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**Programmes to Protect the Hungry:
Lessons from India***Madhura Swaminathan*

Abstract

Evidence on calorie intake and nutritional outcomes establishes that chronic hunger and food insecurity persist today on a mass scale in India. The liberalization-induced policy of narrow targeting of the Public Distribution System (PDS), a programme of food security that provides a minimum quantity of cereals at subsidized prices, has resulted in worsening food insecurity. Recent evidence from the 61st round of the National Sample Survey in 2004-2005 establishes that targeting has led to high rates of exclusion of needy households from the system and clear deterioration of coverage in States like Kerala where the universal PDS was most effective.

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Programmes to Protect the Hungry: Lessons from India¹

Madhura Swaminathan

Chronic hunger and food insecurity in India

In modern India, the problems of chronic hunger and malnutrition persist on a mass scale. As a country, India has failed to ensure adequate access to food for its people. The prevalence of malnutrition is one of the highest in the world and much higher than in very poor countries of sub-Saharan Africa. According to UNICEF's *Progress for Children 2007*, the proportion of underweight children, an indicator of malnutrition, was 28 per cent in sub-Saharan Africa and 42 per cent in India. The FAO *Report on State of Food Insecurity in the World 2006* confirms that no country in the world comes close to India in terms of the absolute number of people living in chronic hunger.

Let me illustrate with some findings from the latest National Family Health Survey (NFHS-3) conducted in 2005-06.² At the all-India level, 45.9 per cent of children below the age of 3 were underweight or malnourished in terms of the standard weight-for-age criterion. The corresponding proportion in 1998-99 was 46.7 per cent. The change over the last seven years in this key indicator of child malnutrition has been negligible. Among married women aged 15 to 49, the prevalence of anaemia has risen from 52 per cent in 1998-99 to 56 per cent in 2005-06. No less than 58 per cent of pregnant women suffer from anaemia. Anaemia has also risen among children aged 6 to 36 months: 74 per cent in this age group were anaemic in 1998-99 and 79 per cent were anaemic in 2005-06. Data from the National Nutrition Monitoring Bureau indicate that 48.5 per cent of adults had a Body Mass Index below the norm in 1993-94. These indicators suggest that approximately one-half of the Indian population is malnourished today. The rate of decline in the absolute number of malnourished persons has been very slow, and slower than the rate agreed upon at the World Food Summit in Rome. India has failed to meet the targets set for itself in the Millennium Development Goals.

The NFHS-3 estimates of health and nutrition among women and children speak to India's present and its future. The failure of national policy in this regard affects not only this generation—as malnourished children are unlikely to reach their full human potential—but also the next generation, as anaemic and malnourished young girls are more likely to grow into mothers who give birth to low birth weight babies than healthy and well-nourished young girls.

Over the last six to seven months, the situation has probably worsened given the rapid increase in prices of basic food items. The overall inflation rate is now at a 13-year high of close to 12 per cent but price rises for certain food items including rice, some pulses, vegetables, fruits, tea and edible oils, have been even higher. In Delhi, for example, retail prices rose between May 2007 and May 2008 by 20 per cent for rice, 20 per cent for groundnut oil, 21 per cent for mustard oil and 10.5 per cent for *tur dal*. According to a study by the National Sample Survey Organization, the current high prices of food and fuel are likely to push 5 per cent of our population to the brink of starvation (Srinivas, 2008).

1 An edited version of this paper has appeared in *UN Affairs*.

2 There have been three rounds of the National Family Health Survey: NFHS-1 conducted in 1992-93, NFHS-2 conducted in 1998-99 and NFHS-3, conducted in 2005-06 (see www.nfshindia.org).

Policies of food security: Dealing with famines versus dealing with chronic hunger

In their path-breaking book, *Hunger and Public Action*, and the accompanying volumes of the WIDER series, Jean Dreze and Amartya Sen make a clear distinction ‘between the problem of chronic hunger (involving sustained nutritional deprivation on a persistent basis) and that of famine (involving acute starvation and a sharp increase in mortality)’ (Dreze and Sen, 1989, p. 7). By means of case studies of several countries, the book discusses the differences in strategies and policies required to deal with the two sets of problems.³ In the case of India, there is plenty of evidence, starting from the colonial period, on the nature of government interventions during periods of famine. However, the last famine in India occurred in 1943, the Great Bengal famine in which an estimated 3 million deaths occurred (see Sen 1981). Dreze and Sen argue convincingly that post-Independence India has dealt effectively with periods of food shortages, droughts and other food crises in a way so as to prevent a famine situation. However, the country has failed in tackling the problem of chronic hunger.

My paper deals with the major policy interventions that are aimed at enhancing food security. My focus is on policies that deal with final consumers at the household and individual level and not on policies dealing with producers. The biggest food-based intervention in India is the system of public distribution of food, a programme that aims to provide access to cheap food to households throughout the country. Two other major programmes with a food component are the Midday Meal programme, a scheme for provision of noon meals to children in primary schools and the ICDS or Integrated Child Development Scheme, which provides supplementary nutrition to young children and pregnant and nursing mothers. In 2006-07, 31.6 million tonnes of food grain (rice and wheat) were distributed through the public distribution system, and all other food-based welfare schemes received 5.1 million tones (Government of India, 2008).⁴

The public distribution system in India

History

The public distribution system or PDS is a rationing mechanism that entitles households to specified quantities of selected commodities at subsidized prices. In most parts of the country, up to 1997, the PDS was universal and all households, rural and urban, with a registered residential address were entitled to rations. Eligible households were given a ration card that entitled them to buy fixed rations of selected commodities. The exact entitlement (quantity, range of commodities and prices) varies across States. The commodities are made available through a network of fair-price shops. In 2006, there were a total of 480,000 fair-price shops in the country. Private agents and co-operatives ran these shops and a few were state-owned. There were a total of 222.2 million families with ration cards in the country and, on average, one fair price shop served 454 ration cards.

Public distribution was first started in 1939 as a war-time rationing measure. The British government introduced it in Bombay and later extended it to six other cities and a few other regions. The drought and food shortages of the mid-sixties highlighted the need for strengthening and continuing with a system of food distribution and the PDS was made a universal scheme in the 1970s. Thus, from its inception as a rationing scheme in big cities during World War II, the PDS was converted into a universal programme for the provision of cheap food and made a component of the strategy to alleviate poverty.

³ See, also, Dreze and Sen (1989, 1990 and 1991).

⁴ There is also a scheme called Annapurna that provides free food grain for the aged poor (see Medrano, 2004).

Historically, the objectives of the PDS have been (Bapna, 1990):

- maintaining price stability,
- increasing the welfare facilities for the poor (by providing access to basic foods at reasonable prices to the vulnerable population),
- rationing during situations of scarcity, and
- keeping a check on private trade.

It is clear that some of these objectives are less important today than in the past. While rationing is not very relevant today, the first two objectives remain very important. In fact, maintaining price stability is crucial in the post-liberalization period when private traders have been given a freer hand and when international price fluctuations can more easily affect domestic prices. In the context of widespread malnutrition and inflation in food prices, access to basic foods at reasonable prices remains an important policy intervention.

There have been four phases, broadly speaking, in the history of the PDS in India (Swaminathan, 2000). The first phase was from its origins to 1960, a period when the system was expanded to other cities. During the first phase, distribution through the PDS was generally dependent on imports of food grain. The second phase, from 1960 to 1978, was one which saw major organizational changes. Specifically, in response to the food crisis of the mid-1960s, the government of India took a holistic approach to food security, and set up the Agricultural Prices Commission and the Food Corporation of India in order to strengthen domestic procurement and storage. The third phase, from 1978 to 1991, was marked by large-scale expansion of the PDS, supported by domestic procurement and stocks. The fourth phase, from 1991 to the present, is one in which the policy of universal PDS has been replaced by a targeted policy in line with the objectives of economic liberalization. Thus, over the entire period, the PDS grew from a rationing scheme in selected cities to a national universal programme of food distribution and then to a policy targeted at the income-poor.

Targeted PDS and its impact

In 1997, following the advice given in an influential World Bank document (World Bank, 1996) the Government of India introduced the Targeted PDS (TPDS) in order to curtail the food subsidy (GOI, 1997). The policy initiated targeting of households on the basis of an income criterion, that is, used the income poverty line to demarcate 'poor' and 'non-poor' households. The Targeted PDS differs from earlier variants of the PDS in certain key respects.

- *Targeting.* The most distinctive feature of the TPDS in relation to previous policy in India is the introduction of targeting, specifically, the division of the entire population into below-poverty-line (BPL) and above-poverty-line (APL) categories, based on the poverty line defined by the Planning Commission. The two groups are treated differently in terms of quantities and prices. With this, the Government of India initiated a policy of narrow targeting to households with incomes below the official poverty line.
- *Dual (multiple) prices.* The second distinguishing feature is that the PDS now has dual central issue prices: prices for BPL consumers and prices for APL consumers. A third price, introduced in 2001, is for beneficiaries of the Antyodaya Scheme (a scheme for the 'poorest of the poor', in which food grain is distributed with an additional subsidy). In March 2000, a major policy change occurred when it was announced in the budget that central issue prices—that is, prices at which the Food Corporation of India (FCI) sells grain for the PDS to State governments—

- will be set at half the 'economic cost' incurred by the FCI for BPL households and at the full 'economic cost' for APL households.⁵ In short, there was to be no subsidy for APL households.
- *Centre-state control.* A third important feature of the Targeted PDS is that it has changed centre-state responsibilities with respect to entitlements and allocations to the PDS. PDS is designed and managed by State governments, and state governments differ with respect to entitlements, the commodities offered, the retail price (state issue price) and so on. In the past, the State governments demanded a certain allocation from the central pool, and based on certain factors, most importantly, past utilization and the requirements of statutory rationing, the central government allocated grain and other commodities to States for their public distribution systems. With the TPDS, the size of the BPL population and the entitlements for the BPL population are decided by the central government. And the allocations for APL populations or additional allocations for BPL and APL populations are decided somewhat arbitrarily based on past utilization and demands from States.

Assessment

It is clear that the Targeted PDS has not been effective in ensuring food security to the needy. According to a Performance Evaluation by the Planning commission (PEO 2005), 'the transition from universal PDS to TPDS has neither benefited the poor, nor helped reduce budgetary food subsidies.'

There are many problems with the Targeted PDS; the most relevant among them are the following. First, targeting has led to the large-scale exclusion of genuinely needy persons from the PDS. Secondly, targeting has affected the functioning and economic viability of the PDS network adversely and led to a collapse of the delivery system. Thirdly, TPDS has failed to achieve the objective of price stabilization through transfer of cereals from surplus to deficit regions of the country. Lastly, there are reports of large-scale leakages from the PDS, that is, of grain being diverted and not reaching the final consumer.

Exclusion and targeting errors

One of the arguments made by proponents of Targeted PDS is that the scheme will be able to reach the poor or needy more effectively than the Universal PDS. There are two types of errors that occur in any targeted welfare programme due to imperfect measurement. Errors of wrong exclusion (Type I errors) refer to the exclusion of genuinely poor or deserving households from a programme. Errors of wrong inclusion (Type II errors) refer to the inclusion of non-eligible persons or households in a programme. Any discussion of the merits or demerits of targeting has to recognize that there is a trade-off between the two types of errors. Universal programmes are likely to have low errors of exclusion but high errors of inclusion. On the other hand, a programme targeted to a specific group is likely to have a low error of wrong inclusion, but may lead to a high error of exclusion. When one type of error decreases, the other type of error increases and so we have to attach weights to the two types of errors. Proponents of orthodox economic reform have implicitly attached a zero weight to errors of exclusion and are thus concerned only with minimizing errors of inclusion. This implicit valuation should be recognized openly and debated, for a strong case can be made for a weighting system that reverses the weights attached to the two types of errors, and places higher weights on errors of exclusion than on errors of inclusion (Cornia and Stewart, 1993).

Any decision on targeting therefore calls for some judgement about the relative weights to be assigned to the two types of errors. In making such a judgement, we should note that there is a basic asym-

5 The economic cost is the total cost borne by the FCI and is the sum of procurement costs (including the price paid to farmers) and distribution costs (including costs of storage and transportation).

metry in the costs attached to the two types of errors (Cornia and Stewart, 1993). Errors of wrong inclusion result in fiscal or financial cost, that is, higher expenditure due to the inclusion of ineligible beneficiaries. Errors of wrong exclusion, however, lead to welfare costs, that is, costs to individuals and society due to the inadequacy of food, malnutrition, ill health, etc. While fiscal costs are known and easy to measure, it is more difficult to measure the welfare costs of under-nutrition although these costs are likely to be high and have inter-generational effects. Further, the relative size of the two errors depends on the size of the target group. As I have shown, the population of malnourished persons is very high in India, in both absolute and proportionate terms.

So the relevant issue is the size of the error of wrong exclusion in the TPDS and its welfare implications. Recently released data from the 61st round of the National Sample Survey, in a report titled *Public Distribution System and Other Sources of Household Consumption 2004-2005* (GOI, 2007), show that targeting has led, in rural India, to *high rates of exclusion of needy households from the system and a clear deterioration of coverage in States like Kerala where the universal PDS was most effective*. I restrict myself to data for rural areas for the rest of this paper.

The first stage of exclusion is of households that do not possess a ration card. Table 1 classifies all households into four types depending on the type of ration card held: Antyodaya card, BPL card, 'other card' (mainly APL) and no card. Excluding the States of the North East,⁶ the proportion of households with 'no card' was highest in Orissa—where 33 per cent of rural households did not possess any type of ration card. Thus, in a State characterized as 'severely food insecure' (MSSRF 2001), one-third of rural households were outside the purview of the PDS. In another 10 States, more than 20 per cent of rural households did not possess a ration card (Table 1). Tamil Nadu is a special case as it is the only State with universal PDS and I shall discuss it separately.

From March 2000 onwards, the prices for grain for APL card holders were hiked and the gap between BPL and APL prices widened. In many States, APL prices of grain were similar to market prices and, as a result, households with APL cards stopped participating in the PDS. This was reflected immediately in APL offtake. In effective terms, then, households possessing an APL card are excluded from the PDS. Data in Table 1 show that, with a few exceptions, the majority of households were in possession of an APL card in 19 States. For example, 60 per cent of households in Bihar, 57 per cent in Kerala, 63 per cent in Assam, 65 per cent in Uttar Pradesh, and 78 per cent in Rajasthan were reported to have APL cards.

In Table 2, we have clubbed together households with no ration card and 'other' or APL card as the population effectively excluded from the PDS. In the overwhelming majority of States, *60 per cent or more of the population was effectively excluded from the PDS*. This includes the BIMARU States, the relatively backward States of Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh. It also includes States like Kerala which was a model for the rest of the country before the Targeted PDS was introduced. The exceptions were Andhra Pradesh and Karnataka—the only two States in which a simple majority of rural households possessed BPL or Antyodaya cards.

It is important to understand the implication of this large-scale exclusion of households from the PDS. The Report based on National Sample Survey (NSS) data provides us with information on possession of card by occupational type of household, social group, land ownership and expenditure level. From these data it is possible to identify the characteristics of households that are excluded from the PDS.

6 There are serious problems of data quality in the data for the North Eastern States of India.

Table 1.
Distribution of households by type of ration card possessed, all States, rural areas, 2004-2005

Percentage of households					
State	Antyodaya	BPL	Other	No ration card	All
Andhra Pradesh	2.8	53.7	16.0	27.5	100
Arunachal Pradesh	0.7	16.1	59.8	23.4	100
Assam	0.6	11.8	63.1	24.6	100
Bihar	2.3	15.1	60.1	22.5	100
Chhattisgarh	4.4	34.9	32.1	28.6	100
Goa	5.1	13.4	72.9	8.7	100
Gujarat	0.8	36.1	50.4	12.7	100
Haryana	2.6	16.0	68.3	13.1	100
Himachal Pradesh	6.2	10.6	76.0	7.2	100
Jammu and Kashmir	0.5	22.7	73.4	3.4	100
Jharkhand	3.0	22.8	51.1	23.1	100
Karnataka	9.6	42.1	25.7	22.6	100
Kerala	1.8	27.7	57.1	13.4	100
Madhya Pradesh	3.3	30.8	38.0	27.9	100
Maharashtra	4.4	30.5	46.3	18.9	100
Manipur	0	22.3	15.5	62.2	100
Meghalaya	2.6	23.6	51.0	22.7	100
Mizoram	1.7	36.4	60.6	1.4	100
Nagaland	0.4	6.3	3.0	90.4	100
Orissa	2.0	42.4	22.5	33.1	100
Punjab	0.1	11.9	75.7	12.2	100
Rajasthan	2.8	15.7	77.9	3.6	100
Sikkim	1.0	39.5	32.4	27.2	100
Tamil Nadu	1.5	18.9	68.9	10.8	100
Tripura	1.6	38.9	57.2	2.4	100
Uttar Pradesh	2.8	13.5	65.1	18.5	100
Uttaranchal	2.5	23.2	66.3	7.9	100
West Bengal	3.2	27.3	61.1	8.4	100
All India	2.9	26.5	51.8	18.7	100

Source: Government of India (2007).

Note: BPL refers to below-poverty-line cards and 'other' refers mainly to above-poverty-line or APL cards.

First, let us consider agricultural labour households, since manual labour households are undoubtedly among those most in need of access to the PDS.⁷ The results are striking and shocking. There were only four States (Tamil Nadu excluded) in which two-thirds or more of agricultural labour households were effectively included and 33 per cent or less were effectively excluded from the PDS. These States were Andhra Pradesh, Karnataka, Jammu and Kashmir, and Tripura (Table 3). The all-India average indicates that 52 per cent of agricultural labour households either had no card or an APL card. The effective exclusion was 71 per cent in Bihar and 73 per cent in Uttar Pradesh. Can 70 per cent of agricultural labour households be considered as ineligible for a basic food subsidy system such as the PDS?

We classify States where more than 50 per cent of households either have no card or have an APL card as States with a high degree of effective exclusion from the PDS. We also classify States where more than

7 The NSS defines 5 types of rural households, based on information on sources of income: self employed (agriculture), self employed (non agriculture), agricultural labour, other labour and other households.

Table 2.
Extent of inclusion and exclusion in the PDS, all States, rural, 2004-2005

Percentage of households			
State	Included (with BPL or Antyodaya card)	Excluded (with APL or no card)	All
Andhra Pradesh	56.5	43.5	100
Arunachal Pradesh	16.8	83.2	100
Assam	12.4	87.7	100
Bihar	17.4	82.6	100
Chhattisgarh	39.3	60.7	100
Goa	18.5	81.6	100
Gujarat	36.9	63.1	100
Haryana	18.6	81.4	100
Himachal Pradesh	16.8	83.2	100
Jammu and Kashmir	23.2	76.8	100
Jharkhand	25.8	74.2	100
Karnataka	51.7	48.3	100
Kerala	29.5	70.5	100
Madhya Pradesh	34.1	65.9	100
Maharashtra	34.9	65.2	100
Manipur	22.3	77.7	100
Meghalaya	26.2	73.7	100
Mizoram	38.1	61.9	100
Nagaland	6.7	93.3	100
Orissa	44.4	55.6	100
Punjab	12.1	87.9	100
Rajasthan	18.5	81.5	100
Sikkim	40.5	59.5	100
Tripura	40.5	59.6	100
Uttar Pradesh	16.3	83.7	100
Uttaranchal	25.7	74.3	100
West Bengal	30.5	69.5	100
All India	29.5	70.5	100

Source: Computed from Government of India (2007).

33 per cent of agricultural labour households have no card or an APL card as States with high exclusion of agricultural labour. We find a clear association between exclusion of all households and exclusion of agricultural labour households, that is, States with low overall levels of exclusion are the States with low levels of exclusion of agricultural labour households and vice versa (see Graph). There are only two States with low exclusion of agricultural labour households—Andhra Pradesh and Karnataka. These are also the States with low overall exclusion. There are two exceptions to the rule: Tripura and Jammu and Kashmir.

We now turn to the social background of households. To illustrate, I have selected those States where the rural Scheduled Caste population is more than 10 per cent of the total population. In rural areas, there is known to be substantial degree of overlap between Scheduled Caste status, landlessness and poverty. The NSS data shows that less than 30 per cent of Scheduled Caste households received Antyodaya or BPL cards in Assam, Bihar, Himachal Pradesh, Jammu and Kashmir, Punjab, Rajasthan, and Uttar Pradesh (Table 4). In other words, 70 per cent or more of Scheduled Caste households had no card or an APL card in these States. Among these States, only Punjab is a cereals-surplus State. At the all-India level, 60 per cent of

Table 3.
**Distribution of agricultural labour households by possession of ration card,
 all States, rural, 2004-2005**

Percentage of households			
State	Included (with BPL or Antyodaya card)	Excluded (with APL or no card)	All
Andhra Pradesh	70.5	29.6	100
Arunachal Pradesh	11.3	88.7	100
Assam	31.4	68.6	100
Bihar	29.1	70.9	100
Chhattisgarh	54.3	45.8	100
Goa	39.1	60.9	100
Gujarat	62.4	37.6	100
Haryana	49.4	50.6	100
Himachal Pradesh	46.7	53.3	100
Jammu & Kashmir	67.7	32.4	100
Jharkhand	32.7	67.2	100
Karnataka	69.8	30.2	100
Kerala	52.6	47.4	100
Madhya Pradesh	50.8	49.2	100
Maharashtra	49.7	50.3	100
Manipur	4.0	96.0	100
Meghalaya	61.4	38.7	100
Mizoram	14.7	85.3	100
Nagaland	0	100	100
Orissa	59.8	40.2	100
Punjab	23.4	76.7	100
Rajasthan	32.4	67.7	100
Sikkim	57.9	42.1	100
Tripura	66.6	33.4	100
Uttar Pradesh	27.0	73.1	100
Uttaranchal	43.2	56.8	100
West Bengal	47.2	52.7	100
All India	48.0	52.1	100

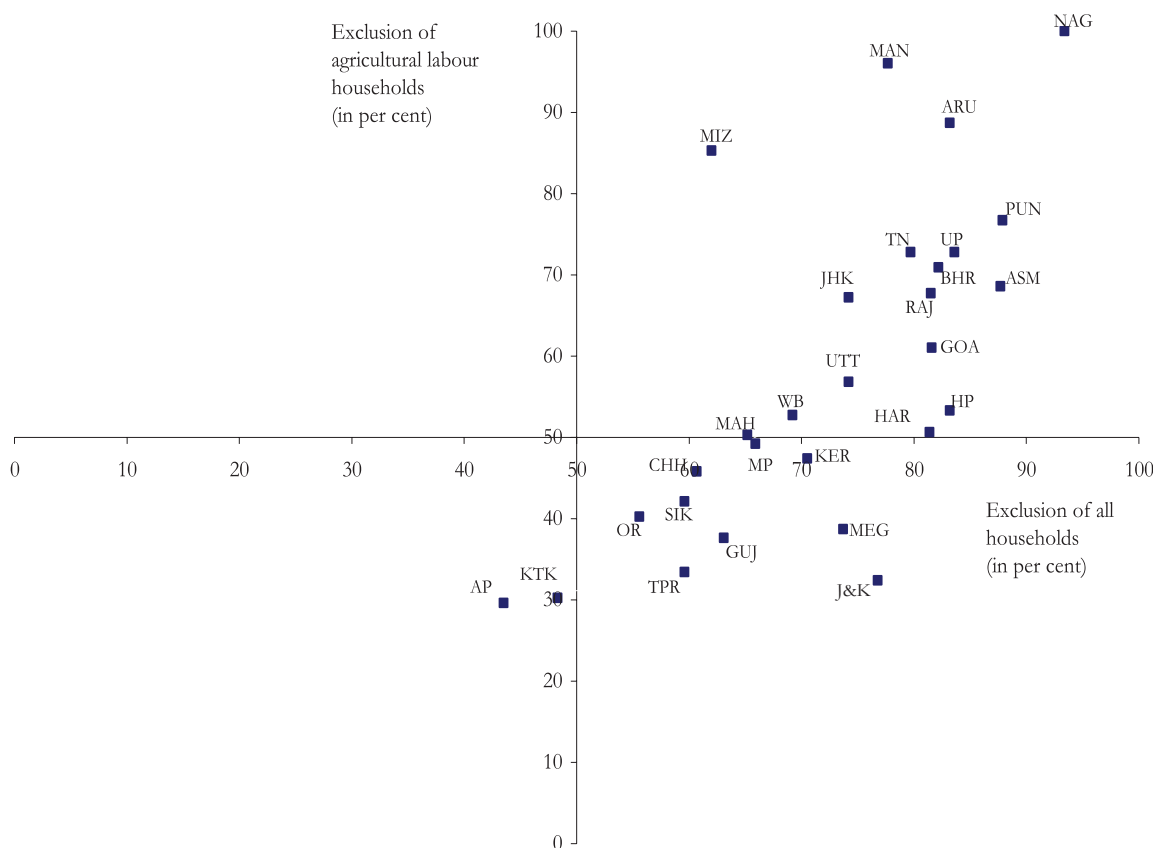
Source: Computed from Government of India (2007).

Scheduled Caste households in rural areas were effectively excluded from the PDS. States with high degree of *inclusion* of Scheduled Castes were Andhra Pradesh, Karnataka and Kerala.

Finally, I turn to a classification of households on the basis of per capita household expenditure class. Using the official poverty line (all India level of Rs 360 per capita per month), we have classified all households with a monthly per capita expenditure (MPCE) less than Rs 365 as 'poor' households. Note that the official Indian poverty line is actually a line of severe deprivation (Saith, 2005). Now, we asked how many of the officially poor households have received a BPL or Antyodaya card (Table 5)? Let us consider five States where more than 40 per cent of rural households belonged to this 'poor' category. These States were Bihar, Orissa, Madhya Pradesh, Jharkhand, and Chhattisgarh. In 4 States, all except Orissa, the majority of households termed officially poor were without a BPL or Antyodaya card. The degree of such exclusion from the PDS was 77 per cent in Bihar, 67 per cent in Jharkhand, 54 per cent in Madhya Pradesh and 54 per cent in Chhattisgarh (in Orissa, the figure was 44 per cent). In the heartland of India, targeting has come at a high cost—high exclusion of households living below the official poverty line.

Graph:

Plot of overall exclusion and exclusion of agricultural labour households, 2004-2005, all States, rural



Further, in 13 out of 27 States (Tamil Nadu being excluded), the proportion of poor households without a BPL/Antyodaya card was higher than the proportion with a BPL/Antyodaya card. In our striving for 'efficiency' by means of narrow targeting, households that should be entitled to basic food security through the PDS are being left out (Table 6).

These data from the NSS 61st round make it quite clear that a large proportion of agricultural labour and other labour households, of households belonging to the Scheduled Castes and Tribes, of households with little or no land and households in the lowest expenditure classes, are excluded from the PDS today. The exceptions are first, Tamil Nadu, which is the only State to have a universal system of PDS, and secondly, the two southern States of Andhra Pradesh and Karnataka, where coverage of households under the BPL and Antyodaya categories is high.

Quantity

Turning to quantities purchased from the PDS, we cannot compare purchases by BPL card households with those by APL card households since the latter are unlikely to be regular users of the PDS at current prices. I therefore focus on BPL and Antyodaya card households to assess the extent to which PDS contributed to household consumption, using the data from the NSS 61st Round.

Even with the deterioration in the system of rationing, the monthly consumption of grain (rice and wheat) purchased from the PDS was greater than consumption from other sources for BPL and Antyodaya

Table 4.
**Distribution of Scheduled Caste households by possession of ration card,
 selected States, rural, 2004-2005**

Percentage of households			
State	Included (with BPL or Antyodaya card)	Excluded (with no card or APL card)	All
Andhra Pradesh	68.6	31.4	100
Assam	19.2	80.8	100
Bihar	29.6	70.4	100
Chhattisgarh	46.1	53.9	100
Gujarat	57.5	42.5	100
Haryana	31.6	68.3	100
Himachal Pradesh	25.1	74.9	100
Jammu and Kashmir	16.3	83.7	100
Jharkhand	36.1	63.9	100
Karnataka	73.2	26.9	100
Kerala	62.1	37.9	100
Madhya Pradesh	42.8	57.2	100
Maharashtra	49.0	51.0	100
Orissa	54.8	45.1	100
Punjab	23.1	77.0	100
Rajasthan	20.7	79.3	100
Tripura	45.4	54.6	100
Uttar Pradesh	27.5	72.6	100
Uttaranchal	46.6	53.4	100
West Bengal	41.5	58.4	100
All India	39.3	60.7	100

Source: Computed from Government of India (2007).

Note: Only States in which Scheduled Castes comprise more than 10 per cent of the population are included.

card households in 7 States—Himachal Pradesh, Jammu & Kashmir, Karnataka, Maharashtra, Sikkim, Tamil Nadu and Tripura (Table 7). Grain purchased from the PDS contributed 20 kg or more to household consumption each month in Himachal Pradesh, Arunachal Pradesh, Jammu & Kashmir, Karnataka, Mizoram, Sikkim, Tamil Nadu, Tripura and Uttar Pradesh. Further, the PDS contributed 15 kg or more of grain to a household each month in a total of 17 States. In short, BPL and Antyodaya households purchase significant quantities of food grain from the PDS. *The extensive mis-classification of needy households as APL households is undoubtedly contributing to the nutritional insecurity of our population.*

Viability of fair price shops

An important institutional concern is that of the economic viability of fair price shops, which has been badly affected by the exclusion of APL population from the PDS. The virtual exclusion of the APL population has led to a big decline in offtake. For example, total grain (rice and wheat) distributed through the PDS fell from 20.8 million tonnes in 1991 to 11.3 million tonnes in 2001 (*Economic Survey*, different years). 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 fair price shop 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 fair price shops are economically viable, there are fewer incentives to cheat.

Table 5.

Percentage of households excluded from the PDS (possessing APL card or no card) among households with monthly per capita expenditure below the official poverty line, all States, rural, 2004-2005

Percentage	
<i>State</i>	<i>Incidence of exclusion</i>
Andhra Pradesh	38.5
Arunachal Pradesh	68.8
Assam	72.6
Bihar	77.0
Chhattisgarh	54.3
Goa	15.0
Gujarat	44.9
Haryana	65.6
Himachal	48.2
Jammu	28.5
Jharkhand	67.1
Karnataka	28.5
Kerala	50.8
Madhya Pradesh	54.2
Maharashtra	48.6
Manipur	75.8
Meghalaya	68.7
Mizoram	21.0
Nagaland	n.a.
Orissa	44.0
Punjab	76.5
Rajasthan	67.4
Sikkim	17.5
Tripura	20.2
Uttar Pradesh	74.3
Uttaranchal	47.2
West Bengal	57.0

Source: Computed from Government of India (2007).

Regional distribution of food grain

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 not served 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 High Level Committee on Long Term Grain Policy (GOI, 2002), has led to imbalances between actual allocations and 'allocations necessary to meet the difference between cereals production and requirement'.

In a universal PDS, automatic stabilization of prices is ensured, as the demand for grain from fair price shops increases at times when the gap between the PDS price and the market price rises. In the new system, however, with APL priced out of the PDS and BPL quotas low and fixed, the role of the PDS as an automatic stabilizer has been weakened.

Table 6.

Errors of targeting in distribution of ration cards (for households defined as poor and non-poor by MPCE below the official poverty line), all States, rural, 2004-2005

Percentage					
State	Poor excluded	Poor included	Non-poor excluded	Non-poor included	All
Andhra Pradesh	7.5	14.9	36.1	41.6	100
Arunachal Pradesh	4.2	1.9	79.0	14.9	100
Assam	10.9	4.1	76.7	8.3	100
Bihar	32.1	9.3	50.5	8.1	100
Chhattisgarh	27.0	22.7	33.7	16.6	100
Goa	0.6	3.4	81.0	15.0	100
Gujarat	7.5	9.2	55.6	27.7	100
Haryana	4.0	2.1	77.4	16.5	100
Himachal	2.7	2.9	80.5	13.9	100
Jammu	0.6	1.5	76.2	21.7	100
Jharkhand	27.2	13.3	47.0	12.5	100
Karnataka	7.5	20.0	40.8	31.7	100
Kerala	3.0	2.9	67.5	26.6	100
Madhya Pradesh	23.2	19.6	42.7	14.5	100
Maharashtra	12.4	13.1	52.8	21.8	100
Manipur	2.2	0.7	75.5	21.6	100
Meghalaya	1.1	0.5	72.7	25.7	100
Mizoram	0.4	1.5	61.6	36.5	100
Nagaland	0.0	0.0	93.3	6.7	100
Orissa	24.8	31.1	30.7	13.4	100
Punjab	2.6	0.8	85.3	11.3	100
Rajasthan	9.3	4.5	72.3	14.0	100
Sikkim	1.4	6.6	58.2	33.8	100
Tamil Nadu	16.4	6.5	63.2	13.9	100
Tripura	5.3	20.9	54.2	19.5	100
Uttar Pradesh	21.2	7.3	62.4	9.1	100
Uttaranchal	5.9	6.6	68.4	19.1	100
West Bengal	11.7	8.8	57.8	21.7	100

Source: Computed from Government of India (2007).

Leakages

Undoubtedly, in many parts of India, the current system of delivery has weaknesses resulting in leakages at different stages. As the PEO (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'. The study goes on to identify factors associated with relatively low leakages at the fair price shop (FPS) level and concludes that 'general awareness of the beneficiaries, high literacy and strong grassroots-level organizations (particularly Panchayat Raj Institutions) have helped states like West Bengal and Himachal Pradesh in reducing FPS level leakage, which in the case of Tamil Nadu, it is the elimination of private retail outlets'.

Leakages cannot be lowered by further narrowing targeting. Reducing leakages requires political commitment and participation of the people in the delivery process.

Table 7.

Monthly average consumption of rice and wheat from PDS and other sources, BPL and Antyodaya card households, all States, rural, 2004-2005

Kilogrammes		
State	PDS	Other sources
Andhra Pradesh	15.7	31.2
Arunachal Pradesh	20.7	39.4
Assam	15.8	46.8
Bihar	2.2	60.8
Chhattisgarh	15.6	50.7
Goa	13.7	24.5
Gujarat	9.3	15.5
Haryana	6.3	45.3
Himachal Pradesh	29.7	20.3
Jammu and Kashmir	35.8	29.8
Jharkhand	4.8	56.9
Karnataka	21.4	7.1
Kerala	16.7	22.8
Madhya Pradesh	16.5	35.6
Maharashtra	16.3	13.5
Manipur	0.12	81.2
Meghalaya	19.9	31.5
Mizoram	26.7	42.1
Nagaland	0	74.9
Orissa	8.7	55.6
Punjab	0.7	46.9
Rajasthan	17.5	22.3
Sikkim	31.6	21.3
Tamil Nadu	20.1	18.6
Tripura	27.8	23.6
Uttar Pradesh	10.3	59.9
Uttaranchal	22.6	31.5
West Bengal	5.2	56.8
All India	13.5	35.4

Source: Government of India (2007).

Case studies of Kerala and Tamil Nadu

Kerala

It is well known that before liberalization Kerala had one of the best run and most effective PDS networks in India (Ramachandran, 1996). It is important to remember that the setting up of an effective PDS was the outcome of a strong people's movement for food. In Malabar and Travancore, 'the public distribution system was directly the consequence of mass action and government response to such action during the period of the food crisis' (Ramachandran, 1996). E.M.S Namboodiripad, Communist leader and the first Chief Minister of the State, has described in an interview how the 'kisan sabhas, trade unions and other mass organizations insisted on procurement from landlords and distribution through ration shops' (Ramachandran 1998). So there was tremendous public demand for rationing. Later, after 1957, the first Communist Ministry took up the task of providing an effective system of delivery of food grain throughout the State. In 1964, during

the food shortage, political demands led to a further expansion of the system of fair price shops. Thus, political struggles were critical in establishing and strengthening the PDS in Kerala.

The following were the main features of the PDS in Kerala before the introduction of targeting:⁸

- Kerala has been the only state in India with a near universal coverage of the PDS. All households that did not have land holdings sufficient to produce food grain for their own consumption were eligible for a ration card. In 1991, around 95 per cent of all households were covered by the PDS and possessed a ration card (Kannan 1995).
- Secondly, the monthly entitlement of food grain per adult was 13.8 kg in Kerala (or 460 grams per day), satisfying the minimum requirement of 370 gms of cereals per person per day recommended by the Indian Council of Medical Research (ICMR, 1990).
- Thirdly, the quantity of food grain purchased from the PDS has been higher than in most other States, making a significant contribution to household nutrition. In 1991, the annual offtake of food grain from the PDS averaged 69.6 kg per person in Kerala. The annual purchase of grain from the PDS in Kerala provided about one-half of the cereal requirements of a person.
- Fourthly, while the scheme was universal, there is evidence to show that the system was progressive and that the poor depended relatively more on the PDS than the rich (George 1979, Koshy *et al.* 1989).
- Fifthly, the functioning of ration shops and the delivery system has been better than in other parts of the country and this is reflected in consumer surveys.
- Given the scale and effectiveness of the PDS, it has been noted that the PDS has contributed to an improvement in consumption and nutrition in Kerala (Ramachandran, 1996).

Targeting introduced as part of liberalization has undermined Kerala's PDS in several ways (Krishnakumar 2000 and Suryanarayana 2001).

- First, as 25 per cent of Kerala's population have been termed BPL by the Planning Commission, the guaranteed and subsidized allocation of grain for BPL households under the TPDS accounts for only 10 per cent of the previous PDS ('lifting') supply. Given that Kerala is a food deficit state, in the pre-TPDS period, own production accounted for 20 per cent of grain requirements, the PDS accounted for 32 per cent and the rest came from private trade. If the allocation to the APL is stopped, then the PDS allocation to Kerala, it is estimated, will account for 3.8 per cent of the grain requirements of the State (Suryanarayana, 2001). Thus, TPDS has changed in a big way the share of the PDS in the total grain requirements of Kerala. This has implications for domestic availability and prices.
- Secondly, the Kerala government has identified 42 per cent of households as BPL households (in contrast to the central government poverty ratio of 25 per cent) and is providing the BPL subsidy to these households from the state budget.
- Thirdly, the Kerala government has continued to provide additional grain to BPL households as well as maintained its entitlements for APL households. There is a State subsidy on sales to APL households.
- Fourthly, offtake from the PDS has declined. As compared to an annual offtake of rice and wheat of around 2 million tonnes in 1991 and 1992, the offtake in 1999 was 1.6 million tonnes

⁸ Based on Ramachandran (1996).

and in 2000 it fell further to 0.71 million tonnes. There have been sharp cuts in allocations for APL households in 2006 and 2007.

- Finally, there is evidence that ration shops are becoming unviable and are closing down (Krishnakumar 2000). Before TPDS was introduced, the average monthly sale of cereals was 7,500 kg of rice and 2,000 kg of wheat per ration shop. By 2001, these figures had fallen to 1,400 kg of rice and 200 kg of wheat leading to losses for many fair price shops. According to an official estimate by the Government of Kerala, the gross earnings per fair price shop fell from Rs 3,711 before March 2000 to Rs 1,493 in August 2001, and the net income of the average fair price shop dealer became negative (Government of India, 2002).

Kerala was in a class of its own both in terms of participation in the PDS and in terms of the quantity of food grain distributed. Kerala has suffered from the policy of narrow targeting introduced in 1996.

Tamil Nadu

Tamil Nadu stands out in sharp contrast, and is, in fact, unique among all States, today for its near-universal PDS. There is an APL/BPL classification of households in the State, and there was a period when a policy of targeting was implemented and in fact, food coupons with income eligibility were introduced, but that policy was withdrawn in response to public pressure. Today, the State has a near-universal PDS in practice. The State has introduced an option for households that do not want to purchase rice from the PDS, and given them scope for buying more sugar or kerosene. There are 100,000 card holders who have exercised this option, and another 52,000 who have withdrawn from the PDS completely. The remaining 17.8 million card holders (though with different type of cards) are all treated equally and can purchase rice at the same price—Rs 2 a kilo since June 2006. As the State is buying grain from the centre at higher prices (BPL allocation at the BPL price and APL allocation at the APL price), it is incurring an additional subsidy to maintain a universal system with rice at specially subsidized low price. The subsidy burden of the State was 15,000 million rupees in 2006-07.

Another interesting feature of Tamil Nadu's distribution network is that there are no private fair price shops. The cooperative sector runs 96 per cent of ration shops and the remaining are managed by *panchayats* and self-help-groups. The District Central cooperative bank provides a cash credit facility to societies to purchase grain for the PDS. The Planning Commission has noted that leakages at the fair price shop level and in terms of distribution of ghost or bogus cards are low in Tamil Nadu (PEO, 2005). A detailed study of the PDS in Tamil Nadu identified strong political commitment and careful monitoring by the bureaucracy as elements of the success of PDS in the State (Venkatasubramanian, 2006).

While nutritional outcomes cannot be directly attributed to the PDS alone, it is worth noting that Tamil Nadu has shown consistent improvement in nutritional outcomes over the last decade. NFHS data show that the proportion of underweight children (below 3 years) fell from 46 per cent in 1992-93 to 37 per cent in 1998-99 and further to 33 per cent in 2005-06 (when the national average was 46 per cent). Similarly, malnutrition among women, as measured by the proportion with Body Mass Index below normal, was 23.5 per cent in Tamil Nadu as compared to 33 per cent in India in 2005-06.

Tamil Nadu needs to be commended for managing a well functioning universal system of delivery of cheap food in this era of liberalization.

Programmes of Supplementary Nutrition: School meals and ICDS

Mid-day Meal Scheme

While the provision of mid-day meals or school meals had begun in some States earlier, it was made part of national policy in 1995. Termed the National Programme of Nutritional Support to Primary Education, the policy aimed to provide a cooked meal at school or 3 kg of food grain to each child conditional about 80 per cent attendance at school (Medrano, 2004). In 2001, in response to a public interest litigation, the Supreme Court of India gave an order 'to implement the mid-day meal scheme by providing every child in every government and government assisted primary school with a prepared mid-day meal with a minimum content of 300 calories and 8-12 gms of protein each day of school for a minimum of 200 days' (Khera, 2006). Implementation, of course, varies across States, and Tamil Nadu and Gujarat have been singled out as success stories (Khera, 2006). Reviewing the performance of this programme after the Supreme Court order, Reetika Khera notes that there has been a positive impact on school enrolment, particularly for girls. The impact on nutritional outcomes is more difficult to measure.

Tamil Nadu was the forbearer of the national school meal programme. In 1982, the Chief Minister M. G. Ramachandran started a noon-meal scheme for children below five years. Over time, the programme has expanded to include pre-schoolers, all primary school children, children up to 15 years of age in rural areas, old age pensioners, the destitute, widows and from 1995, all pregnant women. All together, in 1999-2000, the noon meal reached 8.3 million persons in the State each day, 7.7 million of whom were children (Rajivan, 2001). While all children between the ages of 2 and 15 are now eligible for a school lunch, the data suggest that participation is higher among relatively poorer children (Rajivan, 2001).

The noon meal scheme has had a long run in Tamil Nadu and achieved wide coverage. At the same time, various indicators of malnutrition show a downward trend in Tamil Nadu. To take one example, the incidence of severe malnutrition (Grades III and IV) among children aged 0-36 months declined from 12.3 per cent in 1983 to 0.3 per cent in 2000 (Rajivan, 2001). It is not our intention to attribute the entire improvement in nutritional status of children in Tamil Nadu to the State's food and nutrition policies but they must clearly be given their due in any explanation.

Integrated Child Development Scheme (ICDS)

The Integrated Child Development Scheme was first begun as a pilot scheme in 1975, and today, is the only national programme that 'provides a package of integrated services' to children below the age of six (Citizens' Initiative for the Rights of Children under Six, 2006). The key services provided by ICDS, through its network of ICDS centres or Anganwadis, are in the sphere of nutrition, health and pre-school education. In the last few years, there has been a well articulated demand for 'universalization of ICDS with quality' (Citizens' Initiative for the Rights of Children under Six, 2006).⁹ The Supreme Court has also intervened and directed the government to universalize the programme.¹⁰ The demand for universalization would entail a functioning Anganwadi centre in every hamlet or settlement, extension of ICDS services to all children below six and eligible (pregnant and lactating) women, and improvements in the scope and quality of services.

⁹ Further references can be found in the Report of the Citizen's Initiative for the Rights of Children under Six or FOCUS (2006).

¹⁰ A working group of the Planning Commission has also made the same recommendation (see Draft Report of the Third Sub-Group, Working Group on Food and Nutrition Security, October 2006).

As in the case of other welfare programmes, the implementation and impact of ICDS varies across States. There are differences in the content of the scheme as well as in its implementation. In some States, cooked food is provided whereas in others, it is a ready-to-eat snack (Medrano, 2004). An evaluation conducted in 2000 showed that food supply was irregular in about 67 per cent of Anganwadis. The worst affected states were in the North Eastern region, while the better-off States were Himachal Pradesh, Maharashtra, Tamil Nadu and Goa (Medrano, 2004).

Concluding remarks: Lessons for policy

In the last few years, the international news media have attempted to cast India in the role of a growing world economic power. At the very beginning of this paper, I have shown that India holds the record for the absolute number of persons suffering chronic hunger and malnutrition. *Policy making and implementation have failed miserably in respect of tackling this crisis of mass undernutrition.*

In the mid-1960s, a coherent set of policies were introduced to address the problem of food insecurity, policies dealing with production, storage and distribution. These policies did have some success, especially in respect of accelerating the production of food grain and in respect of ensuring a period of low and stable prices for cereals. In the period of economic liberalization, starting in 1991, policies to address food security have been weakened, and have had a very damaging impact on consumption and nutrition. Today, given the high rate of inflation, the situation is even more critical.

The period of economic liberalization has seen a severe setback to some of our major programmes of food security. Three key objectives of economic reforms—and these are stated explicitly in many policy documents, including the annual *Economic Surveys*—have been to reduce food subsidies, to leave distribution to the market and to undermine food policy intervention and subsidies to the ‘poorest of the poor’. While addressing the full Planning Commission in December 2007, Prime Minister Manmohan Singh said that the government needs to ‘address the problem of mounting subsidies in food, fertilizers and petroleum.’ The same month, at the meeting of the National Development Council, he said that we have to ‘ensure better targeting of subsidies to the genuinely needy.’ As a matter of fact, the absolute and relative size of the food subsidy (not all of which, of course, accrues to consumers) has declined steadily. Between 2002-03 and 2006-07, the food subsidy bill of the Government of India shrunk in absolute nominal and real terms. As a share of GDP, food subsidies fell from 0.99 per cent in 2002-03 to 0.6 per cent in 2006-07.

One of the major instruments of food policy in India has been the public distribution system (PDS). An important lesson from the experience of the last decade is that the policy of narrow targeting introduced as part of liberalization has failed to address the problem of chronic hunger. I have shown, in this paper, that on account of a drive for ‘efficiency’ by means of narrow targeting, households that should be entitled to basic food security have been left out of the PDS. Data from the National Sample Survey conducted in 2004-05 make it quite clear that a large proportion of agricultural labour and other manual labour households, households belonging to the Scheduled Castes and Tribes, households with little or no land, and households in the lowest expenditure classes, are excluded from the PDS today. Thus, the Targeted PDS has led to the large-scale exclusion of genuinely needy persons from the PDS. It has affected the functioning and economic viability of the PDS network adversely and led to a collapse of the delivery system. It has failed to achieve the objective of price stabilization through the transfer of cereals from surplus to deficit regions of the country.

Supplementary programmes of nutrition, particularly for infants and school children, have expanded in the last few years in response to pressures from below as well as pressures from above (the judiciary, in particular). There is now strong demand for the ‘universalization of ICDS with quality’ and for ensuring a healthy cooked school meal to all children.

It is clear that a task of utmost importance today is to guarantee adequate access to food to ensure food security and to end endemic hunger. A well-functioning universal public distribution system can be the means to ensure adequate physical access to food at the local and household levels. These proposals—for a universal public distribution system, for universalization of ICDS with quality, and for a mid-day meal to all primary and secondary school children—are likely to require higher food subsidies. In the choice between fiscal restraint and basic food security, if the former is chosen, the result will be a very high welfare cost to the majority of our people in this and the next generation.

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