 : Physical Achievement under SGSY Scheme during the 10<sup>th</sup> and 11<sup>th</sup> Plans**

Plan		S. H. Group Formation (Members Covered)		Individual Swarojgaris (Members Covered)	
		Targeted	Achieved/Anticipated to be Achieved	Targeted	Achieved/Anticipated to be Achieved
10 <sup>th</sup>	Overall	230000	65062		
	SC	35000	43008		
	ST	4000	2592		
11 <sup>th</sup>	Overall	300000			
	SC	Not Fixed			
	ST	Not Fixed			
2007-08	Overall	42000	22955		6764
	SC	Not Fixed	8476		5221
	ST	Not Fixed	1099		474
2008-09	Overall	45000	28448		7474
	SC	Not Fixed	10740		5839
	ST	Not Fixed	984		474
2009-10*	Overall	21000	20605	8873	3475
	SC	11500	7608	4880	2754
	ST	1909	541	806	194

*\*Upto November 2009. Amounts are in numbers.*

## **SGRY**

**Table 1.56 : Financial Achievement under SGRY Scheme**

Year	Fund Available	Fund Spent	% of Utilization
1997-98	11945	8223.19	68.8
1998-99	12739.4	9665.21	75.9
1999-00	10825.5	8391.83	77.5
2000-01	9020.04	6862.73	76.1
2001-02	11157.4	9892.17	88.7
2002-03	11181.5	7781.62	69.6
2003-04	14260.3	10125.1	71.0
2004-05	16897.3	13565.4	80.3
2005-06	16563.9	15532.7	93.8
2006-07	11045.6	10241.7	92.7
2007-08	11835.4	9534.75	80.6
2008-09*	---	0	0.0

*\*:Upto November 2008. Amounts are in Rs. Lakh.*

As observed from the Table 1.23, overall financial performance of the state is even poorer than that in case of SGSY with only 79% of available resources have been spent under the scheme. Now the scheme has been merged with the NREGS in 2008-09. The physical achievement scenario of the scheme is provided below in Tables 1.24 and 1.25.

**Table 1.57 : Physical Achievement under Erstwhile Schemes of SGRY during the 9<sup>th</sup> Plan**

Programme	Unit	Physical Achievement				
		1997-98	1998-99	1999-2000	2000-01	Total
1	2	3	4	5	6	7
<b>I. JGSY</b>						
(a) Employment Generated	LMD	41.82	39.37	37.17	27.93	146.29
(b) Asset Created		4969	4682	3629	2613	15893
1. House Constructed	No	95	46	145	100	386
2. Irrigation Wells	„	11588	8154	8591	5464	33797
3. Sanitary Latrine	„	372	804	400	529	2105
4. Drinking Water Wells	„	9	7	28	34	78
5. School Buildings	„	722.31	672.92	665.28	603	2663.51
6. Road	K.M.	47.24	55.75	42.94	30.49	176.42
<b>II. EAS</b>						
Employment Generated	LMD	47.24	55.75	42.94	30.49	176.42
<i>LMD: Lakh Man Days.</i>						

**Table 1.58 : Physical Achievement under SGRY Scheme during the 10<sup>th</sup> and 11<sup>th</sup> Plan**

Plan		Employment Generated	
		Targeted	Achieved/Anticipated to be Achieved
10 <sup>th</sup>	Overall	400	565
	SC	17	174.04
	ST	1.42	24.04
11 <sup>th</sup>	Overall	600	
	SC	Not Fixed	
	ST	Not Fixed	
2007-08	Overall	110	69.14
	SC	Not Fixed	25.75
	ST	Not Fixed	2.37
<i>Amounts are in LMD.</i>			

Although financial performance of the state (relative to the available fund) is unsatisfactory to some extent, physical performance of the state during the 10<sup>th</sup> plan is over-satisfactory in the sense that the state had even exceeded the targets fixed for it for the entire plan period of the five years. However, the state shows some lack in fulfilling its target for the Annual Plan of the year 2007-08, i.e., for the first year of the 11<sup>th</sup> Plan.

**IAY****Table 1.59 : Financial Achievement under IAY Scheme**

Year	Fund Available	Fund Spent	% of Utilization
1997-98	2965.83	2975.18	100.3
1998-99	4081.49	3632.01	89.0
1999-00	4506.49	3990.7	88.6
2000-01	3807.05	3525.02	92.6
2001-02	4994.88	4618.14	92.5
2002-03	4940.7	4517.34	91.4
2003-04	6245.27	5767.77	92.4
2004-05	8212.78	7839.16	95.5
2005-06	7765.82	7150.22	92.1
2006-07	7865.32	7062.58	89.8
2007-08	10899.1	10186.8	93.5
2008-09	21610.54	15190.55	70.0
2009-10*	17473.18	10647.52	61.0
<i>*:Upto November 2009. Amounts are in Rs. Lakh.</i>			

In case of this scheme also the state became able to utilize 88.4% of total available fund (shown in Table 7) and thus showed some lack in implementing the scheme at least financially. The state is performing even much poorer if we consider only the first three years of the 11<sup>th</sup> Plan period. The physical achievement of the state is shown in the table below. Like the earlier two schemes since we do not get any data on the target to be achieved during the 9<sup>th</sup> Plan we are unable to assess the extent of achievement. However, Table 9 shows that the state's performance during the 10<sup>th</sup> Plan is satisfactory while during the first two years and eight months of the third financial year of the current 11<sup>th</sup> Plan is to some extent below the satisfying levels.

**Table 1.60 : Physical Achievement under IAY during the 9<sup>th</sup> Plan**

Programme	Unit	Physical Achievement				
		1997-98	1998-99	1999-2000	2000-01	Total
1	2	3	4	5	6	7
<b>I. IAY (House Completed)</b>						
(a) Total	No.	12834	9452	20729	19092	62107
(b) for SC/ST	No.	8048	5888	11906	10729	36571
<b>II. IAY (House under Construction)</b>						
(a) Total	No.	11917	19050	16365	26689	74021

**Table 1.61: Physical Achievement under IAY Scheme since the 10<sup>th</sup> Five Year Plan**

Plan		New House Construction		House Upgradation	
		Targeted	Achieved/Anticipated to be Achieved	Targeted	Achieved/Anticipated to be Achieved
10 <sup>th</sup>	Overall	101000	128958	55500	52264
	SC	50000	65280	---	30525
	ST	3450	7043	---	2932
11 <sup>th</sup>	Overall	150000		60000	
	SC	Not Fixed		Not Fixed	
	ST	Not Fixed		Not Fixed	
2007-08	Overall	30000	26842	12000	9600
	SC	Not Fixed	14429	Not Fixed	5265
	ST	Not Fixed	1311	Not Fixed	496
2008-09	Overall	45000	35492	---	15013
	SC	Not Fixed	19209	Not Fixed	8145
	ST	Not Fixed	1963	Not Fixed	485
2009-10*	Overall	35805	17768	6713	5089
	SC	17901	8370	3356	2925
	ST	3582	1025	672	133

\*: Up to November, 2009. Amounts are in Numbers.

## **NREGP**

The programme was initially launched in two selected districts of the state namely Palakkad and Wayanad in the 1<sup>st</sup> phase. In the 2<sup>nd</sup> phase it was extended to two more districts which are Idukki and Kasaragod and in the 3<sup>rd</sup> and final phase it has been extended to the rest ten districts of the state. As the wages are paid into Bank accounts the habit of thrift, which was already inculcated through the Kudumbashree experiment, has further been strengthened and as the bank deposits are increasing, the intra-household status of the woman has also been improving commensurately as she controls substantial cash resources and withdrawal can be possible once she decides only. However, the unsatisfactory scenario will be observed if we provide a look into the financial performance of the state regarding the implementation of the programme. Till June, 2009 a total amount of Rs. 619.8 crore was available to the state of which only Rs. 344.8 crore has been spent by it showing merely 56% utilization of total available financial resources. So, the state has substantial room to improve the overall condition of the incidence of rural poverty in the state through successful implementation of the programme.

Kerala has some constraints compared with other States in India. The main constraints are

- NREGS works are to be carried out in public land (exception is land development, irrigation and horticulture works in the land of SC,ST, IAY beneficiaries, land reforms beneficiaries, and MF and SF), which is scarce in Kerala.
- The types of works that can be taken up in coastal areas are limited
- Limitation in taking up NREGS works in plantation areas
- Difficulty in devising a procurement system which is transparent and corruption-free. Therefore Kerala has been slow in taking up works involving material component.
- ST participation is comparatively low.



As far as the NREGS works are concerned there is a clearcut policy focus on natural resource management and corruption-free implementation. The administrative measures introduced to operationalise the policy especially the involvement of the Kudumbasree network have resulted in laying a strong foundation and opened up space for pro-poor innovations. This year the focus is on (a) providing maximum days of employment (b) formation of Labour Banks of workers (c) forging inter-sectoral convergence, particularly linking NREGS with forestry, water resources and agriculture (d) taking up large works like rejuvenation of major rivers (e) developing an anti poverty sub plan with NREGS (f) natural resource management.

**Table1.62: Financial Achievement under the (Mahatma Gandhi) NREGP**

Year	Fund Available	Fund Spent	% of Utilization
2007-08	9900.68	8333.83	84
2008-09	29827.50	22440.92	75
2009-10*	22246.55	3706.52	17
<i>*: Up to June, 2009. Amounts are in INR Lakhs.</i>			

**Table1.63: Physical Achievement under the (Mahatma Gandhi) NREGP (for ST Families)**

Year	Job Cards Issued (Cumulative No.)	Households Demand for Employment (No.)	Households Provided Employment (No.)	Mandays Generated (Lakhs)
2007-08	478980	188373	182029	60.45
2008-09	1898263	698680	692015	153.74
2009-10*	1985406	244787	241293	25.04
<i>*: Up to June, 2009.</i>				

**Table1.64: Average Mandays Generated under the (Mahatma Gandhi) NREGP**

Year	Mandays Generated	Wages per Manday	Amount Received as Wages
2007-08	33	125	4125
2008-09	22	125	2750
2009-10*	11	125	1375
<i>*: Up to June, 2009. Amounts are in INR Lakhs.</i>			

It can be seen that an amount of Rs.83.33crores was expended during 2007-08 and Rs.22440.92 during 2008-09. The mandays generated during this period are 60.45lakhs and 153.74 lakhs respectively. The average mandays generated up to June 2009 was 25.04 only. There is a wide difference in number of households who demand for employment and number of households to whom employment provided. That means there is gap in demand and supply management of employment under NREGS of Kerala. It is also seen that the households who gets job cards and demanded for works doesnot get employment opportunities.

Even though total amount received by the state and average number of days of employment provided to those who reported for work are less compared to other states, Kerala has been praised by the central government for corruption free implementation, involving the LSGIs in a big way, giving women a lot of responsibilities in running the scheme and paying wages to all the workers through their bank account.

In many panchayats in Wayanad and Palakkad districts average expenditure as wages is over Rs. 2 crores. There is a visible impact in these duties because of the scheme by way of wages drawn by the worker and improvement in the social aspects. In order to improve the overall performance of NREGS, the authorities/implementary agencies shall take the following of measures.

1. There are certain limitation to provide guaranteed employment to STs in general and those STs who are living in the forest area in particular. In order to bring them in the main stream and provide guaranteed employment for the overall development, the authorities shall make necessary steps to register them and find out opportunities to provide guaranteed employment under the coverage of this scheme.
2. Another important issue under discussion is that of the people depending on the traditional sectors jobs like Fisheries, Cashew, Coir etc. It is the fact that the existing wage to these traditional workers is for less than the existing wage pack in Kerala as a whole in other sectors. It is very important to note that these traditional workers are getting minimum wages even less than that of the wage provided under NREGS. Therefore these employees/workers who are working under these sectors may brought under guaranteed schemes, providing minimum wages under the scheme.

## **Kudumbashree**

The Kudumbasree experiment involving poor women organized in self-help groups has not only been a remarkable success, but has also brought to the fore the enormous managerial and entrepreneurial talent that remains untapped. The Kudumbashree programme covered the entire rural area in the state through 194000 Neighborhood Groups (NHGs). Beside those, at present it has over 17000 Area Development Societies (ADSs) and 1061 Community Development Societies (CDSs). Community Based Organizations (CBOs) has mobilized a sum of Rs. 940.1 crore as thrift fund and disbursed credit to the tune of Rs. 2503.9 crore to its members. Some other achievements through Kudumbashree programme are as follows.

The Linkage Banking Programme was launched during 2002-03 after proper grading of the NHGs as per NABARD norms. During 2002-03 and up to November 2008 total 83608 NHGs were linked with banks. A sum of Rs.589.19 crore has been made available to the NHGs as loan. The Lease Land Farming programme, initiated in the rural areas during the year 2002-03, has been successfully extended to 855 Grama Panchayats. Through this programme 111663.8 acres of land have been brought under cultivation. Bala Sabha is a programme to organize the children of the poor families of the state as part of its approach to community development. The larger goal is recognizing and protecting child rights. Bala Panchyats have been formed in 981 Grama panchayat with the support of UNICEF to support the children who hail from poor socio economic background. During 2004-05 Bala Sabha, which intends to prevent intergenerational transmission of poverty, has been extended to the rural area also. The total number of Bala sabhas formed is 44991with 788189 children as members. The State budget provides support to set up micro enterprises of women as well. It has been set up in the pattern of

the SGSY. So far 4013 groups of micro enterprises of women have been set up in the rural areas as on 31.10.2008.

### **Kudumbashree – The Journey so far**

The significant achievements of Kudumbashree so far are listed below:

- Kudumbashree Programme has been extended through out the State.
- Thrift Fund collection crossed Rs. 940.0550386 crores
- Internal lending to the tune of Rs.2503.9394539 crores
- Under Linkage Banking scheme, 83608 NHGs linked with banks.
- Credit flow Rs. 58918.95 lakh through linkage banking.
- Formed 44991 Balasabhas with 7,88,189 children
- Cluster Development Programme with the support of Industries Department.
- Multi purpose job clubs formed with the financial support of SC Development Department.
- Loan linked Micro Housing scheme launched with the support of Banks.

Under the Programme percentage utilization of the total budgetary allocation of the two financial years 2007-08 and 2008-09 were 97.1% and 100% respectively out of total allocations INR 257.7 million and INR 300 million respectively. Physical achievement of the different schemes of the Kudumbashree programme is given below.

**Table 1.65: Physical Achievement under Kudumbashree Programme since the 10<sup>th</sup> Five Year Plan**

<b>Plan</b>	<b>Unit</b>	<b>Scheme</b>	<b>Targeted</b>	<b>Achieved/Anticipated to be Achieved</b>
10 <sup>th</sup>	Number (No.)	NHG	180000	162000
	No. of Families	Thrift	1500000	1400000
	No. of Families	Internal Lending	1500000	1400000
	No. of NHGs Linked	Linkage Banking	80000	81000
	No. of Units	Bala Sabha	35000	36000
	No. of Houses	Bhawanshree	35000	36000
	Land in Acre	Leased Land	50000	78000
	No. of Units	Group Enterprises	2500	2500
	No. of Units	Individual Enterprises	1000	1000
	No. of Units	Yuvashree-Group	1000	1000
	No. of Units	Yuvashree-Individual	1000	1000
No. of Panchayaths	Ashraya	750	750	
11 <sup>th</sup>	Number (No.)	NHG	---	
	No. of Families	Thrift	250000	
	No. of Families	Internal Lending	250000	
	No. of NHGs Linked	Linkage Banking	75000	
	No. of Units	Bala Sabha	25000	
	No. of Houses	Bhawanshree	25000	
	Land in Acre	Lease Land	50000	
	No. of Units	Group Enterprises	10000	
	No. of Units	Individual Enterprises	1000	
	No. of Units	Yuvashree-Group	2000	
	No. of Units	Yuvashree-Individual	1000	
No. of Panchayaths	Ashraya	300		

**Table 1.65 (Continued): Physical Achievement under Kudumbashree Programme since the 10<sup>th</sup> Five Year Plan**

Plan	Unit	Scheme	Targeted	Achieved/Anticipated to be Achieved
2007-08	Number (No.)	NHG	---	169168
	No. of Families	Thrift	50000	50000
	No. of Families	Internal Lending	50000	50000
	No. of NHGs Linked	Linkage Banking	10000	10000
	No. of Units	Bala Sabha	1000	1000
	No. of Houses	Bhawanshree	5000	9199
	Land in Acre	Lease Land	20000	8113
	No. of Units	Group Enterprises	500	500
	No. of Units	Individual Enterprises	500	500
	No. of Units	Yuvashree-Group	50	31
	No. of Units	Yuvashree-Individual	100	59
	No. of Panchayaths	Ashraya	100	97
2008-09	Number (No.)	NHG	---	175495
	No. of Families	Thrift	50000	
	No. of Families	Internal Lending	50000	
	No. of NHGs Linked	Linkage Banking	10000	
	No. of Units	Bala Sabha	2000	
	No. of Houses	Bhawanshree	5000	2373
	Land in Acre	Lease Land	10000	
	No. of Units	Group Enterprises	1000	
	No. of Units	Individual Enterprises	500	
	No. of Units	Yuvashree-Group	50	10
	No. of Units	Yuvashree-Individual	100	15
	No. of Panchayaths	Ashraya	200	200
2009-10	Number (No.)	NHG		
	No. of Families	Thrift		
	No. of Families	Internal Lending		
	No. of NHGs Linked	Linkage Banking		
	No. of Units	Bala Sabha		
	No. of Houses	Bhawanshree		
	Land in Acre	Lease Land		
	No. of Units	Group Enterprises		
	No. of Units	Individual Enterprises		
	No. of Units	Yuvashree-Group		
	No. of Units	Yuvashree-Individual		
	No. of Panchayaths	Ashraya		

Therefore, the above table is clearly an indicator of good performance of the state in respect of the achievement relative to the targets set for different schemes under the SPEM known as Kudumbashree.

## **SJSRY**

In the Table 1.34 below we have shown the financial performance of the state regarding the programme which shows that the state become able to utilize only 63.1% of the resources available to it. Utilization of available resources is even less than 50% if we consider the 11<sup>th</sup> Plan period only upto October, 2009. So, urban poverty could be reduced further if the state could utilize the available resources under this scheme to as much as possible. In the Table 1.35 below we show some features regarding the physical achievement of the state under the scheme. Analyzing the information given in this table we can say that the state runs much behind in fulfilling its target, in light of its anticipated achievement for the Annual Plan 2007-08 relative to the targets set for it. For the other periods we have no option to compare the state's performance since no such target was fixed for the Tenth Five Year Plan.

**Table 1.66: Financial Performance under SJSRY since the 9<sup>th</sup> Five Year Plan**

<b>Year</b>	<b>Fund Released</b>	<b>Fund Available (including Previous Year Balance)</b>	<b>Expenditure</b>	<b>Expenditure %</b>
<b>Earlier Unspent balance</b>	846.82			
1997-98	270.652	1117.47	1070.932	95.84
1998-99	502.79	549.33	549.33	100
1999-00	597.757	597.76	472.736	79.09
2000-01	386.32	511.34	459.36	89.93
2001-02	354.973	406.95	239.122	58.75
2002-03	451.99	619.82	453.04	73.09
2003-04	1010.5	1177.28	452.06	38.4
2004-05	729.95	867.7	480.48	55.37
2005-06	908.35	1295.67	792.024	61.12
2006-07	852.293	1355.94	951.59	70.18
2007-08	839.66	1244.01	742.03	59.65
2008-09	1317.91	1819.89	1159.76	63.73
2009-10*	474.07	1134.2	189.62	16.72
<i>Amount in Rs. Lakh; * Up to October, 2009.</i>				

**Table 1.67: Physical Achievement under SJSRY Programme since the 10<sup>th</sup> Five Year Plan**

<b>Plan</b>	<b>Unit</b>	<b>Scheme</b>	<b>Targeted</b>	<b>Achieved/Anticipated to be Achieved</b>
10 <sup>th</sup>	No. of Town	SJSRY – Overall	58	58
	No.	Indiv. Self-Empl. Enter.	---	6405
	No.	Group Self-Empl. Enter.	---	875
	LMD	Mandays Generated	---	1.27
	No.	Persons Trained	---	14300
11 <sup>th</sup>	No. of Town	SJSRY – Overall	---	
	No.	Indiv. Self-Empl. Enter.	15000	
	No.	Group Self-Empl. Enter.	1000	
	LMD	Mandays Generated	---	
	No.	Persons Trained	---	

**Table 1.67 (Continued): Physical Achievement under SJSRY Programme since the 10<sup>th</sup> Five Year Plan**

<b>Plan</b>	<b>Unit</b>	<b>Scheme</b>	<b>Targeted</b>	<b>Achieved/Anticipated to be Achieved</b>
2007-08	No. of Town	SJSRY – Overall	---	---
	No.	Indiv. Self-Empl. Enter.	3000	932
	No.	Group Self-Empl. Enter.	200	64
	LMD	Mandays Generated	---	0.13
	No.	Persons Trained	---	1651
2008-09	No. of Town	SJSRY – Overall	---	--
	No.	Indiv. Self-Empl. Enter.	3000	2079
	No.	Group Self-Empl. Enter.	200	357
	LMD	Mandays Generated	---	--
	No.	Persons Trained	---	5344

*Note: We have taken information from the Kerala Planning Board website and the various issues of Kerala Economic Review to prepare this portion of the report.*

## **Education**

### **Introduction**

This chapter reviews the progress achieved in Education during the XI Plan period. The review covers Elementary Education, Secondary Education, General Higher Education and Technical Education. The trend analysis is the approach adopted in this paper. The achievement during the first half of the XI Plan period is critically viewed in the background of the achievement during the previous three Plan periods. The investment in Education by the state government over four Plan periods is analysed. Progress in terms of educational achievement is reviewed in the social context.

### **1. Expenditure on Education in Kerala**

The discussion here is centred around analysis of the Plan and non-Plan Budgetary Expenditure on General Education in Kerala from 1993-94 to 2009-10. During the period of 17 years, the expenditure on General Education has increased by more than five times. Expenditure on General Education is around Rs. 1077 crores (actual spending) in 1993-94 and Rs. 5865 crores in 2009-10 (budget estimate). There is no steady progress in the government expenditure on General Education. If there is increase in one year, there will be decrease next year. The average annual growth in the total expenditure on General Education is around 10 percent during VIII Plan, IX Plan, and X Plan periods. On the other hand, the average annual growth in the total expenditure on General Education in the first half of XI Plan period is 16 percent. Compared to the earlier Plan periods, the growth rate in the first half of XI Plan period is very high.

The Plan component of the total expenditure on Education is very small throughout the 17 year period. It never rises above a 5 percent mark. The trend indicates that the percentage of Plan expenditure is between 3 to 4 percent during the IX Plan period. It declines to about 2 to 3 per cent during the X Plan period and during the first two years of XI Plan. Only in the budget estimate for the year 2009-10, Plan expenditure reaches the highest level of 4.64 percent. This is only budget estimate. One is not sure about the extent of difference between the actual spending and the estimate. Like the trend in the total expenditure on Education, there is no steady growth in the Plan expenditure. The average annual growth rate is very high (36.8 percent) during the VIII Plan period. The growth rate decreases to about 4.5 percent during the IX and X Plan periods. The growth rate of 35 percent in the first half of XI Plan period is comparatively much higher than that during the previous two Plan periods.

The growth rate in the non-Plan component of the total expenditure on Education is not only huge in size, it has been growing around 10 percent during the previous three Plan periods. It rises highly to 15 percent in the first half of XI Plan period. It is to be noted that this growth rate is much smaller than the growth rate in the Plan component of the total expenditure on Education. In other words, during the four Plan periods, the non-Plan component has increased much higher than the Plan component.

### **Relative spending on different components of General Education**

About 99 percent of the budget on General Education is spent on Elementary, Secondary and General Higher Education. The remaining amount is spent on other programmes such as language development, adult education and other institutional development.

Government spending on Elementary Education has been around 50 percent of the total budget on General Education during the VIII Plan and IX Plan periods. It declines from the last year of the IX Plan. It gradually declines to 39.60 percent in the 2009-10. On the other hand, government spending on Secondary Education has been rising gradually from 31 percent of the total budget on General Education in year 1993-94 to 45 percent in the year 2009-10. Government spending on Higher Education is around 19 percent of the total budget on General Education in 1993-94; it declines to 14 percent in 1999-2000; it rises to 21 percent in 2001-02 and declines to 14 percent in 2009-10. In short, the share of Elementary Education and Higher Education in the total budget on General Education has declined very much during the XI Plan period as compared to previous years. The share of secondary Education has risen up.

The expenditure on Elementary Education has grown at the rate of 11.9 percent, 6.7 percent and 9 percent during the VIII Plan, IX Plan and X Plan periods respectively. It has grown at the rate of 11.8 percent in the first half of XI Plan period. Thus there is recovery in the growth rate of expenditure on Elementary Education during the XI Plan period.

The expenditure on Secondary Education has grown at the rate much higher than that of Elementary Education in all the four Plan periods. The growth rate has been 13 percent, 8.5 percent, 12.7 percent and 20.5 percent during the VIII Plan, IX Plan, X Plan and XI Plan periods respectively. The growth rate of 20.5 percent in the first half of XI Plan period is much higher than that of Elementary Education, Secondary Education and higher Education in all plan periods. Thus government's investment in Elementary Education has gradually declined to zero.

The expenditure on Higher Education has grown at the rate of 6.5 percent and 13.2 percent during the VIII Plan and IX Plan periods respectively. The growth rate has declined to a very small rate of 2 percent during the X Plan period. It has grown at the rate of 15.1 percent in the first half of XI Plan period. Thus there is recovery in the growth rate of expenditure on Higher Education during the XI Plan period. To sum up, the major share of the growth in the Expenditure on Education in the XI Plan period has gone to Secondary and Higher Education components. Elementary Education remains neglected.

The Plan expenditure component is very small during the period, 1993-94 to 2009-10. It is less than 5 per cent of the total expenditure on General Education. Of this, very small portion is allocated for Elementary Education, while larger share is allocated for Secondary and Higher Education. Over the years, there has not been much change in the proportion of expenditure allocated for Elementary, Secondary and Higher Education.

In terms of growth rates, there has been a decline in the annual growth rate of Plan expenditure on Elementary Education. On the other hand, the growth rate of Plan expenditure on Secondary and Higher



Education have recorded a significant improvement in the XI Plan. For instance, the growth rate of Plan expenditure on Secondary Education in the XI Plan (67 percent) is almost double the growth rate (40 percent) in the VIII Plan. In the case of Higher Education, the growth rate in the VIII Plan and XI Plan, are almost the same (23 percent).

In the case of non-Plan expenditure on General Education (about 95 percent), the major share had been given to Elementary Education during the VIII and IX Plans. This has changed in favour of Secondary Education during the XI Plan period. The share of Secondary Education in the total non Plan expenditure is about 31 percent during 1993-94. It rises to about 44 percent during 2009-10. This is slightly higher than that for Elementary Education. The share of Higher Education in the overall non-Plan spending on General Education has also undergone some change. It has declined from 19 percent during 1993-94 to 14 percent during 2009-10.

In terms of growth rates, non-Plan expenditure on Elementary Education has grown slightly higher during the XI Plan period (11.8 percent) as compared to the earlier Plans. The non-Plan expenditure on Secondary Education has registered a significant increase in the XI Plan period (18.8 percent) compared to 12 percent, 8 percent and 14 percent in VIII Plan, IX Plan and X Plan respectively. Similarly, the non-Plan expenditure of Higher Education has also risen up in the XI Plan period (14.5 percent) compared to 5.6 percent, 14 percent and 1.3 percent in the VIII Plan, IX Plan and X Plan.

### **Elementary Education**

The percentage of Plan expenditure on Elementary Education is very meager. It is less than one percent and remains the same throughout the 17 year period. So the state has only been maintaining the Elementary Education system in the state without much new investment. Further, the Plan expenditure is mainly incurred on Teacher training programmes only. For instance, the expenditure incurred on Teacher Training programmes during the year 1993-94 is around 98.5 percent. This rises to cent percent during the year 2009-10. The government's Plan expenditure on government schools is highest during the DPEP period (89.9 percent during 1995-96) and declines to zero during the SSA period.

The major portion of non-Plan expenditure on Elementary Education is spent on salaries of teachers in government and private aided schools. The expenditure on Private aided schools is higher than the government schools by 10 to 15 percentage points. The expenditure on Private aided schools increased and the expenditure on the government schools has decreased during the four Plan periods. The expenditure on Private aided schools increased from 55 percent in 1993-94 to 57 percent in 2009-10. The expenditure on the government schools has decreased from 38 percent to 34 percent in 2009-10.

### **Secondary Education**

The Plan expenditure on Secondary Education is somewhat higher than that of the Elementary Education. The Plan expenditure component varies over the years. It is about 2 percent during 1993-96. It rises to 7 percent in 2001-02 and then declines to 0.5 in 2003-04 and rises gradually to 6.5 percent in 2009-10. The major portion of this is spent on salaries of government school teachers and other expenditures. The major portion of non-Plan expenditure is spent on salaries of government school teachers and Private school teachers. Over the years, the non-plan expenditure has increased in the case of Private schools and slightly decreased in the case of government schools. The non-Plan expenditure on Private schools increases from 52 percent in 1993-94 to 57 percent in 2009-10. On the contrary, the non-Plan expenditure on government schools increases from 35 percent in 1993-04 to 37 percent in 2009-10

### **Higher Education**

Around 75 percent of the Plan Expenditure is incurred on universities during the VIII Plan, IX Plan and X Plan periods. It declines to about 60 percent in the first two years of XI Plan and further to 50 percent in 2009-10. Similarly, the Plan expenditure on government colleges is around 8 percent in 1993-94 and decreases to 4 percent in 2009-10. On the whole government's expenditure on governmental higher educational institutions has declined during the XI Plan period. More emphasis is given to student scholarships. In the non-Plan expenditure on Higher Education, private colleges draw the major share. It is about 72 percent in 1993-94. It declines to 64 percent in 2009-10. The universities and government colleges together receive about 29 percent in 1993-94. This percentage rises to 34 percent in 2009-10.

### **Technical Education**

Unlike other categories of Education, relatively larger share of the total budget on Technical Education is allocated for Plan expenditure. However, the percentage of allocation for Plan expenditure is on the decline. The Plan allocation is about 26 percent in 1993-94. It declines to about 10 percent in 2007-08 and rises to 18 percent in 2009-10. The growth rate of Plan expenditure has also declined very much in the XI Plan period.

Total expenditure on Polytechnic and Engineering institutions has stepped up, while the expenditure on universities and Private colleges has declined in the XI Plan period as compared to the earlier Plan periods. This is because the non-Plan component of expenditure has enlarged in the recent years. Actually governmental Plan expenditure on Polytechnic education has come down very drastically. Similarly, the Plan expenditure on Engineering Institutions has also declined in the XI Plan period. The Plan expenditure on Technical schools remains quite insignificant. On the other hand, the Plan investment in Universities has doubled. It is about 9 percent in 1993-94. It rises to 18 percent in 2009-10. This is the indication that the government's concentration is more on the Technical Higher Education to the neglect of intermediate level of Technical Education in the XI Plan period. It is also evident that government prefers to investment in universities rather than Private colleges. Besides, 24

percent of the total Plan expenditure is allotted for scholarships in 2009-10. This is a good thing. Unfortunately, there is not much allocation for research.

## **2.Literacy Rates**

Kerala has highest literacy rate in the country. The literacy rate in 2001 has increased by 2.5 percentage points to 85 percent. The literacy rate is higher than 90 percent in districts such as Thiruvananthapuram, Pathananthitta, Alappuzha, Kottayam, Idukki, Thrissur, Palakkad and Wayanad. The literacy rate is higher for males and lower for females in all districts. The gender gap in literacy rate is as high as 11 percentage points in the year 2001. The gender gap in literacy rate is as high as 12.5 percentage points in the year 1991. In other words, the gender gap in literacy rate at the state level has decreased in 2001.

Further the literacy rate has increased in recent years. About 1.17 lakh people have moved to literate population. More females than males have moved to literacy group in 2006-07. Males are about 50.4 thousands and females are about 66.5 thousands. But still Kerala has about 3.53 lakh illiterate people in 2006-07. Of them, males are about 1.30 lakh and females are about 2.23 lakhs. In other words, 63 per cent of the illiterate population in Kerala is females in 2006-07.

### **Growth of schools**

Because of the falling enrolment in schools in Kerala, total number of schools in Kerala has not increased very much during the XI Plan period. Total number of schools has increased from 12,134 in 1990-91 to 12,647 in 2007-08. This increase is mainly contributed by increase in the number of private unaided schools during this period. The percentage of government schools declined from 37 percent in 1990-91 to 35.57 percent in 2007-08. The percentage of aided private schools has declined from 60.42 percent in 1990-91 to 57.59 in 2007-08. On the other hand, the number of private unaided schools increased from 2.61 percent in 1990-91 to 6.83 percent in 2007-08.

The male-female teacher proportion in schools is changing more in favour of female teachers. For instance, in Thiruvananthapuram district, female teachers who comprised of 47 percent in government schools in 1965-66, are 75 percent in 2007-08; female teachers in aided private schools were 45 percent in 1965-66 and are 76 percent in 2007-08. In Ernakulam district, the composition of female teachers in unaided schools is 43 percent in 1965-66 and 90 percent in 2007-08.

### **Enrolment in schools**

In general, the enrolment of students in various standards in schools is on the declining trend. The rate of decline is relatively very high in the primary stage. The rate of decline in Standard I is very significant. Further, the rate of decline is slightly higher for boys and lower for girls. For instance, the enrolment of boys in the standard I in 2008-09 is 61 percent of enrolment of boys in 1990-91. The total enrolment of boys in all standards from I to X in 2008-09 is 77 percent of total enrolment of boys in all standards in

1990-91. The enrolment of girls in standard I in 2008-09 is 63 percent of enrolment of girls in 1990-91. The total enrolment of girls in all standards from I to X in 2008-09 is 78 percent of the enrolment of girls in all standards in 1990-91.

Among the social groups, the scheduled caste (SC) population is more affected by this falling trend in enrolment. The enrolment of SC boys in standard I in 2008-09 is 60 percent of enrolment of SC boys in 1990-91. The total enrolment of SC boys in all standards from I to X in 2008-09 is 75 percent of enrolment of SC boys in 1990-91. The enrolment of SC girls in standard I in 2008-09 is 59 percent of the enrolment of SC girls in 1990-91. The total enrolment of SC girls in all standards from I to X in 2008-09 is 74 percent of enrolment of SC girls in 1990-91.

The case of scheduled tribe (ST) population is very much different from that of other social groups. The enrolment trend is declining but slowly. The falling trend is observed only in the Lower Primary stage. The enrolment at the Upper Primary and Lower Secondary stage rises. The rate of decline in standard I is higher for boys than girls. For example, the enrolment of ST boys in standard I in 2008-09 is 83 percent of enrolment of ST boys in 1990-91. On the other hand, the total enrolment of SC boys in all standards from I to X in 2008-09 is 111 percent of enrolment of ST boys in all standards in 1990-91. The enrolment of ST girls in standard I in 2008-09 is 87 percent of enrolment of ST girls in 1990-91. The total enrolment of SC girls in all standards from I to X in 2008-09 is 114 percent of enrolment of ST girls in 1990-91.

## **2. Educational wastage**

### **Completion rates**

Over the years, wastage has come down. Percentage of students successfully completing nine years of schooling and enter into standard X has improved very much in recent years. It is also noted that students in aided private schools do better than those in government schools. For instance, 59 percent of students completed nine years of education and entered into standard X in aided private schools in the year 1982. This percentage has increased to 85 percent, 90 percent and 93 percent in 2002, 2003 and 2004 respectively. In the case of government schools, 47 percent of the students completed nine years of education and entered into standard X in the year 1982. This percentage has increased to 76 percent, 81 percent and 80 percent in 2002, 2003 and 2004 respectively. In short, wastage in Private aided schools has been and is lower than the wastage in government schools in the state.

The performance of girls is better than boys in terms of educational attainment. For instance, the percentage of girls completing nine years of schooling and enter into Standard X has been and is higher than that of boys over the years. The percentage of boys who completed nine years of schooling and entered into Standard X has been 70 percent in 1999-2000, 81 percent in 2002-03 and 85 percent in 2003-04. On the other hand, the percentage of girls who completed nine years of schooling and entered into Standard X has been 81 percent in 1999-2000, 90 percent in 2002-03 and 93 percent in 2003-04. The figures are very much higher for girls than boys in many years.

There is significant improvement in the performance of boys and girls belonging to weak social groups in recent years as compared to earlier years. Moreover, girls do much better than boys among the

scheduled castes (SC) and scheduled tribes (ST) in terms of successful completion of school education. In the case of scheduled caste (SC) boys, the percentage of boys completed nine years of education and entered into standard X is 58 percent in 1999-2000, 72 percent in 2002-03 and 74 percent in 2003-04. On the other hand, the percentage of SC girls who completed nine years of education and entered into standard X is 71 percent in 1999-2000, 82 percent in 2002-03 and 84 percent in 2003-04.

In the case of scheduled tribes (ST), the percentage of ST boys who completed nine years of education and entered into standard X is 29 percent in 1999-2000, 42 percent in 2002-03 and 40 percent in 2003-04. On the other hand, the percentage of ST girls who completed nine years of education and entered into standard X is 39 percent in 1999-2000, 51 percent in 2002-03 and 50 percent in 2003-04.

It is also noted that the performance of boys and girls belonging to weak social groups are poorer than their counterparts in the general population in terms of educational attainment. The performance of ST boys and girls is much more poor than the performance of SCs and others.

### **3. The dropout rates**

The number of students discontinuing school education has come down over the years. In recent years the dropout rates are very small in all standards and are ignorable. The district wise figures given in tables 23 and 24 show that the dropout rates are less than one in all standards except Standard VIII during 2005-06. The dropout rates are more than one in Standard VIII in the case of many districts. The dropout rates in Standard VIII are very high comparatively in Kannur and Kasercode districts. The dropout rates are more than one in most of the standards in the case of Wayanad and Kasercode districts. Further the dropout rates are slightly higher for boys than girls in almost all standards.

During 2006-07, the dropout rates have decreased in many standards for girls and boys in many districts. But in Wayanad, the dropout rates have increased slightly for boys and girls in all standards. Further, the dropout rates have increased in standard VIII in many districts. The dropout rate for boys in Standard VIII is very high.

### **Conclusion**

There is no steady progress in the government expenditure on General Education. If there is increase in one year, there will be decrease next year. The average annual growth in the total expenditure on General Education has increased very highly in XI Plan. The Plan component of the total expenditure on Education is very small. It never rises above a 5 percent mark. The expenditure on Secondary Education has grown at the rate much higher than that of Elementary Education. The major share of the growth in the Expenditure on Education in the XI Plan period has gone to Secondary and Higher Education components. Government's investment in Elementary Education has gradually declined to zero. Elementary Education remains neglected. Unlike other categories of Education, relatively larger share of the total budget on Technical Education is allocated for Plan expenditure. However, the percentage of allocation for Plan expenditure is on the decline.

Total expenditure on Polytechnic and Engineering institutions has stepped up, while the expenditure on universities and Private colleges has declined in the XI Plan period as compared to the earlier Plan periods. This is because the non-Plan component of expenditure has enlarged in the recent years. Actually governmental Plan expenditure on Polytechnic education has come down very drastically. Similarly, the Plan expenditure on Engineering Institutions has also declined in the XI Plan period. The government's concentration is more on the Technical Higher Education to the neglect of intermediate level of Technical Education in the XI Plan period. It is also evident that government prefers to investment in universities rather than Private colleges.

The state has been falling behind in the utilization of resources under *Sarva Shiksha Abhiyan*. It is now moving towards maximum utilization of resources under *Sarva Shiksha Abhiyan*. The percentage of unaided private schools in the state is on the rise. More than two-third of teachers are females. The enrolment in schools is on the decline. However, percentage of students who complete school education is on the rise.

Table 2.1  
Budgetary Expenditure on General Education in Kerala from 1993-94 to 2009-10 (Rupees in lakhs)

Expenditure	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09re	2009-10be
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Plan	2028 (1.88)	3351 (2.63)	4910 (3.64)	6120 (4.04)	5540 (3.37)	7698 (4.26)	9804 (3.99)	9647 (3.92)	7656 (3.32)	10697 (3.84)	5624 (1.95)	5871 (1.94)	11048 (3.44)	9550 (2.62)	9816 (2.31)	16030 (3.11)	27193 (4.64)
Non-Plan	105650 (98.12)	124035 (97.37)	129877 (96.36)	145233 (95.91)	158997 (96.63)	175990 (97.40)	235784 (96.01)	236474 (96.08)	223267 (96.68)	268068 (96.16)	283379 (98.05)	297500 (98.06)	310129 (96.56)	355565 (97.38)	415249 (97.69)	499076 (96.89)	559329 (95.36)
Total	107678 (100)	127386 (100)	134788 (100)	151422 (100)	164536 (100)	180690 (100)	245589 (100)	246121 (100)	230923 (100)	278765 (100)	289003 (100)	303371 (100)	321177 (100)	365115 (100)	425065 (100)	515106 (100)	586522 (100)

Table 2.2 Annual growth rates in the Budgetary Expenditure on General Education in Kerala from 1993-94 to 2009-10

Year	Plan		Non-Plan		Total	
	Annual Growth Rates	Average Growth Rate	Annual Growth Rate	Average Growth Rate	Annual Growth Rate	Average Growth Rate
1993-94						
1994-95	50.22		16.04		16.81	
1995-96	38.20		4.60		5.65	
1996-97	22.03	36.8	11.18	10.6	11.64	11.4
1997-98	-9.96		9.05		8.31	
1998-99	32.90		10.15		9.37	
1999-00	24.18		29.25		30.69	
2000-01	-1.61		0.29		0.22	
2001-02	-23.12	4.5	-5.75	8.6	-6.37	8.4
2002-03	33.45		18.29		18.83	
2003-04	-64.29		5.55		3.61	
2004-05	4.30		4.86		4.85	
2005-06	63.22		4.16		5.70	
2006-07	-14.57	4.4	13.67	9.3	12.82	9.2
2007-08	2.75		15.52		15.20	
2008-09re	49.04		18.39		19.21	



Table 2.3  
Budgetary Total Expenditure on General Education in Kerala from 1993-94 to 2009-10 (Rupees in lakhs)

Expenditure	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09re	2009-10be
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
Elementary	52479 (48.74)	65393 (51.33)	67234 (49.88)	74950 (49.50)	80697 (49.05)	87357 (48.35)	123542 (50.30)	119189 (48.43)	104660 (45.32)	123688 (44.37)	128643 (44.51)	133125 (43.88)	139728 (43.50)	163264 (44.72)	186050 (43.77)	215439 (41.82)	232244 (39.60)
Secondary	33396 (31.01)	40091 (31.47)	43341 (32.15)	49346 (32.59)	53833 (32.72)	59705 (33.04)	85937 (34.99)	85760 (34.84)	75580 (32.73)	95722 (34.34)	106547 (36.87)	114751 (37.83)	124192 (38.67)	142820 (39.12)	174840 (41.13)	217669 (42.26)	264342 (45.07)
Higher education	20805 (19.32)	20933 (16.43)	22209 (16.48)	25259 (16.68)	28368 (17.24)	30752 (17.02)	33750 (13.74)	38543 (15.66)	48859 (21.16)	55110 (19.77)	50144 (17.35)	51313 (16.91)	51968 (16.18)	53816 (14.74)	60366 (14.20)	77529 (15.05)	84683 (14.44)
Adult	160 (0.15)	103 (0.08)	61 (0.05)	131 (0.09)	69 (0.04)	568 (0.31)	77 (0.03)	58 (0.02)	38 (0.02)	17 (0.01)	26 (0.01)	19 (0.01)	245 (0.08)	219 (0.06)	220 (0.05)	378 (0.07)	560 (0.10)
Language	486 (0.45)	540 (0.42)	540 (0.40)	765 (0.51)	905 (0.55)	1006 (0.56)	1369 (0.56)	1289 (0.52)	1232 (0.53)	1262 (0.45)	1416 (0.49)	2240 (0.74)	1637 (0.51)	1981 (0.54)	2254 (0.53)	2556 (0.50)	2765 (0.47)
General	352 (0.33)	326 (0.26)	1403 (1.04)	971 (0.64)	664 (0.40)	1302 (0.72)	914 (0.37)	1281 (0.52)	554 (0.24)	3204 (1.15)	2229 (0.77)	1924 (0.63)	3406 (1.06)	3015 (0.83)	1335 (0.31)	1535 (0.30)	1928 (0.33)
Total	107678 (100)	127386 (100)	134788 (100)	151422 (100)	164536 (100)	180690 (100)	245589 (100)	246121 (100)	230923 (100)	278765 (100)	289003 (100)	303371 (100)	321177 (100)	365115 (100)	425065 (100)	515106 (100)	586522 (100)

Table 2.4

Growth rate in the Budgetary Total Expenditure on General Education in Kerala from 1993-94 to 2009-10

Year	Elementary		Secondary		High		Total	
	Annual Growth Rate	Average Growth Rate	Growth Rate	Growth Rate	Growth Rate	Growth Rate	Growth Rate	Growth Rate
1993-94								
1994-95	22.00		18.27		0.61		16.81	
1995-96	2.78		7.79		5.92		5.65	
1996-97	10.86	11.88	12.98	13.01	12.87	6.47	11.64	11.36
1997-98	7.39		8.70		11.61		8.31	
1998-99	7.93		10.35		8.07		9.37	
1999-00	34.66		36.42		9.30		30.69	
2000-01	-3.59		-0.21		13.28		0.22	
2001-02	-13.00	6.68	-12.64	8.53	23.72	13.20	-6.37	8.44
2002-03	16.70		23.63		12.04		18.83	
2003-04	3.93		10.71		-9.44		3.61	
2004-05	3.42		7.42		2.30		4.85	
2005-06	4.84		7.91		1.27		5.70	
2006-07	15.57	8.89	13.98	12.73	3.49	1.93	12.82	9.16
2007-08	13.06		20.23		11.49		15.20	
2008-09re	14.67		21.91		25.02		19.21	
2009-10be	7.51	11.75	19.43	20.52	8.83	15.11	12.98	15.80

Table 2.5

Budgetary Plan Expenditure on General Education in Kerala from 1993-94 to 2009-10 (Rupees in lakhs)

Expenditure	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09re	2009-10be
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
Elementary	204 (10.06)	902 (26.91)	891 (18.14)	1313 (21.45)	732 (13.21)	729 (9.47)	1019 (10.39)	1110 (11.51)	836 (10.92)	1128 (10.55)	741 (13.18)	663 (11.29)	3095 (28.01)	1422 (14.89)	1144 (11.65)	4392 (27.40)	1418 (5.21)
Secondary	731 (36.05)	951 (28.37)	1251 (25.47)	2403 (39.26)	2298 (41.48)	3103 (40.31)	5652 (57.65)	5238 (54.30)	5331 (69.63)	4643 (43.40)	496 (8.82)	557 (9.49)	1188 (10.75)	2353 (24.64)	4045 (41.21)	5715 (35.65)	17626 (64.82)
Higher Education	754 (37.18)	1298 (38.72)	1551 (31.58)	1518 (24.80)	1902 (34.33)	2123 (27.58)	2308 (23.54)	2125 (22.03)	1001 (13.07)	2054 (19.20)	2513 (44.68)	2370 (40.37)	3361 (30.42)	2867 (30.02)	3554 (36.21)	4563 (28.47)	5874 (21.60)
Adult	145 (7.15)	83 (2.48)	44 (0.90)	62 (1.01)	69 (1.25)	568 (7.38)	75 (0.76)	56 (0.58)	37 (0.48)	13 (0.12)	23 (0.41)	19 (0.32)	245 (2.22)	199 (2.08)	210 (2.14)	378 (2.36)	560 (2.06)
Language	70 (3.45)	83 (2.48)	71 (1.45)	185 (3.02)	181 (3.27)	231 (3.00)	292 (2.98)	218 (2.26)	261 (3.41)	140 (1.31)	178 (3.17)	905 (15.41)	180 (1.63)	214 (2.24)	175 (1.78)	235 (1.47)	314 (1.15)
General	124 (6.11)	35 (1.04)	1103 (22.46)	639 (10.44)	358 (6.46)	944 (12.26)	458 (4.67)	899 (9.32)	190 (2.48)	2719 (25.42)	1674 (29.77)	1357 (23.11)	2978 (26.96)	2495 (26.13)	688 (7.01)	747 (4.66)	1401 (5.15)
Total	2028 (100)	3351 (100)	4910 (100)	6120 (100)	5540 (100)	7698 (100)	9804 (100)	9647 (100.00)	7656 (100.00)	10697 (100.00)	5624 (100.00)	5871 (100.00)	11048 (100.00)	9550 (100.00)	9816 (100.00)	16030 (100.00)	27193 (100.00)

Table 2.6

## Budgetary Non-plan Expenditure on General Education in Kerala from 1993-94 to 2009-10 (Rupees in lakhs)

Expenditure	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09re	2009-10be
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
Elementary	52275 (49.48)	64491 (51.99)	66343 (51.08)	73637 (50.68)	79965 (50.29)	86628 (50.08)	122523 (51.96)	118079 (49.93)	103824 (46.50)	122560 (45.72)	127902 (45.13)	132462 (44.53)	136633 (44.06)	161842 (45.52)	184906 (44.53)	211047 (42.29)	230826 (41.27)
Secondary	32665 (30.92)	39140 (31.56)	42090 (32.41)	46943 (32.31)	51535 (32.41)	56602 (32.72)	80285 (34.05)	80522 (34.05)	70249 (31.46)	91079 (33.98)	106051 (37.42)	114194 (38.38)	123004 (39.66)	140467 (39.51)	170795 (41.13)	211954 (42.47)	246716 (44.11)
Higher Education	20051 (18.98)	19635 (15.83)	20658 (15.91)	23741 (16.34)	26466 (16.65)	28629 (16.55)	31442 (13.34)	36418 (15.40)	47858 (21.44)	53056 (19.79)	47631 (16.81)	48943 (16.45)	48607 (15.67)	50949 (14.33)	56812 (13.68)	72966 (14.62)	78809 (14.09)
Adult	15 (0.01)	20 (0.02)	17 (0.01)	69 (0.05)			2 (0.00)	2 (0.00)	1 (0.00)	4 (0.00)	3 (0.00)	0 (0.00)	0 (0.00)	20 (0.01)	10 (0.00)	0 (0.00)	0 (0.00)
Language	416 (0.39)	457 (0.37)	469 (0.36)	580 (0.40)	724 (0.46)	775 (0.45)	1077 (0.46)	1071 (0.45)	971 (0.43)	1122 (0.42)	1238 (0.44)	1335 (0.45)	1457 (0.47)	1767 (0.50)	2079 (0.50)	2321 (0.47)	2451 (0.44)
General	228 (0.22)	291 (0.23)	300 (0.23)	332 (0.23)	306 (0.19)	358 (0.21)	456 (0.19)	382 (0.16)	364 (0.16)	485 (0.18)	555 (0.20)	567 (0.19)	428 (0.14)	520 (0.15)	647 (0.16)	788 (0.16)	527 (0.09)
Total	105650 (100)	124035 (100)	129877 (100)	145233 (100)	158997 (100)	175990 (100)	235784 (100)	236474 (100.00)	223267 (100.00)	268068 (100.00)	283379 (100.00)	297500 (100.0)	310129 (100.0)	355565 (100.0)	415249 (100.00)	499076 (100.00)	559329 (100.00)

Table 2. 7

Growth rate in the Budgetary Expenditure on different categories of General Education in Kerala from 1993-94 to 2009-10

Year	Total						Plan						Non-Plan					
	Elementary		Secondary		General Higher Education		Elementary		Secondary		General Higher Education		Elementary		Secondary		General Higher Education	
	Annual Growth Rate	Average Growth Rate	Annual Growth Rate	Average Growth Rate	Annual Growth Rate	Average Growth Rate	Annual Growth Rate	Average Growth Rate	Annual Growth Rate	Average Growth Rate	Annual Growth Rate	Average Growth Rate	Annual Growth Rate	Average Growth Rate	Annual Growth Rate	Average Growth Rate	Annual Growth Rate	Average Growth Rate
1993-94																		
1994-95	22.00		18.27		0.61		148.6		26.3		54.3		21.0		18.1		-2.1	
1995-96	2.78		7.79		5.92		-1.2		27.4		17.8		2.8		7.3		5.1	
1996-97	10.86	11.88	12.98	13.01	12.87	6.47	38.8	62.1	65.3	39.7	-2.2	23.3	10.4	11.4	10.9	12.1	13.9	5.6
1997-98	7.39		8.70		11.61		-58.4		-4.5		22.6		8.2		9.3		10.9	
1998-99	7.93		10.35		8.07		-0.4		30.0		11.0		8.0		9.4		7.9	
1999-00	34.66		36.42		9.30		33.5		60.0		8.4		34.7		35.0		9.4	
2000-01	-3.59		-0.21		13.28		8.6		-7.6		-8.3		-3.7		0.3		14.7	
2001-02	-13.00	6.68	-12.64	8.53	23.72	13.20	-28.3	-9.0	1.8	15.9	-75.3	-8.3	-12.9	6.9	-13.6	8.1	27.3	14.0
2002-03	16.70		23.63		12.04		30.0		-13.8		71.9		16.6		26.0		10.3	
2003-04	3.93		10.71		-9.44		-42.0		-223.7		20.2		4.3		15.2		-10.8	
2004-05	3.42		7.42		2.30		-11.1		11.6		-5.9		3.5		7.4		2.7	
2005-06	4.84		7.91		1.27		154.1		75.7		34.9		3.1		7.4		-0.7	
2006-07	15.57	8.89	13.98	12.73	3.49	1.93	-77.8	10.6	68.3	-16.4	-15.9	21.0	16.9	8.9	13.3	13.9	4.7	1.3
2007-08	13.06		20.23		11.49		-21.8		54.2		21.5		13.3		19.5		10.9	
2008-09re	14.67		21.91		25.02		134.5		34.6		25.0		13.2		21.6		25.0	
2009-10be	7.51	11.75	19.43	20.52	8.83	15.11	-113.1	-0.1	112.6	67.1	25.3	23.9	9.0	11.8	15.2	18.8	7.7	14.5

Table 2.8

Plan and non-plan component of Budgetary Expenditure on Elementary Education from 1993-94 to 2009-10 (Rupees in lakhs)

Expenditure	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09re	2009-10be
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
Plan	204 (0.39)	902 (1.38)	891 (1.30)	1313 (1.75)	732 (00.81)	729 (0.81)	1019 (0.83)	1110 (0.93)	836 (0.80)	1128 (0.92)	741 (0.58)	662 (0.50)	724 (0.53)	778 (0.51)	905 (0.49)	894 (0.42)	1168 (0.50)
Non-Plan	52275 (99.61)	64490 (98.62)	67778 (98.70)	73637 (98.25)	89965 (99.19)	89619 (99.18)	122432 (99.10)	118012 (99.01)	103770 (99.15)	122436 (98.99)	127732 (99.29)	132333 (99.41)	136633 (99.47)	152218 (99.49)	184766 (99.51)	211047 (99.58)	230826 (99.50)
Total	52478 (100)	65392 (100)	68669 (100)	74950 (100)	90697 (100)	90357 (100)	123542 (100)	119189 (100)	104659 (100)	123687 (100)	128643 (100)	133125 (100)	137357 (100)	152995 (100)	185671 (100)	211941 (100)	231994 (100)

Table2.9

## Budgetary Plan Expenditure on Elementary Education from 1993-94 to 2009-10 (Rupees in lakhs)

Heads of expenditure	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09re	2009-10be
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
Govt. schools	3 (1.34)	75 (25.89)	432 (89.88)	262 (19.91)	179 (25.70)	183 (25.05)	188 (29.23)	232 (20.89)	237 (28.33)	500 (44.34)	100 (13.50)						
Aided schools																	
Inspection																	
Teacher Training	201 (98.53)	306 (70.84)	346 (9.73)	377 (28.70)	385 (37.12)	514 (70.55)	788 (63.08)	826 (74.45)	562 (67.29)	628 (55.65)	641 (86.52)	662 (100.00)	710 (98.07)	778 (100.00)	905 (100.00)	894 (100.00)	1168 (100.00)
Scholarships & Incentives																	
Assistance to Local bodies			32 (0.00)	655 (49.90)	71 (20.70)												
Other Expenditure	0.25 (0.12)	521 (3.27)	82 (0.39)	20 (1.48)	98 (16.49)	32 (4.40)	43 (7.69)	52 (4.65)	37 (4.37)				14 (01.93)				
Total	204 (100)	902 (100)	891 (100)	1313 (100)	732 (100)	729 (100)	1019 (100)	1110 (100)	836 (100)	1128 (100)	741 (100)	662 (100)	724 (100)	778 (100)	905 (100)	894 (100)	1168 (100)

Note: (1) Figures in parentheses denotes percentages. The contribution of the state to MDM, a central scheme, Rs.184 lakhs In 2006-07, Rs.76.14 lakhs in 2007-08 and Rs.3348.27 lakhs in 2008-09. The contribution of the state to SSA, a central scheme, was Rs.460 lakhs in 2006-07, Rs.163 lakhs in 2007-08, Rs.150 lakhs in 2008-09 and Rs.250 lakhs in 2009-10. These figures are not added in the above budget.

Table 2.10

## Budgetary Non-plan Expenditure on Elementary Education from 1993-94 to 2009-10 (Rupees in lakhs)

Heads of expenditure	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09re	2009-10be
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
Govt. schools	20066 (38.39)	23912 (38.40)	25053 (36.96)	26574 (36.09)	38845 (43.18)	33315 (37.17)	43083 (39.36)	42038 (35.62)	36716 (35.38)	40740 (33.27)	43255 (33.86)	42385 (32.03)	43988 (36.65)	51155 (37.03)	60951 (32.99)	73999 (35.06)	78028 (33.80)
Aided schools	28763 (55.02)	37988 (56.79)	38973 (57.50)	42843 (58.18)	47210 (52.48)	50954 (56.86)	74324 (56.37)	71692 (60.75)	61604 (59.37)	71132 (58.10)	74639 (58.43)	79856 (60.34)	82030 (55.07)	96289 (54.22)	110297 (59.70)	119624 (56.68)	131898 (57.14)
Inspection	732 (1.40)	841 (1.32)	922 (1.36)	1007 (1.37)	1126 (1.25)	1249 (1.39)	1574 (1.48)	1590 (1.35)	1418 (1.37)	1529 (1.25)	1758 (1.38)	1870 (1.41)	1963 (1.29)	2511 (1.29)	2721 (1.47)	3170 (1.50)	3239 (1.40)
Teacher Training																	
Scholarships & Incentives	116 (0.22)	91 (0.09)	50 (0.07)	3 (0.00)													
Local bodies	2478 (4.74)	278 (0.43)	718 (1.06)	3158 (4.29)	2748 (3.06)	4035 (4.50)	3441 (2.63)	2660 (2.25)	3997 (3.85)	9062 (7.40)	8144 (6.38)	8233 (6.22)	8523 (6.84)	1069 (7.31)	9720 (5.26)	12522 (5.93)	16099 (6.97)
Other Expenditure	120 (0.23)	1380 (2.96)	2062 (3.04)	52 (0.07)	36 (0.04)	76 (0.08)	101 (0.16)	101 (0.09)	878 (0.08)	96 (0.08)	107 (0.08)	118 (0.09)	129 (0.15)	1194 (0.15)	1218 (0.66)	1831 (0.87)	1563 (0.68)
Total	52275 (100)	64490 (100)	67778 (100)	73637 (100)	89965 (100)	89619 (100)	122432 (100)	118012 (100)	103770 (100)	122436 (100)	127732 (100)	132333 (100)	136633 (100)	152218 (100)	184766 (100)	211047 (100)	230826 (100)

*N.B : Figures in parentheses denote percentages*



Table 2.11

Plan and non-plan component of Budget Expenditure on Secondary Education from 1993-94 to 2009-10 (Rupees in lakhs)

Plan/ non- plan	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09re	2009- 10be
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
Plan	730.62 (2.19)	950.73 (2.46)	997 (2.086)	2403.25 (4.87)	1722.23 (2.83)	3315.97 (5.53)	1970 (2.58)	5237.55 (6.11)	5331.37 (7.06)	4643.06 (4.84)	493.75 (0.46)	556.79 (0.49)	1384.61 (1.11)	2503.94 (1.56)	3582.22 (2.06)	5314.67 (2.45)	16626.38 (6.49)
Non- plan	32664.53 (97.81)	37657.4 (97.54)	46813.93 (97.91)	46942.93 (95.13)	59116.77 (97.17)	56601.61 (94.46)	74416.73 (97.42)	80451.55 (93.87)	70191.32 (92.94)	91387.16 (95.16)	105908.5 (99.54)	114063.1 (99.51)	123192.4 (98.89)	157587.1 (98.44)	170468.25 (97.94)	211953.56 (97.55)	239444.29 (93.51)
Total	33396.12 (100)	38609.14 (100)	47811.93 (100)	49347.27 (100)	60840 (100)	59918.58 (100)	76387.73 (100)	85690.1 (100)	75523.69 (100)	96031.22 (100)	106403.3 (100)	114620.9 (100)	124579.5 (100)	160092 (100)	174050.47 (100)	217268.23 (100)	256070.67 (100)

Note:- Percentages are given in parentheses.

Table 2.12  
Budgetary Plan Expenditure on Secondary Education from 1993-94 to 2009-10 (Rupees in lakhs)

Heads of expenditure	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09re	2009-10be
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
Direction & Administration	84.34 (11.54)	96.63 (10.16)	125.00 (12.54)	77.00 (3.20)	91.49 (5.31)	103.37 (3.12)	150.00 (7.61)	147.88 (2.82)	140.00 (2.63)	292.18 (6.29)	60.47 (12.25)	63.77 (11.45)	68.47 (4.94)	124.32 (4.97)	73.03 (2.04)	715 (13.45)	730 (4.39)
Research and Training		91.00 (9.97)	40.00 (4.01)	501.59 (20.87)	275.49 (16.00)	185.00 (5.58)	150.00 (7.61)	149.60 (2.86)	26.57 (0.50)								
Inspection																	
Teachers Training	7.33 (1.00)	14.07 (1.48)		0.10 (0.00)													
Text books																	
Scholarships	36.39 (4.98)	58.06 (6.11)	70.00 (7.02)	22.22 (0.93)											486.47 (13.58)	200.01 (3.76)	6653.38 (40.02)
Examinations																	
Govt. schools	257.41 (35.23)	307.02 (32.29)	350.00 (35.11)	489.52 (20.37)	665.00 (38.61)	2305.64 (69.53)	1500.00 (76.14)	4793.92 (91.53)	5094.33 (95.55)	2825.32 (60.85)	250.37 (50.71)	285.64 (51.30)	922.53 (66.55)	1581.75 (63.17)	959.51 (26.79)	1200 (22.58)	2580 (15.52)
Aided schools										488.18 (10.51)							
Local bodies				451.18 (18.77)	213.00 (12.37)	213.00 (6.42)							196.14 (14.15)	151.31 (06.04)			
Other Expenses	345.14 (47.24)	383.96 (40.39)	412.00 (41.32)	861.73 (35.86)	477.25 (27.71)	508.96 (15.35)	170.00 (8.63)	146.15 (2.79)	70.57 (1.32)	1037.39 (22.34)	184.31 (37.33)	207.43 (37.25)	197.47 (14.25)	646.56 (25.82)	2056.28 (57.40)	3199.66 (60.20)	6663 (40.07)
Total	730.62 (100.00)	950.73 (100.00)	997.00 (100.00)	2403.25 (100.00)	1722.23 (100.00)	3315.97 (100.00)	1970.00 (100.00)	5237.55 (100.00)	5331.37 (100.00)	4643.06 (100.00)	493.75 (100.00)	556.79 (100.00)	1386.13 (100)	2503.94 (100)	3582.22 (100.00)	5314.67 (100.00)	16626.38 (100.00)

Foot note: The contribution of the state to MDM, a central scheme, is Rs.469 lakhs in 2007-08 and Rs.400 lakhs in 2008-09 and Rs.1000 in 2009-10. These figures are not added in the above budget.

**Table 2.13**  
**Budgetary Non-Plan Expenditure on Secondary Education from 1993-94 to 2009-10 (Rupees in lakhs)**

Heads of expenditure	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09re	2009-10be
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
Direction & Administration	651.74 (2.00)	752.38 (2.00)	797.50 (1.70)	901.27 (1.92)	1172.61 (1.98)	1079.79 (1.91)	1706.98 (2.29)	1453.4 (1.81)	1271.84 (1.81)	2885.19 (3.16)	2589.75 (2.45)	2774.22 (2.43)	3165.31 (2.57)	4142.02 (2.63)	4557.56 (2.67)	4866.92 (2.30)	5458.7 (2.28)
Research and Training										6.67 (0.01)	480.94 (0.45)						
Inspection	330.14 (1.01)	369.40 (0.98)	357.55 (0.76)	389.52 (0.83)	570.84 (0.97)	604.75 (1.07)	892.79 (1.20)	702.85 (0.87)	696.52 (0.99)	805.32 (0.88)	863.15 (0.81)	800.32 (0.70)	887.53 (0.72)	1088.96 (0.69)	1296.29 (0.76)	1509.6 (0.71)	1575.49 (0.66)
Teacher Training																	
Text books	2396.93 (7.34)	14.97 (0.04)	3224.45 (6.89)	2019.72 (4.30)	2071.79 (3.50)	1661.06 (2.93)	2698.1 (3.63)	1835.17 (2.28)	1683.71 (2.40)	2310.29 (2.53)	3331.93 (3.15)	3168.82 (2.78)	4403.97 (3.57)	3191.16 (2.03)	3929.46 (2.31)	5528.49 (2.61)	5052.69 (2.11)
Scholarships	149 (0.46)	141.05 (0.37)	98 (0.21)	51.38 (0.11)	56 (0.09)	51.88 (0.09)	71.23 (0.10)	52.96 (0.07)	62.38 (0.09)	65.06 (0.07)	72.09 (0.07)	76.97 (0.07)	71.92 (0.06)	75.52 (0.05)	71.35 (0.04)	90 (0.04)	90 (0.04)
Examinations	542.91 (1.66)	580.06 (1.54)	590.49 (1.26)	642.67 (1.37)	742.17 (1.26)	817.15 (1.44)	863.39 (1.16)	985.37 (1.22)	790.68 (1.13)	872.49 (0.95)	845.97 (0.80)	1189.68 (1.04)	1142.97 (0.93)	1317.08 (0.84)	1963.13 (1.15)	1835.93 (0.87)	1651.94 (0.69)
Govt. schools	11438.74 (35.02)	13802.62 (36.65)	15998.66 (34.17)	16180.83 (34.47)	22277.34 (37.68)	19586.86 (34.60)	27820.78 (37.39)	26237.63 (32.61)	23044.96 (32.83)	28332.12 (31.00)	32621.75 (30.80)	33235.01 (29.14)	37225.73 (30.22)	61319.36 (38.91)	53269.25 (31.25)	73181.68 (34.53)	88823.37 (37.10)
Aided schools	16901.21 (51.74)	21741.69 (57.74)	25418 (54.30)	26174.10 (55.76)	31235 (52.84)	31627.13 (55.88)	38045.59 (51.13)	47429.48 (58.95)	40942.66 (58.33)	53982.39 (59.07)	62603.79 (59.11)	70591.99 (61.89)	73687.25 (59.81)	83840.48 (53.20)	102557.45 (60.16)	118970.05 (56.13)	136507.6 (57.01)
Local bodies	77.51 (0.24)	34.23 (0.09)		251.39 (0.54)	309.00 (0.52)	290.34 (0.51)	297.8 (0.40)	351.68 (0.44)	362.51 (0.52)	483.24 (0.53)	361.17 (0.34)	188.47 (0.17)	196.15 (0.16)	151.31 (0.10)	248.88 (0.15)	236 (0.11)	284.5 (0.12)
Other Expenses	176.31 (0.54)	221.00 (0.59)	327.84 (0.70)	332.11 (0.71)	680.58 (1.15)	882.65 (1.56)	2020.07 (2.71)	1473.5 (1.83)	1393.88 (1.99)	1735.73 (1.90)	2279.93 (2.15)	2168.2 (1.90)	2223.31 (1.80)	2289.88 (1.45)	2901.32 (1.70)	5734.89 (2.71)	7271.63 (100)
Total	32664.53 (100)	37657.40 (100)	46813.93 (100)	46942.93 (100)	59116.77 (100)	56601.61 (100)	74416.73 (100)	80451.55 (100)	70191.32 (100)	91387.16 (99.99)	105908.50 (99.55)	114063.10 (100)	123192.4 (100)	157587.1 (100)	170468.25 (100.38)	211953.56 (100)	239444.29 (100)

Table 2.14  
Budgetary total Expenditure on General Higher Education from 1993-94 to 2009-10 (Rupees in Lakhs)

Heads of expenditure	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09re	2009-10be
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
Direction & Administration	162 (0.78)	213 (1.02)	243 (1.09)	266 (1.05)	279 (1.01)	343 (1.12)	418 (1.24)	437 (1.13)	362 (0.74)	395 (0.72)	463 (0.92)	493 (0.96)	456 (0.88)	539 (1.00)	597 (0.99)	785 (1.01)	97 (0.12)
Assistance to Universities	3092 (14.89)	3788 (18.10)	4313 (19.42)	4782 (18.93)	5730 (20.71)	7153 (23.26)	8372 (24.81)	8975 (23.28)	9538 (19.54)	10455 (18.97)	11015 (21.97)	12651 (24.66)	13686 (26.34)	14960 (27.80)	15447 (25.59)	16931 (21.84)	18582 (21.84)
Govt. Colleges	2828 (13.61)	3105 (14.84)	3359 (15.12)	3632 (14.38)	3378 (12.21)	4300 (13.98)	4756 (14.09)	6785 (17.60)	7832 (16.04)	6289 (11.41)	6572 (13.11)	6867 (13.38)	7352 (14.15)	7104 (13.20)	8790 (14.56)	10833 (13.97)	11642 (13.87)
Non-Govt. Colleges	14447 (69.55)	13517 (64.58)	13939 (62.76)	16182 (64.06)	17873 (64.60)	18338 (59.63)	19706 (58.39)	21987 (57.04)	30782 (63.05)	37151 (67.41)	31300 (62.42)	30644 (59.72)	29455 (56.68)	29927 (55.61)	33723 (55.87)	46547 (60.04)	50157 (59.75)
Faculty Devpt. Program	6 (0.03)	17 (0.08)	10 (0.05)	2 (0.01)	37 (0.13)	82 (0.27)	58 (0.17)	5 (0.01)	1 (0.00)	4 (0.01)	11 (0.02)	45 (0.09)	20 (0.04)	24 (0.05)	23 (0.04)	10 (0.01)	315 (0.38)
Scholarships	41 (0.20)	45 (0.22)	46 (0.21)	59 (0.23)	59 (0.21)	66 (0.22)	51 (0.15)	30 (0.08)	33 (0.07)	30 (0.05)	90 (0.18)	71 (0.14)	167 (0.32)	132 (0.25)	324 (0.54)	925 (1.19)	1379 (1.64)
Institute of Higher Learning	54 (0.26)	54 (0.26)	55 (0.25)	60 (0.24)	81 (0.29)	95 (0.31)	89 (0.26)	91 (0.24)	78 (0.16)	91 (0.17)	200 (0.40)	117 (0.23)	134 (0.26)	140 (0.26)	137 (0.23)	196 (0.25)	206 (0.25)
Other Expenses	143 (0.69)	192 (0.92)	246 (1.11)	277 (1.10)	232 (0.82)	375 (1.22)	300 (0.89)	236 (0.61)	193 (0.40)	697 (1.27)	493 (0.98)	425 (0.83)	699 (1.35)	992 (1.84)	1324 (2.19)	1302 (1.68)	1567 (1.87)
<b>Total</b>	<b>20773 (100)</b>	<b>20931 (100)</b>	<b>22211 (100)</b>	<b>25260 (100)</b>	<b>27669 (100)</b>	<b>30752 (100)</b>	<b>33750 (100)</b>	<b>38546 (100)</b>	<b>48819 (100)</b>	<b>55112 (100)</b>	<b>50144 (100)</b>	<b>51313 (100)</b>	<b>51968 (100)</b>	<b>53818 (100)</b>	<b>60365 (100)</b>	<b>77529 (100)</b>	<b>83945 (100)</b>

Table 2.15  
Budgetary Plan Expenditure on General Higher Education from 1993-94 to 2009-10 (Rupees in lakhs)

Heads of expenditure	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09re	2009-10be
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
Direction & Administration						25 (1.18)		3 (0.14)	5 (0.50)								15 (0.26)
Assistance to Universities	570 (75.60)	1035 (79.74)	1225 (78.98)	1200 (79.05)	1565 (82.28)	1590 (74.89)	1885 (81.67)	1782 (83.86)	884 (88.31)	1406 (68.45)	1955 (77.80)	2005 (84.60)	2513 (74.77)	2375 (82.84)	2175 (61.20)	2720 (59.61)	2960 (50.39)
Govt. Colleges	63 (8.36)	94 (7.24)	125 (8.06)	113 (7.44)	125 (6.57)	139 (6.55)	185 (8.02)	207 (9.74)	78 (7.79)	120 (5.84)	144 (5.73)	135 (5.70)	436 (12.97)	214 (7.46)	312 (8.78)	209 (4.58)	260 (4.43)
Non-Govt. Colleges								3 (0.14)	2 (0.20)								
Faculty Devpt. Program	6 (0.80)	17 (1.31)	10 (0.64)	2 (0.13)	37 (1.95)	82 (3.86)	55 (2.38)	5 (0.24)	1 (0.10)	4 (0.19)	11 (0.44)	45 (1.90)	20 (0.60)	24 (0.84)	23 (0.65)	10 (0.22)	315 (5.36)
Scholarships			2 (0.13)	2 (0.13)	2 (0.11)	5 (0.24)	2 (0.09)	2 (0.09)							201 (5.66)	739 (16.20)	1201 (20.45)
Institute of Higher Learning	20 (2.65)	26 (2.00)	25 (1.61)	30 (1.98)	40 (2.10)	40 (1.88)	40 (1.73)	41 (1.93)	20 (2.00)	36 (1.75)	140 (5.57)	50 (2.11)	60 (1.79)	60 (2.09)	50 (1.41)	100 (2.19)	100 (1.70)
Other Expenses	94 (12.47)	125 (9.63)	165 (10.64)	172 (11.33)	133 (6.99)	243 (11.45)	141 (6.11)	84 (3.95)	11 (1.10)	489 (23.81)	263 (10.47)	135 (5.70)	333 (9.91)	195 (6.80)	792 (22.28)	785 (17.20)	1023 (17.42)
<b>Total</b>	<b>754 (100)</b>	<b>1298 (100)</b>	<b>1551 (100)</b>	<b>1518 (100)</b>	<b>1902 (100)</b>	<b>2123 (100)</b>	<b>2308 (100)</b>	<b>2125 (100)</b>	<b>1001 (100)</b>	<b>2054 (100)</b>	<b>2513 (100)</b>	<b>2370 (100)</b>	<b>3361 (100)</b>	<b>2867 (100)</b>	<b>3554 (100)</b>	<b>4563 (100)</b>	<b>5874 (100)</b>

Table 2.16

## Budgetary non-Plan Expenditure on General Higher Education from 1993-94 to 2009-10 (Rupees in lakhs)

Heads of expenditure	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09re	2009-10be
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
Direction & Administration	162 (0.81)	213 (1.08)	243 (1.18)	266 (1.12)	279 (1.08)	318 (1.11)	418 (1.33)	434 (1.19)	357 (0.75)	395 (0.74)	463 (0.97)	493 (1.01)	456 (0.94)	539 (1.06)	597 (1.05)	785 (1.08)	82 (0.10)
Assistance to Universities	2522 (12.60)	2753 (14.02)	3088 (14.95)	3582 (15.09)	4165 (16.16)	5563 (19.43)	6487 (20.63)	7193 (19.75)	8654 (18.10)	9049 (17.06)	9060 (19.02)	10646 (21.75)	11173 (22.99)	12585 (24.70)	13272 (23.36)	14211 (19.48)	15622 (19.82)
Govt. Colleges	2765 (13.81)	3011 (15.33)	3234 (15.65)	3519 (14.82)	3253 (12.63)	4161 (14.53)	4571 (14.54)	6578 (18.06)	7754 (16.20)	6169 (11.63)	6428 (13.50)	6732 (13.75)	6916 (14.23)	6890 (13.52)	8478 (14.92)	10624 (14.56)	11382 (14.44)
Non-Govt. Colleges	14447 (72.16)	13517 (68.84)	13939 (67.48)	16182 (68.16)	17873 (69.36)	18338 (64.05)	19706 (62.67)	21984 (60.37)	30780 (64.37)	37151 (70.02)	31300 (65.71)	30644 (62.61)	29455 (60.60)	29927 (58.74)	33723 (59.36)	46547 (63.79)	50157 (63.64)
Faculty Devpt. Program							3 (0.01)										
Scholarships	41 (0.20)	45 (0.23)	44 (0.21)	57 (0.24)	57 (0.22)	61 (0.21)	49 (0.16)	28 (0.08)	33 (0.07)	30 (0.06)	90 (0.19)	71 (0.15)	167 (0.34)	132 (0.26)	123 (0.22)	186 (0.25)	178 (0.23)
Institute of Higher Learning	34 (0.17)	28 (0.14)	30 (0.15)	30 (0.13)	41 (0.16)	55 (0.19)	49 (0.16)	50 (0.14)	58 (0.12)	55 (0.10)	60 (0.13)	67 (0.14)	74 (0.15)	80 (0.16)	87 (0.15)	96 (0.13)	106 (0.13)
Other Expenses	49 (0.24)	67 (0.34)	81 (0.39)	105 (0.44)	99 (0.38)	132 (0.46)	159 (0.51)	152 (0.42)	182 (0.38)	208 (0.39)	230 (0.48)	290 (0.59)	366 (0.75)	797 (1.56)	532 (0.94)	517 (0.71)	544 (0.69)
Total	20020 (100)	19635 (100)	20658 (100)	23741 (100)	25767 (100)	28629 (100)	31442 (100)	36418 (100)	47818 (100)	53056 (100)	47631 (100)	48943 (100)	48607 (100)	50949 (100)	56812 (100)	72966 (100)	78809 (100)

Table 2.17

Plan and non-Plan components of Budget Expenditure on Technical Education from 1992-93 to 2009-10 (Rupees in lakhs)

Plan/ Non- Plan	1993- 94	1994- 95	1995- 96	1996- 97	1997- 98	1998- 99	1999-00	2000- 01	2001- 02	2002-03	2003-04	2004- 05	2005- 06	2006- 07	2007- 08	2008- 09re	2009- 10be
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
Plan	1265 (25.99)	1519 (27.60)	1802 (30.44)	2485 (35.77)	2654 (34.87)	2638 (34.99)	3523 (33.94)	3082 (27.87)	3243 (27.55)	2057 (16.95)	1521 (11.66)	2490 (17.41)	4337 (25.38)	4161 (22.17)	1753 (9.54)	3251 (14.11)	4431 (17.57)
Non- Plan	3601 (73.99)	3985 (72.40)	4120 (69.59)	4460 (64.21)	4956 (65.11)	5505 (73.02)	6785 (65.37)	7977 (72.13)	8524 (72.42)	9993 (82.36)	11523 (88.34)	11811 (82.59)	12752 (74.62)	14606 (77.83)	16632 (90.47)	19786 (85.88)	20791 (82.44)
Total	4867 (100)	5504.33 (100)	5920.09 (100)	6946.31 (100)	7611.66 (100)	7539 (100)	10379.01 (100)	11059.6 (100)	11769.5 (100)	12133.92 (100)	13043.39 (100)	14301 (100)	17089 (100)	18766 (100)	18384 (100)	23038 (100)	25221 (100)

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Table 2.18 Budgetary total Expenditure on Technical Education from 1993-94 to 2009-10 (Rupees in lakhs)

Heads of expenditure	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09re	2009-10be
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
Direction & Adm.	104 (2.14)	122 (2.22)	113 (1.91)	138 (1.99)	142 (1.87)	148 (1.96)	204.22 (1.97)	213.6 (1.93)	236 (2.01)	218.54 (1.80)	221.89 (1.70)	243 (1.70)	281 (1.64)	319 (1.70)	390 (2.12)	428 (1.86)	441 (1.75)
Training	87 (1.79)	136 (2.47)	112 (1.89)	105 (1.51)	120 (1.58)	128 (1.70)	166 (1.60)	165 (1.49)	198 (1.68)	247 (2.04)	290 (2.22)	376 (2.63)	421 (2.46)	404 (2.15)	467 (2.54)	341 (1.48)	370 (1.47)
Research	8 (0.16)	18 (0.33)	8 (0.14)	18 (0.26)	6 (0.08)	6 (0.08)	6 (0.06)	5 (0.05)	1.5 (0.01)	2.25 (0.02)							
Universities	634 (13.03)	735 (13.35)	815 (13.77)	1005 (14.47)	1074 (14.11)	1200 (15.92)	1435 (13.83)	1514 (13.69)	1550 (13.17)	1633 (13.46)	1603 (12.29)	1929 (13.49)	2192 (12.83)	2236 (11.92)	2086 (11.35)	2330 (10.11)	2920 (11.58)
Technical Schools	626 (12.87)	750 (13.63)	749 (12.65)	637.17 (9.17)	700 (9.20)	817 (10.84)	1042 (10.04)	1024 (9.26)	903 (7.67)	1025 (8.45)	1187 (9.10)	1224 (8.56)	1288 (7.54)	1576 (8.40)	1899 (10.33)	2398 (10.41)	2585 (10.25)
Non-Govt. Colleges	989 (20.32)	972 (17.66)	945 (15.96)	1260 (18.14)	1475 (19.38)	1456 (19.31)	1770 (17.05)	1799 (16.27)	1948 (16.55)	2151.94 (17.73)	2424 (18.58)	2200 (15.38)	2308 (13.51)	2697 (14.37)	2808 (15.27)	3222 (13.99)	3463 (13.73)
Polytechnics	1024 (21.04)	1422 (25.83)	1441 (24.34)	1588 (22.86)	2028 (26.64)	2282 (30.27)	2779 (26.78)	2995 (27.08)	2769 (23.53)	3087.09 (25.44)	3522 (27.00)	3744 (26.18)	4168 (24.39)	4868 (25.94)	5488 (29.85)	6832 (29.66)	7098 (28.14)
Scholarships		0.33 (0.01)	0.09 (0.00)	0.14 (0.00)	0.34 (0.00)		0.04 (0.00)			0.1 (0.00)						1 (0.00)	1054 (4.18)
Examinations	42 (0.86)	46 (0.84)	53 (0.90)	65 (0.94)	66.32 (0.87)	90 (1.19)	164.75 (1.59)	78 (0.71)	75 (0.64)	105 (0.87)	107.5 (0.82)	120 (0.84)	124 (0.73)	163 (0.87)	212 (1.15)	206 (0.89)	244 (0.97)
Engineering Technical Institutes	885 (18.18)	951 (17.28)	1034 (17.47)	1150 (16.56)	1185 (15.57)	1370 (18.17)	1768 (17.03)	2418 (21.86)	3418 (29.04)	3115 (25.67)	3202 (24.55)	4431 (30.98)	5688 (33.28)	5976 (31.84)	4872 (26.50)	6381 (27.70)	5900 (23.39)
Assit. Dist. Pan				14 (0.20)	24 (0.32)	25 (0.33)	35 (0.34)	28 (0.25)	29 (0.25)	37 (0.30)	146 (1.12)						
Other Expenses	468 (9.62)	352 (6.39)	650 (10.98)	966 (13.91)	791 (10.39)	17 (0.23)	1009 (9.72)	820 (7.41)	642 (5.45)	512 (4.22)	340 (2.61)	34 (0.24)	619 (3.62)	527 (2.81)	162 (0.88)	899 (3.90)	1146 (4.54)
Total	4867 (100)	5504.33 (100)	5920.09 (100)	6946.31 (100)	7611.66 (100)	7539 (100)	10379.01 (100)	11059.6 (100)	11769.5 (100)	12133.92 (100)	13043.39 (100)	14301 (100)	17089 (100)	18766 (100)	18384 (100)	23038 (100.00)	25221 (100)



Table 2.19

## Budgetary Plan Expenditure on Technical Education from 1993-94 to 2009-10 (Rupees in lakhs)

Heads of expenditure	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09re	2009-10be
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
Directi on & Adm.					7 (0.26)	7 (0.27)	3 (0.09)	1 (0.02)		2 (1.05)	1 (0.06)	13 (0.42)	27 (0.62)	10 (0.24)	40 (2.28)	45 (1.38)	40 (0.90)
Trainin g	48 (3.79)	63 (4.15)	44 (2.44)	38 (1.53)	55 (2.07)	59 (2.24)	68 (1.93)	75 (2.43)	114 (3.52)	150 (7.29)	162 (10.65)	231 (7.54)	271 (6.25)	240 (5.77)	268 (15.29)	105 (3.23)	120 (2.71)
Resear ch	8 (0.63)	18 (1.18)	8 (0.44)	18 (0.72)	6 (0.23)	6 (0.23)	6 (0.17)	5 (0.16)	1.5 (0.05)	2 (0.11)							
Univer sities	111 (8.77)	63 (4.15)	175 (9.71)	300 (12.07)	300 (11.30)	300 (11.37)	400 (11.35)	375 (12.17)	300 (9.25)	320 (15.56)	228 (14.99)	340 (11.10)	400 (9.22)	400 (9.61)	250 (14.26)	400 (12.30)	800 (18.05)
Techni cal School s	8 (0.63)	17 (1.12)	5 (0.28)	0 (0.00)	10 (0.38)	10 (0.38)	25 (0.71)			4 (0.19)			15 (0.35)	9 (0.22)	27 (1.54)	70 (2.15)	75 (1.69)
Non-Govt. college s	233 (18.42)	125 (8.23)	76 (4.22)	155 (6.24)	147 (5.54)	63 (2.39)	88 (2.50)	36 (1.17)	87 (2.68)	6 (0.26)	12 (0.79)	11 (0.36)	2 (0.05)	8 (0.19)	10 (0.57)	15 (0.46)	17 (0.38)
Polytec hnics	260 (20.55)	506 (33.31)	475 (26.36)	552 (22.21)	852 (32.10)	944 (35.78)	1018 (28.90)	727 (23.59)	637 (19.64)	208 (10.11)	154 (10.12)	231 (7.54)	421 (9.71)	476 (11.44)	240 (13.69)	322 (9.90)	260 (5.87)
Schola rships																	1053 (23.76)
Exami nations					3 (0.13)	16 (0.61)	7 (2.18)	12 (0.39)	2 (0.06)	10 (0.49)	9 (0.56)	12 (0.39)	5 (0.12)	4 (0.10)	1 (0.06)	15 (0.46)	20 (0.45)
Heads of expenditure	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09re	2009-10be
Engine ering Techni	336 (26.56)	399 (26.27)	405 (22.48)	465 (18.71)	495 (18.65)	624 (23.65)	914 (25.94)	1045 (33.91)	1467 (45.24)	866 (42.10)	640 (42.08)	1646 (53.72)	2671 (61.59)	2713 (65.20)	789 (45.01)	1508 (46.39)	930 (20.99)

cal Institut es																	
Assit. Dist. Pan																	
Other Expens es	262 (20.71)	328 (21.59)	614 (34.07)	956 (38.47)	780 (29.39)	6 (0.23)	995 (28.24)	807 (26.18)	635 (19.58)	490 (23.82)	315 (20.71)	6 (0.20)	525 (12.11)	300 (7.21)	127 (7.24)	771 (23.72)	1116 (25.19)
Total	1265 (100)	1519 (100)	1802 (100)	2485 (100)	2654 (100)	2638 (100)	3523 (100)	3082 (100)	3243 (100)	2057 (100)	1521 (100)	2490 (100)	4337 (100)	4161 (100)	1753 (100)	3251 (100.00)	4431 (100)

Table 2.20  
Budgetary non-plan Expenditure on Technical Education from 1993-94 to 2009-10 (Rupees in lakhs)

Heads of expenditure	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09re	2009-10be
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	
Direction & Adm.	80 (2.71)	104 (2.89)	122 (3.06)	113 (2.74)	138 (3.09)	135 (2.72)	141 (2.56)	201 (2.96)	213 (2.67)	236 (2.77)	197 (1.97)	221 (1.92)	230 (1.95)	254 (1.99)	309 (2.12)	350 (2.10)	383 (1.94)	401 (1.93)
Training	23 (0.78)	39 (1.08)	73 (1.83)	68 (1.65)	67 (1.50)	65 (1.31)	69 (1.25)	98 (1.44)	90 (1.13)	84 (0.99)	97 (0.97)	128 (1.11)	145 (1.23)	150 (1.18)	164 (1.12)	199 (1.20)	236 (1.19)	250 (1.20)
Research																		
Universities	568 (19.25)	523 (14.52)	672 (16.86)	640 (15.53)	705 (15.81)	774 (15.62)	900 (16.35)	1035 (15.25)	1139 (14.28)	1250 (14.66)	1313 (13.14)	1375 (11.93)	1589 (13.45)	1792 (14.05)	1836 (12.57)	1836 (11.04)	1930 (9.75)	2120 (10.20)
Technical Schools	498 (16.88)	618 (17.16)	733 (18.39)	744 (18.06)	637 (14.28)	690 (13.92)	807 (14.66)	1017 (14.99)	1024 (12.84)	903 (10.59)	1021 (10.22)	1187 (10.30)	1224 (10.36)	1273 (9.98)	1567 (10.73)	1872 (11.26)	2328 (11.77)	2510 (12.07)
Non-Govt. Colleges	621 (21.05)	756 (20.99)	847 (21.25)	869 (21.09)	1105 (24.78)	1328 (26.80)	1393 (25.30)	1682 (24.79)	1763 (22.10)	1861 (21.83)	2086 (20.87)	2412 (20.93)	2189 (18.53)	2306 (18.08)	2689 (18.41)	2798 (16.82)	3207 (16.21)	3446 (16.57)
Polytechnics	591 (20.03)	764 (21.22)	916 (22.99)	966 (23.45)	1036 (23.23)	1176 (23.73)	1338 (24.31)	1761 (25.95)	2268 (28.43)	2132 (25.01)	2879 (28.81)	3368 (29.23)	3513 (29.74)	3747 (29.38)	4392 (30.07)	5248 (31.55)	6510 (32.90)	6838 (32.89)
Scholarships	0.15 (0.01)		0.33 (0.01)	0.09 (0.00)		0.34 (0.01)		0.04 (0.00)			0.10 (0.00)						1 (0.01)	1 (0.00)
Examinations	38 (1.29)	42 (1.17)	46 (1.15)	53 (1.29)	65 (1.46)	63 (1.27)	74 (1.34)	88 (1.30)	66 (0.83)	73 (0.86)	95 (0.95)	99 (0.86)	108 (0.91)	119 (0.93)	159 (1.09)	211 (1.27)	191 (0.97)	224 (1.08)
Engineering/ Technical Institutes	433 (14.68)	549 (15.25)	552 (13.85)	629 (15.27)	685 (15.36)	690 (13.92)	746 (13.55)	854 (12.59)	1373 (17.21)	1951 (22.89)	2249 (22.51)	2562 (22.23)	2785 (23.58)	3017 (23.66)	3263 (22.34)	4083 (24.55)	4873 (24.63)	4970 (23.90)
Assit. Dist. Pan					14 (0.31)	24 (0.48)	25 (0.45)	35 (0.52)	28 (0.35)	29 (0.34)	37 (0.37)	146 (1.27)						
Other Expenses	98 (3.30)	206 (5.72)	24 (0.60)	36 (0.87)	10 (0.22)	11 (0.22)	11 (0.20)	14 (0.21)	13 (0.16)	7 (0.08)	22 (0.22)	25 (0.22)	28 (0.24)	94 (0.74)	227 (1.55)	35 (0.21)	128 (0.65)	30 (0.14)
<b>Total</b>	<b>2950 (100)</b>	<b>3601 (100)</b>	<b>3985 (100)</b>	<b>4120 (100)</b>	<b>4460 (100)</b>	<b>4956 (100)</b>	<b>5505 (100)</b>	<b>6785 (100)</b>	<b>7977 (100)</b>	<b>8524 (100)</b>	<b>9993 (100)</b>	<b>11523 (100)</b>	<b>11811 (100)</b>	<b>12752 (100)</b>	<b>14606 (100)</b>	<b>16632 (100)</b>	<b>19786 (100)</b>	<b>20791 (100)</b>

Table 2.21  
Growth rate in Budgetary Expenditure on Technical Education from 1993- 2010

	Plan		Non-Plan		Total	
	Annual Growth Rate	Average Growth Rate	Annual Growth Rate	Average Growth Rate	Annual Growth Rate	Average Growth Rate
1993-94						
1994-95	18.30		10.13		12.32029	
1995-96	17.08		3.33		7.319913	
1996-97	32.14	22.51	7.93	7.13	15.93477	11.86
1997-98	6.58		10.55		9.14412	
1998-99	-0.60		10.51		6.769549	
1999-00	28.93		20.91		23.57616	
2000-01	-13.37		16.18		7.032428	
2001-02	5.09	5.32	6.63	12.95	6.205443	10.55
2002-03	-45.53		15.90		2.376566	
2003-04	-30.19		14.25		7.92636	
2004-05	49.29		2.47		9.200121	
2005-06	55.49		7.67		17.81055	
2006-07	-4.14	4.99	13.57	10.77	9.366503	9.34
2007-08	-86.44		12.99		-2.05649	
2008-09re	61.76		17.36		22.55665	
2009-10be	30.97	2.10	4.95	11.77	9.061501	9.85

Table 2.22  
Literacy rates by sex in Kerala

Sl. NO	State/District	Literacy rates-					
		Persons		Male		Female	
		1991	2001	1991	2001	1991	2001
1	2	3	4	5	6	7	8
1	Thiruvananthapuram	89.81	90.92	93.62	94.20	86.17	87.86
2	Kollam	89.22	89.36	92.84	92.68	85.76	86.26
3	Pathanamthitta	90.47	91.49	94.09	94.63	87.00	88.60
4	Alappuzha	94.86	95.09	96.56	96.62	93.29	93.71
5	Kottayam	93.87	93.66	96.79	96.42	91.12	91.14
6	Idukki	95.72	95.90	97.46	97.41	94.00	94.45
7	Ernakula	86.97	88.58	90.89	92.11	82.97	85.04
8	Thrissur	92.30	93.42	95.40	95.95	89.22	90.96
9	Palakkad	90.18	92.56	93.77	95.47	86.94	89.94
10	Malapuram	81.27	84.31	87.24	89.73	75.72	79.31
11	Kozhikode	87.94	88.61	92.08	91.46	84.09	85.96
12	Wayanad	91.10	92.45	95.58	96.30	86.79	88.86
13	Kannur	82.73	85.52	87.69	90.28	77.69	80.80
14	Kasargod	91.48	92.8	95.54	96.38	87.65	89.57
	Total	82.51	85.17	88.97	90.84	76.29	79.80

Note: Literacy rate is the percentage of Literates to population aged 7 years and above.

Table 2.23  
District wise status of Illiterates and new literates in 2006-07

Sl.No	District	Illiterates			New Literates		
		2006-07			2006-07		
		Male	Female	Total	Male	Female	Total
1	Thiruvananthapuram	14734	29983	44717	15470	13609	29079
2	Kollam	9	18	27	1482	3602	5084
3	Pathanamthitta	18712	20823	39535	449	813	1262
4	Alappuzha	1230	1820	3050	49	1049	1098
5	Kottayam	9312	12087	21399	571	709	1280
6	Idukki	1871	2522	4393	1163	1677	2840
7	Ernakula	1035	2815	3850	1035	2815	3850
8	Thrissur	2480	6578	9058	1937	5384	7321
9	Palakkad	26140	33520	59660	8565	9848	18413
10	Malapuram	25939	42403	68342	101	298	399
11	Kozhikode	13730	34776	48506	306	879	1185
12	Wayanad	12100	32868	44968	14962	17962	32924
13	Kannur	694	1676	2370	2000	5300	7300
14	Kasargod	1789	1605	3394	2327	2582	4909
	Total	129775	223494	353269	50417	66527	116944

Source: Kerala State Literacy Mission Authority

Table 2.24  
Percentage of drop out in various standards during 2005-06

Districts	I		II		III		IV		V		VI		VII		VIII	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Thiruvananthapuram	0.31	0.30	0.70	0.48	0.52	0.42	0.71	0.51	0.65	0.41	0.70	0.33	0.77	0.38	0.81	0.47
Kollam	0.46	0.34	0.45	0.44	0.48	0.35	0.49	0.03	0.58	0.27	0.70	0.40	0.92	0.56	1.80	1.29
Pathanamthitta	0.32	0.29	0.57	0.39	0.16	0.18	0.12	0.10	0.21	0.24	0.40	0.25	0.41	0.36	0.61	0.36
Alappuzha	0.58	0.59	0.76	0.55	0.38	0.37	0.45	0.29	0.22	0.19	0.30	0.32	0.43	0.36	0.80	0.76
Kottayam	0.63	0.54	0.47	0.45	0.22	0.24	0.16	0.12	0.21	0.09	0.30	0.12	0.52	0.43	1.77	0.54
Idukki	1.36	1.28	1.20	0.95	0.49	0.58	0.79	0.71	0.96	0.70	1.20	0.61	1.50	0.52	3.90	1.93
Ernakulam	1.04	0.85	1.37	0.95	0.48	0.43	0.26	0.16	0.29	0.19	0.40	0.15	0.67	1.50	1.49	0.63
Thrissur	0.37	0.35	0.46	0.36	0.21	0.20	0.19	0.15	0.32	0.19	0.40	0.09	0.57	0.57	1.83	0.79
Palakkad	1.15	1.02	1.27	1.02	0.76	0.66	0.64	0.60	0.84	0.65	0.80	0.51	1.02	1.02	2.32	0.96
Malappuram	0.83	0.77	0.63	0.61	0.29	0.22	0.29	0.26	0.47	0.22	0.60	0.24	0.83	0.83	2.23	0.91
Kozhicode	0.73	0.51	0.74	0.80	0.40	0.31	0.45	0.30	0.30	0.23	0.60	0.27	0.68	0.68	2.06	0.53
Wayanad	2.43	2.09	2.14	1.61	1.30	1.22	1.25	1.19	1.20	0.82	1.40	1.03	1.30	1.30	0.03	0.24
Kannur	0.89	0.79	0.77	0.67	0.42	0.32	0.45	0.45	0.57	0.40	0.60	0.37	0.79	0.79	2.59	0.84
Kasargode	1.68	1.38	1.62	1.46	0.77	0.77	0.77	0.56	1.37	0.81	1.40	0.85	2.05	2.05	3.64	1.70
Total	0.82	0.71	0.85	0.71	0.45	0.39	0.45	0.36	0.53	0.34	0.60	0.33	0.82	0.82	1.89	0.82

Table 2.25  
Percentage of drop out in various standards during 2006-07

Districts	I		II		III		IV		V		VI		VII		VIII	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Thiruvananthapuram	0.58	0.33	1.05	0.72	1	0.52	0.84	0.52	0.68	0.40	0.76	0.41	1.01	0.47	1.09	0.63
Kollam	0.34	0.27	0.50	0.40	0.37	0.33	0.41	0.33	0.41	0.17	0.44	0.24	0.70	0.39	1.21	0.57
Pathanamthitta	0.58	0.42	0.47	0.45	0.35	0.36	0.33	0.24	0.33	0.32	0.23	0.12	0.31	0.14	0.63	0.25
Alappuzha	0.56	0.38	0.38	0.25	0.29	0.17	0.24	0.17	0.24	0.09	0.25	0.17	0.41	0.23	1.02	0.53
Kottayam	0.54	0.57	0.56	0.36	0.3	0.19	0.16	0.19	0.35	0.22	0.23	0.11	0.62	0.26	1.71	0.47
Idukki	1.33	1.15	1.62	1.42	0.86	0.56	0.77	0.56	0.77	0.64	1.06	0.64	1.46	0.68	4.15	1.59
Ernakulam	1.08	0.87	0.99	0.72	0.45	0.20	0.48	0.20	0.48	0.26	0.56	0.29	0.90	0.34	1.83	0.65
Thrissur	0.44	0.31	0.40	0.37	0.2	0.23	0.33	0.23	0.33	0.26	0.51	0.36	0.76	0.39	1.68	0.82
Palakkad	0.98	0.88	1.12	1.04	0.83	0.46	0.52	0.46	0.52	0.54	0.82	0.57	1.06	0.50	2.27	1.00
Malappuram	0.90	0.66	0.56	0.43	0.47	0.33	0.51	0.33	0.51	0.28	0.65	0.29	1.06	0.34	2.84	0.83
Kozhicode	0.59	0.52	0.77	0.64	0.52	0.35	0.39	0.04	0.39	0.31	0.53	0.25	0.66	0.33	2.66	0.65
Wayanad	2.60	2.49	2.35	2.02	1.61	1.29	2.19	1.29	2.19	1.71	2.16	1.32	2.44	1.67	3.00	2.28
Kannur	0.88	0.54	0.62	0.47	0.31	0.23	0.42	0.23	0.42	0.29	0.54	0.25	0.67	0.27	2.56	1.14
Kasargode	1.17	1.12	1.17	0.98	1.00	0.66	0.72	0.66	0.72	0.32	0.69	0.28	0.91	0.46	1.04	0.43
Total	0.82	0.65	0.80	0.64	0.56	0.37	0.52	0.37	0.52	0.35	0.62	0.34	0.88	0.40	2.02	0.78

## Chapter 3 Health

### 1. Trends in Infant Mortality

A vital indicator of trends in health status of population i.e. infant mortality is seen to be stagnating around 12 per 1000 live births between 1997 and 2008, in Kerala. Though the state is well ahead of the national average, there are number of countries in South East Asian (Malaysia & Thailand) and in Gulf regions with superior IMR rates. Here one has to note why further declines in IMR are missing during this observation period. As known the average IMR in developed countries for the year 2009 is 6 per 1000 live births (PRB 2009), which should be seen as a bench mark for state to achieve in near future.

Table 3.1 Infant mortality rate (per 1000 live births) by residence and sex, Kerala 2002-2008

Year	Place of residence		Sex of the infant		Kerala Total
	Rural	Urban	Males	female	
1997	11	15	12	13	12 (71)
1998	15	17	18	13	16 (72)
1999	14	16	14	15	14 (70)
2000	14	14	15	13	14 (68)
2001	12	9	14	9	11 (66)
2002	11	8	9	12	10 (64)
2003	12	10	11	10	11 (60)
2004	13	9	14	11	12 (58)
2005	15	12	14	15	14 (58)
2006	16	12	14	16	15 (57)
2007	14	10	12	13	13 (55)
2008	12	10	10	13	12 (53)
Source : Sample Registration System, RGI India					
Figures in parenthesis denotes the corresponding IMR for India					

Table 3.2: District Level Estimates of Infant Mortality Rate (per 1000 live births), Kerala 2001

District	Kerala (Total)#			Kerala (Rural)#			Kerala (Urban)#			IIPS 2001@
	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Kasargod	14	13	16	15	13	16	13	12	14	22
Kannur	14	12	17	14	12	16	15	13	17	6
Wayanad	21	19	24	21	19	24	22	18	26	38
Kozhikode	17	15	19	17	15	18	17	15	19	21
Malappuram	16	15	18	16	15	17	20	19	21	6
Palakkad	21	20	22	22	21	23	14	14	14	9
Thrissur	16	15	18	16	15	18	16	15	17	16
Ernakulam	17	15	19	17	15	18	16	14	18	14
Idukki	18	18	19	19	18	19	14	12	15	9
Kottayam	13	12	15	13	11	15	14	13	15	9
Alapuzha	18	16	20	18	16	20	19	17	21	8
Pathanamthita	18	15	20	17	15	20	18	15	22	20
Kollam	20	18	23	20	17	23	24	22	26	12
Thiruvananthapuram	21	19	24	22	20	25	19	16	22	19
Kerala	NA	NA	NA	NA	NA	NA	NA	NA	NA	13

Source: # Rajan et al 2008. "Infant and Child Mortality in India, District Level Estimates", New Delhi: Population Foundation of India

@ Ram F, Sekhar C and Mohanty S 2005. "Human Development: Strengthening District Level Vital Statistics in India", Mumbai : International Institute for Population Sciences

IMR is marginally higher in rural areas than in urban areas but the stagnation phenomenon is marginally higher in rural areas than in urban areas. The minor nature of female disadvantage in IMR too is continuing during the eleventh plan period in Kerala.

As known there are limitations in getting data on district level estimates of infant mortality as else where in India. Only available information is obtained through indirect estimation of infant mortality using 2001 census data, presented in table 3.2 (Rajan et al 2008). Since the overall mortality has not declined over time, we expect only a marginal variation in district wise estimates of infant mortality. There is wide variation across various districts with Kottayam Kasargod and Kannur having better IMRs as compared to districts of Thiruvananthapuram, Kollam, Palakkad and Wayanad. Females disadvantage is IMR is noted to be varying across all districts. This disadvantage is more in districts of Kannur, Wayanad, Pathanamthita, Kollam and Thiruvananthapuram and comparatively lesser in Idukki and Palakkad. IMR in rural areas is better than urban areas in 50 % of districts in Kerala, which a unique phenomenon in India. Urban populations were at a lesser risk of infant mortality than rural population in Palakkad and Idukki, the two districts backward in term of health care infrastructure. Such differentials are not



observed in Wayanad, the other backward district in term of health care infrastructure, which could be due to low share of urban population (only 7 %). Urban disadvantage in IMR are clear in Kollam and Malappuram districts. Only meager rural urban differentials are noted in the remaining districts.

In the district-wise estimates of IMR based on District Level Reproductive and Child Health Survey (Ram et 2005) shows wide disparities in the state. Here IMR rate for Kerala (13/1000 births) is in closer to the Sample Registration system estimates for Kerala. According to these estimates Wayanad has the highest IMR (38 / 1000 live births), Thiruvananthapuram and Kasargod respectively. The low IMR is noted in Malappuram and Kannur districts.

## 2. Maternal Mortality Rate

As per the India's millennium development goals (MDGs), the country is targeting a reduction in maternal mortality rate to 200 per 100,000 live birth by 2007 and to 107 per 100,000 live births by 2015. Sample registration sytem under Registrar General of India, is the only source which provides direct estimates of maternal mortality in India, on a periodic basis.

Table 3.3: Maternal Mortality Ratio, Kerala & India

	MMR [ 95 % CI]		
	1999-2001	2001-03	2004-06
Kerala	149	110 [59-191]	95 [45-145]
India	327	301 [285-317]	254 [239-269]
Source : SRS Estimates by the RGI India, Special Survey of Deaths			

Though India is far behind its MDG related maternal mortality target, Kerala appears to have attained the target for the year 2015 even before making the commitment toward the MDG. Infant mortality has come down drastically in the above five year observation period and has reached 95 per 100,000 live birth for the years 2004-2006. Though there is a tremendous decline, the states position is far behind several developing countries eg:- like Sri Lanka (58/100,000), Venezuela ( 57/100,000), Mexico (60/100,000), Malaysia (62/100,000) etc.. Policy makers should note that despite nearly 100 percent institutional delivery, the maternal mortality ratio estimate for the state is high and the reasons for the same needs to be investigated.

## 3. Total Fertility Rate

Kerala being one of the low fertility states in India, the reduction in TFR is nominal. The total fertility rate has declined from 1.8 children per women in 1997 to 1.7 children per women. There is no difference in fertility between rural and urban areas in the state, which is a unique phenomenon in India.

According the NFHS, the TFR in Kerala is 1.9, which is comparatively higher than the Andhra Pradesh, Tamil Nadu and Goa, where fertility rate is 1.8 children per women (IIPS 2008). NFHS data also show that TFR just declined from 2.0 in 1992-93 to 1.9 by

2005-06. However the National Family Health Survey is critical about the variation in TFS across various subgroups of population. This indicator otherwise meets the target as it is below the set target for achievement i.e. 2.1.

Table 3.4 Total Fertility Rate in Kerala, 1997-2007

Year	Total Fertility Rate		
	Total	Rural	urban
1997	1.8	1.8	1.8
1998	1.8	1.8	1.9
1999	1.8	1.8	1.8
2000	1.9	1.9	1.8
2001	1.8	1.8	1.7
2002	1.8	1.8	1.7
2003	1.8	1.8	1.7
2004	1.7	1.8	1.7
2005	1.7	1.7	1.7
2006	1.7	1.7	1.7
2007	1.7	1.7	1.7

Source: Sample Registration System of India Reports

Table 3.5 Total Fertility rate by background characteristics, Kerala 2005-06

	Total Fertility Rate
Place of residence	
Urban	1.7
Rural	2.0
Religion	
Hindu	1.5
Muslim	2.5
Christian	(2.1)
Caste	
Scheduled caste	(1.3)
Other backward class	1.7
Others	2.2
Total	1.9
Trends	
NFHS 1(1992-93)	2.0
NFHS 2 (1998-99)	2.0

NFHS 3 (2005-06)	1.9
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Source: International Institute for Population Sciences and Macro International 2008.  
 () estimate based on 25-49 un-weighted cases

NFHS-3, shows that though the fertility level is below replacement level in rural and urban areas, the rural women on an average is having 0.3 children more than their urban counterparts. Religious differences were rigorous with the Muslim women on an average having one child more than Hindu women. Though the Christian women have just attained the replacement level fertility, their fertility is higher than the state average.

Table 3.6 Total Fertility Rate and percentage of birth of order 3 & above by Districts Kerala, 1991-2001, 2004-2007-08

District	Kerala (Total)@		% of Births of order 3 & above		
	1991	2001	2004@	2007-08#	% Change
Kasargod	3.3	2.4	27.0	27.8	3.0
Kannur	2.5	2.0	18.3	8.1	-55.7
Wayanad	2.6	2.0	17.7	18.6	5.1
Kozhikode	3.1	1.9	16.1	16.7	3.7
Malappuram	4.2	2.7	31.7	29.4	-7.3
Palakkad	2.7	1.9	16.1	15.5	-3.7
Thrissur	2.1	1.8	12.0	--	NA
Ernakulam	2.1	1.6	8.9	8.2	-7.9
Idukki	2.8	2.0	18.3	5.2	-71.6
Kottayam	2.2	1.6	8.4	12.9	53.6
Alapuzha	2.0	1.6	8.0	6.4	-20.0
Pathanamthita	1.9	1.6	7.3	5.7	-21.9
Kollam	2.1	1.6	6.5	5.4	-16.9
Thiruvananthapuram	2.3	1.6	8.5	8.7	2.4

@ Ram F, Sekhar C and Mohanty S 2005. Human Development: Strengthening District Level Vital Statistics in India", Mumbai : International Institute for Population Sciences #MOHFW (2009) District Fact Sheet, RCH Survey 2007-08

Huge inter district variations in Total Fertility Rate is noted in Kerala. TFR in northern districts is higher than that in southern districts. The 2001 Census based estimates reveal that TFR is as high as 2.7 in Malappuram district and 2.4 in Kasargod districts. However there is a considerable decline in fertility level in these two districts between 1991 and 2001. Thiruvananthapuram, Kollam, Pathanamthitta, Alapuzha, Kottayam and Ernakulam has a TFR of 1.6 children per women, which indicates the extent of fertility transition in the state.

Since the TFR data is not available for the recent five year plan periods, the proportion of births of order 3 and above available from the District Level Reproductive and Child Health Surveys (2004 & 2007-08) is used as a proxy for fertility situation in each district. Here also one can see large variations in fertility across the districts. The proportion births of order 3 and above out of total births in the district is as high as 29 percent and 28 percent in Malappuram and Kasargod districts respectively. The decline in share of births of order 3 and above between DLHS Surveys (2004 & 2007-08) in these two districts, with a relatively higher concentration Muslim population is not encouraging from a policy perspective. At the same time third order births are below 6 percent in Kollam Pathanamthitta and Idukki. Wayanad Kozhikode and Palakkad too have recorded substantial number of higher order births in the state. Hence the eleventh plan needs to focus more on fertility reduction in Malappuram and Kasargod districts.

#### 4. Child Malnutrition

Malnutrition is a major issue among children in Kerala and the three anthropometric indicators examined reveal that the state could not make any significant progress on this front between 1998-99 and 2005-06. One out of every 4 children aged below 5 years are stunted or too short (height for age < -2SD) for their age. Stunting is comparatively higher in rural areas than urban areas and among male children than female children. Caste wise differentials are very severe, with 34 % among Scheduled castes being stunted, followed by Other backward castes (26 percent) and other castes (20 percent). Due to sample size constraints NFHS-3 does not give estimates for the most vulnerable scheduled tribe population.

Table 3.7 Percentage of children under 5 years classified as malnourished according to three anthropometric of nutritional status, Kerala

	Height for age below -2SD	Weight for height below -2SD	Weight for age below -2SD
Place of residence			
Urban	22.2	10.9	15.4
Rural	25.6	18.2	26.4
Sex			
Male	25.8	16.3	24.0
Female	23.1	15.5	21.8
Caste			
Scheduled caste	33.7	16.5	25.4
Other backward class	26.7	16.3	22.6
Others	20.2	13.1	15.3
Total	24.5	15.9	22.9

Trends (for children below 3 years)			
1998-99	28.0	13.0	21.2
2005-06	26.5	15.6	21.2

Source: International Institute for Population Sciences and Macro International 2008.

The indicator of recent food intake or illness i.e wasting or too thin for their height (weight for height below – 2 SD) is prevalent in one out every 6 children in Kerala. Unlike stunting, the rural (18 percent)- Urban (12 percent) differentials are notable. Risk of wasting is similar among scheduled caste and OBC's but slightly lesser among other castes. More than one fifth of the children below 5 years in Kerala are under weight (weight for age below -2SD). Under weight is observed to be much more in rural areas than urban areas, male children than female children and within children in lower strata as per the social group classification.

Table3.8 Percentage of children age 6-59 months who are anaemic , Kerala 2005-06

	Anaemia status by haemoglobin level (g/dl)			
	Mild (10.0-10.9 g/dl)	Moderate (7.0-9.9 g/dl)	Severe (<7.0 g/dl)	Any Anaemia
Place of residence				
Urban	24.1	20.4	0.0	44.4
Rural	23.3	20.6	0.7	44.6
Sex				
Male	20.6	23.3	0.7	44.6
Female	26.9	17.4	0.3	44.5
Caste				

Scheduled caste	18.0	29.2	0.0	47.2
Other backward class	23.6	20.5	0.8	44.8
Others	24.5	19.0	0.2	43.8
Total	23.5	20.5	0.5	44.5
Trends for children (6-35 months)				
1998-99 (NFHS-2)	24.4	18.9	0.5	43.9
2005-06 (NFHS-3)	27.4	28.1	0.7	56.2

Source: International Institute for Population Sciences and Macro International 2008.

NFHS data on anaemia too substantiate the poor nutritional status of Kerala's children. Between the NFHS – 2 (1998-99) and NFHS – 3 (2005-06) surveys the percentage of children with anaemia increased from 44 percent to 56 percent. Such an increase in anaemia levels despite decline in poverty levels between 1999-2000 and 2004-05 is unwarranted. This also raises questions on quality and outreach of existing ICDS programmes in Kerala. Further the role of changing food habits and breastfeeding practices, in contributing to this scenario needs to be investigated.

About 23 percent of the children aged 6-59 months are having mild anaemia and another 21 percent are having anaemia at a moderate level. It is encouraging to find that the proportion of children severely anaemic is negligible in the state. Rural-urban differentials in childhood anaemia is non-existent. Female children were at a high risk of mild anaemia, while male children are at the higher risk of moderate anaemia, which together reveals that risk of anaemia is slightly higher for male children than female children. Social group differences showed greater risk anaemia among children belonging to scheduled castes than their counterparts from OBC's and Other castes groups. Since the children in the state are prone to mild/moderate anaemia, the public interventions especially through ICDS can target a reduction in the same through cost effective mechanisms, like IEC campaigns promoting awareness of balanced diet and on nutritional contents of commonly used food products.

## **5. Anaemia among Women and girls**

As noted in the case of children, malnutrition is a major problem among women aged 15-49 years. Nearly one out of every five women is too thin (BMI < 18.5). Under nutrition is as high as 36 percent among the teenage girls belonging to 15-19 years. Infact the women at the reproductive age group are at high risk of being thin, which has a crucial bearing on maternal mortality and infant health in the state. Another 28 percent of women in the reproductive age group are over weight. But obesity (BMI  $\geq$  30) is noted in only 5 percent of women. Risk of being overweight is very high in 30-39 ages (35 percent) and 40-49 ages (41 percent). Proportion suffering from under weight or low BMI is more in rural areas than in urban areas and in low socio-economic groups than among the higher socio economic categories. The reverse scenario is noted in the case of over weight or obesity. Eleventh plan has to have two entirely different focus in order to tackle these two nutritional problems observed among women in the state.

Table 3.9 Nutritional status of women aged 15-49 years based on Body Mass Index (BMI) and Anaemia, Kerala 2005-06

	BMI Level				Anaemia status by haemoglobin level (g/dl)			
	Total thin	Severely thin	Over weight	Obese	Mild	Moderate	Severe	Any Anaemia
	< 18.5	< 17	> 25	>= 30	(10.0-11.9g/dl)	(7.0-9.9gdl)	(<7.0 g/dl)	
Age								
15-19	36.2	16.5	6.2	1.4	25.7	8.2	0.8	34.7
20-29	22.6	11.1	20.3	2.4	26.6	6.9	0.5	34.0
30-39	12.3	5.6	34.9	5.9	26.4	4.8	0.4	31.6
40-49	9.5	4.3	40.6	8.7	24.0	7.3	0.7	32.0
Place of residence								
Urban	15.2	7.4	32.9	6.0	27.3	6.2	0.6	34.1
Rural	19.4	8.9	25.5	4.4	24.9	6.7	0.5	32.2
Caste								
Scheduled caste	22.4	13.2	19.3	2.4	25.6	10.3	1.8	37.7
Scheduled tribe	42.6	14.9	17.0	0.0	42.3	9.6	0.0	51.9
Other backward class	17.5	7.9	29.0	5.0	26.6	6.4	0.4	33.4
Others	16.6	7.5	29.9	5.7	24.7	5.7	0.4	30.8
Wealth Index								
Lowest	55.6	18.6	3.7	0.0	13.8	24.1	0.0	38.0
Second	27.1	15.0	14.3	1.5	29.4	8.8	1.5	39.7
Middle	27.2	12.9	16.5	2.6	30.1	7.5	0.8	38.4
Fourth	21.2	10.7	23.9	3.5	25.6	7.1	0.5	33.2
Highest	11.6	4.7	36.1	7.2	24.7	5.3	0.4	30.5
Total	18.0	8.4	28.1	5.0	25.8	6.5	0.5	32.8
Trends NFHS2/NFHS-3								
1998-99 (NFHS-2)					19.5	2.7	0.5	22.7
2005-06 (NFHS-3)					25.7	6.6	0.4	32.7

Source: International Institute for Population Sciences and Macro International 2008

Anaemia continues to be a major health problem among women in Kerala. One third of women aged 15-49 years are anaemic. In fact the situation in Kerala has worsened over time. Among the ever married women aged 15-49 years, the proportion anaemic has increased steeply from 23 percent in 1998-99 survey to 33 percent by 2005-06 survey.

This is another issue which eleventh plan has to tackle effectively. NFHS-3 also gives data on nature of anaemia based on haemoglobin level. About 26 percent of women are having mild anaemia, 7 percent moderate anaemia and only less than 1 percent are having severe anaemia. There is no age differential in prevalence of mild anaemia, but the risk of moderate anaemia was marginally higher in earlier ages of reproductive span. As expected the anaemia levels are higher in rural areas than in urban areas and among SC/ST's than among other social groups. Though poor had anaemia levels than rich, even the differentials were not high. However, when assessed against the target of reducing anemia among women by fifty per cent, the trend comparison of anaemia does not comply positively.

## 6. Sex ratio

Kerala is the only state in India where females outnumber males, among all the Indian states.. According to 2001 census the sex ratio in Kerala is 1058 females per 1000 males. An increase of 22 points was recorded between 1991 and 2001. Idukki (993) and Wayanad (995) are the only districts in the state, where males outnumber the females. The sex-ratio has increased in all the 14 districts in the field. Male out migration especially for employment is one major reason for high sex ratio in Kerala.

Declining child sex ratio (number of females per 1000 males in the 0-6 age group) is a major concern in India. Though Kerala has higher child sex ratio in comparison to other Indian states, only a minor improvement in this indicator is noted between 1991 Census (958) and 2001 Census (960). Child sex ratio is not favorable to females in all the districts of Kerala. Inter district variations in child sex ratio's are negligible. According to the 2001 Census Idukki district has the highest sex ratio (969), while lowest was recorded in Thrissur District (951). As regard compliance with the 11 plan target, the state of Kerala has a sex ratio of children in ages (0-6) which qualifies the target of 950 by the year 2016-17.

Another vital indicator of child sex ratio is the sex ratio at birth, i.e. number of female births per 1000 male births. This information is available from the Reproductive and child health survey undertaken by the Ministry of Health and Family Welfare New Delhi. The report only provides sex ratio at birth at the district level and not state level. The situation is favorable for more female births as per this survey. Sex ratio is favorable to females in nine out of 13 districts (data for Thrissur district is not released) in Kerala. Female advantage in sex ratio of birth is highest in Idukki (1200), Alappuzha (1200) and Ernakulam (1160). Female disadvantage is highest in Thiruvananthapuram (860) and Kozhikode (920). To conclude there is no need to provide an unwarranted attention to sex ratio situation in Kerala. The sex ratio levels have been at reasonable level in this low fertility state, which is an outcome of its unique socio and programmatic factors.

Table 3.10 Sex ratio, Child sex ratio (0-6 years) and sex ratio at birth by districts, Kerala 1991, 2001, 2007-8

District	Sex ratio <sup>\$</sup>	Child sex ratio <sup>\$</sup>	Sex ratio at
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	1991	2001	1991	2001	birth 2007-08 <sup>#</sup>
Kasargod	1026	1047	962	959	1110
Kannur	1049	1090	969	962	1080
Wayanad	966	995	966	959	1010
Kozhikode	1027	1057	956	959	920
Malappuram	1053	1066	958	960	970
Palakkad	1061	1066	969	963	1050
Thrissur	1085	1092	951	958	NA
Ernakulam	1000	1019	949	954	1160
Idukki	975	993	959	969	1250
Kottayam	1003	1025	948	962	1020
Alappuzha	1051	1079	946	956	1200
Pathanamthitta	1062	1094	957	967	980
Kollam	1035	1069	959	960	1020
Thiruvananthapuram	1036	1060	964	962	860.0
Kerala	1036	1058	958	960	NA

<sup>§</sup> Census of India 2001 Series 33 Final Population totals- Kerala

<sup>#</sup> MOHFW (2009) District Fact Sheet, RCH Survey 2007-08

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