CHILDREN AND WOMEN IN KARNATAKA

A SITUATION ANALYSIS 1990

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A STUDY CONDUCTED FOR GOVERNMENT OF KARNATAKA

By

Institute for Social and Economic Change, Bangalore

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Contents

ACKNOWLEDGEMENTS

This project was taken up at the instance of the Government of Karnataka and UNICEF, Madras. It was thought that an analysis of the situation of children in Karnataka, taking into account the recent developments, the strengths and weaknesses of a variety of programmes and the general direction in which the programmes could move in future, would be of some use to the policy makers and the planners.

The Project was funded by, South India office, Madras UNICEF for which we are thankful to Mr. S. Das Gupta, Zone Representative We are thankful to Mr. T.R. Satish Chandran, Director of the institute for permitting us to undertake this Project. We had fruitful consultations with Mr. Thomas P. Mathai, Planning Officer, UNICEF, Delhi and Mr. Dwight Antwine, Programme Officer in Madras. Mr. Antwine went through the draft chapters and made several valuable comments for which we are thankful The study involved extensive data search. Data on certain aspects of children were not easily available . In this search for data we received wholehearted help and support from Mrs. Shantha Kumari Devaraj, Additional Secretary, Planning Department, Government of Karnataka and several other officials in Government Departments, doctors and social workers. The draft report was discussed in a seminar which was attended by government officials of selected departments, representatives of UNICEF, voluntary organizations and also by ISEC faculty.In the course of discussion, very useful suggestions were made which we greatly appreciate and acknowledge . Mr. Johnson Samuel was kind enough to go through the final report.

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FOREWORD

Children upto 14 years of age constitute nearly 40 per cent of India's population. In Karnataka there were 14.6 million children in 1981, and this number should be around 16 million now. Even children upto 4 years of age are expected to be around 5.5 million accounting for about 12 per cent of the State's population. Inspite of several programmes launched by Government to improve the status of children, there are still many who are poor, who are mal-nourished, who are weak and who are destitute. This Project Report has analysed the situation of the child in Karnataka and has thrown light on the impact of various schemes under implementation.

Some of the findings of this study are encouraging—the ICDS programme has generally been well received by the people, and the Universal Immunisation Programme has by and large been successful. Karnataka's progress in meeting the basic requirements of the child viz., nutrition, health and education may appear impressive in the All-India context. The IMR declined from 95 to 74 during the 16 years ending 1986. This is significantly lower than the IMR of 96 for the country as a whole but is still way behind Kerala where it has come down to 29. Similarly, while the enrolment in primary schools has increased over time, problems like high dropout rates and relatively lower enrolment of girls persist. The low literacy levels among Scheduled Castes and Scheduled Tribes and in some districts like Gulbarga and Raichur where literacy among girls is less than 20 percent should be cause for serious concern. The Report has also drawn attention to several other factors like the status of women, the quality of physical environment and poverty which have a bearing on the overall status of the child.

A number of suggestions have been made to overcome the deficiencies and strengthen the existing programmes. One useful suggestion is to make the ICDS villages and blocks nodal points for training and developmental activities. Again, the finding that pre-school education has not been given as much attention as elementary education should help focussing attention in this area. Another aspect that would deserve greater attention of the Government would be the child problems in urban areas, as the accent till now has generally been on rural children. It must however be pointed out that shortage of resources constitutes a serious constraint in implementing some of the otherwise laudable recommendations.

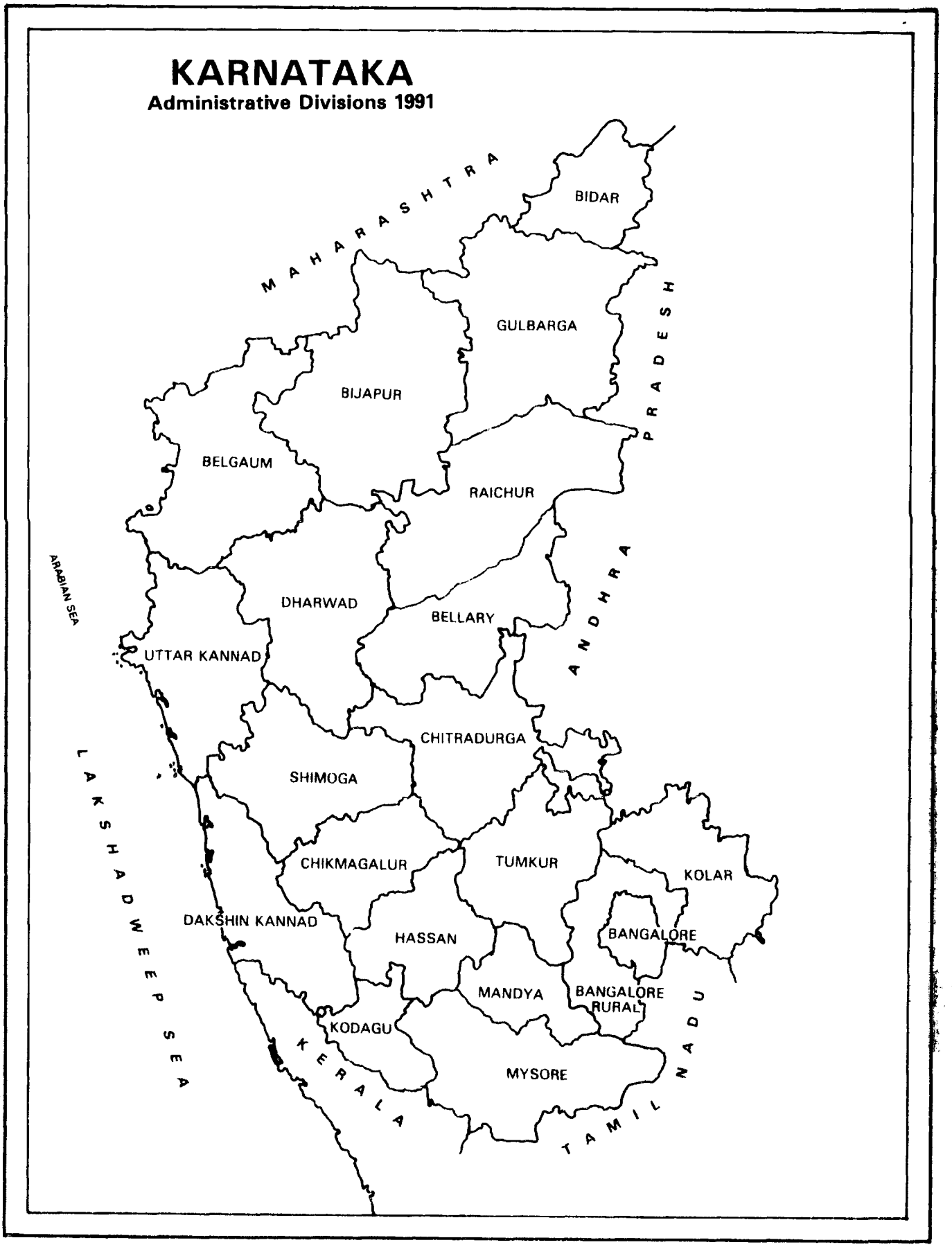
The Population Research Centre, ISEC and UNICEF, Madras must be complimented for their effort in bringing out this illuminating Report. I hope this would be of great assistance to the Government of Karnataka as also to other concerned organisations to evaluate their strategies for child development programmes.

May 6, 1991

A. RAVINDRA

MAJOR PROGRAMMES FOR CHILDREN AND WOMEN IN KARNATA

UIP	20 Districts	
WIC Locations	6 Districts	Mysore Bangalore (Rural) Dakshin Kannada Bellary Raichur Belgaum
ICDS	20 Districts	
DWCRA	8 Districts	Kodagu Mysore Chickmagalur Bijapur Raichur Gulbarga Dharwar Dakshin Kannada
UBSP	9 Districts	Bangalore (Urban) Shimoga Mysore Bijapur Tumkur Bellary Raichur Kolar Chitradurga
CDD	1 District	Chitradurga
ARI	2 Districts	Chitradurga Bangalore (Rural)
SANITATION	2 Districts	Mandya Mysore
WATER SUPPLY	10 Districts	Bidar Gulbarga Bijapur Belgaum Dharwar Bellary Shimoga Tumkur Mysore Bangalore (Rural)
COMMUNITY-BASED CONVERGENT SERVICES FOR CHILDREN & WOMEN	1 District	Mysore


KARNATAKA
Administrative Divisions 1991
MAHARASHTRA
BIDAR
GULBARGA
BIJAPUR
BELGAUM
RAICHUR
ANDHRA PRADESH
DHARWAD
BELLARY
UTTAR KANNAD
CHITRADURGA
SHIMOGA
CHIKMAGALUR
TUMKUR
KOLAR
DAKSHIN KANNAD
HASSAN
BANGALORE
MANDYA
BANGALORE RURAL
KODAGU
MYSORE
ARABIAN SEA
LAKSHADWEEP SEA
KERALA
TAMIL NADU

POPULATION — DISTRICTWISE

	State/District	Total Population			
		Population in 1981 (and rank)		Population in 1991 (and rank)	
	1	2		3	
	Karnataka	**37,135,714**		**44,817,298**	
1.	Bangalore	3,495,566	(1)	4,823,951	(1)
2.	Bangalore Rural	1,452,044	(14)	1,665,468	(14)
3.	Belgaum	2,978,913	(2)	3,520,406	(2)
4.	Bellary	1,489,225	(13)	1,892,715	(13)
5.	Bidar	995,691	(18)	1,251,060	(17)
6	Bijapur	2,401,782	(5)	2,914,667	(5)
7.	Chikmagalur	911,769	(19)	1,016,839	(19)
8.	Chitradurga	1,777,499	(11)	2,177,638	(11)
9.	Dakshin Kannad	2,376,724	(6)	2,692,081	(6)
10.	Dharwad	2,945,487	(3)	3,498,814	(3)
11.	Gulbarga	2,080,643	(7)	2,573,900	(7)
12.	Hassan	1,357,014	(16)	1,566,412	(16)
13.	Kodagu	461,888	(20)	485,229	(20)
14.	Kolar	1,905,492	(9)	2,211,304	(10)
15.	Mandya	1,418,109	(15)	1,643,626	(15)
16.	Mysore	2,595,900	(4)	3,155,995	(4)
17.	Raichur	1,783,822	(10)	2,307,049	(8)
18.	Shimoga	1,656,731	(12)	1,900,429	(12)
19.	Tumkur	1,977,854	(8)	2,301,448	(9)
20.	Uttar Kannad	1,073,561	(17)	1,218,367	(18)

I.

BACKGROUND

The situation of children is closely related to the economic conditions, the demographic features, the social characteristics particularly the status of women, educational and health infrastructural facilities, and the nature and quality of various programmes meant for the welfare of women and children. This chapter presents an overview of these aspects.

STATE AND THE REGIONS:

With respect to the general economic and social indicators, Karnataka can be considered an average state in India. Average per capita income during 1983-85 was Rs. 753 (1970-71 prices) in Karnataka as compared to Rs.777 in the country as a whole. In 1981, the per cent of population living in urban areas was 29 in Karnataka as compared to 23 in India. The per cent of literate population was 49 among males and 28 among females in Karnataka, as compared to 47 and 25 respectively for the country as a whole. Expectation of life at birth in the state during 1981-86 was around 57 years, slightly higher than 56 years for the country.

The state of Karnataka has grown out of the former princely state known as Mysore. Consequent upon the state's reorganisation In 1956, the number of districts in Karnataka increased from 10 to 19 with the merger of areas from the former Bombay, Hyderabad and Madras states and also the inclusion of Kodagu which was earlier a 'Part-C' state Very recently the number of districts increased to 20 with the bifurcation of Bangalore into Bangalore Urban and Bangalore Rural.

Inclusion of areas with earlier traditions of different socio-economic systems has given the state certain amount of regional diversity with respect to socio-economic characteristics and culture patterns. The northern region consisting of Bidar, Gulbarga and Raichur districts of former Hyderabad State and Bijapur district of the erstwhile Bombay State, is by and large, less developed. Per capita income is quite low In Bidar, Bijapur and Gulbarga. Female literacy is very low in Bidar, Gulbarga and Raichur. In all these four districts females marry at very young ages. Child marriages are relatively more common in Bijapur, Gulbarga and Raichur, and child work participation rates are high in Gulbarga and Raichur. Infant and childhood mortality rates are high in northern districts and low in the coastal districts. Dakshina Kannada district is rather unique in the sense that it shares some of the characteristics of the neighbouring Kerala state: high literacy, low infant and child mortality and better status of women.

POPULATION:

The pattern of population growth in Karnataka during the past several decades Is generally similar to that of many other states: slow growth during the first four decades of this century, followed by an acceleration in growth since then. The acceleration in growth is due to a declining death rate and a constant or slowly declining birth rate. in addition to natural increase, immigration into Karnataka could be an important factor in the 1971-81 population growth. The total population of the State as per 1991 Census (Provisional figures) was 44.8 million and would be around 47 million in 1991 and 55 million in 2001 (Table 1.1).

Migration to urban areas has led to the steady growth of urban population which has doubled from 5.3 million In 1961 to 10.7 million in 1981. By 2001, urban population could possibly reach 20.7 million.

Urbanward migration has implications for urban poverty and the proliferation of slums, apart from adding to the strain on the demand for infrastructural facilities. Further, the itinerant migrant women and children could miss some of the welfare programmes.

Table 1.1 : Population and Growth Rates, Karnataka, 1971-2001

Year	Population	Annual Growth Rate (%)
1971	29,299,014	
1981	37,135,714	2.39
1991	46,826,600	2.32
2001	55,489,900	1.70

Notes : *1. Populations for 1991 and 2001 are based on Projection (medium fertility with migration)*

2. Population upto 1981 not corrected for omission rates

3. Growth rates are exponential growth rates

Source: 1. Census Reports for Karnataka, 1971 and 1981.

2. P.M. Kulkarni, 1985.

The sex ratio of a population (number of females per 1000 males) is often used to indicate the health status of women relative to that of men. It must be noted, however, that the sex ratio of the population of a state is affected by, in addition to sex differentials in mortality, sex selective migration and also sex selective bias in enumeration reporting. In 1981, Karnataka's sex ratio was 963, higher than the 1961 and 1971 figures. Kerala, Andhra Pradesh, Orissa and Tamil Nadu have higher sex ratios than Karnataka.

During the 1950s the birth rate and the death rate in Karnataka were of the order of 42 and 23, respectively, per 1000 population. Death rate has declined to about 10-11, and birth rate to around 31-32 in the first half of 1980s. A faster decline in fertility would depend on increases in family planning adoption and in age at marriage. Government-sponsored Family Planning clinics were opened in Karnataka, in Bangalore and Mysore, as early as in 1930. Over time, the performance in family planning adoption in Karnataka has been average, and at times better than the average performance in the country. By the end of March 1986, the per cent of couples in Karnataka effectively protected by sterilisation was 31, lower than 5 States- Maharashtra, Kerala, Gujarat, Tamil Nadu and Andhra Pradesh; but higher than the country's average of 27. Per cent of couples protected by any family planning method was 36 in Karnataka as compared to 35 for the country.

Age at marriage of females in Karnataka has been rising at the rate of about an year per decade. The singulate mean age at marriage of females increased from 16.5 in 1961 to nearly 18 in 1971 and 19 in 1981. Presently, age at marriage in Karnataka is slightly higher than that of India, but lower than that of Punjab and Kerala, by two to three years.

It must be pointed out here that age at marriage and family planning adoption have implications for infant and child mortality. Lower age at marriage leads to lower age at maternity, and uncontrolled fertility results in more births at short intervals. It is well documented that infant and child mortality is

high among births which occur when women are too young or too old, amoung fourth and higher parity births and also among births occurring at short intervals.

Changes in future, in the number of children and in the number of women in reproductive ages are important from the point of view of programme coverage. The age structure of a population, or population in specified age groups is determined by past changes in mortality and fertility, the latter in particular. Because of relatively high fertility in the past, women and child development programmes will have to cover larger numbers in the coming decades. Declines in the number in the year 2001 are expected only in the case of children aged 0-4 and 5-9, and that too very marginal (Table 1.2). By the year 2001, the number of children aged less than 15 years will be in the range of 16 million, and the number of women in reproductive ages will be nearly 15 million.

Table 1.2 : Children, and Women in Reproductive Age Group, Karnataka, 1981-2001

Number of Children by Age:	1981	1991	2001
0 - 4	4,616,609	5,533,700	5,511,700
5 - 9	5,189,895	5,463,000	5,451,600
10-14	4,872,361	4,994,800	5,433,400
0-14	14,678,865	15,991,500	16,396,700
Number of Women Aged 15-49	8,617,858	11,953,200	14,846,200
Per cent of Children to the total Population			
0-4	12.4	11.8	9.9
5-9	13.9	11.7	9.8
10-14	13.1	10.7	9.8
0-14	39.5	34.1	29.5
Per cent of Women Aged 15-49 to total Population	23.2	25.5	26.7

Notes: *1. Data for 1991 and 2001 are based on projection (medium fertility with migration)*

2. Census data for 1981 are not corrected for omission rate

Source: 1. Census Report for Karnataka, 1981.

2. P.M. Kulkarni, 1985

SOCIAL CONDITIONS:

Out of a total population of 37 million in the State, nearly 86 per cent are Hindus, 11 per cent are Muslims, Christians and others account for the remaining 3 per cent. There are about 5.6 million Scheduled Castes constituting 15 per cent of the total population, and 1.8 million Scheduled Tribes constituting nearly 5 per cent of the population. Out of the Scheduled Caste population of 5.6 million, about 2.9 million or nearly 52 per cent are concentrated in six districts: Bangalore, Kolar, Mysore, Gulbarga, Bijapur and Tumkur. The traditional belt for Scheduled Tribes consists of Coorg, Dakshina Kannada, Mysore and Chickmagalur districts.

Women and children of Scheduled Castes and Tribes, those in agricultural labour families, female-headed households and in itinerant migrant families constitute the most disadvantaged sections of the society. Social deprivation and economic backwardness of the Scheduled Castes and the Scheduled Tribes, coupled with their territorial segregation in rural areas could inhibit access to and utilisation of various developmental and welfare programmes, such as provision of drinking water, maternity allowance, immunization, ANMS' home visits....etc. The migrant families, female headed households and the labour households also share this predicament for various reasons. First of all, the demand for modern inputs and services may be quite low among these disadvantaged sections of the population, and secondly, even if the demand is strong they may still be the losers in the interplay of caste and class in the competition for cornering developmental benefits.

However, at the macro level when one considers villages and rural population as a whole, developmental efforts have brought about some significant changes. Compared to conditions about 35 to 40 years ago, a number of villages and habitations are accessible by road.

Secondly, a large number of villages are provided with primary schools. About 93 per cent of the rural population is served by primary school/sections within each habitation and nearly all the rural population are covered by primary school/sections within 2 Kms of the habitations (NCERT, 1989). Thirdly, health centres and health units have penetrated a large number of villages. Presently there are 836* PHCs (Primary Health Centres), 848 PHUs (Primary Health Units) and 7793 sub-centres in Karnataka (Karnataka, 1989). In addition, rural people in several villages have access to listening to radios and transistors.

These developments have led to changes in certain aspects of rural social life. Members of the households travel outside villages and maintain contact with the outside world, and people avail themselves of modern health facilities when the need arises (Rao et. al., 1986). Changes are taking place in certain aspects of behaviour pertaining to children's education, employment, marriage and relations between generations(Caldwell et.al., 1982 and 1985). Parents' aspirations for the education of their children, boys in particular, are high. Parents who favour no education or low levels of education for boys constitute a small proportion, most of whom are very poor (Rao et. al., 1986). Though girls' education is less favoured than the boys', there is a growing realisation about the need for better educated brides to suit the educated urban based bridegrooms. Child marriages have not disappeared, but they are confined to particular sections of population. There is a growing realisation that before marriage, girls should be "mature and knowledgeable about worldly affairs", and the onset of puberty need not

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* Quite a few of them were sanctioned during 1988-89.

necessarily hasten marriage (Rao et. al., 1986). Regarding intergenerational relations, "The younger couples do not seem to wrest decision-making powers from the old during overt conflict, but rather the old increasingly retire from various areas of decision making. The most common explanation given in the study area is that old fathers grow increasingly apprehensive that their married sons will secure work elsewhere if they feel too dominated or if their wives convince them of such domination" (Caldwell et. al., 1982). These changes in behaviour patterns influence, in so many intricate ways, the status of children and women.

Since April 1987, with the establishment of Zilla Parishads and Mandal Panchayats, elected district bodies have been given the authority to plan and execute development plans. Decentralised planning has the potential for ensuring efficient utilisation of resources and better monitoring of the programmes, and it could also stimulate greater social awareness and participation by the people in matters concerning their own development and welfare.

During 1988-89 and 1989-90, the total outlays for the Zilla Parishads including the Union government's shares have been Rs.393 and 436 crores, respectively. Generally, the Zilla Parishads have accorded priority to the Minimum Needs Programme, the social service sectors in particular, such as primary and secondary education, and rural water supply (Sankaranarayanan and Basavana Goud, 1989). It has been observed however, that the Zilla Parishad outlay as proportion of state plans has been declining from about 29 per cent during 1987-88 to 26 per cent during 1988-89. It is suggested that a fixed proportion of State plan, say 30 per cent, could be allotted to the Zilla Parishads, and that the Zilla Parishads should have the authority to modify/discontinue existing schemes transferred to them, and also to create posts that go with the establishment of schools, hostels, health centres ... etc. (Sankaranarayanan and Basavana Goud, 1989).

ECONOMY

In a developing economy the contribution of the primary sectors (agriculture, forestry and mining) to national income and labour force, gradually declines with corresponding increases in the secondary and tertiary sectors. In Karnataka, the share of the primary sector (1970-71 prices) in State income declined from 57 per cent during the quinquennium ending 1964-65, to 45 per cent during the quinquennium ending 1984 85 (Karnataka, 1988). During the same twenty year period the share of the secondary sector increased from 22 to 29 per cent. The tertiary sector has also registered increases. During the three year period ending 1987-88 the relative shares of the primary, secondary and tertiary sectors (at 1970-71 prices) are 41, 31 and 29 per cent, respectively (Karnataka, 1989).

The shifts in the sectoral shares of State income have not been followed by corresponding changes in labour force. The decline in labour force engaged in the primary sector has been rather small, with about 65 per cent of workers still depending on the primary sector for their livelihood. This indicates that the primary sector with a shrinking share in State income, is supporting a relatively larger proportion of the total work force.

Long term trends in economic indicators show that the economy has generally been stagnant since the mid 1970s (Table 1.3). For example, the growth in per capita income as well as in agricultural income has been negative during 1974-82. The growth rates in food production as well as productivity, after a remarkable increase during 1964-74 have slumped quite drastically during the recent period. Progress in industrial and power sectors has, however, been better. Industrial income increased by

Table 1:3: Growth Rates In Selected Economic Indicators, Karnataka.

	Average Annual Growth Rates (%)		
	1956-64	1964-74	1974-82
State Income	4.3	4.0	2.2
Per Capita Income	2.6	1.7	– 0.2
Agricultural Income	4.1	4.2	– 0.2
Foodgrains Production	2.0	5.9	1.4
Foodgrains Productivity	1.7	6.2	2.4

Source: Government of Karnataka, 1984, **An approach to Karnataka's Seventh Five Year Plan (1985-90)**. The Economic and Planning Council.

about 6.7 per cent per annum during the quinquennium ending 1982-83, as compared to 2.8 per cent in the preceding quinquennium. The Index for the growth of manufacturing increased from 121 in1971-72 to 202 in 1981-82. Power generation also increased by about 7.5 per cent per annum durng the decade ending 1982-83.

POVERTY:

In rural Karnataka, nearly 50 per cent of households subsist on a per capita daily expendiure of about Rs.3 or less, and a similar per cent of urban households survive with a daily per capita expenditure of Rs.4.60 or less (Table 1.4).

Table 1.4: Per Cent Distribution of Households according to Per capita Monthly Experditure Classes, Karnataka 1983.

P.C. monthly Expenditure Classes (Rs.)	Rural		Urban	
	% of HHs	Cum. % of HHs	% of HHs	Cum. % of HHs
0 - 30	0.8	0.8	0.2	0.2
30-40	2.7	3.5	0.6	0.8
40-50	3.8	7.3	1.3	2.1
50-60	8.0	15.3	2.5	4.6
60-70	8.1	23.4	3.8	8.4
70-85	12.4	35.8	8.1	16.5
85-100	11.4	47.2	8.2	24.7
100-125	18.0	65.2	13.2	37.9
125-150	11.4	76.6	12.2	50.1
150-200	12.0	88.6	17.1	67.2
200-250	5.0	93.6	11.7	78.9
250-300	2.5	96.1	5.9	84.8
300+	3.9	100.0	15.0	99.8

Source: NSS, Report on the Third Quinquennial Survey on Consumer Expenditure, 38th Round, Jan-Dec. 1983, June 1985.

The poorest 10 per cent of the population spend about 20 to 23 rupees per month on cereals and pulses, while the top 10 per cent spend 2 to 3 times more (Table 1.5). The gap in expenditure between the rich and the poor is quite substantial in the case of pulses and milk consumption.

Table 1.5: Per Capita Expenditure on Selected Items, Karnataka, Rural and Urban, 1983.

P.C. Expenditure: Rs. Per Month

Items	Rural			Urban		
	Bottom 10%	Top 10%	Total	Bottom 10%	Top 10%	Total
Cereals	17.9	57.6	35.1	19.9	45.3	33.4
Pulses	1.9	9.7	4.8	2.9	10.4	5.9
Milk...	1.8	15.0	6.0	2.6	32.6	11.7
Total Food	31.8	149.1	74.2	39.7	198.3	96.6
Total Non-food	11.7	137.4	42.7	15.5	233.7	69.7
Grand Total	43.6	286.5	116.8	55.2	432.0	166.3

Source: Karnataka, 1988. Data from National Sample Survey, 38th Round, 1983.

Basically, the income of a person should enable him to buy food adequate enough to provide him with the energy required to do the normal work. A person is classified as poor if his income is less than the minimun required to meet the energy requirements. The energy requirements are known to vary among groups of people according to region, rural-urban place of residence, nature of work and possibly other factors as well. Hence, while fixing the poverty line and estimating the proportion of people who are poor, certain amount of arbitrariness appears to be unavoidable.

According to the Planning Commission estimates, the percentage of population who are poor in Karnataka and India in 1983-84 are as follows:

	Rural	Urban	Total
KARNATAKA	37.5	29.2	35.0
INDIA	40.4	28.1	37.4

Compared to the country as a whole the proportion of rural poor is less in Karnataka. Among the southern states the per cent of poor people is lowest in Kerala with 27. In Andhra Pradesh it is 36 per cent while in Tamil Nadu it is the highest with nearly 40 per cent. Variations in urban povery are quite low in these four states, but rural poverty is highest in Tamil Nadu with 44 per cent and lowest in Kerala with 26 per cent.

It is difficult to estimate the future levels of poverty in the absence of comparable trend data on poverty. If we assume that the per cent of poor people will decline to 25, by the year 1991, then for a projected population of 46.83 million, the approximate number of poor people will be 11.7 million in 1991. This would imply a figure of about 4 million poor children aged 0-14, and 3 million poor women aged 15-49, by the year 1991. These figures provide a rough idea about the expected coverage of the programmes designed for the welfare of women and children.

Bare statistics alone would not adequately reflect the human aspects of poverty. Povery is closely related to various types of nutritional disorders and health hazards. Women and children are more vulnerable to the severity of poverty. Women work for long hours, collecting fuel, fodder and water, and in other household chores, and also in economic activities. Children too are made to work if they could supplement the household income. in such conditions there is very little motivation to send children to school. With frequent child bearing, long hours of work and anaemic health conditions on the part of women, infant and child loss is high, and those who survive, live in conditions that are least conducive to the normal growth and development of children. The rigour of poverty could be heightened in certain seasons depending upon the seasonal variations in the availability of work, food prices and in the incidence of diseases (Chambers, 1983).

The conditions of the poor become worse during drought situations which Karnataka experienced for five consecutive years since 1983. The worst victims of drought are the agricultural labourers, in particular the women and young children in these families.

To eradicate poverty or at least minimise some of the debilitating effects of poverty, the Karnataka government implements, in addition to development plans, special schemes known as Poverty-alleviation Programmes aimed at helping the poor people. Presently there are 45 such programmes, of which 19 are direct Poverty-alleviation Programmes (Karnataka, 1985). Another 10 schemes such as elementary education, rural health, rural water supply.... etc., come under the Minimum Needs Programme.

STATUS OF WOMEN:

The status of women, their health and nutritional standards, educational level, pattern of work, age at marriage and child bearing, have major consequences for the survival, growth and development of children who, in turn, perpetuate the cycle, vicious or otherwise. The problems of women which primarily stem from the culturally ordained customs and practices, become compounded with poverty and deterioration in physical environment. The nature and extent of social disabilities faced by women vary across caste, class and region.

Prejudices against the females start with birth, continue through marriage and then the whole cycle is repeated. Sons are valued more since they continue the family line, perform ancestral rites and are expected to provide old age security; while daughters are paid less attention since they leave the home after marriage. This prejudice has adverse impact on the females with respect of school enrolment, higher education, health and nutritional care, employment and remuneration.

Some of the customs and practices which militate against the interests of women are child marriage, Devadasi system and dowry. Child marriages in Karnataka are certainly on the decline but they are still prevalent in some districts of northern Karnataka. Out of nearly 82,000 ever married girls aged 10-14 in 1981, about 64 per cent were in four districts, Bijapur, Belgaum, Gulbarga and Raichur. Though child marriages affect the boys as well as the girls, child care and other responsibilities are thrust on the girls at very tender ages and in addition, in case of death of spouses it would be more difficult for girls than boys to remarry.

The Devadasi system is prevalent among some communities, mainly the Scheduled Castes, in parts of northern Karnataka. Young girls around 8 to 10 years of age are dedicated to Goddesses and initiated into prostitution after puberty. Inspite of strong social disapproval, this practice has been kept alive by superstition and poverty. There are some programmes to eradicate this practice.

Though dowry, or the system of monetary payments made by the bride's family to the bridegroom at the time of marriage, has been in vogue for long, in recent times it has acquired a cruel and compulsive character, particulary in middle class families. In the struggle for better life and more material comforts, marriage has become a means for exploitation of women for monetary gains and women are subjected to humiliation and indignities. Inspite of legislation against dowry, this practice persists and dowry deaths are not uncommon.

Poverty and deterioration in physical environment could make the conditions of women worse. When fuel wood in the neighbourhood becomes scarce due to destruction of forests, women as collectors of fuel, will have to trudge long distances. Non-availability of potable water in the vicinity could again become additional burden for women. With urbanisation and the growth of slums, more women and children, than men, will be exposed to the squalor, disease and social exploitation in the slums.

As in many other states literacy among females in Karnataka is lower than males.In rural areas, only 20 per cent of women were literate in 1981 as compared to 42 per cent among males. In rural Bidar, Gulbarga and Raichur districts female literacy was less than 10 per cent.

The 1981 Census enumerated 4.6 million female workers, 4 million in rural areas and the rest in urban areas. Marginal workers or those who worked for less than 183 days during the year preceding the census, were considerably more among females indicating the fact that many women combine household work with work for livelihood, possibly out of necessity. Female marginal workers were nearly eleven times higher than male marginal workers in rural areas, and twice as many in urban areas. One-half of the female main workers (worked for 183+ days) were agricultural labourers. Marginal workers and agricultural labourers constituted 62 per cent of the total of 4.6 million women workers. In other words, a large majority of women workers are in the unorganised sectors characterised by seasonal demand for work and low wages. In rural areas, among workers other than cultivators and agricultural labourers, female main workers were engaged mainly in beedi making (27%), plantation work (16%) and also in retail shop keeping (5%), basket making (5%) spinning, winding... etc. In urban areas they were engaged mainly as beedi makers (17%) and also as domestic servants (6%), primary school teachers, retail shopkeepers, spinners (5% each) and clerks (3%). Many casual women workers in urban and rural areas, because of long hours of work and distant work places spend less time with children thereby adversely affecting child care, feeding of children in particular (Shariff, 1989).

Early marriages of girls are followed by maternity at relatively young ages when knowledge about mother and child care is very low. Inspite of maternal and child care facilities in rural areas, utilisation of proper medical care during pregnancy, at the time of delivery and later, is generally low. The per cent of births attended by untrained dais and others, is high in rural areas with about 58 per cent and relatively low in urban areas with 27 per cent. Though family planning adoption has made some progress, births take place at short intervals and the number of higher order births is not small. In rural Karnataka, fourth and higher order births constitute nearly 40 per cent of total births. It is known that the risk of maternal and infant morbidity and mortality is high in four types of pregnancies: Pregnancies before age 20 and after 34, Pregnancies after 4 births and those less than 2 years apart (Rinehart and Kols, 1984).

The State Government implements directly and also through voluntary organisations, a number of programmes which benefit women and children : Pension to destitute women, maternity allowance to agricultural landless women labourers, Integrated Child Development Services (ICDS)programme, Special Component Plan for Women, Nutrition Programmes...etc. The basic inputs in many of these

programmes are supplementary nutrition, and immunization for children pregnant and nursing women, and in addition, health check-up and pre-school education for children. There are other programmes for the physically and the mentally handicapped, the destitutes and the orphan children, and also programmes for combating social evils like dowry, Devadasi system and child marriage. The coverage and effectiveness of some of these programmes are discussed in later chapters.

2.

PHYSICAL ENVIRONMENT

The quality of the physical environment is an important factor determining the health status of individuals and communities. Poor housing, lack of sanitary facilities and of safe drinking water have, for long, been associated with the rural areas. However, there is a growing recognition of the fact that these problems have become acute in urban areas and could reach crisis proportions in some of the large cities.

Urban slums are the major sources of diseases for slum dwellers as well as the neighbourhood residents. With over-crowding, squalor, the trauma of poverty and a strong feeling of deprivation, slum-life could give rise to tendencies towards criminality and exploitation, particularly of women and children. With increasing urbanisation and with no substantial reduction in poverty, there is a likelihood of an increase in slums and slum population, unless there are radical alterations in urban development programmes.

DRINKING WATER:

Rural water supply scheme in the state was initiated under the National Rural Water Supply Scheme which was later incorporated in the 'Minimum Needs Programme' in the Fifth and subsequent Five Year Plans. In 1971, the Borewell Programme in Karnataka started with the supply of five new generation rigs from UNICEF. After a systematic survey, problem villages were identified on the basis of certain criteria and grouped into seven categories. In March 1980 the seven categories of problem villages specified in 1971 were reduced to three:

1. Villages with no water source, with a source at a distance of 1.6 Km or more or at a depth of 50 feet or below.

2. Villages where the water is saline.

3. Villages where water is likely to spread cholera or guinea worm diseases.

Table 2.1 : Distribution of Main Villages according to Population Size, 1981.

Population	No. of main villages	Per cent
Less than 200	4112	15.2
200-499	7177	26.6
500-999	7342	27.2
1000-1999	5239	19.4
2000-4999	2722	10.1
5000-9999	401	1.5
10,000+	35	...
	27028	100.0

According to the 1981 Census the rural population of 26.4 million people lived in 52,623 habitations including 27,028 revenue villages (Table 2.1). More than two-thirds of villages have less than 1000

population and 42 per cent have less than 500 population. While providing water supply sources, the population size of the revenue villages as well as the distribution of habitations such as small hamlets, tandas, and janata housing colonies, have to be taken into consideration. Bigger villages will have to be provided with more than one source of water supply. Similarly, habitations or parts of villages where Scheduled Castes and backward classes live may require an independent source of water supply. Because of these reasons the criteria for water supply will have to change periodically depending upon the improvements already made.

Based on the 1980 criteria, 20,003 villages and habitations were identified as problem villages in that year. Most of the villages belonged to the first category of problem villages (Table 2.2). In the case of the third category which has a more direct influence on health conditions, out of 202 villages identified, the maximum number of villages were in Gulbarga district with 104, followed by Dharwad district with 48, Bellary with 20, and Bijapur and Raichur with 15 to 10 respesctively. During the Sixth Five Year Plan (1980-85), almost all the problem villages identified in 1980 were provided with at least one source of safe drinking water (borewell with a hand pump).

Since 1985, the criteria for the identification of problem villages have changed (Karnataka, 1987). Every hamlet, Harijan wada, project camp or janatha housing colony is to be provided with a water source, if the population is 150 or above in the maidan region and 100 and above in malnad region. These population limits are relaxable under certain conditions. For bigger villages there is provision for a water source at the rate of one for every 250 population. For larger villages with a population of 1000 or more, either one mini water supply scheme or a mini water supply scheme and borewells, to provide a service level of 25 lpcd (litres per capita daily) of water supply are envisaged.

Table 2.2: Number and Types of Problem Villages and Habitations Identified and Covered, Karnataka

	Type of problem/Coverage	No. of Villages and habitations
1.	Number of problems villages and habitations identified in 1980:	
	(a) No water source, water source is at least 50 feet below or at a distance exceeding 1.6 Kms	16,764
	(b) Water is saline	3,037
	(c) Available water likely to spread cholera, guine worm diseases	202
	Total	20,003
	Number of problem villages and habitations covered during 1980-85	19,990
2.	Status position as on 1.4.1988:	
	Fully covered habitations	14,526
	Partially covered habitations	19,530
	Habitations not covered	3,079

Note: *Some of the habitations provided with water sources earlier, are listed as problem villages again, for various reasons.*

Source: Karnataka (Public Health Engineering Department), 1988.

Under the Special Component Plan, the first borewell or the first stand post, will have to be provided in a Harijan Basthi. Since inception up to March 1988, about 11,254 borewells have been provided under this scheme (Karnataka, 1988 : 23).

The Tribal Sub Plan is for the benefit of the tribal people in four districts: Chikmagalur, Mysore, Dakshina Kannada and Kodagu. Under this scheme, up to March 1988, about 1000 borewells have been provided (Karnataka, 1988:23). It may be mentioned here that the provision of water supply in tribal areas is rather difficult. There are also water supply schemes under Scarcity Relief Programme, for drought affected areas. In all, up to March 1988, about 14,526 habitations were fully covered and 19,530 were partially covered (Karnataka, 1988).

The main thrust of the Seventh Five Year Plan has been to provide a safe source of drinking water for a population of 250, and for each tanda, janatha colony ... etc. The plan has also proposed to expand the activities of Karnataka Urban Water Supply and Drainage Board, and cover more towns and cities, in order to provide a service level of 70 lpcd.

To sum up, Karnataka has made impressive strides during the 1980s in providing safe drinking water sources in rural areas. One can actually see more borewells in villages today as compared to 10 years back. However, available data do not indicate precisely the number of villages in the State where people still use water that is not potable and safe.

For maintenance of borewell handpumps a two-tier system is in operation, consisting of a voluntary care taker per hand pump at village level and a mobile team at the taluk level. How efficiently this system functions requires to be evaluated. Breakdowns in the system, not attended to immediately, may force people to fall back upon unprotected sources of water. It is also necessary to monitor water levels in the sources, overall changes in rainfall and in the eco systems.

Further, much of the advantage in providing safe drinking water can be lost if people are not educated about the epidemiology of water borne diseases, the need for hygienic handling and storing of water and the significance of using boiled water tor consumption.

In urban areas, the problem of water supply is mainly one of availability and variations in availability among localities within towns and cities. In small towns, per capita availability is less as compared to big towns and cities, and in addition per capita availability varies within localities in towns and cities (Rao and Thimmiah, 1989). Among the localities in Bangalore city, for example, per capita consumption of water varies from a minimum of 20 litres a day to a maximum of nearly 120 litres a day (Subramanian, 1985). In certain parts of cities and towns, because of illegal connections from water lines and lack of proper safeguards in protecting water sources from sewage, water could get contaminated under certain conditions and result in major outbreaks of epidemics. This situation needs to be improved.

SANITATION:

The UN Water Conference held at Marr Del Plate in Argentina in 1977 declared that the period 1981-90 be designated as the "International Drinking Water Supply and Sanitation Decade". Though much progress has been achieved in providing safe drinking water, improvements in sanitation and public health are rather meagre. As against a target to cover 25 per cent of villages under sanitation by 1990, only about 2 per cent coverage has been achieved.

In rural areas the basic problem is one of lack of demand from individual households for sanitary toilets. People should not only have them but also use them. Without a massive educational campaign, it will be difficult to make people demand and use sanitary facilities. In urban areas the problem is mainly one of maintenance. Poor maintenance of public toilets in urban areas could inhibit the desire to use them and force people to revert back to unhealthy practices. In addition to educational campaign, low cost sanitary latrines and proper maintenance could improve the situation.

SHELTER:

Lack of shelter is a problem in rural and urban areas, but it is more visible in urban areas because of high population density and land costs. No assessment of the demand for rural housing is available. However, in urban Karnataka, about 43 thousand people did not have any shelter at all in 1981, more than thrice the number in 1961 (Samuel, 1987). A large number of those who have shelters are only slightly better than the shelterless people, since they have just one-roomed shelters made of mud, grass, leaves, thatch etc.

In rural areas the Government's programme is mainly in the nature of constructing janatha houses and distribution of sites. Up to March 1984, about 12 lakh sites have been distributed to the rural poor and 4 lakh houses have been constructed under Janatha Housing Scheme (Kamataka, 1985). In urban areas, under the Bhagyamandira Scheme since 1979-80, financial assistance is provided for house construction as well as house improvements and repairs. However the scale of operations during the Sixth Plan is quite modest: 16000 houses constructed and 8300 units improved (Karnataka, 1985).

Recently, in urban areas a number of financial institutions including banks have come forward to extend credit facilities for housing which would benefit mostly the middle class people. Since July 1989, the Karnataka State Cooperative Rural Development Bank (KSCORDB) has launched the rural housing scheme. With refinancing facility from the National Housing Bank, this scheme enables rural people to avail housing loans up to Rs. 50,000. This scheme is also likely to benefit only the rural middle class people. It is necessary to devise housing finance schemes which could utilise the savings of the poor people in the rural and the urban areas.

SLUMS AND SCHEMES FOR IMPROVEMENT:

In March 1989 there were 1270 slums in Karnataka and the total population living in these slums is estimated to be about 11 lakhs (Karnataka Slum Clearance Board, 1989). A slum population of this size would imply a figure of approximately 3.8 lakh children in 0-14 age group and 2.5 lakh women in 15-44 age group.

The Karnataka Slum Clearance Board was constituted in 1975 under the Karnataka Slum Areas (Improvement and Clearance) Act which came into force in 1974. The major functions of the Board are environmental improvement of slums and slum clearance and re-development.

Under the Programme of Environmental Improvement of Slums, the Board provides basic amenities such as drinking water, street lights, bathrooms, sewer, drains, roads ... etc. Provision for these amenities is based on an expenditure norm of Rs. 250/= per head of the slum population under the jurisdiction of the Board. It is reported that these amenities have been provided to 583 slums in the State costing Rs. 98 million.

Under the scheme of Slum Clearance and Re-development, the Board is engaged, with financial assistance from HUDCO, in constructing houses for slum dwellers. Upto 1983-84 the ceiling on each house was Rs. 8,000/- and after 1984-85 the celling has been raised by the government to Rs. 20,000/-.

Another important scheme for the benefit of slum population is the Special Nutrition Programme (SNP). This programme was initiated in 1970-71 in a limited number of towns, apart from some tribal blocks. The beneficiaries are infants less than 1 year, young children aged 1-5 years, and pregnant women and nursing mothers. The urban component of the scheme is implemented in 55 towns and it caters to 2.3 lakh beneficiaries through 1136 feeding centres (Sastry *et. al.*, 1980). Eligible beneficiaries are from families whose monthly income is Rs. 250 or low. infants, pregnant women and nursing mothers are provided with bread slices and milk. In addition to these, in some feeding centres, beneficiaries are provided with soya fortified bulgar wheat. This food ration is provided twice a month and the food is expected to be cooked at home and consumed.

Presently, there is no single agency that can coordinate and monitor all the programmes implemented in the slums, from slum improvement and re-housing to provision of health and nutritional services. in slum Improvement activities in Bangalore, three agencies are involved: Slum Clearance Board, Bangalore Development Authority and City Corporation, and the nature of the activities is generally not known to each other (Somesh, 1987). The Slum Clearance Board could be made the nodal agency for coordinating and monitoring all the programmes implemented in the slums. There is also a need to review the slum improvement programmes undertaken by the Bangalore Development Authority and the Corporation, and arrive at a set of services at standard costs.

Secondly, slum improvement programmes are generally adhoc in nature such that after a few years of 'improvement' the slums lapse into original conditions. Lack of proper maintenance, of the sanitary services in particular, is a major lacuna in the system.

Thirdly, poverty is generally associated with rural poverty, with the consequent neglect of urban poverty Urban poverty was perceived mainly as a housing problem. During the Seventh Plan period the need to give credit facilities to the poor for starting small enterprises was recognised. The Self Employment Programme for the Urban Poor (SEPUP) was launched in 1986. While the SEPUP is meant exclusively for the benefit of urban poor, the Differential interest Rate (DIR) Scheme benefits only a small proportion of the urban poor (NIUA, 1989). During the Seventh Plan, people's participation in solving their own problems was recognised and this led to the Urban Basic Services (UBS) Programme.

URBAN BASIC SERVICES:

In 1985, the Urban Community Development Programme, Low Cost Sanitation Scheme and the Small and Medium Town Development Projects supported by the UNICFF were merged into a new programme called the Urban Basic Services (UBS) Programme.

The main objective of the UBS is to promote peoples' own participation in child and women development activities and to bring about a convergence of services by various agencies involved in these activities. Preventive primary health care, early childhood learning, water supply, sanitation and skill training for women are the main components of this scheme. This scheme, planned for the period 1985-90, is being implemented in 14 towns of Tumkur district. During the Eighth Plan period, a revised programme known as Urban Basic Services for the Poor (UBSP) is being extended to eight districts of Karnataka.

3.

NUTRITION AND HEALTH

Health and nutritional status of individuals are interrelated. A mal-nourished child is an essay target for diseases, diarrhoea, for example. And conversely, repeated incidence of diarrhoea, measles, respiratory infections and hookworm infestations, play havoc on the nutritional status of the child. Health and nutritional status in turn, are influenced by the overall performance of the economy, equity in food distribution in particular, and also by a variety of social and cultural factors relating to child bearing and rearing.

PUBLIC DISTRIBUTION OF ESSENTIAL COMMODITIES:

in a country where a large number of the people are poor and where food prices increase faster than wages, an effective public distribution system to provide essential commodities to the poor at subsidised prices, is of paramount importance.

Essential commodities are distributed at subsidised prices through a number of retail outlets or fair price shops in the rural and urban areas. in addition to saffron cards, green cards have been recently issued to the weaker sections of the rural population: those whose annual income is less than Rs.3,500/- and landless agricultural labour families.

it is reported that, at the end of December 1988, there were about 8 million ration card holders, 5.8 million in rural areas and about 2.2 million in urban areas (Karnataka, 1989). A comparison of the projected number of households for 1988 with the number of ration cards distributed, indicates that each and every household in the State has been issued a ration card. How far these figures are correct will be known only when a household survey is conducted. It is important to know how many poor families possess ration cards and how much of their consumption of essential articles is through the public distribution system.

An effective public distribution system should be backed up by a strong agricultural production base. In Karnataka foodgrains production and productivity increased substantially during 1964-74 but since then the growth rates have declined. The per capita food production, after reaching a peak of 218 Kgs. in 1977-78, started declining since then, indicating that food production has not been keeping pace with population growth. Shortfalls in supply could be met from the central pool and from the other States, but this way the State becomes vulnerable to the changing economic and political vicissitudes in the country. An adequate production base, at least in coarse grains would be helpful in running the public distribution system smoothly.

It is also important to note that public participation in the distribution system is essential. People should not only know the quantity and the prices at which the commodities are supplied at the fair price shops, but also have a say in the functioning of the retail outlets.

NUTRITION: LEVELS AND CHANGES

Mal-nutrition or nutritional deficiency in the quantity and quality of food-intakes, affects the health of the mothers as well as children. Maternal malnutrition, anaemia in particular, could result in the death of the mother and/or in low birth weight babies with very little chances of survival. Malnutrition among children reduces resistance to diseases and inhibits later growth and development.

The Nutrition Monitoring Bureau of the National Institute of Nutrition has been conducting studies on several aspects relating to diet and nutrition. Nutritional status is examined through diet intakes, 'weight for age', and clinical examination of nutritional deficiency signs. During the 1970s nutrition surveys in 10 States have shown that there had been an increase in average calorie consumption at the household level among the rural people and this increase was to a certain extent reflected among the pre-school children (Nutrition News, 1986) as well. The intake was the highest in Karnataka as compared to other States, and this State continued to be in the 'adequate' group (2400 Cal.) throughout 1975-80.

In addition to overall changes in nutritional status, nutrition surveys have also thrown some light on the age-sex pattern of nutrition intake. The per cent of population with protein-calorie inadequacy according to age and sex in rural Karnataka, is presented in Table 3.1. Children in 4-13 year age group have the lowest per cent of per capita inadequacy with 2.7. Lactating women have the highest per cent with 13.4 followed by children aged 1-4 years, with about 12 per cent. On an average, the per cent of population consuming inadequate calories was found to be more than those consuming inadequate amount of protein (Karnataka, 1989c). The relatively higher levels of nutritional inadequacy among lactating mothers and very young children have programme implications.

Table 3.1: Per cent of Population with Protein-Calorie Inadequacy, Rural Karnataka, 1975-82.

Age/Sex	Per cent
1-4 years	12.3
4-13 years	2.7
13-18 years	8.8
Adult Male	4.3
Adult Female	3.9
Adult Female (Lactating)	13.4
Total	5.3

Source: Karnataka (Bureau of Nutrition, Department of Health and Family Welfare Services), 1989c.

Nutritional deficiency, in fact, ranges from the very mild to the very severe and so it is important to examine the levels of severe malnutrition among children. Among pre-school children (1-5 years), distribution of malnutrition according to Gomez Grades shows that the normals constitute only about 11 per cent. Mild malnutrition accounts for 44 per cent, moderate malnutrition about 38 per cent and severe malnutrition nearly 7 per cent (Karnataka, 1989c). The per cent of severely malnourished pre-school children is relatively high in Gulbarga, Chitradurga and Bellary districts, and low in Hassan and Uttara Kannada districts (Table 3.2). It is reported that the incidence of severe malnutrition among children aged 1-5 years in rural Karnataka has declined since 1982 to about 4 per cent in 1988 (1989d).

In addition to Protein-Energy Malnutrition, there are certain nutrient-specific disorders such as iron deficiency (anaemia), iodine deficiency (Goitre) and also Vitamin A and Vitamin B-Complex deficiencies.

Data on the prevalence of anaemia are available only for small areas, and not for the State as a whole. In 1974 in Thalak PHC of Chitradurga district, 67 per cent of pre-school children and 68 per cent of pregnant women had haemoglobin levels indicative of anaemia (NIN, 1981).

Table 3.2: Per cent Severely Malnourished Among Pre-School Children (1-5 years) based on Gomez Grades, Rural Karnataka, Selected Districts, 1975-82.

Districts	Per cent
Gulbarga	12.7
Bellary	10.9
Chitradurga	10.1
Bangalore, Bidar, Bijapur, Coorg, Dharwad, Kolar, Raichur and Tumkur	6.8
Belgaum, Chikmagalur, Dakshina Kannada, Mandya, Mysore and Shimoga	4.6
Hassan and Uttara Kannada	3.4
State	6.6

Source: Karnataka (Bureau of Nutrition, Department of Health and Family Welfare Services), 1989c.

During 1979-80 in Bidar and Bhalki taluks of Bidar district, anaemia was observed among more than 98 per cent of pre-school children and pregnant women, though the prevalence of severe anaemia was relatively less: 13 per cent among pre-school children and 4 per cent among pregnant women (Swaminathan et. al., 1980). These figures for different time points and areas could provide only very approximate idea about the prevalence of anaemia. It should be noted that maternal anaemia is a major cause of early infant death and hence it is important that efforts should be made to collect data on the prevalence of anaemia for the State as a whole, on a continuing basis.

During 1980-88, among children aged 1-5 in rural Karnataka, Vitamin A deficiency (Bitot's spots) is reported to have declined slightly from 3.3 to 2.9 per cent, and in the case of B-Complex deficiency the decline has been from 10.4 to 8.2 per cent (Karnataka, 1989d). Among children aged 6-12 years the levels are higher than among young children, but there has been a decline during 1980-82, from 8 to 5 per cent in the case of Bitot's Spots and from 16 to 14 per cent in the case of Angular Stomatitis (Karnataka, 1989d).

Goitre surveys in some districts in rural Karnataka during 1988 have provided valuable data on the prevalence of Goitre or iodine deficiency disorders (Karnataka, 1989e). Data from rural Shimoga, Gulbarga and Mysore districts where the surveys have been completed indicate that the prevalence of Goitre is generally more among girls than boys, and among older children than among very young children. Among children aged 5-9, the range is from 1.3 per cent in Mysore to 3.8 in Gulbarga district among boys and from 1.3 to 6.4 per cent in the respective districts among girls. In the case of older children aged 10-14 years the lowest is again in Mysore and the highest is in Shimoga: 1.9 to 3.9 per cent among boys, and 3.3 to 14.0 per cent among girls.

Urban data (1975-82) on malnutrition are from Bangalore city where among children aged 1-5 years in slums the extent of severe malnutrition is 11 per cent, higher than for rural Karnataka for the corresponding period. Among slum children of the same age group Bitot's Spot was observed among 7 per cent of children, and Angular Stomatitis among 16 per cent.

MATERNAL MORTALITY:

Neo-natal deaths among children, early neo-natal deaths in particular, are, to a large extent, due to mothers' health and delivery related factors. Maternal factors such as malnutrition and anaemia,

prolonged and difficult labour and bleeding before delivery, toxaemia, diabetes and syphillis, are important contributory causes of peri-natal mortality. Hence, any attempt to promote child health should start with improving mother's health. In developed countries, maternal mortality rate per 1000 live births is reported to be less than 0.5. In developing countries the data are very fragmentary, in view of the difficulties involved in identifying the medical cause of death, and also because of a large number of deliveries taking place outside medical institutions. The current level (1986) of maternal mortality is about 3 to 4 per 1000 live births in the country as a whole and 2 to 3 in Karnataka (Karnataka, 1989b).

The major causes of maternal mortality are: Bleeding of pregnancy and puerperium, anaemia, toxaemia, puerperal sepsis and abortion, which account for more than three-fourth of maternal deaths. Anaemia, of nutritional or parasitic origin, accounts for nearly one-fifth of maternal deaths. The risk of maternal death has an 'U' shaped relation with age and parity: high among very young and older women, and also among women of zero parity as well as among the fifth and higher parity women. Prevention of anaemia, and identification of high-risk pregnancies and referring them to major hospitals, are quite important for reducing maternal deaths. Health workers and anganwadi workers are provided with clear cut guidelines for identifying high risk pregnancies and referring them to PHCs and hospitals. Referral services, however, are hindered by lack of transport facilities and inadequate coordination among the medical officers, health workers and anganwadi workers.

INFANT AND CHILD MORTALITY:

Among children aged less than 5, incidence as well as causes of mortality vary according to age, and hence these data are generally tabulated and analysed for specified periods since birth. Infant deaths are those occurring before the completion of 12 months, while deaths after 1 year and before the completion of 5 years are called childhood deaths. Infant mortality is again disaggregated into neo-natal (< 28 days) mortality, and post-neonatal (> 28 days and < 12 months) mortality. Perinatal deaths include late foetal deaths (after 28 weeks of pregnancy), still births and deaths among infants less than 7 days old. In developed countries, data on the various components of infant and childhood mortality could be obtained with a fair amount of accuracy. In the developing countries, however, the data situation is entirely different. Because of illiteracy, ignorance and many other factors infant deaths in a country like India could be under reported. Reporting the correct age is a problem for a large section of the population It would be extremely difficult for many of the mothers to recall whether or not the child died before 7 days, or after 7 days but before 28 days ... etc. Since majority of births as well as deaths occur outside medical institutions, it would also be difficult to obtain medically certified causes of death. However, there has been systematic efforts to collect data on infant and childhood mortality through sample surveys and also special reporting system in selected areas.

These data indicate that infant mortality in the State has declined during the past 15 years or so, from 101 per 1000 live births in 1970 to 82 in 1986 in rural areas, and from 73 to 47 in urban areas (Table 3.3). Lower mortality in urban areas is due to better availability and utilisation of medical facilities, higher literacy and greater awareness about health and hygiene. In 1986, IMR (Infant Mortality Rate) was much lower in Karnataka as compared to the country as a whole: 74 and 96 respectively (Karnataka, 1986b). Kerala has a very low rate of 29 (in 1984), while in Rajasthan, Orissa and Uttar

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Peri-natal mortality: Foetal deaths after 28 weeks of pregnancy, still births and deaths among infants under 7 days of age.
Neo natal mortality: Deaths among infants under 28 days of age

Pradesh IMR ranges from 122 to 140 (India, 1987). In addition to immunizable diseases, control of diarrhoeal disorders, anaemia and respiratory diseases could lead to further reduction in infant mortality in Karnataka.

Table 3.3 : Infant Mortality Rate, Karnataka.

Year	Rural	Urban	Total
1970	101	73	95
1976	99	60	89
1986	82	47	74

Infant Mortality Rate = Number of deaths among infants aged less than 12 months, per 1000 live births.

Source: 1. India (Office of the Registrar General), Survey on Infant and Child Mortality, 1979, 1981.

2. Karnataka (Department of Health and Family Welfare Services), Technology Mission on Immunization, 1989.

As stated earlier the causes of infant mortality vary according to the age of children, rural/urban place of residence ... etc. Data on cause of death are very fragmentary and they can give only a rough idea. Among neo-natal deaths, the leading causes of death according to medical experts, are prematurity, asphyxia, septecaemia and congenital malformation. Among post neo-natal deaths, Gastro-Enteritis and Respiratory Disorders of various types are the major causes of death. It is estimated that vaccine preventible diseases such as, Tetanus, Measles, Pertussis, Tuberculosis, Diphtheria and Poliomyelitis account for 15 per cent of the total number of infant deaths (Karnataka, 1989b).

These causes of death are closely related to maternal health and nutritional status, mother's age at pregnancy and parity, ante-natal care and medical attendance at birth, child rearing practices, and general health and hygiene. These characteristics or factors vary according to mother's literacy and education, caste, housing conditions, source of drinking water supply ... etc. (Table 3.4 and 3.5).

Age of mother at birth and parity have significant effects on IMR. IMR varies from 44 among women who married at age 21 or later, to 79 among women who married at ages lower than 18 (Table 3.4). This relationship actually reflects the effect of age at pregnancy rather than age at marriage per se., The per cent of women with one or more child losses increases among the higher parity women (Table 3.5). According to a study based on about 11 thousand hospital births in Bangalore city during 1985-87, perinatal mortality (including still births) varied very sharply according to birth weight, maternal age and gravida (Khan, 1988). For example, the perinatal mortality rate per 1000 births increases from 43 among infants with normal birth weight ($\geq$ 2500 grams) to over 184 among low birth weight babies (<2500 grams). The rate is the lowest with 73 among women with maternal age of 20-29, about 110 among women less than age 19 and over 146 among women aged 30+. Similar variations are found according to parity: lowest among 2 to 4th parity women, higher among zero parity women and very high among 5th and higher parity women.

Table 3.4 : Differentials In Infant Mortality Rates, Rural Karnataka, 1978.

	Characteristics		IMR
1.	Sex of the child :		
		M	82
		F	67
2.	Education of mother :		
		Illiterate	90
		Primary +	63
3.	Age at marriage of women :		
		<18 years	79
		21 + years	44
4.	Source of drinking water :		
		Tap, Hand pump,	79
		Well, pond, tank, river	82
5.	Caste:		
		Lingayats, Vokkaliga, Brahmin and Bunts	68
		Scheduled Castes/Tribes	86
		Other castes	77
6.	Housing:		
		Poor	84
		Good	64

Source : Items 1 to 4 = India (Office of Registrar General), 1981.

Items 5 and 6 = Data for rural Dakshina Kannada, Dharwad and Mandya districts from N Baskara Rao, P.M. Kulkarni and P Hanumantha Rayappa, 1986.

Table 3.5 : Per cent of Ever-Married Women, by Children Ever Born and Children Died, 1980.

Children	Children Ever Born								
Died	1	2	3	4	5	6	7	8-10	All
0	87	78	69	60	49	33	30	20	57
1	13	19	26	27	33	36	25	23	25
2		3	5	10	11	18	26	24	10
3				3	5	12	12	14	5
4+					2	2	6	19	3
No. of Women	335	329	351	352	269	228	170	236	2270

Source: N.Baskara Rao, P M. Kulkarni and P. Hanumantha Rayappa, 1986 (Based on data for rural Dakshina Kannada, Dharwad and Mandya districts)

In addition to age and parity, the educational attainment of women is an important factor influencing IMR. For example, IMR among illiterate women is 90 as compared to 63 among women with primary or higher level of education (Table 3.4). It is not known how exactly education influences IMR. This is possibly due to better awareness about health and hygiene and greater use of medical facilities.

MATERNAL AND CHILD HEALTH PROGRAMMES :

There are six major programmes (Table 3.6) for protecting and promoting the health of children, expectant women and nursing mothers. Backward areas, and weaker sections, Scheduled Castes and Tribes in particular, are given priority for provision of these services. The main inputs of these programmes are: supplementary nutrition, immunization, health check up and referral, prophylaxis against anaemia and vitamin 'A' deficiency, health education and pre-school education.

Table 3.6 : Maternal and Child Health Programmes, Karnataka.

	Programme	Target Group	Inception	Implementing Agency
1.	Special Nutrition Programme (SNP)	Children 0-5 years; Expectant, Nursing mothers in urban slums, and tribal areas	1970-71	Dept. of Women and Child Development
2.	Mid-Day Meal Programme	Primary school Children	–	Dept. of Education
3.	Prophylaxis against Blindness due to Vitamin 'A' Deficiency among children	Children 1-5 years	1970	Dept. of Family Welfare
4.	Prophylaxis against Nutritional Anaemia among mothers and Children	Children 1-5 years, Expectant, Nursing mothers	–	Dept. of Family Welfare
5.	*Expanded Programme of Immunization (EPI)	Children, Expectant mothers	1978	Dept. of Family Welfare
6.	Integrated Child Development Scheme (ICDS)	Children 0-5 years; Expectant, Nursing mothers; women aged 15-45 years	1975-76	Dept. of Women and child Development

* Expanded Programme of Immunization (EPI) became Universal Immunization Programme (UIP) in 1985 when specific targets were fixed for achievement by the year 1990. Now all districts are covered under UIP.

The Special Nutrition Programme (SNP), for example, benefits children less than 6 years, and expectant and nursing mothers in urban slums, and tribal areas. The rural component of this programme

is integrated with the ICDS. Supplementary nutrition generally consists of toned milk, bread, bulgar wheat, cereal-pulse combination, and multi-vitamin tablets. It must be noted that this programme provides nutrition that is expected only to supplement the food taken at home. It is rather difficult to assess whether or not it supplements or constitutes the main food. Generally the community had a liking for this programme which appears to have had a favourable impact on the health status of the beneficiaries as indicated by the lower incidence of Kwashiorkar and better body weight status, as compared to non-beneficiaries (Sastry, et. al., 1980). In a comparative study of slums In Bangalore city with and without the SNP, it was found that about 51 per cent of the beneficiaries consumed the full amount of supplementary food provided, while nearly 89 per cent consumed one-half or more of the supplements (Sastry, et. al., 1980). This indicates that the quantity of supplementary food shared by the beneficiaries with the non-eligibles at home was not large. Further, among children in SNP areas, as compared to non-SNP areas, nutritional deficiency signs were lower and body weight status was better (Sastry et. al., 1980).

Under the programme, prophylaxis against nutritional anaemia, iron and folic acid supplements are provided to expectant mothers and also to children aged 1-5 years for a period of about 100 days. In order to reduce the incidence of blindness occurring due to Vitamin 'A' deficiency a massive dose of Vitamin 'A' is provided to children aged 1-5 years, every six months. The Universal Immunization Programme aims to control six vaccine preventible diseases: Diphtheria, Pertussis, Tetanus, Measles, Polio and Tuberculosis. Specific targets are fixed for being achieved by the year 1990. This programme has elaborate back-up services consisting of vaccines, syringes, sterilization and cold chain equipments.

The ICDS or the Integrated Child Development Services Scheme is a major programme providing a package of services for children and mothers (Table 3.7). Its main objectives are to improve the nutritional and health status of pre-school children; to lay the foundations for proper psychological, physical and social development of the child; to reduce the incidence of mortality, malnutrition and school dropout among children, and also to enhance the capability of the mother to look after the normal health and nutritional requirements of the child through health education. Most of the ICDS projects are centrally funded, while some are State funded.

In addition to the above mentioned programmes, there are a number of other programmes such as the National School Health Programme, National Diarrhoeal Diseases Control Programme, National Goitre Control Programme ... etc. for the benefit of the general population as well as children. Through the Central Social Welfare Board also, a number of welfare programmes are implemented for the benefit of children and women.

PROGRAMME COVERAGE :

Data on the coverage of the target individuals under the Health and Nutrition Programmes are of two types. One set of data is based on routine statistics collected by respective departments and published in Year Books and Status Reports. These data are in the form of targeted number of beneficiaries, beneficiaries provided with the services and per cent of target achieved. Data on 'targets and achievements' are not very useful to examine the coverage since the targeted number of persons in an year need not necessarily include all the 'eligibles'. Secondly certain types of data are difficult to interpret. For example, data on iron supplements distributed are not the same as iron supplements consumed. The second set of data collected through special surveys is more useful in the sense that they provide information on the proportion of eligible individuals who received the services in specific year(s). But such data are not available for all the programmes. Because of these problems of data we have attempted to examine coverage only with respect to the UIP and the ICDS.

Table 3.2: Per cent Severely Malnourished Among Pre-School Children (1-5 years) based on Gomez Grades, Rural Karnataka, Selected Districts, 1975-82.

Districts	Per cent
Gulbarga	12.7
Bellary	10.9
Chitradurga	10.1
Bangalore, Bidar, Bijapur, Coorg, Dharwad, Kolar, Raichur and Tumkur	6.8
Belgaum, Chikmagalur, Dakshina Kannada, Mandya, Mysore and Shimoga	4.6
Hassan and Uttara Kannada	3.4
State	6.6

Source: Karnataka (Bureau of Nutrition, Department of Health and Family Welfare Services), 1989c.

During 1979-80 in Bidar and Bhalki taluks of Bidar district, anaemia was observed among more than 98 per cent of pre-school children and pregnant women, though the prevalence of severe anaemia was relatively less: 13 per cent among pre-school children and 4 per cent among pregnant women (Swaminathan et. al., 1980). These figures for different time points and areas could provide only very approximate idea about the prevalence of anaemia. It should be noted that maternal anaemia is a major cause of early infant death and hence it is important that efforts should be made to collect data on the prevalence of anaemia for the State as a whole, on a continuing basis.

During 1980-88, among children aged 1-5 in rural Karnataka, Vitamin A deficiency (Bitot's spots) is reported to have declined slightly from 3.3 to 2.9 per cent, and in the case of B-Complex deficiency the decline has been from 10.4 to 8.2 per cent (Karnataka, 1989d). Among children aged 6-12 years the levels are higher than among young children, but there has been a decline during 1980-82, from 8 to 5 per cent in the case of Bitot's Spots and from 16 to 14 per cent in the case of Angular Stomatitis (Karnataka, 1989d).

Goitre surveys in some districts in rural Karnataka during 1988 have provided valuable data on the prevalence of Goitre or iodine deficiency disorders (Karnataka, 1989e). Data from rural Shimoga, Gulbarga and Mysore districts where the surveys have been completed indicate that the prevalence of Goitre is generally more among girls than boys, and among older children than among very young children. Among children aged 5-9, the range is from 1.3 per cent in Mysore to 3.8 in Gulbarga district among boys and from 1.3 to 6.4 per cent in the respective districts among girls. In the case of older children aged 10-14 years the lowest is again in Mysore and the highest is in Shimoga: 1.9 to 3.9 per cent among boys, and 3.3 to 14.0 per cent among girls.

Urban data (1975-82) on malnutrition are from Bangalore city where among children aged 1-5 years in slums the extent of severe malnutrition is 11 per cent, higher than for rural Karnataka for the corresponding period. Among slum children of the same age group Bitot's Spot was observed among 7 per cent of children, and Angular Stomatitis among 16 per cent.

MATERNAL MORTALITY:

Neo-natal deaths among children, early neo-natal deaths in particular, are, to a large extent, due to mothers' health and delivery related factors. Maternal factors such as malnutrition and anaemia,

prolonged and difficult labour and bleeding before delivery, toxaemia, diabetes and syphillis, are important contributory causes of peri-natal mortality. Hence, any attempt to promote child health should start with improving mother's health. In developed countries, maternal mortality rate per 1000 live births is reported to be less than 0.5. In developing countries the data are very fragmentary, in view of the difficulties involved in identifying the medical cause of death, and also because of a large number of deliveries taking place outside medical institutions. The current level (1986) of maternal mortality is about 3 to 4 per 1000 live births in the country as a whole and 2 to 3 in Karnataka (Karnataka, 1989b).

The major causes of maternal mortality are: Bleeding of pregnancy and puerperium, anaemia, toxaemia, puerperal sepsis and abortion, which account for more than three-fourth of maternal deaths. Anaemia, of nutritional or parasitic origin, accounts for nearly one-fifth of maternal deaths. The risk of maternal death has an 'U' shaped relation with age and parity: high among very young and older women, and also among women of zero parity as well as among the fifth and higher parity women. Prevention of anaemia, and identification of high-risk pregnancies and referring them to major hospitals, are quite important for reducing maternal deaths. Health workers and anganwadi workers are provided with clear cut guidelines for identifying high risk pregnancies and referring them to PHCs and hospitals. Referral services, however, are hindered by lack of transport facilities and inadequate coordination among the medical officers, health workers and anganwadi workers.

INFANT AND CHILD MORTALITY:

Among children aged less than 5, incidence as well as causes of mortality vary according to age, and hence these data are generally tabulated and analysed for specified periods since birth. Infant deaths are those occurring before the completion of 12 months, while deaths after 1 year and before the completion of 5 years are called childhood deaths. Infant mortality is again disaggregated into neo-natal (< 28 days) mortality, and post-neonatal (> 28 days and < 12 months) mortality. Perinatal deaths include late foetal deaths (after 28 weeks of pregnancy), still births and deaths among infants less than 7 days old. In developed countries, data on the various components of infant and childhood mortality could be obtained with a fair amount of accuracy. In the developing countries, however, the data situation is entirely different. Because of illiteracy, ignorance and many other factors infant deaths in a country like India could be under reported. Reporting the correct age is a problem for a large section of the population. It would be extremely difficult for many of the mothers to recall whether or not the child died before 7 days, or after 7 days but before 28 days ... etc. Since majority of births as well as deaths occur outside medical institutions, it would also be difficult to obtain medically certified causes of death. However, there has been systematic efforts to collect data on infant and childhood mortality through sample surveys and also special reporting system in selected areas.

These data indicate that infant mortality in the State has declined during the past 15 years or so, from 101 per 1000 live births in 1970 to 82 in 1986 in rural areas, and from 73 to 47 in urban areas (Table 3.3). Lower mortality in urban areas is due to better availability and utilisation of medical facilities, higher literacy and greater awareness about health and hygiene. In 1986, IMR (Infant Mortality Rate) was much lower in Karnataka as compared to the country as a whole. 74 and 96 respectively (Karnataka, 1986b). Kerala has a very low rate of 29 (in 1984), while in Rajasthan, Orissa and Uttar

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Peri-natal mortality: Foetal deaths after 28 weeks of pregnancy, still births and deaths among infants under 7 days of age.
Neo-natal mortality: Deaths among infants under 28 days of age.

Pradesh IMR ranges from 122 to 140 (India, 1987). In addition to immunizable diseases, control of diarrhoeal disorders, anaemia and respiratory diseases could lead to further reduction in infant mortality in Karnataka.

Table 3.3 : Infant Mortality Rate, Karnataka.

Year	Rural	Urban	Total
1970	101	73	95
1976	99	60	89
1986	82	47	74

Infant Mortality Rate = Number of deaths among infants aged less than 12 months, per 1000 live births.

Source: 1. India (Office of the Registrar General), Survey on Infant and Child Mortality, 1979, 1981.

2. Karnataka (Department of Health and Family Welfare Services), Technology Mission on Immunization, 1989.

As stated earlier the causes of infant mortality vary according to the age of children, rural/urban place of residence ... etc. Data on cause of death are very fragmentary and they can give only a rough idea. Among neo-natal deaths, the leading causes of death according to medical experts, are prematurity, asphyxia, septecaemia and congenital malformation. Among post neo-natal deaths, Gastro-Enteritis and Respiratory Disorders of various types are the major causes of death. It is estimated that vaccine preventible diseases such as, Tetanus, Measles, Pertussis, Tuberculosis, Diphtheria and Poliomyelitis account for 15 per cent of the total number of infant deaths (Karnataka, 1989b).

These causes of death are closely related to maternal health and nutritional status, mother's age at pregnancy and parity, ante-natal care and medical attendance at birth, child rearing practices, and general health and hygiene. These characteristics or factors vary according to mother's literacy and education, caste, housing conditions, source of drinking water supply ... etc. (Table 3.4 and 3.5).

Age of mother at birth and parity have significant effects on IMR. IMR varies from 44 among women who married at age 21 or later, to 79 among women who married at ages lower than 18 (Table 3.4). This relationship actually reflects the effect of age at pregnancy rather than age at marriage per se., The per cent of women with one or more child losses increases among the higher parity women (Table 3.5). According to a study based on about 11 thousand hospital births in Bangalore city during 1985-87, perinatal mortality (including still births) varied very sharply according to birth weight, maternal age and gravida (Khan, 1988). For example, the perinatal mortality rate per 1000 births increases from 43 among infants with normal birth weight ($\geq$2500 grams) to over 184 among low birth weight babies (<2500 grams). The rate is the lowest with 73 among women with maternal age of 20-29, about 110 among women less than age 19 and over 146 among women aged 30+. Similar variations are found according to parity: lowest among 2 to 4th parity women, higher among zero parity women and very high among 5th and higher parity women.

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Characteristics		IMR
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4. Source of drinking water :		
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5. Caste:		
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	Other castes	77
6. Housing:		
	Poor	84
	Good	64

Source : Items 1 to 4 = India (Office of Registrar General), 1981.

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Table 3.5 : Per cent of Ever-Married Women, by Children Ever Born and Children Died, 1980.

Children Died	Children Ever Born								
	1	2	3	4	5	6	7	8-10	All
0	87	78	69	60	49	33	30	20	57
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In addition to age and parity, the educational attainment of women is an important factor influencing IMR. For example, IMR among illiterate women is 90 as compared to 63 among women with primary or higher level of education (Table 3.4). It is not known how exactly education influences IMR. This is possibly due to better awareness about health and hygiene and greater use of medical facilities.

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	Programme	Target Group	Inception	Implementing Agency
1.	Special Nutrition Programme (SNP)	Children 0-5 years; Expectant, Nursing mothers in urban slums, and tribal areas	1970-71	Dept. of Women and Child Development
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5.	*Expanded Programme of Immunization (EPI)	Children, Expectant mothers	1978	Dept. of Family Welfare
6.	integrated Child Development Scheme (ICDS)	Children 0-5 years; Expectant, Nursing mothers; women aged 15-45 years	1975-76	Dept. of Women and child Development

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The Special Nutrition Programme (SNP), for example, benefits children less than 6 years, and expectant and nursing mothers in urban slums, and tribal areas. The rural component of this programme

is integrated with the iCDS. Supplementary nutrition generally consists of toned milk, bread, bulgar wheat, cereal-pulse combination, and multi-vitamin tablets. It must be noted that this programme provides nutrition that is expected only to supplement the food taken at home. It is rather difficult to assess whether or not it supplements or constitutes the main food. Generally the community had a liking for this programme which appears to have had a favourable impact on the health status of the beneficiaries as indicated by the lower incidence of Kwashiorkar and better body weight status, as compared to non-beneficiaries (Sastry, et. al., 1980). In a comparative study of slums in Bangalore city with and without the SNP, it was found that about 51 per cent of the beneficiaries consumed the full amount of supplementary food provided, while nearly 89 per cent consumed one-half or more of the supplements (Sastry, et. al., 1980). This indicates that the quantity of supplementary food shared by the beneficiaries with the non-eligibles at home was not large. Further, among children in SNP areas, as compared to non-SNP areas, nutritional deficiency signs were lower and body weight status was better (Sastry et. al., 1980).

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In addition to the above mentioned programmes, there are a number of other programmes such as the National School Health Programme, National Diarrhoeal Diseases Control Programme, National Goitre Control Programme ... etc. for the benefit of the general population as well as children. Through the Central Social Welfare Board also, a number of welfare programmes are implemented for the benefit of children and women.

PROGRAMME COVERAGE :

Data on the coverage of the target individuals under the Health and Nutrition Programmes are of two types. One set of data is based on routine statistics collected by respective departments and published in Year Books and Status Reports. These data are in the form of targeted number of beneficiaries, beneficiaries provided with the services and per cent of target achieved. Data on 'targets and achievements' are not very useful to examine the coverage since the targeted number of persons in an year need not necessarily include all the 'eligibles'. Secondly certain types of data are difficult to interpret. For example, data on iron supplements distributed are not the same as iron supplements consumed. The second set of data collected through special surveys is more useful in the sense that they provide information on the proportion of eligible individuals who received the services in specific year(s). But such data are not available for all the programmes. Because of these problems of data we have attempted to examine coverage only with respect to the UIP and the ICDS.

Table 3.7 : Integrated Child Development Scheme (ICDS):

Target Population	Service	Target Population		Norms of Coverage
		Per ICDS Project	Per Anganwadi Centre	
1. Total population		100,000	1,000	
2. Children 0-5 years	Immunization	17,000	170	100% coverage
(17,000 children)	Health check-up	17,000	170	100% coverage
	Supplementary Nutrition	6,800	68	40% coverage
	Referral Services	–	–	Where necessary
3. Children 3-5 years (8,000 children)	Non-Formal Pre-School education	4,000	40	50% coverage
4. Nursing and Expectant mothers	Supplementary Nutrition	1,600	16	40% coverage
(1,600 + 2,400 = 4,000 women)	Health check-up (Exp.mothers)	2,400	24	100%coverage
	Immunization against Tetanus (Exp. mothers)	2,400	24	100%coverage
5. Women aged 15-44 years	Nutrition and Health education	20,000	200	100%coverage progressively

Source : Government of India, Ministry of Social Welfare, ICDS Scheme, 1975.

Under the Universal Immunization Programme, 16 districts were being covered at the time of the study, and during 1989-90 the remaining districts will also come under this programme. Immunization coverage is generally good except for Measles (Table 3.8). The lower coverage for Measles immunization is attributed to its late induction into the programme. The performance of the programme in general is better in those districts such as Hassan and Kolar, where the programme was launched earlier (1985-86), and poor in districts such as Bidar, Bellary, Chitradurga, which were brought under the programme recently.

By and large, the Universal Immunization Programme has been successful, though there is scope for improvements in the programme. Generally, the reasons for low coverage in some areas are lack of information about time and place of immunization, fear of pain and possible side effects, child's sickness at that time ... etc. (Karnataka, 1989b). Fortunately, the proportion of population having no faith in immunization is low, less than 10 per cent.

Table 3.8 : Immunization Coverage, Selected Districts, Karnataka, 1987-1988.

Immunization/Target group	Per cent Immunized	Districts
Children fully immunized without Measles	<50	Bellary, Bidar, Dharwad, Chikmagalur, Gulbarga, Raichur, Tumkur
	50-70	Belgaum, Chitradurga, Dakshina Kannada, Mandya, Shimoga and Uttara Kannada
	70+	Hassan and Kolar
Children fully immunized with Measles	<30	Bellary, Bidar, Chitra durga, Dakshina Kannada, Dharwad, Gulbarga, Mandya, Raichur, Shimoga, Tumkur, Uttara Kannada
	30-50	Belgaum and Kolar
	50+	Hassan
Pregnant Women immunized with TT	<50	Bellary, Gulbarga, Raichur and Tumkur
	50-70	Chitradurga, Bidar, Dharwad and Kolar
	70+	Belgaum, Shimoga,Uttara Kannada, Hassan, Mandya, Dakshina Kannada and Chikmagalur

Note : *Age of children* = *less than 24 months;*
Pregnant women = *16-36 weeks of pregnancy*

Source: 1) Karnataka (Directorate of Health and Family Welfare Services), 1989b.
2) P. Hanumantha Rayappa and M. Johnson Samuel, 1988.

A detailed assessment of the performance of the Universal Immunization Programme is possible only through intensive field surveys. One such study, conducted in 30 clusters in Hassan district, points

* Received every dose due, of each of the six immunizations.

out that the per cent of children fully protected* was on an average 51, higher among boys with 56 per cent and lower among girls with 47 (Rayappa and Samuel, 1988). Most of the children not at all immunized by any of the vaccines belonged to young mothers who had little knowledge about immunization and other health practices. The major reasons for drop-outs or for not completing the full course of all the vaccines were : lack of information about the exact time and place of vaccination sessions, fear of pain and side effects and poor health of the child at that time.

The study also cites certain factors such as domiciliary deliveries, small sizes of villages, changes in residence and larger population to be covered by a health worker, as constraints in the progress of the Immunization Programme. Since a majority of deliveries are domiciliary deliveries not attended by health personnel, it becomes difficult for health workers to identify infants eligible for immunization. Because of the small population size of the villages, which could be a peculiar feature of Hassan district, there are not enough children to be vaccinated at one point of time. Hence efforts are made to collect them from the neighbouring villages, at a common location. This procedure becomes cumbersome and difficult when subsequent doses are due. Commuting to the service delivery points becomes extremely difficult in Malnad areas during monsoon. The practice of women going to mothers' places for deliveries and also residential changes in urban areas, result in disruption of services, since in most such cases the vaccination cards are lost and the mothers do not remember the doses received by their children. Absence of health workers in an area leads to backlog of immunization and affects performance. Similarly, if the Health Worker has to cover a large population, better coverage becomes difficult. Some of the constraints mentioned above could be outside the control of the Health Department. But they are important in the sense that the target of 100 per cent immunization in the near future may not be entirely realistic.

In the case of ICDS a rough idea about coverage can be obtained from the data provided in the report on the functioning of ICDS in Karnataka (Karnataka, 1989f). In 1989, the population covered by the Anganwadi Centres is reported to be 104.42 lakhs (Karnataka, 1989f). If the 6 lakh population covered by the urban Anganwadi Centres (Karnataka, 1989g) is excluded we get a rural population coverage of 98.42 lakhs. If this is related to the projected rural population of the state in 1989 which is about 305.95 lakhs, we get a coverage of about 32 per cent. This gives only a notional coverage in the sense that about one-third of the rural population in the State is covered by Anganwadi Centres. For the coverage of eligible women and children we have to rely on different set of figures.

In the case of supplementary nutrition the targeted number of rural beneficiaries is reported to be 11.49 lakhs consisting of children below age 6 and pregnant and nursing mothers. Assuming a target achievement of 91 per cent attained during 1988-89 (Karnataka, 1989f), the actual beneficiaries will be of the order of 10.46 lakhs. Now, for estimating the eligible population of children and women we assume that children aged 0-5 constitute 14.8 per cent of population (based on projection), and nursing, pregnant mothers constitute 4 per cent of the population (as per ICDS norms). The base population is same as 98.42 lakhs. Based on these figures we get the eligible population of 18.5 lakhs. The 10.46 lakh beneficiaries mentioned earlier, constitute about 56.5 per cent of the eligible population of 18.5 lakhs. In other words, among the rural population covered by the Anganwadi Centres, about 56.5 per cent of eligible children and women have received supplementary nutrition. To what extent the Scheduled Castes and poor people are represented in this 56.5 per cent, cannot be answered without more detailed data.

In the case of pre-school education for children aged 3-5 years, according to the ICDS report the number enrolled is 5.19 lakhs and average attendance is 4.8 lakhs (Karnataka, 1989f). The rural-urban break-up for these figures is not available. Children aged 3-5 years constitute about 7.3 per cent of the population. For base population we use 104.42 lakhs (total population covered by ICDS) and 98.42 lakhs (rural population covered by ICDS). Based on these figures, the enrolment could be in the range of 68 to 72 per cent and attendance 63 to 69 per cent of the eligible children. Here again it will be difficult to answer what proportion of Scheduled Castes and poor children get enrolled and attend the pre-school education classes.

PROGRAMME IMPLEMENTATION : A REVIEW

The ICDS, being a large programme with a package of services, has been examined by a number of studies in different parts of India. These studies differ in scope, objectives, sample size and methodology. Apparently, the problems of implementation and reasons for under utilisation vary from one State to another. However, there are a few similarities which are worth mentioning. The ICDS is generally liked by the people and it is potentially a good programme. Secondly, almost all the studies have observed that community participation in this programme has generally been poor. Thirdly, the quality of supervision could be better than what it has been. Fourth, the localities where Anganwadi Centres are located as well as the Anganwadi Centre buildings, could be better than what they are presently, in terms of hygiene, space and toilet facilities.

An evaluation study (Karnataka, 1986) conducted in Karnataka has come up with similar findings. It has been observed that in many of the Anganwadi Centres studied, baseline surveys have not been conducted or have been left incomplete. It is needless to add that baseline surveys are necessary for identifying the eligible children and women, or the target group; and if they have not been conducted properly, data on targets and achievements would lose credibility. It has also been observed that annual turnover among Anganwadi Workers is somewhat high, 3 to 13 per cent especially among those with SSLC qualification. This could adversely affect the programme. Fresh recruitments, training and posting would consume considerable amount of time and additional resources, and most important, delivery of services would be disrupted causing inconvenience to the beneficiaries.

The Evaluation Study further points out that, though the Anganwadi Workers are expected to assist the health workers with respect to immunization, health checkup and referral service, in practice the health workers depend much more on Anganwadi Workers. It is also reported that the Anganwadi Workers have to maintain a number of registers, thereby taking time away from promotional activities. The success of the ICDS Programme depends much on the enthusiasm and commitment of Anganwadi Workers. Hence, there is a need for reviewing the functions and working conditions of the Anganwadi Workers with a view to reduce the turn-over and improve their working conditions as well as efficiency.

The Universal immunization Programme has fairly achieved some good results. Some of the deficiencies cited earlier could be rectified so that better coverage could be achieved in future. This programme has by and large led to greater rapport between the individual families and the Health Workers. Families in interior villages and certain sections of the population not served by earlier programmes, have been brought into contact with the Health Workers and the Health System for the first time (Rayappa and Samuel, 1988). It is necessary to ensure that the same enthusiasm and tempo of activities are maintained when the Universal Programme of Immunization crosses the milestone of hundred per cent coverage targetted by the year 1990.

4.

LITERACY AND EDUCATION

Literacy and Education, like Health and Nutrition, is one of the basic needs of the people. The future welfare of the society depends on how well the children are educated today.

Karnataka has made rapid progress in providing educational infrastructure and in implementing a variety of programmes for improving the educational level. The state has more than 23 thousand primary schools, and 97 per cent of habitations in rural areas have a primary school/section within 1 Km. of the habitation (NCERT, 1989). Literacy and school enrolment rates have increased. However, the progress achieved so far is not adequate and there are certain areas of concern. The overall level of literacy is still low. And what is disturbing is that along with an increase in the number of literates, the number of illiterates has also increased. Secondly, the achievements are rather uneven. Literacy levels are relatively low among females, Scheduled Castes, Scheduled Tribes and other disadvantaged sections of society.

Table 4.1 : Literacy Rates in Population by Sex, Rural and Urban, Karnataka

	Per cent Literate			
	Rural		Urban	
	M	F	M	F
1971	35.4	14.5	60.4	41.6
1981	41.9	20.0	64.7	47.5
Scheduled Caste - 1981	23.6	6.9	49.4	28.4
Scheduled Tribe - 1981	27.6	8.0	45.7	23.7

Note: *Literacy rates are the number of literates expressed as per cent of population of all ages.*

Source 1) P. Hanumantha Rayappa and R. Mutharayappa, 1986

2) A.S. Seetharamu, 1988

3) Census Reports of Karnataka, 1971 and 1981.

GENERAL LITERACY LEVELS :

The overall literacy level (all ages) in the state increased during 1971-81, from about 42 to 49 per cent among males and from 21 to 28 among females. In 1981, the per cent literate among males and females together was quite low in Bidar, Gulbarga and Raichur districts ranging from 25 to 26, and high in Bangalore, Dakshina Kannada and Kodagu with 50 and above. Among females, the per cent of literates varied from 20 in rural areas of the state to 48 in urban areas, the corresponding figures for males being 42 and 65, respectively (Table 4.1). Among the Scheduled Castes and the Scheduled Tribes, literacy levels are quite low : among females, 7 to 8 per cent in the rural, and 24 to 28 per cent in the urban areas; and among males, 24 to 28 per cent in rural and 46 to 49 per cent in the urban areas (Table 4.1).

LITERACY AMONG CHILDREN :

Literacy rates presented in the preceding paragraph are for all ages including very young children, and also older persons who perhaps did not have adequate school facilities when they were young.

Literacy rates among children aged 10-14 would be more meaningful and reflect the recent situation, and these are presented in Table 4.2.

Table 4.2 : Number of Illiterates, Literates and Per cent Literate among Children Aged 10-14, by Sex, Rural and Urban, Karnataka, 1971, 1981.

Year, Sex, Rural/Urban			Illiterates	Literates	Per cent Literate
Rural	M	1971	667,033	805,067	55
"	"	1981	676,703	1,092,966	62
"	F	1971	1,008,760	466,529	32
"	"	1981	1,081,214	677,356	39
Urban	M	1971	97,434	365,959	79
"	"	1981	127,550	557,666	81
"	F	1971	139,342	304,918	69
"	"	1981	180,475	478,431	73

Note: *Per cent literate is literates as per cent of population in 10-14 age group. Figures are rounded off to the nearest decimal.*

Source: Census Reports of Karnataka, 1971 and 1981.

It can be seen that in urban areas the literacy rates are fairly high, increasing during 1971-61, from 79 to 81 among boys and from 69 to 73 among girls. The rates are expectedly lower in rural areas, 55 and 62 among boys in 1971 and 1981 respectively, and 32 and 39 respectively among girls. it can be observed that the sex differential in literacy rates is larger in rural than in urban areas, and similarly rural-urban differential in literacy is more among females than males, indicating the need for raising the literacy level of rural girls. These differentials have narrowed during 1971-81 and could possibly reduce further in the coming decades.

What is striking in Table 4.2 is the increase in the number of illiterates. This is because the increase in literacy rate is not adequate enough to warrant a decline in the absolute number of illiterates. For example, if the per cent literate among rural females had increased from 32 to 42.6 (rather than 39) during 1971-81, the absolute number of illiterate females in 1981 would have been same as that of 1971 (see Tale 4.2). Statistical explanation apart, what is disturbing is that many of these two million and odd illiterate boys and girls in rural and urban areas would remain illiterate during the rest of their lives. Considering the fact that the population of children aged 5-14 is expected to increase from about 10.1 million In 1981 to 10.5 in 1991 and to 10.9 in 2001 (see Table 1.4), the task of improving the literacy levels in the coming decades will be really challenging.

Knowledge about the geographical variations in literacy levels will be of some help in concentrating the educational efforts in selected areas. It can be seen from Table 4.3 that Bellary, Gulbarga, Mysore and Raichur districts lag behind other districts in terms of literacy levels. Among rural girls in Gulbarga

and Raichur districts literacy rates are as low as 17 to 19 per cent. Special programmes could possibly be tried in these and a few other districts for improving literacy levels.

ENROLMENT AND CONTINUATION IN SCHOOLS:

To become literate, a child requires a minimum of four years schooling. It is known that the literacy level is determined by the extent of enrolment and retention in schools, and these are examined below.

Table 4.3 : Inter-District Variations In Literacy Rates Among Children Aged 10-14 by Sex, Rural/Urban, 1981.

Literacy Rate	Rural	Literacy Rate	Urban
Male			
70+	D.Kannada, Kodagu, Tumkur, U.Kannada.	90+	D.Kannada
60-69	Bangalore, Belgaum, Kolar, Chitradurga, Chickmagalur, Dharwad, Hassan, Shimoga.	80-89	Bangalore, Belgaum, Bidar, Chickmagalur, Chitradurga, Hassan, Kodagu, Kolar, Shimoga, Tumkur, U.Kannada.
50-59	Bidar, Bijapur, Mandya.	70-79	Bijapur, Gulbarga, Mandya, Mysore, Dharwad.
40-49	Bellary, Gulbarga, Mysore, Raichur.	<70	Bellary, Raichur.
Female			
60+	D. Kannada, Kodagu.	80+	D.Kannada.
50-59	Chickmagalur, U.Kannada.	70-79	Bangalore, Belgaum, Chickmagular, Chitradurga,
40-49	Bangalore, Chitradurga, Dharwad, Hassan, Shimoga, Tumkur.		Hassan, Kodagu, Kolar, Mandya, Mysore, Shimoga, Tumkur, U. Kannada
20-39	Belgaum, Bellary, Bidar, Bijapur, Kolar, Mandya,	60-69	Bidar, Dharwad.
	Mysore.	50-59	Bellary, Gulbarga, Bijapur.
<20	Gulbarga, Raichur.	<50	Raichur.

Source : Census Report of Karnataka, 1981.

Gross enrolment rates in standards I-IV and V-VII for the year 1986 are presented in Table 4.4. Girls' enrolment is still lower than that of boys (Table 4.5). Though girls' enrolment is about 47 per cent of the total, in Standard I in the rural as well as the urban areas, the rural percentages decline steadily, from the lower to the higher standards (Table 4.5). Enrolment rates are some times higher than 100 because of the presence of students over-aged for the respective classes. Net enrolment rates which take into consideration the ages of children in particular classes would be more meaningful, but these data are not available because of difficulties in obtaining data on ages of students, in large scale surveys.

Enrolment in primary classes varies among the districts in Karnataka. It is good in Dakshina Kannada, Dharwad, Kodagu, Uttara Kannada, Bangalore Urban, Belgaum, Bijapur: but poor in Bidar, Gulbarga, Raichur, Chitradurga, Kolar and Tumkur (Seetharamu, 1988). Educational efforts to improve literacy in the state should concentrate more on the six districts where enrolment is poor, particularly in Gulbarga and Raichur where, incidentally child work participation is quite high: 40 to 44 per cent among rural boys aged 10-14 and 33 and 37 per cent among rural girls.

Table 4.4: Gross Enrolment Rates, 1986, Karnataka.

Standard I-IV	110.6
Standard V-VII	59.6

Note: 1. *Enrolment Rate in I-IV: Children enrolled in I-IV standards as per cent of population aged 6-9 years.*

2. *Enrolment Rate in V-VII: Children enrolled in V-VII standards as per cent of population aged 10-12 years.*

Source: 1. Enrolment data from, NCERT 1989.

2. Population data based on Projected Population interpolated for respective age groups.

Table 4.5: Girls' Enrolment as Per cent of Total Enrolment, 1986, Rural and Urban, Karnataka.

	Per cent		
Standard	Rural	Urban	Total
I	47.4	47.4	47.4
II	44.9	47.2	45.6
III	42.8	47.6	44.4
IV	41.6	46.4	43.3
I-IV	44.7	47.2	45.5
V	38.5	45.6	41.3
VI	37.8	45.4	41.0
VII	37.1	45.2	40.7
V-VII	37.9	45.4	41.0

Source : NCERT, 1989.

Changes in enrolment do not provide a complete picture of the progress of schooling. Enrolment rates are meaningful only when the dropout rates among students are marginal or negligible. But unfortunately this is not so. A large number of students dropout or leave the school any time after enrolment, the next day, the next year and so on. Hence, it is important to examine retention rates which indicate the number of children reaching class II, III, ... etc., out of an initial cohort of, say, 100 children. Because

of the problems of following-up the children who leave particular schools, it is difficult to obtain retention rates with a fair amount of accuracy. As a nearest approximation we can examine the number of children enrolled in classes II, III ... etc., as per cent of children enrolled in class I, and these data are presented in Table 4.6. It can be observed that only about 58 per cent of children reach Standard IV, and one-third reach Standard VII. Research studies indicate that dropouts are generally high among first generation learners or children of illiterate parents.

Table 4.6: Enrolment in Standards II and above, as Per cent of Enrolment, in Standard I, Karnataka, 1986.

	Standard of Enrolment						
	I	II	III	IV	V	VI	VII
Per cent of Enrolment in Standard I	100.0	77.9	69.3	57.8	47.5	39.6	33.8

Source : NCERT, 1989.

Now, the question is why do so many students drop out of school. Educationists have examined this aspect and have identified a number of factors responsible for high dropout rates. Broadly, one set of factors relates to the school and curricula, and the other is related to home and the general environment outside the school. Poverty and ignorance make parents withdraw their children from schools and put them to work. Children work in households, family farms, shops,.... etc., as unpaid workers. A smaller proportion is engaged in paid work. Even small amounts earned by children are welcome additions to the family income. Secondly, the school system itself in terms of curricula, play equipments, library books ... etc., may not be attractive enough for children to continue their education.

PROGRAMMES:

A number of programmes have been designed to make education more attractive and convenient for children. Some of these programmes offer facilities and incentives such as free food, uniforms, text books and attendance scholarships; while some other programmes try to impart education to children in a non-formal set-up where the timings and curricula are more flexible.

Since 1963-64, Mid-day Meal Programme is in operation in the state. Bulgar wheat and salad oil supplied under this programme are cooked into 'Uppittu' or other dishes, and each eligible child is provided with the food equivalent of 80 grams of grain and 5 grams of oil per day. Since 1977-78, as a part of new arrangement, food is prepared at central kitchens and supplied to nearby schools.

In some schools, since 1980 energy food or 'ready to eat food' developed by the Central Food Technological Research Institute of Mysore, is being provided to children. Energy food programme covers schools where Mid-day Meal Programme is not in operation. Selection of schools for the energy food and mid-day meal programmes is based on the criteria of backward areas and also the proportion of students belonging to Scheduled Castes, Tribes and other backward classes.

The Mid-day Meal Programme (CARE assisted) caters to about 7 lakh children and the Energy Food Programme covers 5 lakh children (DSERT, 1989b). These 12 lakh children include 2.72 lakh Scheduled Caste and 67,000 Scheduled Tribe children (DSERT, 1989b). The coverage of 1.2 million children will constitute 26 per cent of about 4.56 million children enrolled in I-IV standards during 1988-89.

An Evaluation Study of the Energy Food Programme in Karnataka has observed that the programme Is very much appreciated by the children and the parents, but it does not appear to have had any favourable impact on enrolment or attendance (Karnataka, 1985a). This conclusion is based on a camparlson over time (1978-86) of average enrolment per institution among all students and among Scheduled Castes and Tribes, in two sets of institutions : one serving energy food and the other not serving energy food (Karnataka, 1985a:34). it must be stated, however, that the average number enrolled is small and the annual per cent change in enrolment fluctuates rather sharply which could be due to chance factors. In addition, as admitted by the Evaluation Report, the data on enrolment were not very reliable. Further, there could be 'other factors' favouring higher enrolment in institutions not serving energy food. A more detailed study on the relationship between school feeding, enrolment and the health status of school children, at least among the Scheduled Castes and Tribes, seems to be necessary.

NON-FORMAL EDUCATION :

The non-formal system of education is expected to cater to the educational needs of children in the 9-14 age group who never went to school and also those who dropped out of school. The curricula and methodology in this system are flexible and are expected to suit children from poor economic background. Students in the non-formal system consist of two streams: (a) those who have studied up to IV standard and left the school and (b) those who never went to school or dropped out of school in earlier stages and relapsed into illiteracy. For the latter group part time education is imparted to enable them to know reading and writing, and gain proficiency in arithmatic and general knowledge The students are also enabled to acquire some skills relating to vocations which they may take-up in future. For the former group of children or those who studied upto IV standard and then left the school, the objective is to enable them acquire some education so that they could join the main stream of formal education.

In 1986, nearly 80,000 children were enrolled in non-formal education centres in Karnataka (NCERT, 1989). It is difficult to estimate the precise coverage, but a crude approximation could be made. Considering the projected population, and assuming that the per cent illiterate in 9-14 age group in 1986 would be 39 per cent (based on 1971-81 trend), the estimated number of illiterate children aged 9-14 in 1986 would be around 2.16 million. Enrolment of 80,000 children mentioned above will imply a coverage of only about 4 per cent through non-formal education. Proper selection of non-formal education centres, involvement of grassroot level organisations and a more systematic implementation could perhaps improve the extent of coverage (Seetharamu, 1988).

ADULT EDUCATION:

Children who have not gone through the formal or the non-formal system of education, grow up into illiterate adults who constitute the target group for the Adult Education Programme. Adult Education could help not only the adults but their children as well. Educated parents, educated mothers in particular, would be of great advantage to the children. The National Adult Education Programme launched on 2nd October 1978, alms: to provide basic literacy to upgrade vocational skills through functional literacy and to raise the level of social awareness. This programme is meant for adults in 15-34 age group, women and Scheduled Castes and Tribes in particular. The number of Adult Education Centres in Karnataka increased from 4928 during 1979-80 to 13,193 during 1984-85, and the enrolment increased from 1.7

lakhs to 3.32 lakhs during the same period (Karnataka, 1985b). More than 90 per cent of the learners were from the lowest stratum of society: agricultural labourers and marginal farmers. On an average about 62 per cent of the adults enrolled during 1979-85 were reportedly made literate.

According to an Evaluation Study (Karnataka, 1985b) the impact of the programme is not significant in the sample area. Fifty-one per cent of the learners could read alphabets but only 34 per cent could write them; 38 per cent could read words but only 20 per cent could write; 21 per cent could read sentences, though only 8 per cent could write them (Karnataka, 1985b).

Daily attendance in the Adult Education Centres was on an average 65 per cent ranging from 43 to 83 per cent in the selected Adult Education Centres. Irregular attendance was observed not only among the learners, but to a certain extent among the Instructors as well. As in many other programmes community involvement was poor. Participation of universities and voluntary agencies in Adult Education Programme was much less than anticipated.

On the whole, the contribution of the Adult Education Programme for promoting literacy in the state appears to be rather insignificant. A rough estimate of the per cent coverage of the Adult Education Programme can be made. During 1984-85, about 3.32 lakh adults were enrolled, and let us assume a figure of 3.5 lakhs in 1986. Assuming that in 1986 about 44.6 per cent of adults in 15-34 would be illiterate (based on 1971-81 trend), the estimated illiterate adults eligible for adult education would be around 6.72 million. An enrolment of 3.5 lakhs would imply that around 5 per cent of the eligible illiterate adults in 15-34 age group are enrolled in this programme. Again, assuming that about 62 per cent of the enrolled adults are made literate (based on Survey Reports), the number of illiterate adults made literate would be very small, about 3 per cent of the total illiterate adult population in 15-34 age group.

The deficiencies observed in the Adult Education Programme are in general : inadequate preparatory work for motivating prospective learners and in enlisting local cooperation, wrong selection of instructors, lack of proper supervision and monitoring systems, infrastructural constraints and also technical deficiencies relating to topics on social education and functional literacy (Karnataka, 1985b). A study of women drop-outs in Adult Education Centres indicates that household drudgery and tiredness for attending classes, social inhibitions to go out especially on the part of young unmarried girls, opposition from elders at home and inconvenient timings of the classes are the major reasons for drop-outs (Vanaja, 1989). This study suggests that combining Vocational Education with Adult Education, conducting classes in batches to help the learners attend classes at convenient timings, and motivational campaigns to enlist the cooperation of the people could possibly reduce drop-outs.

PRE-SCHOOL EDUCATION:

According to experts on education and child development, the period between 3 to 5 years among children is most crucial for their later development. The main objective of pre-school education is the promotion of cognitive, emotional and social development of children. Early childhood care and education is expected to be child oriented and focussed around play. Formal methods and three R's are generally not encouraged at this stage. The National Policy on Education of 1986 envisages the full integration of child care and pre-primary education "both as a feeder and a strengthening factor for primary education and for human resource development in general".

Presently, three organizations are providing pre-primary education. This programme is implemented in the pre-primary schools run by the state government and local bodies. These pre-

primary schools are generally attached to primary schools. Voluntary Agencies also implement this programme through Nursery schools, Balwadis and Day Care Centres, which are generally in urban areas. Thirdly, pre-school education in a non-formal setting, forms an important component of the I.C.D.S. programme Children between the ages of 3 and 5 attend Anganwadi Centres where they are taught songs and games. Indigenous and inexpensive toys and play materials are used to stimulate and satisfy the curiosity of children.

As stated in the preceding chapter, there are about 5.19 lakh children aged 3-5 enrolled for pre-school education in ICDS areas, and the average attendance is about 4.8 lakhs. These figures would imply that in the population covered by ICDS, about 68 to 72 per cent of eligible children are enrolled, and 63 to 69 per cent of eligible children attend the pre-primary classes. It must be noted however that the coverage of eligible children in the entire rural areas of the state would be much smaller since ICDS itself covers only a small population, slightly less than one-third of rural population in the state.

5.

CHILD LABOUR

Child labour is yet another symptom of the culture of poverty, ignorance and exploitation. Children work as unpaid helpers in their households, in family farms and enterprises. They also work as wage earners in various sectors of the economy. With rapid urbanisation and industrialisation child labour with all its inhuman characteristics, has become more visible in towns and cities. Child workers miss educational opportunities, the pleasures of childhood are denied and adult responsibilities are thrust on them so early in their lives. Children in some occupations are exposed to fatal accidents and to diseases such as asthma, bronchitis and tuberculosis. Child labour has also certain debilitating effects on the physical and mental development of children, the consequences of which become visible much later in life.

WORK PARTICIPATION:

Children as well as adults engage themselves in various types of activities, some of which are considered to be economically productive and others are non-economic in nature. All those engaged in economically productive activities need not be earners, and hence there are 'unpaid family workers' who assist in family farms and enterprises. The distinction between 'work' and 'non-work' becomes more complex when people combine economic activities with non-economic activities in varying proportions in terms of time spent. This gives rise to the concept of 'marginal work'. Given these conceptual differences and the variations in the pattern of work in rural India, between males and females, and between adults and children, it is rather difficult to estimate the number of child workers precisely. It is because of these reasons that the estimated number of child workers varies according to different sources. The data on child labour presented here are mainly from the Census which defines 'work' as participation in economically productive activity. Even in Census data, comparison from one Census to another is not easy.

In Karnataka, the 1971 Census returned a figure of 808,719 child workers in the age group 5-14 and their number increased to 1,131,531 in 1981. Work participation rate or the number of workers as per cent of population in the same age group for both the sexes increased slightly from about 10 in 1971 to 11 in 1981.

Since work participation varies according to sex and rural-urban place of residence the disaggregated work participation rates for males, females, in rural and urban areas are presented in Table 5.1. It can be seen that the rates have declined among the boys, and increased among the girls, rural girls in particular. Crude work participation rates for all persons including adults indicate that the rates are by and large similar among males, while among females there has been an increase in work participation, particularly in rural areas. Marginal work is relatively more among females than males, and similarly more females work as unpaid family workers than males. Given these variations, the observed increase in the female child work participation during 1971-81 could be partly due to conceptual and other differences relating to work participation in the 1971 and the 1981 Censuses.

Table 5.1 : Child Workers aged 5-14, and Participation Rates, Rural/Urban, Karnataka, 1971 and 1981.

Rural/ Urban, Sex	No. of Workers			Participation Rates (%)		
	1971	1981		1971	1981	
		Main Workers	All Workers		Main Workers	All Workers
Rural						
Male	517,033	530,230	561,151	16.4	14.5	15.3
Female	205,818	319,927	445,976	6.5	8.8	12.2
Urban						
Male	63,830	80,782	84,209	6.6	5.8	6.1
Female	22,036	35,405	40,195	2.3	2.6	3.0

Note : 1. Work participation rate : Workers aged 5-14 per 100 population in the same age group.

2. All workers include main and marginal workers. Main workers are those who worked for 183 days or more last year and marginal workers are those who worked for less than 183 days.

Source: Census Reports of Karnataka, 1971 and 1981.

Work participation in 5-9 age group is very low, but relatively high in the 10-14 age group (Table 5.2). It can be seen from the table that in 1981, work participation rates in 10-14 age group were lower for girls than boys, and lower in urban than rural areas for both the sexes. Lower female work participation than male participation is possibly because more girls than boys are engaged in non-economic activities and hence they do not get counted in the Censuses.

Table 5.2: Child Work Participation Rates Among Children aged 5-9 and 10-14, Rural and Urban, Karnataka, 1981.

Rural/Urban	Sex	Work Participation Rates (%)	
		Age Group	
		5-9	10-14
Rural	Male	1.7	29.9
	Female	1.5	23.8
Urban	Male	0.7	11.6
	Female	0.3	5.7

Note: Workers include main and marginal workers. Also See Table 5.1.

Source: Census Report of Karnataka, 1981.

Though child work participation in 5-9 age group is quite low for the state as a whole, it is relatively high in certain districts. Among rural males the rate is the highest with 4.7 per cent in Gulbarga, followed by Bidar with about 3 per cent. Among the rural females it is the highest in Gulbarga with about 3 per

cent. In the 10-14 age group, the highest work participation rate among rural males is again in Gulbarga with 44 per cent, followed by Raichur with 40 per cent. Among rural females also the highest is in Gulbarga with 37 per cent, followed by Bellary with 36 per cent. The urban rates are relatively high in Bellary and Raichur for males, and in Bellary, Dakshina Kannada and Raichur for females.

Interestingly, Dakshina Kannada, inspite of having high child literacy rates, is the only district in the State where the female work participation in 10-14 age group is much higher than that of males. Among rural boys, the work participation rate is 11 per cent, the lowest in the State, but among rural girls in the district it is more than double, about 23 per cent. Similarly, among urban boys the work participation rate in Dakshina Kannada is again the lowest with about 6 per cent, but among urban girls it is 11.5 per cent. Beedi rolling employs a number of girls in this district and there seems to be certain amount of compatibility between literacy rates and child work participation rates, among girls in particular.

TIME INPUTS: AGE, SEX PATTERN

Table 5.3: Distribution of Districts according to Child Work Participation Rates, by Age, Rural and Urban, Karnataka, 1981.

WPR (%) of Males		WPR (%) of Females	
	Age: 5-9		
Rural			
3+	Bidar, Gulbarga	3+	Gulbarga
<3	All other Districts	<3	All other Districts
Urban			
1-2	Bellary	1-2	Bellary
<1	All other Districts	<1	All other Districts
	Age : 10-14		
Rural			
40+	Gulbarga, Raichur.	30-39	Bellary, Chitradurga, Dharwad, Gulbarga, Raichur.
30-39	Belgaum, Bellary, Bidar, Bijapur, Chitradurga, Dharwad, Mysore.	20-29	Belgaum, Bijapur, Chickmagalur, Dakshina Kannada, Kolar, Tumkur.
20-29	Bangalore, Chickmagalur, Hassan, Kodagu, Kolar, Mandya, Shimoga, Tumkur.	10-19	Bangalore, Bidar, Hassan, Kodagu, Mandya,
10-19	Dakshina Kannada, Uttara Kannada.		Mysore, Shimoga, Uttara Kannada
Urban			
10-19	Bangalore, Belgaum, Bellary, Bijapur, Chickmagalur, Chitradurga, Dharwad,	10-19	Bellary, Dakshina Kannada.
	Gulbarga, Kodagu, Mandya, Mysore, Raichur, Shimoga.	<10	All other Districts
<10	Bidar, D.Kannada, Hassan, Kolar, Tumkur, U.Kannada.		

WPR : Work Participation Rates

Source: Census Report of Karnataka, 1981.

Table 5.4. Average Time Inputs (Hours) per Child Day, by Age and Sex of Children, According to Type of Activity, Sample Villages, Karnataka.

		Activity/Hours					
			Directly Productive Activity				
		House hold Activity	Own live stock	Family farm	Family trade	Wage Employment	Total for Directly Productive Activity
Boys	5-7	1.04	0.49	0.13	0.02	0.15	0.79
	8-9	0.96	1.36	0.57	0.07	0.15	2.17
	10-11	0.97	1.38	0.67	0.34	0.38	2.79
	12-14	1.00	1.84	0.89	0.09	1.57	4.40
	5-14	1.00	1.16	0.51	0.11	0.49	2.28
Girls	5-7	1.73	0.28	0.14	0.03	0.05	0.52
	8-9	2.08	0.96	0.36	0.04	0.24	1.62
	10-11	2.86	0.84	0.45	0.06	0.80	2.17
	12-14	3.63	0.84	0.74	0.09	1.60	3.27
	5-14	2.45	0.65	0.38	0.05	0.58	1.68

Source : Kanbargi and Kulkarni, 1986.

As stated earlier, 'work' as captured in census data, is only one aspect of the activities in which children are engaged. It is important that we try to understand the time inputs of children In various activities including economically productive and non-productive work. Such data are available only from sample surveys. Data on time inputs collected from 45 villages in Kamataka (Kanbargi and Kulkarni, 1986) are presented in Table 5.4.

It can be seen from the table that girls on an average spend about 4 hours per day, more in household work and less in directly productive activity. Boys, on the other hand spend 3 hours per day, more in directly productive activities and less in household activities. Household activities are generally in the nature of fetching water, washing clothes, sweeping house, fuel collection, child care ..... etc., (Kanbargi and Kulkarni 1986). Economically productive activity is generally work relating to tending own livestock. For boys as well as girls, wage employment becomes relatively more significant when they reach age 12.

WORK PARTICIPATION AND SCHOOLING :

Schooling and work could be competitive or compatible depending upon particular situations. Census data indicate that children who combine schooling and work, are very few in number, less than 1 per cent in rural areas and very negligible in urban areas. Here, again we turn to data from sample surveys since Census data could conceal a variety of situation relating to work and schooling.

Time Input data indicate that as children grow, the time spent in schooling declines while the time spent in household and productive activities increases. There is a sharp decline in time spent in schooling and a corresponding increase in time spent on household work and other activities when children reach 12 years of age (Kanbargi and Kulkarni, 1986). This is true of boys as well as girls. Another survey of some villages in Dakshina Kannada district reveals that among children aged 6-15, about 26 per cent of boys and 17 per cent of girls combine schooling with work (Dinesh, 1984). These proportions become more significant as children grow, particularly in the 12-14 age group. Compatibility between work and schooling is possible since children work after school hours, intermittently, and also during vacation. This becomes more convenient in certain types of activities such as unpaid farm work, and beedi rolling done in households, since these can be done outside school hours (Dinesh, 1984). The nature of activities, economic as well as household work, in which children are engaged, and the differences therein by sex and rural-urban residence, and also the extent of compatibility between schooling and certain types of work, have implications for programmes aimed at eradicating or regulating child labour.

WORKING CHILDREN IN A CITY:

A sample study of 600 working children in Bangalore city brings out some of the characteristics of the working children and their families (Patil, 1988). Two-thirds of the working children had completed fourth standard or higher education. Those who worked and also attended school were negligible, about 3 per cent. Boys were working in small scale industries, automobile garages, shops and hotels, while girls were mostly in small scale industries, construction activity and domestic services. Child workers worked for about 8-12 hours per day and earned generally 50 to 300 rupees per month. Working children were mainly from families where parents were wage labourers or self employed , with small enterprises. The major reasons for taking up employment are to supplement family income, to sustain the family and also because of parent's desire. Lack of interest in study is not a major reason (Patil, 1988).

Only about 57 per cent of child workers receive their wages directly from the employers. In the remaining cases, wages are taken by parents, guardians, elder working siblings .... etc. Among those who receive wages directly, 48 per cent give one-fourth of their wages to their parents, 21 per cent give one-fourth to one-half, and 25 per cent of workers give 50 to 100 per cent of their wages to their families. Girls contribute more to their families than boys. (Patil, 1988).

Studies on child workers highlight certain features of child labour which may have policy implications. In rural areas, there is no clear cut distinction between work and non-work among children in the sense that children combine in varying proportions economically productive work and household work, paid and unpaid work, work and schooling ...etc. This has implications for efforts to prohibit or regulate child labour. Secondly, in addition to poverty, parents' educational background, caste, children's performance in school and the nature of school curricula, and availability of work in low cost production enterprise, are important factors that determine whether or not the children would work. Thirdly, child labour to a certain extent provides opportunities for skill formation in an informal set-up.

LEGISLATION AND WELFARE PROGRAMMES:

Efforts to tackle the problems of child labour can be broadly grouped under three categories: Legislative measures; community based programmes encompassing education, skill formation, employment and income generating activities in order to eliminate the need for child labour ; and thirdly, special projects for the protection and welfare of working children. Legislative measures have been the only approach for long, though recently community based programmes and special projects have gained importance. These three approaches are indeed the focus of the National Policy on Child Labour, 1987.

Legislative measures fix a minimum age of entry into employment, prohibit child labour in certain industries considered to be hazardous for children's health and welfare, and also regulate employment and working conditions in industries where child labour is legally permitted.

The Child Labour (Prohibition and Regulation) Act of 1986 in India, aims to "prohibit the engagement of children in certain employment and to regulate the conditions of work of children in certain other employments". According to the Act, a 'child' is a person who has not completed the age of 14 years. The Act prohibits employment of children in occupations "set forth in Part-A of the Schedule or in any workshop wherein any of the processes set forth in Part-B of the Schedule is carried on". Some of the processes specified in Schedule-B are : Bidi -making, carpet weaving, cement manufacture including bagging of cement, manufacture of matches, explosives and fireworks, building and construction activity .... etc. (India, 1986). The Act provides for the setting up of "Child Labour Technical Advisory Committee" for the purpose of adding occupations and processes to the schedule. The Act further states that the government can make rules for the health and safety of children permitted to work in any establishment.

The Act of 1986 has certain merits compared to the earlier Acts, in particular the Employment of Children Act of 1938. There is uniformity in the definition (minimum age) of a child. The Act regulates hours of work, provides for high penalties in case of violation of the legal provisions and in addition, the Act specifies areas pertaining to the health and safety of children for which rules can be framed. According to the earlier Act, only Government Inspectors could file a complaint of offence under the Act, while the present Act enables any person to file a complaint.

However, the Act of 1986 has certain weaknesses. It is important to note that family units and government training centres do not come under the purview of this Act. Consequently, children who work

in unorganised sectors constituting a sizeable proportion of working children, will not come under the purview of this Act. For example, an hazardous process carried in family units involving children, or the training for a similar work provided in Government Training Centres is not prohibited. Secondly, the rules pertaining to the health and safety of children permitted to work in certain establishments, are yet to be framed and enforced by the State governments. The relevant questions are how soon the rules will be framed and how effectively they will be enforced. Thirdly, there could be practical problems in proving an offence under this Act, in a court of law as indicated by the small number of prosecutions so far under this Act. It has also been suggested that the closure of the erring units could be a greater deterrant than penalties, and that the government could provide economic incentives for industries to switch over to new methods of production and thereby eliminate the dependence on child labour (Gupta and Voll, 1987).

There is no question that child labour should be totally prohibited sometime in future. To make this task easier, necessary conditions have to be created now. In addition to effective enforcement of the Act, adequate attention has to be given to socio-economic programmes in child labour endemic areas and also to special projects designed for the protection and welfare of working children. The State government is empowered to make rules under the 1986 Act, for the health and safety of children permitted to work in certain establishments. Cleanliness of the work place, drinking water facilities, fencing of machinery to prevent accidents, precautions in case of fire are some of the aspects which will have to be monitored and checked through appropriate rules and enforcement machinery. This is an enormous task in which voluntary organisations have also an important role to play.

It is a welcome sign that certain voluntary organizations such as the 'Concerned for the Working Children' in Karnataka are experimenting with model programmes for providing literacy, vocational and health education and also the much needed self-esteem to the working children. There is no denying the fact that the role of voluntary organizations has to be much greater than what it is now. The media have also a crucial role to play in arousing the consciousness of the parents, employers and the labour contractors, about the evils of child labour such that at least some time in future, if not now, childhood and dignity are restored to the children.

6.

DISABILITIES AND DESTITUTION

Due to low nutritional levels, poor health, bad working conditions and the prevailing physical and social environment, children suffer from several types of disabilities since birth. Destitution is also a form of disability which occurs because of loss of parents, parental neglect and societal abuse. These are serious problems affecting the growth and development of children as normal human beings. Therefore, in any analysis of the situation of children, it is essential to understand the extent of disabilities and destitution, their causes and cures, and the nature of programmes meant for the disabled and the destitutes.

According to the United Nations, "a person unable to ensure by himself or herself, wholly or partly, the necessities of normal individual and/or social life, as a result of deficiency, either congenital or not, in his or her physical or mental capabilities" is defined as disabled (U.N. 1972). Disability, thus refers to any limitation to perform an activity within a range considered normal for a human being.

PHYSICAL DISABILITIES :

MAGNITUDE :

The main sources of information of the physically handicapped are Census Reports, National Sample Survey (NSS) reports, Special Employment Exchange for the disabled, and field surveys. The Census and the NSS counted the totally disabled persons, while the small scale field surveys have generally included the partially disabled also. Data on disability are subject to errors because of differences in defining disability, method of enumeration and also social inhibitions in reporting disabilities, especially among females.

According to the 1981 Census there were 54,730 totally disabled persons in Karnataka - 18,106 blind, 19,.011 crippled, and 17,613 dumb. The prevalence rates of the disabled persons by districts ranged from a maximum of 0.22 per cent in Tumkur district to a minimum of 0.07 per cent in Kodagu, with most of the districts being closer to the State average of 0.15 per cent. The Census does not provide data either by age, sex, rural-urban residence, or causes of disability.

The NSS (1981), on the other hand, provides data on disabilities by sex, age, rural urban residence, causes of disabilities and treatment taken. The extent of physical disability is higher according to NSS data as compared to the Census data. Accoding to NSS data, locomotor disabilities are most prevalent followed by communication and visual disabilities in that order as can be seen from Table 6.1. With a few exceptions, prevalence rates are higher in rural than in urban areas and higher among males. Visual and locomotor disabilities for which age differentials can be examined, are generally higher among the older than the young children(Table 6.1).

The third source of data for disabilities is a survey conducted recently by 'Seva-In-Action', a voluntary organization working in the rural areas of Bangalore district. The survey covered 54 villages with an approximate population of about 40,000. The estimate of the physically handicapped ranges from 1.75 per cent for orthopaedically handicapped, 1.27 per cent for communication disabilities to 0.5 per cent for the visually handicapped. The prevalence rates are higher among males, than females for each disability. Thus, one gets the impression that the estimates of the disabled child population are generally lower in Census and NSS.

Table 6.1 : Prevalence Rates of Physical Disabilities among Children, Karnataka, 1981.

Nature of Disability	RURAL			URBAN		
	Males	Females	Persons	Males	Females	Persons
A. Visual Disability						
Age 0-4	65	42	53	33	–	16
Age 5-14	87	60	74	24	47	35
B. Hearing Disability						
Age 5-14	454	310	385	224	259	240
C. Speech Disability						
Age 5-14	569	320	449	502	445	474
D. Locomotor Disability						
Age 0-4	514	431	472	592	413	503
Age 5-14	730	511	624	595	485	542

Note : Prevalence rates are for 100,000 population in respective age groups.

Source : Government of India, National Sample Survey Organisation, Thirtysixth Round, July-December 1981, Number 305, Report on Survey of Disabled Persons, March, 1983, New Delhi.

Table 6.2 : Prevalence of Physical and Mental Disabilities In 54 Villages of Bangalore District, Karnataka, 1989.

Disabilities	Children Aged 0-14 Years					
	Number of Children			Percentage		
	Males	Females	Total	Males	Females	Total
1. Mentally Retarded	163	108	271	2.11	1.37	1.74
2. Orthopaedically Handicapped	164	109	273	2.12	1.38	1.75
3. Hearing Impairment	119	79	198	1.55	1.00	1.27
4. Visual Impairment	44	30	74	0.57	0.38	0.47

Note : Percentages based on estimated population in 0-14 age group.

Source : Survey conducted by 'Seva-in-Action', Bangalore.

Hearing disability is caused by ear discharge, following an illness or an injury, surgical and medical intervention, noise-induced hearing loss and so on. Main causes of speech disability are illness or injury, voice disorder, cleft palate, etc. Generally, locomotor disability occurs after polio stroke, due to cerebral palsy, etc.

Nearly one-half to two-thirds of persons suffering from one or the other form of physical disability do not get treated at all. The main reasons for not getting treated are (a) economic i.e., not in a position to afford the expenses, (b) ignorance about the availability of treatment facilities, and (c) a feeling that treatment is not required.

MENTAL DISABILITIES :

There is no estimate of the total number of mentally retarded persons in Karnataka State. However, data based on small scale surveys are available for selected areas or groups. In 54 villages of Bangalore district where a voluntary organisation enumerated the number of the mentally disabled, there were 271 mentally retarded children in the age group 0-14 (Table 6.2). The percentage of mentally retarded children works out to about 1.75 per cent in the rural areas of Bangalore district.

The causes of mental retardation are both biological and psycho-social. Biological causes of mental illness include : Bio-chemical or metabolic disorders, chromosomal abnormalities, and consanguinity. The important factors here are : prevalence of severe malnutrition among children, low birth weight, pregnancy complications including teenage pregnancies, birth asphyxia, genetic and chromosomal disorders, and head injuries. The psycho-social factors include : family burden and coping styles, the nature of family ties and residential care, wrong beliefs, customs and practices.

Treatment of the mentally retarded children is both curative and rehabilitative. Curative treatment includes early identification and intervention. Individual treatment may come in the form of intensive counselling, physiotherapy, behaviour modification techniques ... etc. Rehabilitation of the mentally retarded covers favourable attitudinal and motivational change, self help group-appraisals, community based action, parental education, informal vocational training for the mentally retarded .... etc. Two main approaches in the treatment and rehabilitation of the mentally retarded are the institutional care and the home based community care The latter approach is gaining importance as it is cost effective, and has several other advantages over institution based care

DESTITUTION :

Destitute children are those who have become victims of parental neglect, parental loss and societal abuse. These children generally include : (a) abandoned children Including children of unmarried mothers, (b) the orphans, (c) the neglected, (d) the homeless, and (e) the delinquents.

Then there are 'street children' who have been deprived of all the basic needs in their formative years including parental love and family care. Over the years this problem has become more acute due to the growth of urban areas, rural to urban migration, and the growth of slums. Societal abuse Is in the form of exploitation of the destitute children, for their labour, for making them commit petty thefts, for carrying illicit liquor,etc.

There are no good estimates of the number of destitute children either in the country or in the State of Karnataka. It is reported that in Bangalore city alone there are about 25 to 30 thousand street children. This is a very rough estimate made by one of the voluntary organizations working for the welfare of the destitutes.

Services for the destitutes can be classified into two categories namely institutional and non-institutional. Institutional services include provision of residential facilities, education, training and other rehabilitative services. Non-institutional programmes include adoption, foster care, sponsorship, and programmes aimed at strengthening the family.

PROGRAMMES :

Welfare services for the physically handicapped and the mentally retarded children in Kamataka are provided through educational programmes including training, preventive measures, provision of employment, financial aid and help through voluntary organizations with State support. The Social Welfare Department has taken the responsibility to implement the Government of India Scholarship Scheme for the physically handicapped students studying in ninth standard and above. There are Transit Homes for the benefit of the disabled who come to the city for treatment. The disabled are also encouraged to start small enterprises through loan facilities. Help in the form of hearing aids, tricycle, artificial limbs, ... etc. is also provided to them There are over 80 voluntary organizations in the State, serving the physically handicapped and the mentally retarded children. The Association of the Physically Handicapped has programmes to educate, train and rehabilitate the orthopaedically handicapped. The Association for the Mentally Retarded Persons provides training in candle making, weaving, sewing, etc. A braille printing press has been started in Mysore to supply reading material to the blind.

A Special Employment Exchange was established in 1961 exclusively for the disabled in the State. This Employment Exchange is expected to help the handicapped in getting suitable jobs. The live register contains 65 different kinds of jobs classified as per N.C.O. over which the registered handicapped persons are distributed. There are 4,059 candidates who have registered their names with this exchange in Karnataka in 1988-89. in addition, the percentage of reservations for the handicapped in the public sector enterprises, has been raised from 2 to 4 per cent in class III and class IV categories.

The Department of Women and Child Welfare of the Government of Kamataka runs 22 Remand Homes (observation homes) for destitute children with an intake capacity of 880 children where they are detained for observation, and subsequent rehabilitation. There are 18 certified schools (juvenile homes) - 13 for boys and 5 for girls - which admit court committed children for their care and rehabilitation. There is one juvenile home for the mentally retarded also. There are 3 After Care Homes and 11 Fit Person institutions run by voluntary organizations. Nearly one hundred voluntary organizations with 185 destitute cottage homes cater to nearly 5,000 destitute children under a Centrally sponsored scheme. A Juvenile Service Bureau has been started with the objective of helping the juvenile delinquents in the slums.

As stated in the early part of this Report, Devadasi system is prevalent among some communities in parts of Karnataka. According to one survey conducted in 1983-84, there are 8870 Devadasi families spread over eight districts. Children growing up in such families could become victims of societal abuse, unless this practice is eradicated. The Government has a scheme through which financial assistance to the tune of Rs.3,000 is provided to those Devadasis who wish to get married. A certified school has started functioning at Soundatti to provide shelter, maintenance, education and vocational training for girls belonging to these families.

In the provision of services to the handicapped and the destitute children, the role of voluntary organizations is very crucial. Fortunately, there are a number of voluntary organizations in the State providing certain services. The nature of services provided, population and area covered, the strategies

adopted are so different that it would be rather difficult to describe here the activities of all the organizations. However, we could cite, as illustrative cases, the activities of two organizations : Seva-In -Action and Bosco Yuva Kendra.

The main approach of Seva-In-Action, is through working at the community level with the help of trained social workers called Sevavrathis. After identifying the physically and the mentally disabled persons in selected villages, and their needs, it tries to provide help by organizing community and other resources. Formal and informal education, community based rehabilitation and development of self-help are emphasized in this programme. To a great extent, this organization has succeeded in demystifying the problem of the mentally handicapped. There is emphasis on education of parents about certain wrong beliefs, and about various types of handicaps. The stress is on community self-help though outside help is provided when it is required.

Another organization, Bosco Yuva Kendra located in Bangalore city looks after the rehabilitation of the street children. Its programme includes : counselling the children to return home, placement services and training in certain vocations. This organization also runs shelter homes or open houses where the needy children are allowed to stay overnight. It provides medical facilities, non-formal education and also referral services.

By way of concluding remarks it must be said that more emphasis should be laid on the preventive aspects of disabilities and destitution, so that the rehabilitative measures become more manageable. In the case of physical disabilities two important preventive programmes are immunization against Polio, and Prophylaxis against blindness due to Vitamin 'A' deficiency. It is necessary to assess periodically the impact of these programmes. Similarly, children at very young ages should be checked for signs of speech and hearing impairments, and mental retardation, and referred to hospitals if required, for treatment. Presently, barring the School Health Programme, health check up programme for older children is generally weak in terms of coverage and effectiveness of implementation. Even in the case of School Health Programme, the extent of health cover provided to eligible children is not known. Health education of parents regarding physical and mental disabilities is also necessary since parental neglect and wrong beliefs are important contributory factors for these disabilities.

The problem in the case of child destitutes is that they do not belong to a homogenous group in terms of their social background, parental support, extent of dependence on charity ... etc. There are certain voluntary organizations who provide services to such destitutes. However, a more systematic management of this problem would depend on adequate data on the number and types of destitutes as well as the nature of their requirements.

7.

PERSPECTIVES

In the preceding chapters we have examined various aspects of the situation of children, and the child development programmes, their coverage, strengths and weaknesses. We present below an overview of the situation of children and also certain priority areas and issues in child development programmes, keeping in view the need for a broad framework for understanding the programme requirements and modifications that may be necessary during the Eighth Plan period.

Fulfilling the basic requirements of children with respect to health, nutrition and education is the responsibility of individual families, local communities and also of the Government. In conditions of extreme poverty, illiteracy and social backwardness, it becomes inevitable that the Government takes a larger share of this responsibility and implements a number of programmes for the benefit of children. It is important that these programme-benefits reach those who need them most and at the same time the programmes should not generate a feeling of continuous dependence on Government-sponsored welfare programmes. Wherever possible, local initiatives and commmunity self-help should be encouraged and supported. Secondly, child development programmes derive strength and support from the broader social and economic systems. A child's health, nutrition and the overall wellbeing, cannot be separated from mother's health and nutritional standards, and also the social status of women. Improvements in economic conditions and in the physical environment are also important for the survival, growth and development of children. The situation of children and the child development programmes may be understood within this perspective.

SITUATION OF CHILDREN :

In Karnataka, during the 16 years ending 1986 Infant Mortality Rate (IMR) or mortality before the completion of 12 months has declined from 95 to 74 per 1000 live births, from 101 to 82 in rural and from 73 to 47 in urban areas IMR in Karnataka is much lower than 96 estimated for the country as a whole. Kerala has the lowest rate with 29 while in Rajasthan, Orissa and Uttar Pradesh the rates vary from 122 to 140. Among neo-natal deaths occurring within one month after birth, the leading causes of death are : Prematurity, Birth Asphyxia, Septacaemia and Congenital malformation. Among post-neonatal deaths (between 1 to 12 months), Gastro-Enteritis and Respiratory Disorders of various types are the major causes of death. Vaccine preventible diseases such as Tetanus, Measles, Pertussis, Tuberculosis, Diphtheria, and Poliomyelitis account for about 15 per cent of infant deaths.

The nutritional and the health status of children are closely related. A malnourished child is prone to several types of diseases and health disorders; and conversely repeated attacks of diseases destroys the nutritional status of the children. According to the surveys conducted by the Nutrition Monitoring Bureau of the National Institute of Nutrition, there has been, over the years, an increase in average calorie consumption at the household level among the rural people of Karnataka. However, there are certain variations in protein-calorie consumption and in the extent of nutritional adequacy. Protein-calorie inadequacy among rural population as a whole is of the order of 5 per cent, relatively high among the nursing mothers, and young children aged 1-4 years, with 13 and 12 per cent respectively.

Nutritional inadequacy ranges from the very mild to the very severe. Among the pre-school children aged 1-5 years in Karnataka, distribution of malnutrition based on Gomez grades indicates

that the normals constitute only 11 per cent. Mild malnutrition accounts for 44 per cent, moderate malnutrition 38 per cent and severe malnutrition nearly 7 per cent (1975-82). Severe malnutrition is, however, reported to have declined to 4 per cent in 1988.

In general, children of pre-school ages, compared to adults, do not get the required amounts of calories, Vitamin 'A' and iron. The per cent of severely malnourished children is relatively high in rural Gulbarga, Chitradurga and Bellary districts varying from 10 to 13 per cent, and low in Hassan and Uttara Kannada districts with about 3 per cent. Goitre surveys indicate that in some parts of rural Karnataka, prevalence of Goitre is high among children aged 5-14.

Urban data on malnutrition based on studies conducted in Bangalore city show that the per cent of severely malnourished children in slums is 11, higher than in rural Karnataka. The incidence of B-Complex and Vitamin 'A' deficiencies is also high among slum children.

The major factors influencing infant and child mortality are: maternal health and nutritional status, mother's age at pregnancy and parity, ante-natal care and medical attendance at birth, and socio-economic conditions. Infant Mortality Rates are higher among pregnancies occurring to women aged less than 20 and more than 34 years, pregnancies after 4 births and also among pregnancies that are less than 2 years apart. Apart from immunization and health related factors, better education among females, better housing conditions, and the availability of safe drinking water are some of the important socio-economic factors that are known to reduce the levels of infant and childhood mortality.

In the coming years, along with the continuation of the Immunization Programme for six diseases, control of respiratory diseases and diarrhoeal disorders among children, proper management of maternal malnutrition and anaemia, as well as of high risk pregnancies would be important for realising further reduction in infant mortality.

Next to nutrition and health, literacy and schooling are important for the normal growth and development of children. In Karnataka, during 1971-81, the per cent of literate children aged 10-14 increased from 55 to 62 among rural boys, and from 32 to 39 among rural girls. In urban areas, the increase has been from 79 to 81 per cent among boys, and from 69 to 73 per cent among girls. Enrolment in lower and upper primary classes has also increased over time. However, the main problems are : a large number of illiterate children, high illiteracy among particular sections of population and regions, high dropout rates from school and relatively lower enrolment of girls than boys.

Since the Increases in literacy rates are not commensurate with the increases in eligible child population we find an Increase over time in the number of illiterate children. What causes concern is the large number of illiterate children aged 10-14 in rural areas: about 6.8 lakh boys and 10.8 lakh girls. The magnitude is relatively less in urban areas : about 1.3 and 1.8 lakh illiterate boys and girls, respectively. Literacy levels are relatively low among Scheduled Castes and Scheduled Tribes. In some districts child literacy rates are comparatively low : less than 20 per cent among girls in rural Gulbarga and Raichur, and 40-49 per cent among boys in rural Bellary, Gulbarga, Mysore and Raichur districts. Girls' enrolment relative to that of boys has improved over time, but is still low. Girls' enrolment as per cent of total enrolment is 45 in I-IV classes and 41 in V-VII classes. More than enrolment, it is the high dropout rates that should cause concern. Out of 100 children enrolled in class I, only about 58 reach standard IV and about 34 continue up to standard VII.

The phenomena of school dropout and child labour are caused by poverty, lack of faith in the educational system for guaranteeing a job at the end of it, and also the age-old tradition of making the boys

assist and learn fathers' work, and the girls help their mothers in various household chores. Children work as unpaid helpers in family farms and enterprises, and also as paid workers in rural and urban areas. The plight of the urban child workers is indeed pathetic in some of the occupations where employer - worker relationship is highly commercialised and where working conditions are extremely arduous. According to the 1981 Census there are about 1.13 million child workers aged 5-14 in the State, of whom 89 per cent work in rural areas. Work participation among very young children aged 5-9 is negligible. Among children aged 10-14, about 30 per cent of boys and 24 per cent of girls work in rural areas and the corresponding figures in urban areas are 12 and 6 respectively. Child work participation rates in rural areas are above 40 per cent among boys in Gulbarga and Raichur districts, and 30-39 per cent among girls in Gulbarga, Raichur, Bellary, Chitradurga and Dharwad districts.

Due to poverty, ill health, inadequate nutrition and parental neglect, children also suffer from various types of physical disabilities and mental retardation. Parental neglect and lack of social support drive some children to become destitutes with no home of their own and with no regular work, trying to eke out a living in the streets of big cities.

As stated earlier, the situation of children is affected by the overall socio-economic conditions, the status of women in particular, and the quality of physical environment. In Karnataka, about 35 per cent of population live in poverty (1983-84). If we assume that poverty will decline to around 25 per cent by 1991, for a projected population of 46.83 million, the approximate number of poor people will be around 11.7 million by the year 1991. This would imply a figure of about 4 million poor children aged less than 14 years and 3 million poor women in 15-49 age group. These figures provide a very rough idea of the expected coverage of programmes designed for the welfare of women and children.

Poverty and archaic social values adversely affect the position of women. Prejudices against females start with birth, continue through marriage and then the whole cycle gets repeated. These prejudices have adverse impact on the females with respect to school enrolment, higher education, health and nutritional care, employment, training and remuneration.

In a typical poor family, where women work for long hours to supplement family income, fetch fuelwood and potable water and do various household chores, less attention is paid to child care and child development. The problem is more serious among the migrant families and the socially deprived groups for whom even accessibility to welfare programmes is rather limited.

Children become very vulnerable in a poor environment. Provision of safe drinking water, environmental sanitation and facilities for waste disposal could have significant impact on the health and wellbeing of children. In fact, the UN Water Conference held in Argentina in 1977 declared the period 1981-90 as the "International Drinking Water Supply and Sanitation Decade". Karnataka has made impressive strides during the 1980s in providing safe drinking water sources in rural areas. It is important to monitor closely the maintenance system, since any breakdown in the system would force people to fall back upon unprotected sources of water. In addition, much of the advantage in providing safe drinking water would be lost if people are not educated about water borne diseases and the need for hygienic handling and storing of water, as well as the importance of using boiled water for consumption.

Improvements in public health and sanitation in the state have, however, been very meagre. As against a target to cover 25 per cent of villages under sanitation by 1990, only about 2 per cent coverage has been achieved so far. In rural areas lack of demand for sanitary toilets is a major problem. People

should not only have them but also use them, and either of them is less likely unless a massive educational campaign is mounted. In urban areas, in addition to educational campaigns, availability of low-cost sanitary toilets and proper maintenance of public toilets, could improve the situation.

Shelter has been a problem in rural and urban areas, though it is more visible in urban areas because of high population density and land costs. Though recently a number of financial institutions have come forward to extend credit facilities for housing, the schemes would benefit mostly the middle class families. It is necessary to devise schemes which could utilise the savings of the poor people for house construction and repair. In urban areas, granting of tenure on sites that are proximate to work places, is known to encourage even the poor to invest and improve their shelter situation.

The quality of environmental sanitation and shelter is at its worst in urban slums. In Karnataka there are about 1270 slums with a population of about 11 lakhs. A slum population of this size would imply a figure of about 3.8 lakh children below 15 years of age about 2.5 lakh women in 15-44 age group. With the expected increases in urban population, urban poverty and slums could pose major problems in the coming decade. The Urban Basic Services (UBS) Scheme based on the principle of self-help and community action that is being implemented in 14 towns in Tumkur district has to be carefully evaluated, and implemented in other cities as well. In addition, poverty-alleviation programmes with suitable modifications should be given equal priority in urban areas.

CHILD DEVELOPMENT PROGRAMME :

In addition to the normal, routine health services provided through the Primary Health Centres (PHC) and Primary Health Units (PHU), there are six major programmes for the benefit of women and children : Special Nutrition Programme (SNP), Mid-Day Meal Programme for school children, Prophylaxis against blindness due to Vitamin 'A' deficiency among children,Prophylaxis against nutritional anaemia among mothers and children, Expanded Programme of Immunization (EPI) which is presently in the form of Universal Immunization Programme (UIP) and the Integrated Child Development Services Scheme. Broadly the programme inputs are ante-natal care, health check-up and referral services to hospitals, supplementary nutrition, immunization, pre-school education to children, and health and nutrition education for women. In addition to these programmes, there are others such as the National School Health Programme, National Diarrhoeal Diseases Control Programme, National Goitre Control Programme ... etc. Through the Central Social Welfare Board, a number of welfare programmes are also implemented by the voluntary agencies for the benefit of women and children.

As stated earlier, a large number of early infant deaths are due to maternal factors such as anaemia, tetanus, lack of medical attendance at birth and pregnancy complications. Tetanus Toxoid is being provided to the pregnant women under UIP and the coverage is fairly good, about 65 to 70 per cent. It is important that this coverage level is sustained and improved in the following decade. However, certain aspects of maternal care need to be strengthened. No data on the prevalence of anaemia in the State as a whole are available though it is reported to be generally high among pregnant women.

To tackle anaemia among pregnant women, iron and folic acid supplements are given to these women, to be taken home and consumed for approximately 100 days consecutively. The number of beneficiaries is calculated on the basis of supply. It has generally been found that these supplements are not taken regularly by the women. It is necessary to do a proper evaluation of the extent to which these iron supplements are consumed by the beneficiaries and also of the impact of these supplements on the

incidence of anaemia. It would be relatively easy to combat nutritional anaemia among women and children through the supply of iron-fortified salt. Whether or not this iron-fortified salt will be available for distribution in the near future from the plant in Tamil Nadu will have to be examined.

Secondly, the number of deliveries without medical attendance is not small, about 58 per cent in rural areas and 27 per cent in urban areas. Domiciliary deliveries, especially those conducted by untrained Dais and others that generally go unreported, create problems for the provision of ante-natal care for mothers and immunization for the new-born infants. Dais are being trained for conducting safe deliveries, but apparently this does not seem to have had an appreciable impact on the number of safe deliveries. There are possibly some reasons for this which need to be examined.

Thirdly, the system of identifying high risk pregnancies and referring such cases to hospitals, needs to be strengthened. Sometimes proper identification is not done. Even when identified, the 'at risk' cases are not taken to hospitals immediately by the relatives. The quality of service in the hospitals deters many of the potential users. This problem can be solved only through proper coordination among the ICDS functionaries, health functionaries and the doctors in PHCs and taluk hospitals.

For children, immunization under UIP covers six diseases: Diphtheria, Pertussis, Tetanus, Polio, Tuberculosis and Measles. Coverage of eligible children varies among districts. On an average, the coverage of fully immunized children is 50 per cent without Measles Immunization and 26 per cent with Measles immunization. Since Measles immunization was introduced later, its coverage has been less than satisfactory The overall coverage including Measles immunization is expected to improve in subsequent years. There are indications that the incidence rates of Tetanus, Diphtheria and Polio have declined from about 6 to 8 per 100,000 population during 1982-84 to about 1 in 1988. It must be noted, however, that these six immunizable diseases constitute only 15 per cent of the causes of death among children. The other important causes, excluding certain maternal factors discussed in the preceding paragraph, are respiratory diseases and diarrhoeal disorders. Suitable programme interventions and modifications are necessary for controlling these diseases. The National Diarrhoeal Diseases Control Programme started in 1981, aims to educate mothers and community members in the use of Oral Rehydration Therapy. The impact of this programme on diarrhoeal deaths in the state has not been assessed. If the Oral Rehydration Solution (ORS) Is to be prepared by the women themselves, how to educate the mothers and what should be the ideal communication package? On the other hand, if ORS is to be supplied to the mothers through the PHCs, what is the suitable delivery system? Occurrence of diarrhoea has to be reported to the health staff and immediate action has to be taken. These are some of the factors that will have to be examined in detail for making the Diarrhoea Control Programme more effective. Similarly effective programme interventions are necessary to control respiratory diseases.

Let us briefly review the implementation of three important programmes: the Special Nutrition Programme, the Universal Immunization Programme and the Integrated Child Development Services Scheme.

The SNP or the Special Nutrition Programme started in 1970-71, benefits children less than 6 years, the expectant and the nursing women in poor families. It is implemented in urban slums in selected towns and in tribal blocks. The rural component of SNP is integrated with the ICDS. It has been observed that severe cases of Kwashiorkar and Marasmus have been controlled at home level through supplementary nutrition. But still severe malnutrition among pre-school children is reported to be high

in certain areas of the State. Generally people like this programme, and there has been a demand for increasing the quantity of the supplements and also for covering all children. Now, the financial implications of extending this programme to a larger number of eligible poor children and women, will have to be examined. Keeping in view the cost constraints, supply of food packets at nominal prices can be tried, as is being done by the Child in Need Institute (CINI) in West Bengal.

It must be added that the nutrition programmes have certain 'non-nutritional' or collateral effects such as better health worker-mother rapport, better image of health workers, easy identification of pregnant women, greater willingness among women and children for immunization .... etc. In some villages of IPP Project area women were found to introduce on their own semi-solid supplementary food to their children aged about 6 months, contrary to the traditional practice of not giving any solid food to children less than 1 year old. These 'spin-off' effects should not be ignored. The Mid-day Meal Programme for school children should also be viewed in the same manner. It might not have had the desired impact on dropout rates, but it bridges part of the nutritional gap between required intake and actual intake. Finally, it must be mentioned that the nutrition programme should be backed up by an effective public distribution system for the supply of essential commodities at subsidised prices. The number of ration cards distributed does not reveal the full picture. It is important to understand to what extent the public distribution system has helped in improving the nutrition levels of poor families.

The UIP or the Universal Immunization Programme has by and large been successful though there is scope for improvement. Lower coverages in some districts are due to lack of information about time and place of immunization, fear of pain and possible side effects, child's sickness at that time ... etc. Children who have never received even a single dose of any of the vaccines, generally belong to very young mothers who have little knowledge about immunization and other health practices.There are also other factors which act as constraints on the progress of the programme. Unreported domiciliary deliveries make it difficult for health workers in identifying infants eligible for immunization. Sometimes, due to the small sizes of villages there are not adequate number of children to be vaccinated at one point in time. This necessitates collecting children from the neighbouring villages. This procedure becomes cumbersome when subsequent doses are due. The practice of women going to mothers' places for deliveries and other residential changes disrupt the schedule of vaccination dose since the vaccination cards are lost or mothers do not remember the doses received in the other places Absence of health workers In some areas builds up backlog of immunization and consequently performance suffers. As in a few other programmes, here again, there are some 'spinoff' effects. This programme has improved the rapport between health workers and individual families. Families in interior villages and among certain sections of population not earlier served by any programme, have been brought into contact with the health workers and the health system.

The Universal Immunization Programme is to be sustained beyond 1990 and is to be strengthened qualitatively for having definitive impact on disease incidence as the resultant decline in child deaths of disabilities.

The ICDS is another well conceived programme. Karnataka is said to be one of the few States in India with a large number of ICDS projects in the State sector. During 1987-88, about 14,000 Anganwadi Centres were functioning in the State, mostly in rural areas. Approximately about 10.4 million people or 32 per cent of the rural population are covered by this programme. This is only a notional coverage, since effective coverage would depend on the number of eligible women and children who actually utilise the

services. There has been a demand to extend ICDS to the entire rural population. By the year 1995, the rural population of the State would be about 32.7 million. If the population coverage of ICDS is to be raised from the present 32 per cent to 50 per cent by 1995, about 16.35 million population will have to be covered. Roughly this implies an additional coverage of about 6 million people or the establishment of additional 6000 Anganwadi Centres during the next 8 years or so. One would perhaps think that during the next five years the emphasis should be more on consolidation than on expansion.

The ICDS has generally been well received by the people. However, evaluation studies have shown that there is a high turnover of Anganwadi Workers, possibly due to unsatisfactory working conditions and inadequate honorarium. Fresh recruitment, training and posting, apart from consuming additional resources, disrupt the delivery of services causing inconvenience to the beneficiaries. In addition, it has been observed by some studies that the health workers get much of their own work done through the Anganwadi Workers. The success of the ICDS depends much on the commitment and zeal of Anganwadi Workers and hence it may be worthwhile to review their functions and working conditions.

The main weakness of ICDS is with respect to health and nutrition education which has not made much progress. It is important to note that in the long run the individual families themselves should be well equipped with the knowledge and ability to look after the health and nutritional requirements of the members. Research studies have shown that health and nutrition demonstration is better than health talk. Specific items locally relevant should be focussed, rather than mentioning a large number of items. Appropriate educational materials and training in communication are also important.

Another weakness of ICDS is that it may unwittingly promote dependency among poor families on welfare programmes. Training in skill formation, among women in particular, and creation of employment opportunities are important. This need not be a part of ICDS villages but ICDS blocks could become nodal points for training and developmental activities. In these ICDS areas there is greater interaction between people and programme functionaries, and also among people themselves. There is certain amount of awareness about common problems and also some willingness for community action. This 'invisible infrastructure' could be used for promoting developmental activities.

In the field of education, high dropout rates and lower enrolment of girls are the main problems. Dropout rates are reported to be high among the first generation learners or the children of illiterate parents. A number of incentive schemes including attendance scholarships do not seem to be attractive enough for children to continue in the school. In 1986, about 80,000 children aged 9-14 (dropouts and the non-enrolled) were enrolled in non-formal educational centres. However this would imply an apporoximate coverage of only 4 per cent of the eligible children. Proper selection of non-formal education centres, involvement of local organizations and a more systematic implementation, could perhaps improve the coverage.

Adult Education Programme in the country and the State has gone through various vicissitudes. Adult education is relevant here since a literate parent would appreciate the importance of schooling for children. In Karnataka, during 1984-85 about 3.32 lakh adults were enrolled in adult education centres and it is reported that on an average 6.2 per cent of the enrolled adults are made literate. These figures imply that enrolment constitutes only about 5 per cent of eligible illiterate adults and only about 3 per cent are made literate. Inadequate preparatory work for motivating prospective learners and enlisting local cooperation, wrong selection of instructors, lack of proper supervision and monitoring system, infrastructural constraints and also technical deficiencies relating to topics on social education and

functional literacy, are cited as the major deficiencies in the programme. High dropouts among women learners are mainly due to social inhibitions on the part of young unmarried women to go out, opposition from elders and the inconvenient timing of the classes. It has also been suggested that training opportunities for skill formation could sustain the interest of the learners in attending the adult education classes regularly.

Pre-school education for children aged 3-5 is considered to be very important for their later development. Generally, pre-school education does not emphasise teaching of literacy and numeracy, but encourages learning through play, though there are some differences in the curricula of the agencies implementing this programme. In 1989, the number of children enrolled for pre-school education in ICDS areas was about 5.19 lakhs, the average attendance being 4.8 lakhs. This works out to a coverage of about 68 to 72 per cent for enrolment and 63 to 69 per cent for attendance which appears to be fairly good. But this is only in ICDS areas which cover about one-third of rural population.

In the case of child labour, public opinion has always varied from total ban on the one hand, to prohibiting child labour in hazardous industries and regulating and improving working conditions in other industries. The 1986 Act prohibits child labour in certain hazardous occupations and aims to regulate working conditions in other occupations and industries. This Act has been praised as well as criticised. Perhaps it is a small step towards a big task. Three things are important here. First, the provisions of the Act with respect to hazardous occupations have to be implemented effectively. Secondly, it is important to concentrate employment generation activities in those areas where child labour is endemic. Thirdly, as per the Act, the State Government is obliged to frame rules for regulating the working conditions of children such as providing sanitary facilities, provision of drinking water, fencing of machinery to prevent accidents, provision of fire control measures .... etc.

By way of concluding remarks it may be said that Karnataka has a number of programmes for the benefit of women and children. Of course, all programmes do not work with equal efficiency, and coverage levels also vary. It is here that continuous monitoring and evaluation, and modifications in the programme become very important. Budgetary provisions for programme implementation should include funds for evaluation, on a routine basis.

The population of children less than 15 years of age is expected to increase from 14.7 million in 1981, to 16 in 1991 and 16.4 million in 2001. The number of women aged 15-49 will increase from 8.6 million in 1981, to 11.9 in 1991 and to 14.8 in 2001. Perhaps, in 1991 about 20 to 25 per cent of this population will be living in poor families. These are the very broad parameters for programme coverage in future.

Karnataka has the unique achievement of initiating decentralised planning with Zilla Parishads and Mandal Panchayats. It is important that the members of these local organizations are well informed about the various aspects of programmes for women and children, so that they could play an effective role in improving the programme performance. The decision of the Karnataka State Social Welfare Adivsory Board to conduct Orientation Course in women and child development programmes for the benefit of women Pradhans and members of the Mandal Panchayats in the state, is a welcome step.

The focus of the child development programmes till now has generally been on rural children. At least in future we have to view the child problems in the urban context also. The UBS model based on self-help and community action has to be examined and evaluated for purposes of replication in large cities

and towns. There are a number of urban based voluntary organizations whose involvement in UBS and other programmes could be very valuable.

Finally, there is this prejudice against the females. Obviously, deep rooted social practices do not change easily. But greater awareness and commitments among the large number of programme functionaries could help in giving special attention to girl children while providing health and nutrition care, pre-school and elementary education, immunization and so on.

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