4

Nutrition and Social Safety Net

4.1 FOOD AND NUTRITION

Introduction

4.1.1 At the beginning of the Eleventh Plan period there are serious concerns around food and nutritional security. Agriculture has performed well below expectations during the two recent Plans. Cereal production has declined in per capita terms. The number of the poor has barely declined by 20 million people over three decades, 1973–2005, from 320 million to 300 million; and most of this decline has occurred during the most recent decade (1993/94–2004/05). Low and stagnating incomes among the poor has meant that low purchasing power remains a serious constraint to household food and nutritional security, even if food production picks up as a result of interventions in agriculture and creation of rural infrastructure (discussed in Volume III).

4.1.2 Outcomes in terms of protein-energy malnutrition (PEM) speak for themselves: in 1998–99, according to National Family Health Survey-2 (NFHS-2), as much as 36% of the adult population of India had a body mass index (BMI) below 18.5 (the cut-off for adult malnutrition); eight years later (2005–06) that share had barely fallen to 33% of the population, despite a decade of robust economic growth. Similarly, share of the under-weight children under-3 in the total child population under-3 had not fallen at all (47% in 1998–99 and 46% in 2004–05/06). There is a need to look at food security issues not in isolation as being confined to cereal production and consumption, but to examine how nutritional outcomes can be improved for the vast majority of the poor.

4.1.3 Ensuring food and nutritional security, however, cannot be enough. There are far too many vulnerabilities in the lives of the poor and those just above the poverty line. Around 93% of our labour force works in the informal sector, without any form of social protection, especially against old age. With growing migration of younger rural residents to urban and fast-growing rural areas, elderly parents are often left behind in the village to cope on their own, or are dependent upon women who also have to tend to the family farm, as agriculture feminizes with growing male migration. Old-age pension is thus becoming a crying need for those dependent on insecure employment in the informal economy as well as for parents left behind. Moreover, vulnerability in respect of health arises from the under-funding of the public health system and its inability to provide comprehensive care, which is a major concern for the majority of the population.

Malnutrition: A Conceptual and Empirical Analysis

Some Conceptual Issues

4.1.4 Malnutrition reflects an imbalance of both macro and micro-nutrients that may be due to inappropriate intake and/or inefficient biological utilization due to the internal/external environment. Poor feeding practices

in infancy and early childhood, resulting in malnutrition, contribute to impaired cognitive and social development, poor school performance, and reduced productivity in later life. Malnutrition therefore is a major threat to social and economic development as it is among the most serious obstacles to attaining and maintaining health of this important age group.

4.1.5 When poor nutrition starts in utero, it extends throughout the life cycle, particularly in girls and women. This not only amplifies the risks to the individual's health but also increases the likelihood of damage to future generations, through further foetal retardation. Low birth weight increases the risk of infant and child mortality and those who survive are usually undernourished, fall ill frequently, and fail to develop optimally, both physically and mentally. Further, undernourished adults are functionally impaired and unable to sustain productive physical activity throughout the day. Nutrition-related disabilities, such as memory disturbances, osteoporosis, etc., are found among elderly.

4.1.6 When nutritional needs are not met, recovery from an illness also takes longer. Malnutrition is also linked to the growing HIV/AIDS pandemic. Malnutrition makes adults more susceptible to the virus. Inadequate infant feeding aggravates its transmission from mother to child; and evidence suggests that malnutrition makes ARV drugs less effective. In addition, good nutrition can help to extend the period when the person with HIV/AIDS is well and working. There are also new dimensions to the malnutrition problem. The epidemic of obesity and diet-related NCDs is spreading in India slowly but steadily. India is beginning to suffer from a double burden of undernutrition and obesity. This phenomenon, called 'nutrition transition', means that the national health systems now have to cope with the high cost of treating diet-related NCDs and at the same time, fight under nutrition and the traditional communicable diseases.

4.1.7 Therefore the challenges that still remains include:

- High levels of adult malnutrition affecting a third of the country's adults,
- Inappropriate infant feeding and caring practices,
- High levels of undernutrition, particularly in women and children,
- Micronutrient undernutrition,
- Emerging diet-related diseases,
- Inadequate access to health care.

Empirical Evidence

4.1.8 The absolute weights and heights of Indians on average have not shown significant improvement over the last 25 years. A staggering percentage of babies in India are born with LBW, a problem that began in utero. A mean deficit of 1.4 to 1.6 kg in weight at one year worsens to a deficit of about 9 kg at 10 years and 13–18 kg when adults. A similar trend is seen in the case of heights (where a deficit of 1cm at 1 year reaches 12–13 cm when adult). It is therefore, not surprising that about half of children are under weight (moderate to severe under nutrition) or are stunted. There are no differences in the nutritional status between girls and boys; however, the mean heights and weights of children from SC/ST and other marginalized sections are below the national mean values. In addition, about 30% of all adults have BMI<18.5 (33% of women and 28% of men), which defines adult malnutrition.

4.1.9 Some of the reasons for this grim picture in India are as follows: With a 500–600 kcal deficit in energy intake (almost 40% of their requirement) and multiple nutrient deficiencies such as fat, calcium, iron, riboflavin, vitamin C (all 50% deficit), and vitamin A (70% deficit), it is not surprising that there is massive inadequacy/hunger leading to malnutrition in children and adolescents. Studies from 10 States show that less than 30% of children have protein-calorie adequacy (Table 4.1.1).

4.1.10 On further scrutiny of the diet surveys, it is obvious that over 70 to 80% of the calories consumed by the children (even though inadequate) are derived from cereals and pulses. This results in two things:

(i) Children cannot consume more cereals to make up for the calorie deficiency because of its sheer monotony and lack of energy density.
(ii) In the absence of fats, milk, eggs, and sources of iron, children starve themselves. The resultant

TABLE 4.1.1
Distribution of Children by Protein-calorie Adequacy Status

(%)

Age (yrs)	%	
1–3	31.8	
4–6	28.2	
7–9	28.1	
	Boys	Girls
10–12	26.0	32.9
13–15	34.7	43.1
16–17	50.2	64.0
Adult Sedentary	Men—68.8	Women—81.8
Pregnant Women	64.3	
Lactation Women	62.2	

Source: National Nutrition Monitoring Bureau (NNMB) Reports 2002.

iron deficiency anaemia (IDA), further worsens their appetite.

4.1.11 Therefore in the absence of foods other than cereals and pulses in the diets of children and the inability of children in the age groups of (1–18 years) to derive and satisfy their protein-calorie and other nutrient needs from cereals, the malnutrition scenario can only get worse. Even fats that provide energy density in the diets are not available in adequate quantities (normally fats should provide 30–40% of calorie needs). It is therefore not surprising that there is massive hunger leading to multiple nutrient deficiencies. This is not hidden hunger; it is hunger for nutrient-rich foods.

Trends in All-India Pattern of Consumption Food Expenditure since 1972–73

4.1.12 Per capita cereal consumption of the Indian population has been declining in both rural and urban areas over the past two or three decades. Table 4.1.2 gives per capita quantity of cereal consumption per month in 15 major States as estimated from the 50th (1993–94), 55th (1999–2000), and 61st (2004–05) rounds of NSS, (Ministry of Statistics and Programme Implementation, GoI). It shows that the decline is spread over all the major States

TABLE 4.1.2
Changes in Average per capita Cereal Consumption in 15 States in Physical Terms over the Last Decade in Major States

Year	RURAL Monthly per capita cereal consumption (kg.) in							
	AP	ASM	BHR*	GUJ	HAR	KTK	KRL	MP#
1993–94	13.3	13.2	14.3	10.7	12.9	13.2	10.1	14.2
1999–2000	12.65	12.63	13.75	10.19	11.37	11.53	9.89	12.94
2004–05	12.07	13.04	13.08	10.07	10.66	10.73	9.53	12.16
	MAH	ORS	PUN	RAJ	TN	UP^	WB	IND
1993–94	11.4	15.9	10.8	14.9	11.7	13.9	15.0	13.4
1999–2000	11.32	15.09	10.58	14.19	10.66	13.62	13.59	12.72
2004–05	10.50	13.98	9.92	12.68	10.89	12.87	13.18	12.12
Year	URBAN Monthly per capita cereal consumption (kg.) in							
	AP	ASM	BHR*	GUJ	HAR	KTK	KRL	MP#
1993–94	11.3	12.1	12.8	9.0	10.5	10.9	9.5	11.3
1999–2000	10.94	12.26	12.70	8.49	9.36	10.21	9.25	11.09
2004–05	10.51	11.92	12.21	8.29	9.15	9.71	8.83	10.63
	MAH	ORS	PUN	RAJ	TN	UP^	WB	IND
1993–94	9.4	13.4	9.0	11.5	10.1	11.1	11.6	10.6
1999–2000	9.35	14.51	9.21	11.56	9.65	10.79	11.17	10.42
2004–05	8.39	13.11	9.01	10.84	9.48	10.94	10.39	9.94

Note: *includes Jharkhand; # includes Chhattisgarh; ^ includes Uttaranchal

Source: NSS 50th, 55th, and 61st Rounds.

and affects both rural and urban sectors to a similar extent.

4.1.13 In both rural and urban India, the share of food in total expenditure continued to fall throughout the three decades prior to 2004–05. The overall fall was from 73% to 55% in rural areas and from 64.5% to 42% in urban areas (Table 4.1.3). In urban India, not only the shares of cereals and pulses have fallen, but there has been a fall in the shares of other food groups as well, such as milk and milk products, edible oil, and sugar. In rural India, however, the shares of milk and milk products, egg, fish and meat, and fruits and nuts have increased by about 1 percentage point each, the share of vegetables has increased by 2.5 percentage points, and that of beverages, refreshments, and processed food has increased by 2 percentage points since 1972–73; only the shares of sugar and pulses (the latter, largely during the last decade) have declined noticeably, apart from cereals. In any case, the increase in the share of non-cereals is not enough to compensate for the decline in cereal consumption.

TABLE 4.1.3
Composition of Food Consumption, All-India, Rural, and Urban, 1972–73 to 2004–05

Sector	Year	% share of major food groups in total expenditure									
		All food	Cereals	Pulses	Milk and milk products	Edible oil	Egg, fish and meat	Vege-tables	Fruits and nuts	Sugar	Beve-rages, etc.
Rural	72–73	72.9	40.6	4.3	7.3	3.5	2.5	3.6	1.1	3.8	2.4
	87–88	64.0	26.3	4.0	8.6	5.0	3.3	5.2	1.6	2.9	3.9
	93–94	63.2	24.2	3.8	9.5	4.4	3.3	6.0	1.7	3.1	4.2
	99–00	59.4	22.2	3.8	8.8	3.7	3.3	6.2	1.7	2.4	4.2
	04–05	55.0	18.0	3.1	8.5	4.6	3.3	6.1	1.9	2.4	4.5
Urban	72–73	64.5	23.3	3.4	9.3	4.9	3.3	4.4	2.0	3.6	7.6
	87–88	56.4	15.0	3.4	9.5	5.3	3.6	5.3	2.5	2.4	6.8
	93–94	54.7	14.0	3.0	9.8	4.4	3.4	5.5	2.7	2.4	7.2
	99–00	48.1	12.4	2.8	8.7	3.1	3.1	5.1	2.4	1.6	6.4
	04–05	42.5	10.1	2.1	7.9	3.5	2.7	4.5	2.2	1.5	6.2

The Problem with Child Malnutrition

4.1.14 Sixty years after independence, nearly half of India's children under three are malnourished (see Table 4.1.4). India has the largest number of children in the world who are malnourished. Even more significantly, India's rate of malnutrition is worse than that in Africa on average. In fact, South Asian countries have the world's worst rate of malnutrition, and India's rate of malnutrition is among the worst in South Asia (together with Nepal and Bangladesh). Even the best State in India, Kerala, has a rate of child malnutrition comparable to that for Africa's average rate.

4.1.15 Even more worrying is the fact that the rate of malnutrition, defined as underweight children relative to an internationally accepted reference population, has not declined significantly over the last decade and a half. In 1992–93 (NFHS-1) it was 54%; in 1998–99 (NFHS-2), it was 46%, and in 2005–06 (NFHS-3) it was 46%—hardly any change over a period in which the economy has been growing at over 6% p.a. on average. Naturally, given the increase in population,

TABLE 4.1.4
Trends in Childhood (0–3 Years of Age)—Malnutrition in India

Nutritional Parameter	1992–93 NFHS-1	1998–99 NFHS-2	2005–06 NFHS-3
Stunted	52.0	45.5	38.4
Wasted	17.5	15.5	19.1
Underweight	53.4	47.0	45.9

Note: Figures of NFHS-1 above are for 0–4 years. However, NFHS-1 later generated data for below 3 years children with 51.5% children being underweight.

Source: NFHS surveys, IIPS, MoHFW, GoI.

the number of malnourished is likely to have actually increased.

4.1.16 Bihar, Jharkhand, MP, Chhatisgarh, and UP are the States with malnutrition rates well above the national average of 46% (Annexure 4.1.1). Some of these States have actually seen an increase in the share of malnourished children in the 0–3 year-old child population between 1998–99 (NFHS-2) and 2005–06 (NFHS-3). A concerted effort is planned, therefore, in the Eleventh Plan to reduce the child malnutrition rate in each State to the extent identified in Annexure 4.1.2.

4.1.17 NFHS-3 shows that anaemia among children and women is on the rise. As much as 74.2% of the children of 6–35 months were anaemic (NFHS-2) that has increased to 79.2% (NFHS-3). Similarly, the percentage of married women in the age group 15–49 who were anaemic has increased from 51.8% in 1998–99 to 56.2% in 2005–06 and that of pregnant women of 15–49 years has increased from 49.7% in 1998–99 to 57.9% in 2005–06 (see later section on Micronutrient deficiencies).

A Summary of the Situation Analysis

4.1.18 In other words, what emerges is that first, per capita availability of cereals has declined, and second, the share of non-cereals in food consumption has not grown to compensate for the decline in cereal availability. Even if the latter has grown there may well be a problem for significant sections of the population who may be feeling the distress caused by falling per capita cereal availability, and who also do not have the purchasing power to diversify their food consumption away from cereals.

4.1.19 In any case, the significant point is that overall per capita intake of calories and protein has declined consistently over a 20-year period from 1983 to 2004–05, according to NSS data (see Table 4.1.5). Rural calorie consumption per day has fallen from 2221 to 2047, an 8% decline. Similarly, the urban calorie consumption fell by 3.3%, from 2080 to 2020. The rural protein consumption fell by 8% over the same period and urban consumption remained the same over the 20-year period. Since this data is for households, it does not capture the impact of intra-household food distribution. It is well known that women and girls in poor households receive poorer quality food and less food in a normal, patriarchal household.

TABLE 4.1.5
Per Capita Intake of Calorie and Protein

	Calorie (K cal/day)		Protein (gm/day)	
	Rural	Urban	Rural	Urban
1983 (NSS 38th Round)	2221	2089	62.0	57.0
1993–94 (NSS 50th Round)	2153	2071	60.2	57.2
1999–2000 (NSS 55th Round)	2149	2156	59.1	58.5
2004–05 (NSS 61st Round)	2047	2020	57.0	57.0

Source: NSS Report No. 513, Nutritional Intake in India, 2004–05.

4.1.20 So taken together we have a set of overlapping problems in the country. First, the calorie consumption *on average* in rural areas has fallen way below the calorie-norm for the rural poverty line (2400 calories). It was lower than that norm 20 years ago and it has actually fallen since then on average. Similarly, the poverty line threshold for urban areas for calorie consumption is 2100 and urban consumption too was lower on average than the norm two decades ago and has also fallen. It is obvious that the non-poor consume more calories on average than the poor. Hence, to allow for distributional inequity that prevails in any society, calorie availability on average in the country as a whole should be at least 20% higher than the per capita requirement (i.e. 2100 calories for urban and 2400 calories for rural areas). Even 20 years ago, Indian consumption of calories on average was way below the requirements. So inevitably the poor, let alone the extremely poor, were and still are consuming calories that are way below the norm. And the intra-household allocation, not just among the poor but also among those who are marginally above the poverty line, is likely to be highly skewed against women and girls. When one combines this fact with the well-known fact (established in repeated NFHS since the early 1990s) that women and girls are less likely to access health services when they fall sick, it is hardly surprising that the sex ratio in the population is as low as it is, and falling.

4.1.21 The state of PEM has shown little no or signs of improvement over several decades. It is in this context that the Minimum Support Price (MSP) and the Public Distribution System (PDS) become significant.

Minimum Support Price, Food Procurement Policy, and the Public Distribution System

4.1.22 Food security is the outcome of both production and distribution decisions. Agricultural production issues are discussed in the 'Agriculture' chapter of the Eleventh Plan (Volume III). In fact, the GoI has in 2007 taken the decision to introduce a Food Security Mission, which will focus on increasing production of cereals and pulses. This chapter focuses on the distribution, affordability, and availability issues in respect of calories. This section discusses what changes need to happen in the PDS in order to both improve food security as well as reduce fiscal subsidies.

Minimum Support Price (MSP)

4.1.23 Foodgrains are procured at the MSP fixed by the government mostly in a small number of grain-surplus States in the north of India, which are then transported across the country to deficit States (the latter mostly in the south and west of the country). MSPs are fixed on rates recommended by Commission for Agricultural Costs and Prices (CACP), which are set using mainly cost of cultivation. These grain stocks essentially supply the PDS of the country. Through the PDS, cereals are made available to BPL households, as well as to Above Poverty Line (APL) households—at differential prices. There is a third category of beneficiaries—*Antyodaya* card holders. Under the *Antyodaya Anna Yojana* (AAY), 35 kg of foodgrains are being provided to the poorest of the poor families at the highly subsidized rate of Rs 2 per kg for wheat and Rs 3 per kg for rice.

4.1.24 During the years of accumulation of stocks in the Central Pool until 2001–02, it was believed that excess procurement was on account of the government's decision to fix the MSP for paddy and wheat in excess of the levels prescribed by the CACP. Grain stocks have declined since then.

Stabilization

4.1.25 Given the limited purchasing power of the poor, there is a need to contain cereal price rises. For this purpose government maintains foodgrains buffer stocks through the Food Corporation of India (FCI). Stocks had reached to 256.17 lakh tonnes (rice) and 324.15 lakh tonnes (wheat) for the year 2001–02. But in 2007, the stocks of these two foodgrains fell to 131.71 lakh tonnes (rice) and 45.63 lakh tonnes (wheat), respectively.

4.1.26 To achieve the cereal price stabilization objective of PDS, food stocks with FCI should be at a reasonable level. In recent years, both procurement and stocks with FCI have tended to fall. If the needs of procurement to maintain adequate stocks requires procurement prices to be higher than MSP, a transparent mechanism is needed that enables government to undertake commercial purchases at prices comparable to those paid by private traders. This could be done if the procurement price (i.e. MSP plus bonus) was announced at the beginning of the purchase season, along with a procurement target in terms of quantity. After the procurement target was met, the bonus would be suspended. However, if procurement quantities, even with bonus are not met, FCI should be able to tender from both domestic as well as international markets, after standard procurement operations, to make up the deficit to maintain stocks with the FCI.

Decentralized Procurement

4.1.27 Unlike the mid-1990s, cereal procurement was earlier concentrated in a few northern States. However, under the decentralized procurement scheme introduced in 1997–98, the State Governments themselves undertake direct purchase of paddy and wheat and procurement of levy rice on behalf of the GoI. Purchase centres are opened by the State Governments and their agencies as per their requirements. The State Governments procure, store, and distribute foodgrains under Targeted Public Distribution System (TDPS) and other welfare schemes. In the event of the total quantity of wheat and rice thus procured falling short of the total allocation made by the Central Government, FCI meets the deficit out of the Central Pool stocks. Under this scheme, State-specific economic cost is determined by the GoI and the difference

between the economic cost so fixed and the central issue prices (CIP) is passed on to the State as food subsidy.

4.1.28 The Decentralized Procurement Scheme, which is presently in operation in 11 States, has been very successful in increasing procurement of rice in many non-traditional States, as can be seen below in Table 4.1.6.

4.1.29 There is a need for States to increase procurement to reduce their requirement of foodgrains from the Central Pool. There is also a need for more States with large production, such as Bihar for wheat and rice and Assam for rice, to adopt the Decentralized Procurement scheme. If this were to happen, there could be a considerable saving in terms of transportation costs.

with higher MSPs declared more recently, there is a danger that the subsidy is likely to rise (see Table 4.1.7) due to increase in MSP, announcement of bonus, and carrying cost of FCI. The Table 4.1.7 gives the figures of food subsidy of the GoI.

Public Distribution System

4.1.32 The PDS is a major State intervention in the country aimed at ensuring food security to all the people, especially the poor. The PDS operates through a large distribution network of around 4.89 lakh fair price shops (FPS), and is supplemental in nature. Under the PDS, the Central Government is responsible for the procurement and transportation of foodgrains up to the principal distribution centres of the FCI while the State Governments are responsible for the identification of families living below the

TABLE 4.1.6
Procurement of Rice in DCP States during Kharif Marketing Season

(Figures in lakh tonnes)

S. No.	State	2002–03	2003–04	2004–05	2005–06	2006–07*
1	WB	1.26	9.25	9.44	12.75	5.19
2	UP	13.60	25.54	29.71	31.51	21.01
3	Chhattisgarh	12.91	23.74	28.37	32.65	25.20
4	Uttaranchal	2.32	3.23	3.61	3.36	1.74
5	A&N Islands	-	Neg.	0.01	-	-
6	Orissa	8.90	13.73	15.90	17.85	14.18
7	Tamil Nadu	1.07	2.07	6.52	9.26	10.38
7	Kerala	-	-	0.33	0.94	1.05
8	Karnataka	-	-	0.21	0.48	0.12
	Total (a)	40.06	77.56	94.10	108.80	78.86

Note: *Position as on 19.04.07.

Food Subsidy

4.1.30 Food subsidy is provided in the Budget of the Department of Food and Public Distribution to meet the difference between the economic cost of foodgrains procured by FCI and their sales realization at CIP for TPDS and other welfare schemes. In addition, the Central Government also procures foodgrains for meeting the requirements of buffer stock. Hence, part of the food subsidy also goes towards meeting the carrying cost of buffer stock.

4.1.31 The food subsidy bill of the GoI peaked in 2004–05 and declined as stocks declined. However,

TABLE 4.1.7
Food Subsidy

Year	Food Subsidy (Rs in crore)
1996–97	5166
1997–98	7500
1998–99	8700
1999–2000	9200
2000–01	12010
2001–02	17494
2002–03	24176
2003–04	25160
2004–05	25746
2005–06	23071
2006–07	23827

poverty line, the issue of ration cards, and the distribution of foodgrains to the vulnerable sections through FPSs. *PDS seems to have failed in serving the second objective of making foodgrains available to the poor. If it had, the consumption levels of cereals should not have fallen* on average—as it has consistently over the last two decades.

4.1.33 With a view to improving its efficiency, the PDS was redesigned as TDPS with effect from June 1997. The TPDS envisages identifying the poor households and giving them a fixed entitlement of foodgrains at subsidized prices. Under the TPDS, higher rates of subsidies are being given to the poor and the poorest among the poor. The APL families are also being given foodgrains under TPDS but with lower subsidy. The scale of issue under TDPS for Antyodaya cardholders began with 10 kg per family per month, which has been progressively increased to 35 kg per family per month with effect from April 2002.

4.1.34 Under the TPDS, the identification of BPL families was to be carried out by the State Governments based on criteria adopted by the Ministry of Rural Development (MoRD). However, the total number of beneficiaries was to be limited to the State-wise poverty estimates (1993–94) of the Planning Commission projected to the population as on 1.03.2000. Against a total ceiling of 6.52 crore BPL households (as per the poverty estimates of the Planning Commission for 1993–94 and population projection of the Registrar General as on 01.03.2000), more than 8 crore BPL ration cards have been issued. Similarly against the figure of 18.03 crore households in the country (as per the population projections as on 1.03.2000 of the Registrar General of India), the total number of ration cards issued is around 22.32 crore. This does raise problems at the field level.

Major Deficiencies of TPDS

4.1.35 As identified by various studies, the major deficiencies of the TPDS include: (i) high exclusion and inclusion errors, (ii) non-viability of FPSs, (iii) failure in fulfilling the price stabilization objective, and (iv) leakages.

(I) HIGH EXCLUSION AND INCLUSION ERRORS

4.1.36 The Programme Evaluation Organization's (PEO's) Study (2005) establishes large-scale exclusion and inclusion errors in most States (see Box 4.1.1). It also questions the BPL methodology used for

Box 4.1.1
Performance Evaluation of TPDS

- Only 22.7% FPSs are viable in terms of earning a return of 12% on capital.
- The offtake by APL cardholders was negligible except in Himachal Pradesh, Tamil Nadu, and West Bengal.
- The offtake per BPL card was high in WB, Kerala, Himachal Pradesh, and Tamil Nadu.
- The offtake by the poor under TPDS was substantially higher than under universal PDS.
- There are large errors of exclusion and inclusion and ghost cards are common.
- High exclusion errors mean a low coverage of BPL households. The survey estimated that TPDS covers only 57% BPL families.
- Errors of inclusion are high in Andhra Pradesh, Karnataka, and Tamil Nadu. This implies that the APL households receive an unacceptably large proportion of subsidized grains.
- Leakages vary enormously between States. In Bihar and Punjab, the total leakage exceeds 75% while in Haryana and UP, it is between 50 and 75%.
- Leakage and diversion imply a low share of the genuine BPL households of the distribution of the subsidized grains. During 2003–04, it is estimated that out of 14.1 million tonnes of BPL quota from the Central Pool, only 6.1 million tonnes reached the BPL families and 8 million tonnes did not reach the target families.
- Leakage and diversion raised the cost of delivery. For every 1 kg that was delivered to the poor, GoI had to issue 2.32 kg from the Central Pool.
- During 2003–04, out of an estimated subsidy of Rs 7258 crore under TPDS, Rs 4123 crore did not reach BPL families. Moreover, Rs 2579 crore did not reach any consumer but was shared by agencies involved in the supply chain.

identification of households at State level. There are two problems here. One is the criterion used for allocation of foodgrains by the Central Government to States. The Central Government allocates foodgrains to States based on a narrow official poverty line. There is a need to look at this allocation criterion to States. If we go by the official poverty ratio criterion, only 28% of the population is eligible under PDS at all-India level in 2004–05. However, food-insecure households may be much higher than the official poverty ratios. For example, undernutrition among children and households is much higher than this figure. The use of BPL estimates to determine Central allocations should be revisited because there is a significant mass of households just above the poverty line.

4.1.37 A second problem is the use of BPL method for identifying households by the States. This identification differs from State to State. For example, some of the south Indian States do not follow the official poverty ratio for limiting the ration cards. In Andhra Pradesh, more than 70% of the households have ration cards. This is one of the reasons for high inclusion errors in Andhra Pradesh.

(II) VIABILITY OF FPSs

4.1.38 An important institutional concern is that of the economic viability of FPSs, which appears to have been badly affected by the exclusion of APL population from the PDS (which happened after PDS became TPDS in 1997). The virtual exclusion of the APL population has led to a big decline in offtake. With fewer ration cards to serve, lower turnover, and upper bounds on the margins that can be charged to BPL consumers, the net profits of FPS owners and dealers are lower under the TPDS than before. Since there are economies of scale here, for instance, with respect to transport, the distribution of smaller quantities is likely to make many shops unviable. When FPSs are economically viable, there are fewer incentives to cheat.

4.1.39 Some of the steps suggested by the High-level Committee (HLC) on Long Term Grain Policy to revive the retail network were the following:

'Relax restriction on eligibility to be a licensed FPS; make NGOs and village-level retailers eligible to undertake licensed PDS distribution, and in particular, encourage women; remove restrictions on the range of commodities that can be sold in a FPS; and allow registered associations of FPS dealers to purchase the grain allocated directly from the FCI'.

(III) REGIONAL ALLOCATION AND PRICE STABILIZATION OBJECTIVE

4.1.40 One of the objectives of the PDS has always been to ensure price stabilization in the country by transferring grain from cereals-surplus to cereals-deficit regions. Targeted PDS has reduced the effectiveness of this objective. This is because under TPDS, the demand for cereals is no longer determined by State Governments (based on their requirements and in practical terms on past utilization) but on allocations decided by the Central Government (based on poverty estimates prepared by the Planning Commission). The new system of allocation, as pointed out by the HLC, has led to imbalances between actual allocations and 'allocations necessary to meet the difference between cereals production and requirement'.

(IV) LEAKAGES AND DIVERSION

4.1.41 Undoubtedly, in many parts of India, the current system of delivery has weaknesses resulting in leakages at different stages. As the Programme Evaluation Organization, PEO Study (2005) points out, 'the share of leakages in offtake from the Central Pool is abnormally high, except in the States of West Bengal and Tamil Nadu'. Further, 'in terms of leakages through ghost BPL cards, there are fewer problems in Andhra Pradesh, Haryana, Kerala, Punjab, Rajasthan and Tamil Nadu than in other States'. At the FPS level, leakages were found to be high in Bihar, Punjab, and Haryana.

4.1.42 The study goes on to identify the factors associated with relatively low leakages at the FPS level and concludes that 'general awareness of the beneficiaries, high literacy and strong grass root-level organizations (particularly PRIs) have helped States like West Bengal and Himachal Pradesh in minimising FPS level leakage, while in the case of Tamil Nadu, it is the elimination of private retail outlets'. It has been documented that strong political commitment and careful monitoring by the bureaucracy are the key elements of the success of PDS in Tamil Nadu.

4.1.43 Leakages cannot be lowered by finer targeting using official poverty criterion. They require political commitment and participation of the people in the delivery process. The nexus between officials, the mafia, and ration shop dealers must be broken in order to reduce leakages. Monitoring and accountability of TPDS (food security watch) should be improved in a significant way. The TPDS needs to be strengthened by means of the effective use of IT including introduction of a unique ID-based smart card system.

Coverage of Commodities Supplied through TPDS

4.1.44 If nutrition security is one of the considerations of TPDS, the government may explore the possibility of including more commodities under TPDS. For example, cereals such as jowar, bajra, and also pulses could be introduced in TPDS because of nutritional considerations. The consumption of pulses is low for the poor. Operational details of supplying these commodities, particularly, pulses have to be worked out. It is true that presently the country has a shortage of these commodities. However, the introduction of these commodities may encourage production of these crops especially in dry land areas. The National Food Security Mission has identified pulses as an area of focus.

Steps Taken to Strengthen the TPDS and Plan Schemes

4.1.45 The GoI has taken following measures to strengthen TPDS and check diversion of foodgrains meant for TPDS:

CITIZEN'S CHARTER

- A Citizens' Charter has been issued in November 1997 for adoption by the State Governments to provide services in a transparent and accountable manner under PDS. Instructions have been issued for involvement of PRIs in identifications of BPL families and in Vigilance Committee.

PDS (CONTROL) ORDER, 2001

- The Order, inter alia, covers a range of areas relating to correct identification of BPL families, issue of ration cards, proper distribution, and monitoring of PDS-related operations. Contraventions of the provisions of the Order are punishable under the Essential Commodities Act, 1955. Clearly, these do not seem to have had much impact, since the NSSO estimates of 2006 suggest that the extent of leakage and diversion of grain has only increased.

4.1.46 In addition, a number of Plan Schemes have been introduced.

(I) CONSTRUCTION OF GODOWNS

4.1.47 The Scheme was conceived during the Fifth Five Year Plan to build and increase the storage capacity available with FCI for storage of foodgrains.

(II) INTEGRATED INFORMATION SYSTEM FOR FOODGRAINS MANAGEMENT (IISFM)

4.1.48 The main objective of the IISFM project in the FCI, initiated in 2003–04, is to put in place an online MIS that would give the stock position in any depot at any given point of time.

(III) STRENGTHENING OF PDS

Food Credit Cards/Computerization of PDS Operations

4.1.49 A new scheme 'Computerization of PDS Operations' with a token provision of Rs 5 crore was introduced in 2006–07. The computerization of PDS operations would be an improvement on the existing system of ration cards, that is, the present manual system of making entries, etc. The new system will have personal details of all members of the family including their entitlement and the entire network of PDS from taluk to State level will be linked. With this kind of system in place, the objectives of Food Credit Card Scheme of checking diversion of foodgrains and eliminating the problem of bogus ration cards are expected to be met.

Curbing Leakages/Diversion of Foodgrains Meant for TPDS

4.1.50 This is a new scheme introduced during the Eleventh Five Year Plan to strengthen the PDS. The scheme aims at taking effective measures to curb diversion and leakages through Global Positioning System, Radio Frequency Identification Device, etc.

Generating Awareness amongst TPDS Beneficiaries about their Entitlement and Redressal Mechanism and Monitoring

4.1.51 A mass awareness campaign on the rights and entitlements of TPDS beneficiaries is proposed through newspaper advertisements, bill boards, posters, printing of annual calendar on the themes of TPDS, and audio-visual publicity measures such as short spots/quickies, audio jingles/radio spots, TV serials/documentaries.

Training and Awareness of Negotiable Warehouse Receipt System

4.1.52 This is a new scheme for the Eleventh Five Year Plan. The warehousing receipts at present do not enjoy the fiduciary trust of depositors and banks, as there is fear of not being able to recover the loans in events such as fraud or mismanagement on behalf of the warehouse or insolvency of depositor. The legal remedies are also time consuming and inadequate. In this context, it is proposed to develop a negotiable warehouse receipt system for commodities including agricultural commodities. The negotiable warehouse receipt system will result in increase in the liquidity in the rural areas, encouragement of scientific warehousing of goods, lower cost of financing, etc.

(IV) VILLAGE GRAIN BANK SCHEME

4.1.53 The Village Grain Bank Scheme, which was hitherto with the Ministry of Tribal Affairs, has been transferred to the Department of Food and Public Distribution w.e.f. The objective of the scheme is to establish Grain Banks in chronically food-scarce area and to provide safeguard against starvation during the lean period. The scheme is also to mitigate drought-induced migration and food shortages by making foodgrains available within the village during such calamities. During 2006–07, there was a budget provision of Rs 50 crore for setting up 8591 Village Grain Banks in food-scarce areas.

Further Innovations Needed to Strengthen TPDS and the Way Forward

4.1.54 One of the long-standing criticisms of the TPDS has been that offtake of PDS cereals (rice and wheat) by States from FCI does not match with NSS estimates of PDS consumption of those same grains (as we noted earlier). For instance, Table 4.1.8 shows that, according to NSS, over 1993–94, 1999–2000, and 2004–05, consumption of PDS grains rose. It also shows that offtake of PDS grain from FCI by States increased much more than consumption over the same decade. The difference between the two shows the extent of leakage of PDS wheat and rice. This leakage [defined as 1—{ratio of (a) to (b)}] was 28% for wheat and rice together in 1993–94, but it had risen to 54% by 2004–05—a very significant increase in leakage. These facts clearly show that TPDS is in urgent need of reform.

TABLE 4.1.8
PDS Implied Leakage—Offtake vs Consumption

	1993–94	1999–2000	2004–05
(a) NSS PDS consumption (m. tons)			
Rice	7.20	9.30	9.98
Wheat	3.44	2.99	3.55
Total	10.64	12.29	13.53
(b) PDS offtake (m. tons)			
Rice	8.84	11.35	16.62
Wheat	5.86	5.76	13.02
Total	14.70	17.11	29.65
Ratio of (a) to (b)			
Rice	0.81	0.82	0.60
Wheat	0.59	0.52	0.27
Total	0.72	0.72	0.46

Source: NSS.

4.1.55 These facts are further underlined by Annexure 4.1.4, which demonstrates the massive leakage of the fiscal subsidy to the non-poor on the one hand and the ineffective targeting of the poor by the cardholder-based TPDS system.

4.1.56 Annexure 4.1.5 drives home the point about the poor targeting by TPDS benefits. It estimates the benefits in rupees per household of PDS grain beneficiaries [calculated as PDS quantity consumed* (PDS Price—Average Market Price)]. It shows that the benefits to the household are dependent upon whether you have a card or not (and which card you have—APL, BPL, or Antyodaya), and not on whether you are poor or non-poor. In fact, it demonstrates that there is very little difference between the benefits (in Rs/household) of poor and non-poor households

when one compares poor BPL cardholders with non-poor BPL cardholders, or when comparing poor AAY cardholders with non-poor AAY cardholders.

4.1.57 The TPDS in its current form as a anti-poverty programme clearly is not doing very well. Given these facts, a restructuring of the TPDS has been suggested.

4.1.58 In this context, a recommendation of the HLC on Long Term Grain Policy (2000) was that instead of the current distinction between APL, BPL, and Antyodaya in terms of issue pricing for rice and wheat, there should be a single issue price for grain issued by the FCI from its warehouses. This recommendation, sometimes identified with the return to universal PDS from TPDS adopted in 1997, has been criticized on a number of grounds. First, that if the same price for BPL and APL households was charged, this would not be financially viable for the BPL. If existing AAY and BPL cardholders were charged a higher price, there would be a diversion of benefits from the relatively poor to the relatively rich. Second, there might be pressure to keep the uniform CIP low as high common price for BPL and APL would have adverse consequences for the poor. On the other hand, a low CIP would increase even further the fiscal subsidy. Third, any widening in the effective reach of PDS due to its universalization would put unbearable pressures for the supply of grain into the PDS.

4.1.59 It needs, however, to be noted that the HLC had not altogether ruled out the continuation TPDS in States where this might be the best option. Its recommendation was that there should be a single CIP as far as FCI is concerned for each grain fixed at FCI's acquisition cost and that the existing subsidy beyond this should be passed on to the States on the condition that this be used for food based schemes.

4.1.60 The key issue here is whether or not the existing subsidies that the HLC recommended should be given to the States as cash or best targeted to the intended beneficiaries by means of the existing differential pricing system with lowest prices for Antyodaya, slightly higher price for BPL, and higher still for APL cardholders. The view of the HLC was that although this differential pricing system may work well for some States, it was not necessarily the case in most others and that removing the price differentials in PDS would enable FCI to concentrate on its proper role of price stabilization rather than get involved, as it has, with the complexities of an anti-poverty programme. Also, the HLC had pointed out that differential pricing of the same grain is an invitation to corruption and, therefore, to leakages and other deadweight losses—as already shown by the PEO study cited above as well as more recent evidence emerging from the NSSO. The HLC had suggested that large savings were possible if the subsidy on FCI account could be used to expand other food-based schemes like ICDS, Mid Day Meals, and food entitlement in employment programmes. However, as already mentioned, the HLC left this choice to the States allowing them to continue with the existing TPDS if they so wish to do, by having their own differential prices rather than differential price at the FCI stage.

4.1.61 As we have noted in the tables above, data available from the 61st Round of NSS supports some of the concerns expressed by the HLC. NSS 61st Round also enables an assessment of how effectively PDS and other food based schemes such as MDM, ICDS, and Food for Work are able to reach the poor. This shows that: (i) only about 36% of the poor have either BPL or Antyodaya cards, and also that about 40% of such cards are with the non-poor (Annexure 4.1.4); (ii) possession of appropriate cards (e.g. BPL or Antyodaya) rather than actual poverty status is the determinant of the benefits derived from targeted TPDS (Annexure 4.1.5); (iii) in more self-selecting schemes such as MDM, ICDS, and Food for Work, the total number of beneficiaries is similar to the number currently benefiting from a BPL or AAY status and indeed these self-targeted schemes are somewhat better reaching the poor than the assignment of BPL cards (Annexure 4.1.6). Although not conclusive, this observation taken together suggests that the *leakages of physical grain could be reduced without greater fiscal cost and with somewhat better targeting towards the poor by redirecting subsidies currently in the PDS to better funding of the other schemes (i.e. the MDM, the ICDS).* However, it was noted by the HLC that the incident of leakages and the effectiveness of PDS targeting varies considerably from State to State, suggesting that

a one-size-fits-all approach to food and nutrition management is highly mistaken.

Other Measures Needed to Reform TPDS

INTRODUCTION OF FOOD STAMPS

4.1.62 If markets are integrated, food stamps system may be introduced, which is supposed to be more effective than the present system. On food stamps/coupons, the HLC has observed as follows: 'In the long run, as markets get better in tegrated, the PDS function need not remain restricted to designated FPS and a food coupon system valid even outside PDS outlets may become possible. Food coupons may allow wider choice of consumers in terms of commodities and outlets. In the Committee's view, this is a course which should be followed with considerable caution in view of the experience of other countries, and the possibility of counterfeiting. However, the more important reason food stamps have not been successful elsewhere has been the erosion in the value of the coupons where it was fixed in nominal terms. If the coupon system is to succeed the PDS suggested above, the value of the coupon should be indexed to food inflation. The coupon system should not lead to a dilution of the Central Government commitment to food security'. Cash for food subsidies (sometimes known as food stamps) eliminate the need for dual retail marketing mechanisms. This can resolve the endemic problem of uneconomic viability of FPS. As a way of restoring economic viability, the HLC on Grain Policy recommended that FPS should be allowed to sell other commodities. This recommendation of the HLC needs to be considered by the States.

MULTI-APPLICATION SMART CARDS (MASCS)

4.1.63 MASCs is one of the technological breakthroughs of recent times. MASCs facilitate simplification of procedures and enhancing the efficiency in administering various schemes. The National e-Governance Policy fully recognizes the significance of this technological revolution. On-the-spot availability of proof of identity, authentic transaction history, and entitlement details are required at the point of service delivery. It will also allow other innovations/experiments such as the division of the PDS food entitlement between the Head of household and his/her (non-earning) spouse or transfer of entire household entitlement to the housewife/mother. Similarly, different models can be used for kerosene supply and fertilizer supply to farmers. In other words, the precise model for delivery of the subsidy or income transfer to individuals/households can be decided separately and/or modified overtime.

WEB-ENABLED SYSTEMS

4.1.64 Many departments of the Central Government, notably the MoRD, are in the process of developing web-enabled systems that provide information about government programmes to beneficiaries and also details of the benefits received by the targeted beneficiaries. Easy access to such information is the most effective means to empower the beneficiaries and their well-wishers/representatives. Such web-enabled systems can be created for the PDS.

Way Forward

- NSS 61st Round enables an assessment of how effectively PDS and other food based schemes such as MDM, ICDS, and Food for Work are able to reach the poor. This shows that in more self-selecting schemes such as MDM, ICDS, and Food for Work, the total number of beneficiaries is similar to the number currently benefiting BPL or AAY status and indeed these self-targeted schemes are somewhat better reaching the poor than the assignment of BPL cards. Thus the leakages of physical grain could be reduced without greater fiscal cost and with somewhat better targeting towards the poor by redirecting subsidies currently in the PDS to better funding of the other schemes (i.e. the MDM, the ICDS).
- However, a one-size-fits-all approach to food and nutrition management is mistaken. As there are large differences in the efficiency of implementation of the PDS among the States, it may be desirable to introduce State-specific designs and implementation strategies rather than continuing with a uniform design. Separate designs and implementation strategies may be thought of for areas with high concentration of the poor.
- Since some distinction needs to remain between the 'poor' and 'non-poor', the nature of exclusion/inclusion errors suggests that it is much better to

define 'poor' for PDS purposes as much larger than current Planning Commission estimates of the number of poor, and exclude altogether the residual 'non-poor'. If the current allocation of 35 kg per household per month continues, the present PDS offtake (rice + wheat) of about 40 million tonnes would meet PDS requirements of nearly 10 crore households, that is, roughly 60% more households than those defined to be poor by current official poverty estimates.

- The effectiveness of the system can also be improved by better management with the help of IT. Computerization of PDS operations and introduction of a unique ID-based Smart Card System would help in addressing the issues related to bogus ration cards, diversion of foodgrains, etc. The Eleventh Plan will therefore focus on improving the delivery mechanisms and the monitoring arrangements based on IT.
- There is also a need to make concerted efforts for minimizing the operational costs of the FCI from the present high levels through better management practices so that major part of the food subsidy actually accrues to the beneficiaries.
- Attention should also be given to streamlining and standardizing the State level taxes on procurement of foodgrains. Decentralized procurement will be further encouraged and extended to other States with potential for procurement. It is also necessary to strengthen both domestic and international trade in foodgrains by means of appropriate changes in trade policies.

4.1.65 The centralized system involving FCI's stabilization operations would need to be strengthened. This would be helped if FCI is relieved of having to operate the system involving differential prices (i.e. between BPL and APL prices). The total projected GBS for the Eleventh Plan for the Department of Food and Public Distribution is Rs 614 crore (at 2006–07 prices) and Rs 694 crore (at current prices).

Malnutrition: Addressing It through a Revamped ICDS

4.1.66 The ICDS, which has been in existence for over three decades, was intended to address the problem of child and maternal malnutrition, but has clearly had limited impact. Child malnutrition has barely declined at all in a decade and a half, anaemia among women and children has actually risen (see Annexure 4.1.3) and a third of all adult women were undernourished at the end of 1990s and also in 2005–06. It has also had limited coverage. Therefore, the answers are increasing coverage to ensure rapid universalization; changing the design; and planning the implementation in sufficient detail that the objectives are not vitiated by the design of implementation. Besides, all its original six services have to be delivered fully for the programme to be effective: (i) supplementary nutrition programme (SNP), (ii) immunization, (iii) health check-up, (iv) health and nutrition education, (v) referral services, and (vi) PSE.

4.1.67 First, the ICDS has to be universalized. Second, the current scheme does not focus on 0–3 year children. But malnutrition sets in in utero and is likely to intensify during the 0–3 year period, if not addressed. In fact, this window of opportunity never returns in the lifetime of the child. A child malnourished during 0–3 years will be marred physically and mentally for life. The design of the scheme has to address this problem frontally. This has several implications:

- *Mother's malnutrition and its knock-on effects on child malnutrition:* Malnutrition begins in utero, as Indian mothers on average put on barely 5 kg of weight during pregnancy. This is a fundamental reason underlying the LBW problem. They should put on at least 10 kg of weight, which is the average for a typical African woman. Middle class Indian women tend to put on well over 10 kg weight during pregnancy. But this is not the only problem; LBW is also partly explained by low BMI of women in general, prior to their becoming pregnant. Small women (who are small before they become pregnant) give birth to small babies. In 1998–99 as much as 36% of all Indian women (48% in Orissa and Chhattisgarh) had a below normal BMI; the share had barely dropped to 33% in 2005–06 (according to NFHS-3).
- *Breastfeeding in the first hour:* Within the first hour of birth, the infant must be breastfed. Only 23% of Indian babies were breastfed within the first hour

(in 2005–06). If Indian mothers enhance early initiation of breastfeeding within one hour, we can save 250000 babies from death annually by just this action; this would reduce the overwhelming share of neonatal mortality in our IMR.

- *Exclusive breastfeeding for six months* is necessary to avoid unnecessary infections to the baby, develop the baby's immunity, and ensure growth. Only 46% of Indian babies are exclusively breastfed; the remaining half is exposed to unhygienic methods of feeding (see Annexure 4.1.2).
- *Solid food six months on*. The baby must begin to receive solid, mushy food at 6 months (i.e. together with breastfeeds) for the baby to continue to grow in the way nature intended her to grow. Only 56% of mothers introduce appropriate solid, mushy food in a timely manner after 6 months. Not surprising that NFHS-2 data shows that the proportion of underweight children rises from 16% to more than 60% between the ages of 6 months and 2 years. This malnutrition also affects the mental development of the child for life. About 90% of the development of the brain takes place before a child reaches the age of two years (see Annexure 4.1.2).

4.1.68 The ICDS scheme accordingly needs to be restructured in a manner that addresses some of the weaknesses that have emerged and is suitable for universalization. The programme must effectively integrate the different elements that affect nutrition and reflect the different needs of children in different age groups. For the purpose the programme needs to be restructured in a Mission Mode with a Mission Structure at the central level and a similar structure at the State level. The Ministry of Women and Child Development (MoWCD) will prepare proposals for restructuring along the following lines so that the restructured programme can become effective on 1 April 2008.

- 0–3 year old children. Without prejudicing the interest of the 3–6 year olds, the focus of the entire ICDS has to shift to a much greater extent than before to the 0–3-year-olds. The AWWs in all anganwadi centres could focus on children under three years of age, pregnant, and lactating mothers. The tasks of this AWW would include breastfeeding counselling, nutrition and health education and counselling to ensure solid, mushy food is introduced by six months to all infants, growth monitoring, provision of SNP to children in the six months to three years age group and pregnant and lactating mothers, and motivation for ANC, immunization, and related matters.
- 3–6 years. At present SNP is provided to children in the age group of 3–6 years. A major factor adversely affecting the success of ICDS is leakages which at least in part is due to centralized procurement of ready to eat (RTE) foods. Centralized procurement of food has the additional problem of irregular supply of food in the anganwadis, and thrusting food items on beneficiaries irrespective of their taste and preferences. Very often this leads to non-acceptance or rejection of the food distributed. The food distributed has to be hygienically prepared and culturally acceptable. Some States, for example Tamil Nadu and Maharashtra, are successfully serving hot cooked meals.
- Accordingly, it is necessary that the existing mechanism of fund flow to States for implementation of the scheme of ICDS be reviwed and restructured in the Eleventh Plan. In the vision for the Eleventh Plan outlined in Volume I, funds should ideally be released directly by the Centre through States to districts, with DPC and PRI institutions involved. The District Planning process will be strengthened if Gram Panchayats were involved for local level procurement of food items and supervision of AWWs. The Women and Child Development (WCD) prefers a fund release mechanism involving State, district, and block level societies working in Mission mode. The actual restructuring in the Eleventh Plan would need to keep in view both the urgency implicit in the Mission-mode approach and the convergence aspects that are implied in the overall Eleventh Plan vision for effective delivery.
- The feeding components present some choices. One approach is to rely on hot cooked meals according to local taste and provided at the anganwadi centres. Preparation of meals will be entrusted to Self-help Groups (SHGs) or Mothers' Groups, as per decision of the Village Committee. An alternative approach is to rely upon RTE micronutrient

fortified hygienically prepared food. The decision between these two options need to be based on a careful evaluation of pros and cons and will be an important part of the proposed restructuring. The choice between the two could also be left to decentralized decision making.

- Poor sanitation leads to high incidence of diarrhoeal disease in the early years, undermining whatever little poor nutrition the infant taking in; hence, the Total Sanitation Campaign (TSC) must force its pace, particularly in urban areas where the density of population is high and the risk of fecal contamination even higher than in rural areas.
- Convergence between nutrition and health interventions needs to be ensured. An institutional mechanism should be put in place to ensure better delivery of the services through regular periodic meetings of the functionaries of the two programmes at village, block, district, State, and Central level. Even more importantly, joint training of ICDS and Health Department staff, including the Accredidated Social Health Activists (ASHAs), is necessary.
- Micronutrients do not work unless the child and mother are consuming sufficient calories through proper quantity of fat, protein, etc. For children between 3–6 years food diversification is necessary, that is, addition of egg, milk, fruits, leafy vegetables to their meal. There is also need for fortification in the diet of adolescent children especially girls. This is especially needed to address iron deficiency. It would be desirable to have an area-specific approach to the issue of micronutrients, rather than a thin spread across the country. There has been very little research on the efficacy of different forms of fortified foods/micronutrient supplementation for resolving micronutrient deficiencies. There needs to be much greater research into the strategy of providing fortified foods to address micronutrient deficiencies. The Eleventh Plan will support food fortification based on scientific evidence.
- LBW. It is necessary to improve the nutritional status of adolescent girls to make a significant dent on LBW babies and infant/child maternal mortality. The fact that the Mid Day Meal programme is being extended to UPS from 2007–08 will provide SNP to all girls between the ages of 12–14, which will go someway towards meeting the additional calorie requirements of adolescent girls. However, on its own, this intervention will not suffice, and more serious thought needs to be given on how to address the LBW problem.
- Maternity benefit. Poor women continue to work to earn a living for the family right upto the last days of their pregnancy, thus not being able to put on as much weight as they otherwise might. They also resume working soon after childbirth, even though their bodies might not permit it—preventing their bodies from fully recovering, and their ability to exclusively breastfeed their new born in the first six months. Therefore, there is urgent need for introducing a modest maternity benefit to partly compensate for their wage loss. This could be an extension of the scheme of JSY of the MoHFW or part of a restructured ICDS.
- PSE is the weakest link of the ICDS. There is incontrovertible research that preschool education is critical to improve primary school readiness of the child of functionally illiterate parents, and thus improving dropout rates. Keeping in view the potential of PSE in enhancing enrolment and reducing school dropout rates, the component of PSE has to be necessarily strengthened (either under ICDS or in the primary school).

If this is to be done under ICDS, AWWs will need to be provided adequate training to upgrade their skills for imparting Pre-school Education (PSE) at anganwadis and the issues of their work-load and incentives would need to be considered. It may also be advisable to train and involve adolescent girls to impart PSE to supplement efforts of existing AWWs, for which too incentives will be required.

4.1.69 The aim should be to halve the incidence of malnutrition by the end of the Eleventh Plan to the level noted in Annexure 4.1.3 and to reduce anaemia among pregnant women and children to under 10%. There has to be provision made for annual or biennial surveys throughout the country to measure the incidence of underweight (mild, moderate, and severe), stunting, and wasting. There should also be a regular measurement of the status of anaemia among women

and children. This task could be assigned to the National Institute of Nutrition, Hyderabad.

Micronutrient Malnutrition Control: Current Scenario

4.1.70 The National Nutrition Monitoring Bureau (NNMB) Report of December 2006 reveals that the consumption of protective foods such as pulses, green leafy vegetables (GLV), milk, and fruits was grossly inadequate. Consequently, the intakes of micronutrients such as iron, vitamin A, riboflavin, and folic acid were far below the recommended levels in all the age groups. The data from nutritional survey of children under five years shows that the prevalence of signs of moderate vitamin A deficiency (VAD) (Bitot spots on conjunctiva in eyes) and that of B-complex deficiency (angular stomatitis) was about 0.6% and 0.8% respectively among the preschool children. Among the school age children, Bitot Spots were found in 1.9%, and the prevalence of B-complex deficiency and of mottling of teeth (dental fluorosis) was 2% each.

4.1.71 We look at some of the specific micronutrient deficiencies in the country that are of a magnitude that causes public health concerns.

Anaemia

4.1.72 IDA is the most widespread micronutrient deficiency in the world affecting more than a billion people. It affects all age groups irrespective of gender, race, caste, creed, and religion, with higher incidence among vulnerable groups in developing world. Anaemia is associated with increased susceptibility to infections, reduction in work capacity, and poor concentration. In India, this silent emergency is rampant among women belonging to reproductive age group, children, and low socio-economic strata of the population. IDA reduces the capacity to learn and work, resulting in lower productivity and loss of wages, limiting economic and social development. Anaemia in pregnant women leads to adverse pregnancy outcomes such as high maternal and neonatal mortality, LBW, increased risk of obstetrical complications, increased morbidity, and serious impairment of the physical and mental development of the child. Anaemia remains one of the major indirect causes of maternal mortality in India. In children, anaemia causes low scholastic skills leading many of them to be below average in classes or premature dropping out from schools. It also triggers increased morbidity from infectious diseases.

4.1.73 It is also seen that children born to mothers who were illiterate or who belonged to scheduled castes/tribes were more likely to be anaemic than their counterparts. Further, children born to moderately and severely anaemic mothers were also anaemic, reflecting the consequences of poor maternal health status on the health of the children. Research studies have suggested that severe IDA during the first two years of life, when the brain is still developing, may cause permanent neurologic damage adding further sense of urgency to the current efforts to prevent IDA in children.

4.1.74 As per District Level Health Survey (DLHS) (2002–04), the prevalence of anaemia in adolescent girls is very high (72.6%) in India with prevalence of severe anaemia among them much higher (21.1%) than that in preschool children (2.1%). In adolescent girls, educational or economic status does not seem to make much of a difference in terms of prevalence of anaemia. Prevention, detection, or management of anaemia in adolescent girls has till now not received much attention. In view of the high prevalence of moderate and severe anaemia in this group and the fact that many of them get married early, conceive, and face the problems associated with anaemia in pregnancy, it is imperative to screen them for anaemia and treat them.

4.1.75 Low dietary intake and poor iron and folic acid intake are major factors responsible for high prevalence of anaemia in India. Poor bioavailability of iron in Indian diet aggravates the situation. High levels of infection such as water—and food-borne infections, malaria, and hook worm infestations further aggravate the situation.

4.1.76 Prevalence of anaemia is very high among young children (6–35 months), ever married women (15–49 years), and pregnant women (Annexure 4.1.3). Overall, 72.7% of children up to the age of three in urban areas and 81.2% in rural areas are anaemic.

Also, the overall prevalence has increased from 74.2% (1998–99) to 79.2% (2005–06). Nagaland had the lowest prevalence (44.3%), Goa was next (49.3%), followed by Mizoram (51.7%). Bihar had the highest prevalence (87.6%) followed closely by Rajasthan (85.1%), and Karnataka (82.7%). Moderate and severe anaemia is seen even among the educated families both in urban and rural areas. There are inter-State differences in prevalence of anaemia that are perhaps attributable partly to differences in dietary intake and partly to access to health care.

4.1.77 While analysing the data for States with anaemia level of 70% among children it was found that, except for Punjab, all other States had more than 50% prevalence of anaemia among pregnant women. This again reiterates the strong relationship between anaemia levels of mothers and children.

4.1.78 India was the first developing country to take up a National Nutritional Anaemia Prophylaxis Programme (NNAP) in 1972 to prevent anaemia among pregnant women and children. However, coverage under the programme needs improvement as only 22.3% of pregnant women consumed iron and folic acid for 90 days and only 50.7% had at least three antenatal visits for their last child birth (NFHS-3, 2005–06).

4.1.79 The current strategy, included as part of RCH Programme under NRHM, recommends that pregnant and lactating women, 6–12 months infants, school children, 6–10 year olds, and adolescents (11–18 year old) should be targeted in the NAPP as per the recommended dosage.

Iodine Deficiency Disorders (IDD)

4.1.80 IDD is a major public health problem for populations throughout the world, particularly for pregnant women and young children. They are a threat to the social and economic development of countries. The most devastating outcomes of iodine deficiency are increased perinatal mortality and mental retardation. Iodine deficiency is the greatest cause of preventable brain damage in childhood, which is the primary motivation behind the current worldwide drive to eliminate it. The main factor responsible for iodine deficiency is a low dietary supply of iodine. It occurs in populations living in areas where the soil has low iodine content as a result of past glaciation or the repeated leaching effects of snow, water, and heavy rainfall. Crops grown in this soil, therefore, do not provide adequate amounts of iodine when consumed.

4.1.81 Goitre is the most visible manifestation of IDD. In severely endemic areas, cretinism may affect up to 5–15% of the population. While cretinism is the most extreme manifestation, of considerably greater significance are the more subtle degrees of mental impairment leading to poor school performance, reduced intellectual ability, and impaired work capacity.

4.1.82 IDDs have been recognized as a public health problem in India since the 1920s. No State in India is completely free from IDDs. A third of all children in the world that are born with IDD-related mental damage live in India.

4.1.83 The Indian National Goitre Control Programme (NGCP) was started in 1962 with a focus on the goitre belt in the country. However, the programme of universal iodization was introduced only in 1984, when all edible salt in the market was required to offer 30 ppm (parts per million) iodine at the production level. This was legalized through the PFA (Prevention of Food Adulteration) Act of 1988 that also banned the availability of crystalline salt (non-iodized) as an edible product. It was accepted variably by the different States, some putting only a partial ban and others none at all. Based on the recommendations of the Central Council of Health, the government took a policy decision to iodise the entire edible salt in the country by 1992. Since 1992, the National Iodine Deficiency Disorders Control Programme (NIDDCP) is the new name given to the erstwhile NGCP. This change has been effected with a view to cover the wide spectrum of iodine deficiency such as mental and physical retardation, deaf-mutism, and cretinism under the programme. Due to various research reports, the Central Government lifted the ban on the sale of non-iodized salt in 2000. The States chose to retain or revoke the ban depending upon their own assessment.

In 2005, a country-wide universal ban on sale of non-iodized salt for human consumption has again been promulgated by the Central Government.

4.1.84 Studies indicate that after a certain level, the prevalence of goitre does not decrease by iodination alone due to role of various other factors like goitrogens in food, pollutants in water, etc. Definite identification of the active agents and knowledge of their biological and physicochemical properties may permit public health officials to develop procedures for eliminating these compounds at the community level and eradicating goitre from endemic areas.

4.1.85 Evidence also provides basis to have a fresh look about: iodine as the sole factor in causality; magnitude of the problem as a major public health problem universally; effectiveness of universalization of iodized salt as a measure that leads to decreasing goitre and other IDD by itself; and possible negative impacts on health like increase in hyperthyroidism and hypothyroidism, and interaction with other minerals like iron.

Vitamin A Deficiency

4.1.86 VAD has been recognized as a major controllable public health and nutritional problem. An estimated 5.7% children in India suffer from eye signs of VAD. Recent evidence suggests that even mild VAD probably increases morbidity and mortality in children, emphasizing the public health importance of this disorder.

4.1.87 Vitamin A is an important micronutrient for maintaining normal growth, regulating cellular proliferation and differentiation, controlling development, and maintaining visual and reproductive functions. VAD is one of the major deficiencies among lower income strata population in India. Human beings cannot produce this micronutrient in the body itself. Hence it has to be externally provided. This deficiency is seen greater in preschool children and pregnant and lactating women due to higher need for this micronutrient. In severe cases it can even lead to total blindness.

4.1.88 Though the prevalence of severe forms of VAD such as corneal ulcers/softening of cornea (keratomalacia) has in general become rare, Bitot spots were present in varying magnitudes in different parts of the country (NNMB 2003). The prevalence was higher than the WHO cut-off level of 0.5%, indicating the public health significance of the problem of VAD. There is huge inter-State variation in the prevalence of VAD among children. It is also a matter of concern that only 21% children of age 12–35 months received a vitamin A dose in last six months. Less than 10% coverage is reported in Nagaland (8.7%) and UP (7.3%). Only States such as Tamil Nadu (37.2%), Goa (37.3%), Tripura (38.0%), Kerala (38.2%), WB (41.2%), and Mizoram (42.2%) have better coverage, though substantially low.

4.1.89 In India way back in 1970 a National Programme for Prevention of Nutritional Blindness was initiated to fight this deficiency. The beneficiaries of this programme were preschool children (1–5 years). Further, the programme was modified in 1992 to cover children in the age group of nine months to three years only. Since Tenth Five Year Plan Vitamin A Supplementation exists as an integral component of RCH programme that is a part of NRHM.

4.1.90 During the past few years, series of expert consultations were held among various stakeholders. In view of disaggregated age-wise prevalence of VAD in children (NNMB reports), all these stakeholders recommended extending the programme to cover children up to five years. Consequently, MoHFW, GoI, issued guidelines to the States in November 2006 extending the programme to cover up to five years.

4.1.91 The programme focuses on:

- Promoting consumption of vitamin A rich foods by pregnant and lactating women and by children under five years of age and appropriate breastfeeding.
- Administering massive doses of vitamin A up to five years.
  - First dose of 100000 IU with measles vaccination at nine months.
  - Subsequent doses of 200000 IU each every six months.

4.1.92 Vitamin A supplementation and nutrition education is being implemented through the PHCs, Sub Centres, and the Anganwadis. The services of ICDS Programme, under the MoWCD, are utilized for the distribution of vitamin A to children in the ICDS blocks and for educa-tion of mothers in prevention of VAD.

Other Micronutrient Deficiencies

4.1.93 Recently, GoI examined the issue of use of zinc in the management of diarrhoea for the children and recommended to administer zinc as part of ORS in the management of diarrhoea for children older than three months. It is expected that introduction of zinc for diarrhoea will go a long way in reducing IMR in the country.

4.1.94 Apart from major macro and micronutrients there exist more than 300 nutrients, which are vital for the body. In recent years micronutrients and phyto nutrients (nutrients in edible plants having anti-oxidant and anti-inflammatory) have acquired centre stage in the field of nutrition. Phyto nutrients in the foods have biological property for disease prevention and health promotion. Truly nutritious diet is one that promotes health and prevents diseases. There is considerable interaction between different micronutrients with respect to metabolic function. Diets of the poor and even of some rich people may be deficient in a number of nutrients. Evidences based on research suggest that consumption of balanced food including protective foods like milk; varied kind of fruits, vegetables, etc. will meet the nutritional needs of the body. However, limited data is available regarding causes of deficiencies, interactions among various micronutrients when given as supplements, modalities of prevention and management of deficiencies, stability of micronutrients in fortified foods, etc.

4.1.95 ISSUES OF CONCERN

- Micronutrient malnutrition continues unabated in the country leading to heavy economic loss.
- Exact mapping of micronutrient deficiencies has not been done for the country.
- Existing programmes do not address the problem in a holistic manner. Only nutrient supplementation programmes are in existence and that too not covering the entire high risk group.
- There is inadequate monitoring of micronutrient deficiencies in the country. NFHS undertaken every six years covers only anaemia levels in women and children under three years and projects only State-level picture. NNMB exists only in few States giving State-level projections for the eight States only.
- Dietary diversification and nutrition education have not been given the required thrust.
- Food fortification has not been studied adequately.
- Nutrition-oriented horticultural interventions to promote production of fruits and vegetables at household and community level are yet to be taken up.
- Awareness generation on consequences of micronutrient malnutrition, its prevention, and management is not being addressed adequately.

TOWARDS FINDING SOLUTIONS

4.1.96 A five-pronged strategy will be adopted during the Eleventh Plan to accelerate the programmes to overcome micronutrient deficiency in the country. These relate to:

(i) Dietary Diversification: It means increasing the range of micronutrient-rich foods consumed. In practice, this requires the implementation of programmes that improve the availability and consumption of, and access to, different types of micronutrient-rich foods (such as animal products, fruits, and vegetables) in adequate quantities, especially among those who are at risk for, or vulnerable to, micronutrient malnutrition. Attention also needs to be paid to ensure that dietary intakes of oils and fats are adequate for enhancing the absorption of the limited supplies of micronutrients. It includes activities that improve production, availability, and access to micronutrient-rich and locally produced foods as a major focus of this type of intervention. Equally important is the use of communication and education activities to motivate changes in behaviour that increase consumption of beneficial foods, increase food production, and improve feeding practice in infants and children. Many dietary diversification activities operate at the

community level where they are more likely to be sustainable and cause enduring behaviour change in micronutrient consumption. Such efforts are primarily to be taken up by the Ministries of Health and Family Welfare, WCD, and Information and Broadcasting.

(ii) Nutrient Supplementation: It concerns the Ministries of Health and Family Welfare, WCD, and Department of School Education and Literacy and could be achieved through biannual campaigns for administration of vitamin A to children between nine months to five years, providing iron and folic acid supplements to children from six months to two years and to adolescent girls of 10–19 years, administering iron tablets to all pregnant and lactating women and by emphasizing breastfeeding of infants up to six months under the NRHM implementation plans. While single supplements for various deficiencies are being used world over, evidence for a shift to multiple micronutrient supplementation is conflicting.

(iii) Horticulture Intervention: Although India is one of the leading producers of vegetables; GLV constitute only 16% of the total vegetable production. Horticulture intervention will include increasing the nutrient-rich crops to meet the requirements. Promotion of home gardening is important to increase availability at the household level. Emphasis should be put on perennial varieties of GLVs that are relatively easy to grow. It includes training farmers in agriculture technologies to improve production and also providing them incentives to move away from cash crops. There is a need to develop a mechanism of coordination between the various departments involved in horticultural and educational activities for optimum benefit of the community. The activities also include increasing both production and productivity through adoption of improved technologies for ensuring quality, post-harvest activities, and food processing. Horticulture Intervention will also involve the Ministry of Agriculture for the supply of seeds, extension, and storage support.

(iv) Public Health Measures: These will involve the Ministries of Health and Family Welfare, WCD, Commerce, Rural Development, and Urban Development. This would require streamlining procedures of procurement and supply, building institutional capacity in organizations for monitoring and mapping micronutrient deficiencies, deworming children at regular intervals, and providing safe drinking water and sanitation.

(v) Food Fortification: The activities involve the addition of one or more essential nutrients to a food, whether or not it is normally contained in it, for the purpose of preventing or correcting a demonstrated deficiency of one or more nutrients in the population or specific population groups. Examples of food fortification include adding specific micronutrients to commercially processed staple foods, such as vitamin A in sugar and margarine, iron and B vitamins in wheat and corn flour, and iodine in salt. The activities would involve the Ministries and Department of Health, Food Processing Industries, Food and Public Distribution, Consumer Affairs, Finance, Panchayati Raj, and State Governments. While fortification of foods supplied by the PDS has been suggested by some, the implications of this are not yet clear. The effects of fortification when there is a calorie gap are suspect. There are definitely some issues regarding the proposed forms of food fortification such as providing fortified atta instead of grain under the PDS; as grain can be stored for a longer period. Clearly, there needs to be much greater research into the strategy of providing fortified foods to address micronutrient deficiencies. The Eleventh Plan will support food fortification based on scientific evidence.

4.1.97 During the Eleventh Plan importance would be given to the following strategies and measures:

- High priority to micronutrient malnutrition control, specifically so to tackle anaemia, will be accorded at Centre and State levels. The goal is to reduce anaemia among women and girls by 50% by the end of the Eleventh Plan. State-specific goals have also been suggested (Annexure 4.1.1).
- DLHS of RCH Programme will recognize malnutrition including micronutrient as a serious public health problem and monitor prevalence of micronutrient deficiencies on priority.

- NNMB of ICMR will be expanded to all States/UTs to assist in monitoring micronutrient deficiencies through existing programmes.
- Existing Iron and Folic Acid Supplementation Programmes under RCH (NRHM) to cover infant and young children, by providing IFA in syrup form, and adolescent girls (10–19 years) by providing weekly iron supplements with immediate effect.
- Vitamin A Supplementation Programme to cover all children between nine months to five years of age and existing low coverage to be brought to 90% by 2009.
- Promotion of breastfeeding will be taken up for prevention of VAD.
- The NIDDCP will balance between preventing the ill-effects due to iodine deficiency and aggravation of other forms of hypothyroidism or hyperthyroidism that have been ignored until now. Multi-causality and regional diversity requires a range of approaches rather than a universal mono-solution. Based on this epidemiological understanding, the rational approach will be used to evolve a differential strategy for regions above and below the threshold levels.
- Research will be encouraged regarding causes of micronutrient deficiencies, understanding the complex web of causality, preventive strategies, and health behaviour regarding diet need to be carried out for a holistic view.
- Studies will be undertaken for collection of evidence regarding interaction amongst micronutrients, taste, smell, and shelf life of fortified foods, regional variations in deficiency, differing requirements of individuals, etc. before implementation of any multiple micronutrient supplementation and food fortification strategies.
- Community and household level production of fruits and vegetables will be promoted.
- Public health measures like deworming of all children every six months will be undertaken through schools and ICDS.
- Environmental sanitation and hygiene will be promoted vigorously and safe drinking water to be made universally accessible.
- A vigorous awareness campaign in the form of *Poshan Jagriti Abhiyan* will be launched utilizing all available channels of communication.
- A high level inter-agency coordination mechanism will be set up to enable policy directions to the concerned sectors.

4.2 SOCIAL SECURITY

Issues in Social Security for Workers

4.2.1 In India, traditionally, the aspects of social security were taken care of by the set up of family/community. Rapid industrialization/urbanization that began in the early twentieth century has largely led to the collapse of the joint family set up, thus necessitating institutionalized intervention in the form of State-cum-society regulated social security arrangements. The need has been felt for social security arrangements for workers and their families to enable them to deal with transient poverty/vulnerability caused by shock/adversity. Social protection could be instrumental in motivating the workers to work better and to increase productivity insofar as it would enable them to work free from domestic worries to a great extent. Indisputably, the best strategy to improve the condition of unorganized labour is to improve the demand for labour. Employment is the best form of social protection.

4.2.2 Institutionalized social security was available in India before 1947 to only a handful of government employees who had the benefit of retirement pension or contributory provident fund together with other complementary support for them and their family members. Few of the industrial/commercial sector establishments had extended certain measures in this regard on voluntary basis for their employees. The majority of workers remained uncovered and were left to fend for themselves. The situation worsened with the weakening of family support system due to various social and economic factors. The need assumes greater relevance with longer life span and the changing economic environment.

4.2.3 The concept of social security is to provide a safety mechanism through series of public intervening against the economic and social distress that is caused by the stoppage or substantial reduction of earnings resulting from sickness, maternity, employment injury, occupational distress, unemployment,

invalidity, and old age. In the Eleventh Plan social security will be treated as an inclusive concept that also covers housing, safe drinking water, sanitation, health, educational, and cultural facilities for the society at large. It is necessary to ensure living wages, distinct from the concept of minimum wages, which can guarantee the workers a decent life. A number of schemes implemented by the government, both in the rural and urban areas seek to provide many services that supplement incomes of the people, which otherwise are fairly low.

Constitutional Provision

4.2.4 Articles 39(a) and 41 of the constitution require that the State should within the limits of its economic capacity, make effective provision for securing the right to work, to education, and to public assistance in case of unemployment, old age, sickness, and disablement. Though social security is not viewed as a fundamental right, Article 42 requires that the State should make provision for securing just and humane conditions of work and for maternity relief. Article 43 states that States shall endeavour to secure to all workers—agricultural, industrial, or otherwise, a living wage, such conditions of work that ensure a decent standard of life. Article 47 requires that the State should, as its primary duty, raise the level of nutrition and the standard of living of its people and improve public health.

Legislative Support

4.2.5 Currently, there are contributory and non-contributory social security laws in our country. The contributory laws are those that provide for financing of the social security programmes by contributions paid by workers and employers and in some cases supplemented by contribution/grants from the government. The important contributory schemes include the Employees State Insurance Act, 1948 and the Provident Fund, Pension and Deposit linked insurance schemes framed under Employees Provident Funds and Miscellaneous Provisions Act, 1952. The major non-contributory social security measures are provided for under the Workmen's Compensation Act, 1923, the Maternity Benefit Act, 1961, and the Payment of Gratuity Act, 1972.

Existing Social Security Scenario

4.2.6 The existing social security system in India exhibits diverse characteristics. There are a large number of schemes, administered by different agencies, each scheme designed for a specific purpose and target group of beneficiaries, floated as they are by the Central and State Governments as well as by VO in response to their own perceptions of needs, of the particular time. The result is often ambiguous. Many a time some scheme(s) might be responsible for creating 'exclusion' of the large number of those 'in most critical need for support from the planning process', on grounds of practicability or to protect the interests of those who are already 'in'. There are wide gaps in coverage (a large population is still uncovered under any scheme) and overlapping of benefits (a section of the population is covered under two or more schemes). In the existing system, coverage varies from scheme to scheme, with different groups of people receiving different types of benefits. In other words, no one is insured against all risks of life.

4.2.7 Over the years, both Central and State Governments have been taking initiatives for the welfare and social security of the workers in the unorganized sector. The Ministry of Labour and Employment is implementing welfare schemes for certain categories of unorganized sector workers like beedi workers, cine workers, and certain non-coal mine workers. Similarly, several insurance/poverty alleviation schemes are being implemented by various ministries/departments, as well as by States like Kerala and Tamil Nadu, which have constituted Welfare Funds for some occupational groups. Some States have launched group insurance schemes for their workers. Yet, some States like West Bengal initiated State-Assisted Provident Fund Schemes for the unorganized workers.

Workers with Institutionalized Social Security Cover

4.2.8 The organized sector includes primarily those establishments that are covered by the Factories Act, 1948, the Shops and Establishments Acts of the States, Industrial Employment Standing Orders Act, 1946, etc. This sector already has a structure through which social security benefits are extended to its workers. While some of them such as Provident Fund, pension,

insurance, medical and sickness benefits are contributory (workers alone, or workers and employers, sometimes supported by the State), others like employment injury benefits, gratuity, maternity benefit are purely non-contributory and are met by the employers alone. Most workers under the organized sector are covered under the Institutionalized social security provided through Employees Provident Fund Organization (EPFO), and the Employees State Insurance Corporation (ESIC).

4.2.9 The EPFO is one of the largest provident fund institutions in the world in terms of members and volume of financial transactions that it has been carrying on. The EPFO caters to: (i) every establishment that is engaged in any one or more of the industries specified in the Act or any activity notified by Central Government, employing 20 or more persons, (ii) all cinema theatres employing five or more persons, other than those under the control of Central/State/local government that provide equivalent/better benefits of social security, and co-operative societies employing less than 50 persons and working without the aid of power, and (iii) any other establishment seeking coverage under the scheme voluntarily. As on 31.03.2006, 429.53 lakh persons were members of the Employees' Provident Fund, while 323.89 lakh persons were members of the Pension Fund.

4.2.10 The ESI Act was originally applicable to non-seasonal factories using power and employing 20 or more persons; but it is now applicable to non-seasonal power using factories employing 10 or more persons and non-power using factories employing 20 or more persons. The ESI Scheme has now been extended to shops, hotels, restaurants, cinemas including preview theatre, road motor transport undertakings, and newspaper establishments employing 20 or more persons. The existing wage limit for coverage is Rs 10000 per month (with effect from 1.10.2006). The ESI Scheme is being implemented area-wise by stages and it now covers all the States except Nagaland, Manipur, Tripura, Sikkim, Arunachal Pradesh, and Mizoram; and in Union Territories of Delhi, Chandigarh, and Pondicherry.

4.2.11 A scheme for providing employment to persons with disabilities in the organized sector has been proposed to be launched. The main objective of the scheme is to provide incentives to the employers in the organized sector for promotion of regular employment to persons with disabilities. Under this scheme, the government would reimburse the employers' contribution of EPF and ESI for the first three years, aiming at creation of one lakh jobs for the physically challenged persons.

Workers without Institutionalized Social Security Cover

4.2.12 Workers in the informal economy include: (i) the vast majority of the workers in the unorganized/informal as well as; (ii) the workers employed in an informal capacity in the organized sector—the two together account for 93% of workforce. This category of the workforce is excluded from the institutionalized social security cover referred to above.

4.2.13 A number of schemes and systems are in operation in the nature of social security to workers in the informal economy, following four different major models. However, the major deficiency in this approach is the limited coverage (geographical areas and industrial activity). The benefits are confined to only about 5–6% of the informal sector workers. The National Farming benefit scheme that provides an assistance of Rs 10000 in the event of death of family breadwinner and the National Old Age Pension to destitutes above 65 years of age are other elements of existing social security structure.

4.2.14 The Social Insurance Schemes available to the unorganized sector are operated through the LIC such as Social Security Group Insurance Scheme. All persons in the age group of 18 to 60 years belonging to the 24 approved occupation groups, that is, beedi workers, brick-kiln workers, carpenters, cobblers, fishermen, hamals, handicraft artisans, handloom weavers, handloom and khadi weavers, lady tailors, leather and tannery workers, papad workers attached to Self-Employed Women's Association (SEWA), physically handicapped self-employed persons, primary milk producers, rickshaw pullers/auto drivers, safai karmcharies, salt growers, tendu leaf collectors, urban poor, forest workers, sericulture, toddy tappers, powerloom workers, women in remote rural hilly

areas are covered. The most important and comprehensive scheme that has been launched is the Janashree Bima Yojana providing insurance cover of Rs 20000 in case of natural death, Rs 50000 in case of death or total permanent disability due to an accident, and Rs 25000 in case of partial disability. The premium for these benefits is Rs 200 per beneficiary, of which 50% of the premium, that is, Rs 100 is contributed from the 'Social Security Fund' and 50% contributed by the beneficiary/State Government/nodal agency. Janashree Bima Yojana is available to persons in the age group of 18 to 60 years and living below or marginally above the poverty line. The scheme is extended to a group of 25 members or more. The limited reach of the schemes' benefits to the unorganized workers and the absence of direct link between a beneficiary and LIC have been the major drawbacks of these schemes.

Need for an Inclusive Social Security System

4.2.15 More than 91% of India's workforce consists of informal workers working either in the unorganized informal sector (85%) or in the organized formal sector (6%). A large majority of them face the problem of 'deficiency' or capability deprivation (of basic needs) as well as the problem of 'adversity' (arising out of such contingencies as sickness and accidents). As stated earlier, the social security schemes that are currently in place hardly cover even 5 to 6% of the estimated number of total informal workers of 362 million (as of 1999–2000). With the exception of a small number of States with some social security cover for workers in the unorganized sector, a majority of the States do not offer any cover, especially for addressing such core concerns as health care and maternity. Among the Central and State Government initiatives that address the social security needs of the population, there are very few schemes addressed specifically for the unorganized workers. Kerala and Tamil Nadu are the only States that offer some reasonable coverage of both old age pension for the aged poor and other protective social security schemes for the workers in the unorganized sector. Some States like Maharashtra, Gujarat, West Bengal, Punjab, Haryana, Tripura, Karnataka, and Goa have a number of schemes for the aged poor and vulnerable population, but except in MP, no State has social security schemes specifically meant for the unorganized sector workers.

Issues on Social Security in the Context of Inclusive Growth

4.2.16 The majority of workers in the unorganized/informal sector come from the socially backward communities. Viewed in this light, the provision of social security to these workers should be seen as a form of social uplift. Further, the absence of a viable and comprehensive social security arrangement is not merely the problem of individual workers and their families. It also has wider ramifications for the economy and society. Economically speaking a worker with no social security cover is likely to have more domestic worries than the one with a reasonable cover. This, as noted above, debilitates the worker's efficiency and productivity. Lack of purchasing power, as a result of low earning power, along with vulnerabilities will have the effect of reducing the aggregate demand in the economy. Socially, the demonstration effect of the prospering section is likely to lead the uncovered section to disillusionment, dissatisfaction, and disaffection. The overall well-being of the country as measured by health, education, longevity of life, and access to resources will be affected adversely, at times manifesting itself in crimes and other illegal activities.

Provision of Social Security in the Perspective Period—Recent Initiatives

4.2.17 The Recent Initiatives on Social Security consist of the Unorganized Sector Workers Social Security Bill, 2007, the *Aam Admi Bima Yojana* (*AABY*), 2007, and Health Insurance Scheme for Unorganized Sector BPL workers, 2007. The major features are listed below:

Unorganized Sector Workers Social Security Bill, 2007

4.2.18 The Unorganized Sector Workers Social Security Bill, 2007, which has been introduced in the Rajya Sabha, seeks to provide statutory backing to the various social security schemes of the Central government included in the Schedule to the Act. These relate to: (i) life and disability cover, (ii) health and maternity benefits, (iii) old age protection, and (iv) any other benefits to be determined by the Central government. The State Governments may formulate schemes for: (i) provident fund, (ii) employment injury benefits, (iii) housing, (iv) educational schemes for children,

(v) skill upgradation of workers, (vi) funeral assistance, and (vii) old age homes. There will be a National Social Security Advisory Board and State Social Security Advisory Boards to make recommendations to the governments on suitable schemes for different sections of unorganized workers. The Boards will also monitor the administration of the schemes, review the processes of registration, issue of identity cards, recordkeeping, and the expenditure under the schemes, and also advise the governments on administration of the schemes. The benefits shall be admissible to all persons above 14 years of age based on a self-declaration that he/she is an unorganized sector worker. Upon an application to the District Administration in the prescribed form, such persons will be given an identity card in the form of a smart card. The law also requires the governments to make their contributions under the schemes regularly. The Schedule to the Act will have 11 schemes including the AABY and the Health Insurance Scheme for Unorganized Sector BPL workers.

Aam Admi Bima Yojana (AABY), 2007

4.2.19 Group Insurance Schemes do not attract unorganized sector workers or the organizations working for their welfare and development because the schemes do not provide the annuity in the cases of survivor members. All categories of unorganized workers are not covered under the existing schemes of social security. Further, lack of awareness about schemes amongst rural population and the poor delivery mechanism at the village level contribute to the ineffectiveness of the programmes.

4.2.20 Taking the above factors into account, the government has announced the AABY. The members of All Rural Landless Households, in the age group of 18–59 years will be eligible. The premium of Rs 200 per member will be borne by the Centre and States equally. The State Government will be the Nodal Agency. A sum of Rs 30000 in case of natural death and Rs 75000 in case of accidental death will be payable. A compensation of Rs 75000 will be payable in case of total permanent disability and of Rs 37500 in case of partial permanent disability. The scheme also has a provision for the payment of a scholarship of Rs 300 per quarter per child for two children of the beneficiaries studying in 9th to 12th standard for its beneficiaries.

4.2.21 The AABY scheme also proposes the creation of a fund of Rs 1000 crore to be operated by LIC for meeting the liability of Central government towards its share of premium payment. As per the NSS, the number of rural landless households in the country is 1.5 crore. It is expected that in the first year approx. 70 to 80 lakh of rural landless households would be covered under the scheme requiring an expenditure of Rs 70–80 crore by the Central government towards its share of 50% premium. With an 8% per annum return expected on the Rs 1000 crore fund, the amount would be sufficient to meet the liability of premium payment.

4.2.22 A separate Rs 500 crore fund will be created for the purpose of providing scholarships to children of beneficiaries. This will make available Rs 40 crore for the full year at 8% per annum return. This amount would suffice for the coverage of 333000 children of the beneficiaries.

4.2.23 This scheme would extend the benefit of life insurance coverage as well as coverage of partial and permanent disability to the head of the family or an earning member of the family of rural landless households in the States and also educational assistance to their children studying from 9th to 12th standard as an extended benefit.

Health Insurance Scheme for Unorganized Sector BPL Workers, 2007 (Rashtriya Swasthaya Bima Yojana)

4.2.24 In order to provide accessible, affordable, and accountable quality health services to households in rural areas, the government has launched the NRHM. The principle thrust of NRHM is to make public system fully functional at all levels and to place a framework that would reduce the distress of households in seeking health care system through Health Insurance Scheme. Many efforts in the past for providing health insurance for the rural poor have not been successful because of inadequacies in design and implementation. The cost of insurance coupled with lack of perception of the benefits in the target group, and the

procedure for claiming reimbursements have posed serious challenges in the administration. A transparent scheme that lists the entitlements, administered through a smart card obviating the need for out-of-pocket expenses is expected to streamline the administration, ensuring the benefits. With these objectives in view, the government has introduced the *Rashtriya Swasthya Bima Yojana* to cover all BPL unorganized sector workers and their families (of five members), whose identity will be verified by the implementing agency and be issued a smart card. The cost of smart card will be borne by Central government, and the beneficiary will be required to pay Rs 30 per annum as registration/renewal fee. The prescribed premium of Rs 750 per member-family will be borne by the Central and State Governments in the ratio of 75:25. The package of benefits will include: (i) cashless attendance to all covered ailments; (ii) hospitalization expenses, taking care of most common illnesses, (iii) all pre-existing diseases to be covered, (iv) transportation costs subject to prescribed limits payable to the beneficiary. Flexibility is provided to the States to add to the benefits by meeting the additional premium requirements from their own resources. State governments would decide the Implementing Agency and also bear the administrative costs.

4.2.25 There are 6 crore BPL families. They will be covered in five years (1.2 crore per annum). The total cost of the scheme over the Eleventh Five Year Plan is estimated at Rs 7078.25 crore.

Extension of National Old Age Pension Scheme (NOAPS)

4.2.26 The National Social Assistance Programme (NSAP) came into effect from 15 August 1995 as a 100% Centrally Sponsored Programme, with three components namely, NOAPS, National Family Benefit Scheme, and NMBS. The NMBS has since been transferred to the MoHFW with effect from 1.4.2001. The NSAP aims at providing social security in case of old age, death of primary breadwinner, and maternity. The main objective of the NOAPS is ensure a minimum national standard of social assistance in addition to the benefit that States are already providing, without displacing the expenditure by States on social protection schemes. The scheme is aimed at senior citizens, that is, over 65 years or above, who are destitute in the sense of having little or no regular means of subsistence from his/her own sources of income or through support from family members or other sources. Major modifications in NSAP are being proposed in the Eleventh Plan to provide more comprehensive coverage to the old (details in Chapter 3, Vol. III).

Unorganized Sector Workers—Conditions of Service Law

4.2.27 The unorganized section of agricultural sector (consisting of crop cultivation and other agricultural activities such as forestry, livestock, and fishing), not protected under the Plantations Workers Act, has neither formal system of social security nor regulation of conditions of work. The government has taken note of the concerns expressed by the NCEUS and is examining the desirability of enacting laws regulating the minimum conditions of work of agricultural wage workers and provide a measure of social security to agricultural wage workers and marginal and small farmers in the unorganized sector. Similar provisions would be made for other workers in the non-agricultural unorganized sector as well as informal/unorganized workers in the organized sector consisting of wage workers, independent self-employed, and workers who are self-employed at home, whose minimum conditions of work are not regulated by any other legislation. The provision of a statutory package of National Minimum Social Security to which all unorganized (agricultural and non-agricultural) workers are entitled need to be considered. There may be Social Security Advisory Boards and dispute resolution mechanisms to oversee and monitor the implementation and ensure that each such worker has the sense of being provided with what is due to him/her.

Social Security: Approach and Strategy for the Eleventh Five Year Plan

4.2.28 A protective social security mechanism, taking care of the adversity aspects of ill-health, accidents/death, and old age would be established at the core. The other vulnerability aspects due to in-built deficiencies as they exist now, such as lack of access for the poor to credit/finance (especially for the self-employed),

loans for upgrading skills, loans for housing, children's education, etc. shall be tailored to meet the social security concerns of workers qua workers in the unorganized/ informal sector, subject to the availability of resources. The National Old Age Pension presently covers persons who are destitute and old aged. Some States cover the old aged BPL persons. NSAP would be made more comprehensive.

4.2.29 Considering the achievements made by the ESIC and the EPFO in providing institutionalized social security cover to a majority of the workers in the organized sector, attempt would be made to widen their coverage and strengthen them. To cover more number of beneficiaries, measures should be taken to enhance the capability of these institutions to cope with the workload. To reduce harassment and corruption in these institutions, the government will strive to streamline the delivery system in these institutions.

4.2.30 A national policy for fixing minimum wages would be crystallized and made effective. Discrimination in wages based on gender and age would be abolished/penalized. The recovery of minimum wages would be simplified and be equated with recovery due of land revenue. An information network will also be built to promote awareness, to educate employers (some of whom do alternate as wage labour too), and to prevent malpractices (perpetrated by design or by ignorance) with the help of the media, NGOs, and PRIs.

4.2.31 Assigning an identity to the beneficiary is an essential condition to create empowerment to lay a claim to what one is expected to receive. The National Social Security Numbers schemes shall be extended to all citizens in the country, so that the most vulnerable people who need it the most, including migrant labour and nomads could use it. In fact, considering that such persons do not even get the rations under the PDS, which is an important social security measure, this exercise will be taken up urgently.

ANNEXURE 4.1.1
Malnutrition of Children (0–3 Years), by State

S.No.	State	Current level of Wt-for-age below–2 SD	Eleventh Plan Goal-redn. by 50%
1	Andhra Pradesh	36.5	18.3
2	Arunachal Pradesh	36.9	18.5
3	Assam	40.4	20.2
4	Bihar	58.4	29.2
5	Jharkhand	59.2	29.6
6	Goa	29.3	14.7
7	Gujarat	47.4	23.7
8	Haryana	41.9	21.0
9	Himachal Pradesh	36.2	18.1
10	J&K	29.4	14.7
11	Karnataka	41.1	20.6
12	Kerala	28.8	14.4
13	MP	60.3	30.2
14	Chattisgarh	52.1	26.1
15	Maharashtra	39.7	19.9
16	Manipur	23.8	11.9
17	Meghalaya	46.3	23.2
18	Mizoram	21.6	10.8
19	Nagaland	29.7	14.9
20	Orissa	44.0	22.0
21	Punjab	27.0	13.5
22	Rajasthan	44.0	22.0
23	Sikkim	22.6	11.3
24	Tamil Nadu	33.2	16.6
25	Tripura	39.0	19.5
26	UP	47.3	23.7
27	Uttarakhand	38.0	19.0
28	WB	43.5	21.8
29	Delhi	33.1	16.6
	INDIA	45.9	23.0

Note: 1. Figures for current level are that of NFHS 2005–06.
2. For State level figures, pro-rata reduction has been applied on the basis of targeted reduction at All India level. Figures for other States are not available.

Source: NFHS 2005–06.

ANNEXURE 4.1.2
State-wise Malnutrition Rate of Children in Various Age Groups

State	Children age 0–5 months exclusively breastfed (%)	Children age 6–9 months receiving solid or semi-solid food and breast milk (%)	Children under 3 years who are underweight (%)
India	46.3	55.8	45.9
Andhra Pradesh	62.7	63.7	36.5
Arunachal Pradesh	60.0	77.6	36.9
Assam	63.1	59.6	40.4
Bihar	27.9	57.3	58.4
Chhattisgarh	82.0	54.5	52.1
Delhi	34.5	59.8	33.1
Goa	17.7	69.8	29.3
Gujarat	47.8	57.1	47.4
Haryana	16.9	44.8	41.9
Himachal Pradesh	27.1	66.0	36.2
J&K	42.3	58.3	29.4
Jharkhand	57.8	65.3	59.2
Karnataka	58.0	72.5	41.1
Kerala	56.2	93.6	28.8
Maharashtra	53.0	47.8	39.7
MP	21.6	51.9	60.3
Manipur	61.7	78.1	23.8
Meghalaya	26.3	76.3	46.3
Mizoram	46.1	84.6	21.6
Nagaland	29.2	71.0	29.7
Orissa	50.2	67.5	44.0
Punjab	36.0	50.0	27.0
Rajasthan	33.2	38.7	44.0
Sikkim	37.2	89.6	22.6
Tamil Nadu	33.3	77.9	33.2
Tripura	36.1	59.8	39.0
UP	51.3	45.5	47.3
Uttaranchal	31.2	51.6	38.0
WB	58.6	55.9	43.5

Source: NFHS-3 (2005–06), IIPS, MoHFW, GoI.

ANNEXURE 4.1.3
Anaemia among Women (15–49 Years)

S. No.	State	Current Level	Eleventh Plan Goal: reduction by 50%
	India	56.1	28.1
1	Delhi	43.4	21.7
2	Haryana	56.5	28.3
3	Himachal Pradesh	40.9	20.5
4	J&K	53.1	26.6
5	Punjab	38.4	19.2
6	Rajasthan	53.1	26.6
7	MP	57.6	28.8
8	Chattisgarh	57.6	28.8
9	UP	50.8	25.4
10	Uttarakhand	47.6	23.8
11	Bihar	68.3	34.2
12	Jharkhand	70.4	35.2
13	Orissa	62.8	31.4
14	WB	63.8	31.9
15	Arunachal Pradesh	48.9	24.5
16	Assam	69.0	34.5
17	Manipur	39.3	19.7
18	Meghalaya	45.4	22.7
19	Mizoram	38.2	19.1
20	Nagaland	30.8	15.4
21	Sikkim	46.8	23.4
22	Goa	38.9	19.5
23	Gujarat	55.5	27.8
24	Maharashtra	49.0	24.5
25	Andhra Pradesh	62.0	31.0
26	Karnataka	50.3	25.2
27	Kerala	32.3	16.2
28	Tamil Nadu	53.3	26.7
29	Tripura	67.4	33.7

Notes: 1. Figures for current level are that of NFHS 2005–06.
2. For State-level figures, pro-rata reduction has been applied on the basis of targeted reduction at All India level.
3. Figures for other States are not available.
Source: NFHS 2005–06.

ANNEXURE 4.1.4
Distribution of Cardholders among Poor and Non-poor

	% poor having no ration card	% of poor having BPL/AAY cards	% BPL/AAY cards with non-poor	% non-poor having BPL/AAY cards
J&K	7.9	55.1	85.4	17.2
Himachal Pradesh	3.3	45.1	73.6	13.7
Punjab	15.8	19.5	83.0	8.5
Uttranchal	6.1	35.2	34.2	12.0
Haryana	4.4	32.6	74.8	15.2
Rajasthan	5.0	23.6	65.2	12.1
UP	16.4	22.9	48.7	10.6
Bihar	25.5	21.2	45.1	12.6
Assam	25.7	23.3	56.0	7.6
WB	11.2	40.5	60.7	20.6
Jharkhand	22.1	31.9	42.4	17.0
Orissa	29.3	54.8	38.1	29.4
Chhatisgarh	24.1	47.9	47.0	29.4
MP	30.0	41.9	46.2	22.2
Gujarat	10.9	48.1	71.2	24.2
Maharashtra	19.2	39.9	51.1	18.4
Andhra Pradesh	24.1	66.8	81.3	50.3
Karnataka	20.7	59.6	65.6	36.5
Kerala	10.0	48.4	74.8	25.0
Tamil Nadu	9.0	29.7	63.1	15.0
All India	19.1	36.0	59.8	20.7

Source: NSS, 61st Round, 2004–05.

ANNEXURE 4.1.5
PDS Benefits—Rice and Wheat

(Rs per Household)

	Poor				Non poor			
	No card	APL card	BPL card	Antyodaya card	No card	APL card	BPL card	Antyodaya card
J&K	33.73	78.19	278.72	333.96	22.77	53.89	206.43	286.26
Himachal Pradesh	0.00	43.83	124.94	262.10	2.72	21.84	122.38	204.55
Punjab	0.00	0.00	1.96	111.54	-0.58	-0.07	1.38	0.00
Uttranchal	0.00	8.32	88.22	202.61	0.06	10.52	54.73	115.10
Haryana	0.00	0.04	12.09	114.36	0.00	0.00	11.61	75.15
Rajasthan	6.23	6.42	70.93	169.27	-6.18	3.77	54.35	93.80
UP	2.48	0.92	39.96	132.88	0.17	0.68	23.79	107.40
Bihar	-0.29	0.32	3.86	47.27	-0.05	0.01	6.10	44.26
Assam	8.27	4.71	81.33	184.81	2.45	1.43	47.98	21.30
WB	50.69	-0.03	30.78	86.65	14.82	0.31	24.15	46.06
Jharkhand	0.00	0.48	30.43	112.80	0.15	0.94	10.84	65.06
Orissa	2.17	3.09	31.93	129.92	0.25	0.81	12.04	120.67
Chhatisgarh	5.72	13.69	70.05	213.53	2.97	6.36	43.01	104.49
MP	4.27	8.02	60.37	146.03	0.80	1.42	40.20	100.32
Gujarat	4.38	1.99	86.17	182.58	0.57	1.86	79.17	29.02
Maharashtra	3.02	8.75	97.16	192.23	1.87	4.25	80.77	158.83
Andhra Pradesh	1.71	56.75	113.67	260.27	4.17	31.23	95.72	249.61
Karnataka	8.79	63.08	199.43	230.81	1.29	46.29	180.99	231.85
Kerala	22.04	68.16	166.06	242.23	4.82	18.33	94.03	209.85
Tamil Nadu	43.83	182.85	198.06	349.04	13.56	126.08	177.58	314.68
All India	6.69	15.64	81.45	176.18	2.28	12.56	74.59	146.92

Source: NSS 61st Round, 2004–05.

ANNEXURE 4.1.6
Beneficiaries of any Programme (Annapurna, FFW, ICDS, MDM)

(%)

	Poor			Non-poor		
	No card	APL	BPL/AAY	No card	APL	BPL/AAY
J&K		4.5	12.7	1.0	2.1	7.8
Himachal Pradesh	23.3	70.0	72.2	23.8	34.7	37.8
Punjab		6.2	13.9	1.8	3.3	8.3
Uttranchal	33.9	41.9	57.5	6.2	20.4	37.0
Haryana	13.8	37.1	31.3	9.6	19.5	34.3
Rajasthan	19.2	29.8	54.5	9.2	24.6	45.2
UP	21.8	24.1	31.5	10.5	13.7	27.5
Bihar	7.1	18.4	23.6	6.9	13.1	31.6
Assam	24.5	49.2	42.5	8.5	24.7	28.9
WB	47.3	52.6	52.1	21.8	27.0	43.3
Jharkhand	16.7	13.3	20.2	8.4	9.7	18.4
Orissa	41.9	50.1	56.4	25.3	32.3	46.8
Chhatisgarh	59.8	59.3	73.3	36.9	39.4	50.3
MP	40.5	42.6	52.1	18.9	26.1	42.7
Gujarat	42.0	67.0	65.7	20.8	25.7	37.5
Maharashtra	49.8	38.8	52.6	25.9	22.5	39.2
Andhra Pradesh	23.5	40.1	50.1	18.1	15.9	33.3
Karnataka	35.5	35.6	62.6	19.4	23.2	44.2
Kerala	56.2	45.2	58.4	30.9	23.4	33.9
Tamil Nadu	54.2	56.7	57.1	26.9	27.1	39.2
All India	31.6	34.2	49.0	17.4	20.6	36.9

Source: NSS, 61st Round, 2004–05.