The problem of endemic hunger in India is massive and widespread. Whether hunger is measured in terms of calorie intake or by anthropometric indicators of malnutrition, it is clear that no country in the world comes near India in terms of the absolute number of people living in chronic hunger.

Estimates from national data give a bleaker view. According to the National Family Health Survey 1998-99, for example, 47 per cent of children below the age of three were malnourished by a weightfor-age criterion. 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. Data from the National Sample Surveys show a clear trend of decline in calorie intake. In rural India, the average calorie intake per capita per day fell from 2,266 Kcal in 1972-73 to 2,183 in 1993-94, and further to 2,149 in 1999-2000. Among the lowest 30 per cent of rural households in respect of consumer expenditure, the per capita calorie intake fell from 1,830 Kcal in 1989 to 1,600 Kcal in 1998. The calorie intake per diem was less than or equal to the poverty line norm of 2400 calories for almost 77 per cent of the rural population in 1999-2000.

Even by figures from the State of Food Insecurity of the Food and Agriculture Organisation, which I believe are an underestimate, India is home to 29 per cent of the world's chronically hungry persons.

It is clear that a task of utmost importance today is to guarantee adequate physical and economic access to food to ensure food security and to end endemic hunger. In this presentation, my focus shall be on access to food though, clearly, other factors such as health, sanitation, other environmental factors and education, too, are important in gaining access to safe food and achieving food and nutrition security.

Let us consider issues of the supply of food, and in particular, cereals, at the national, local, household and individual levels. At the national level, a major achievement on the agricultural front in the post-Independence period has been the expansion of food grain production, enabling the country to acquire a degree of self-sufficiency in cereals production. While there is no serious

immediate constraint from the supply side, it is clear that production issues cannot be ignored. There was a deceleration in the rate of growth of production of food grain in the 1990s, and, for the first time since the technological changes of the late 1960s and 1970s, the rate of growth of the production of cereals in India in that decade fell below the rate of growth of population. Despite adequate food stocks at the national level, local shortages occur regularly. They are caused by situations of natural disaster, such as flood and drought; they are also caused by regular and predictable seasonal variations. There are, in other words, areas where food availability is low and prices high every year in a specific season.

Since the household is the basic unit of residence and consumption expenditure, adequate household-level access to food has to be ensured. Finally, and most importantly, food security has to be ensured for each individual in society. This requires sensitivity to intra-household inequalities, such as the differential access of men and women to resources, including food. It also requires consideration of specific consumption needs, such as those of infants, children, manual workers, pregnant and lactating women, the elderly, and so on.

A well-functioning universal public distribution system (PDS) can be the means to ensure *adequate physical access* to food at the local and household levels.

In 1997, the universal PDS was abolished and a Targeted PDS introduced in its place. The policy targeted 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 differed from the earlier PDS in certain key respects. First, it introduced a 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. Henceforth, the two groups were treated differently in terms of the quantities of food provided through them by the PDS and the prices at which food was supplied.

In other words, the Government of India initiated a policy of narrow targeting to households with incomes below the official poverty line. Secondly, it brought in dual Central issue prices: prices for BPL consumers and prices for APL consumers. Thirdly, it changed Centre-State responsibilities with respect to entitlements and allocations to the PDS. In the past, the State governments demanded a certain allocation from the central pool, and based on certain factors, the most important of which were past utilization and the requirements of statutory rationing, the Central government allocated grain and other commodities to States for their public distribution systems. Under the Targeted PDS, the size of the BPL

population and the entitlements for the BPL population in individual States are decided by the Central government.

It is clear that the Targeted PDS has not been effective in ensuring food security to the needy. 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 (and from the BPL category.) Secondly, targeting has affected the functioning and economic viability of the PDS network adversely. Thirdly, TPDS has failed to achieve the objective of regional equity, of transferring cereals from surplus to deficit regions of the country.

First, it is well known that although transition from a universal to a targeted welfare programme may reduce the error of wrong inclusion (that is, reduce the number of unintended beneficiaries), the major and immediate effect of the transition is to increase the error of wrong exclusion (that is, expand the number of needy who are excluded from the programme).

Two issues are to be considered when evaluating a targeted programme in an income-poor country; the size of the target group, and the weights to be attached to the two types of errors of targeting. If the target group is large - as is the case with the food-insecure in India - and a higher weight is attached to exclusion of the needy than inclusion of the non-needy, then a universal programme is clearly better than a narrowly targeted programme. Proponents of orthodox reform implicitly attach a zero weight to errors of inclusion and are concerned only with minimising errors of exclusion. This implicit valuation should be recognised openly and debated, for welfare considerations often demand 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. If a high weight is attached to errors of exclusion, then as G. A. Cornia and Frances Stewart (1993) have shown "general subsidies are invariably superior to targeted schemes".

Further, there is a basic asymmetry in the costs attached to the two types of errors. 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, the costs to individuals and society that are caused by malnutrition and ill health. While fiscal costs are known and easy to measure, it is more difficult to measure the welfare costs of undernutrition, although these costs are likely to be high and can even, of course, be passed on to future generations.

The present system of targeting in the PDS has excluded large sections of the needy population of our country. These errors arise out of conceptual as well as operational problems in the definition of poverty. Conceptually, the official definition of eligibility for BPL status, based on the official poverty line, is unsuitable. The expenditure poverty line used in India is abysmally low, and is based on an old and outdated consumption basket. The choice of any other criterion such as nutritional status brings a much larger population into the eligible set. Food insecurity can also be measured by food share, or the share of total expenditure that a household spends on food. In China, the criterion to establish poverty is a food share of 50 per cent or above. By that criterion, 80 per cent of India's rural population is food-insecure. In the United States, households with a food share of 33 per cent and above are given access to subsidised food. By that criterion, 95 per cent of India's population is food-insecure.

Even if the income poverty line were conceptually a suitable criterion, there are many problems involved in identifying income-poor households in a situation where no estimates exist of the actual incomes of households. In a study of a village in Maharashtra before and after the introduction of the TPDS, Neeta Misra and I found that "the procedure for excluding households from the BPL category of the Targeted PDS in Mohakal (village) has been faulty, arbitrary, undertaken by persons without appropriate training, and cannot be relied upon as a measure of poverty among rural households. Each criterion is imperfect, riddled with measurement problems and, even if applied fairly, does not capture the group of households vulnerable to hunger and malnutrition".

Given the conceptual and operational problems in identifying households below the poverty line, the chances of mis-identification and of excluding food-deficit households from the TPDS are very high.

Secondly, an important institutional issue is that of the economic viability of fair price shops, which appears to have 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. In 1991, 20.8 million tones of rice and wheat were distributed through the PDS network. In 2000-01, offtake was only 11.7 million tonnes, a level of distribution lower than any year in the 1980s. With fewer ration cards to serve, 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.

There is evidence from Kerala, the State with the most effective system of rationing, of ration shops becoming unviable and closing down. 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. Many fair price shops are now

estimated to be making losses. 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 had become negative.

Thirdly, one important objective of the PDS has always been to ensure price stabilisation in the country by transferring grain from cereals-surplus to cereals-deficit regions. TPDS does not, in practice, serve this objective. In a universal PDS, automatic stabilisation 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 stabiliser has been weakened.

As long as significant disparities exist between different regions of India with respect to cereal production, the Government of India shall have to play a crucial part in ensuring food security in all parts of India. At the same, State governments should have control over as many operational issues as possible, since they are better qualified to design and implement a system suitable to their own States. In the TPDS regime, the size of the BPL population in a State is determined by the Central Government, a situation that is anomalous and unfair to States.

Turning to the question of purchasing power or economic access to food, there are two types of policy initiatives that are required. The first is the large-scale creation of income-bearing employment. The most effective short run policy here is an open-ended employment guarantee programme. A second set of social security measures with a food component is required for special groups. These measures include midday meals for children, food programmes for the disabled and destitute, cash-cum-food pensions for senior citizens and so on.

Finally, in the context of the WTO, developing countries with common concerns need to come together to ensure that policies for basic food security such as public stockholding or sale and purchase of food grain at administered prices can be pursued without fear of reprisals. In January 2001, in the Committee on Agriculture, India made a proposal for a "food security box". Such proposals need to be strengthened and taken forward by an alliance of developing countries.

Food security for all requires a combination of policies: a well-functioning universal PDS, an employment guarantee programme and special food programmes for groups within the population with special needs.

| Table 1 Trends in Per Capita Cereal Consumption (kg/month) in Rural India | | | | |
|---|---------|---------|-----------|--|
| Decile Group | 1987-88 | 1993-94 | 1999-2000 | |
| Lowest 30% | 12.27 | 11.76 | 11.44 | |
| Middle 40% | 14.56 | 13.61 | 12.95 | |
| Top 30% | 16.55 | 14.77 | 13.69 | |
| All | 14.47 | 13.40 | 12.72 | |

Source: S. Mahendra Dev., C. Ravi, Brinda Vishwanathan, A Gulati and S Ramachander (2004), Economic Liberalisation, Targeted Programmes and Household Food Security; A Case Study of India, IFPRI, MTID Discussion Paper No 68.

| Table 2 Trends in Per Capita Daily Intake of Calories in Rural India | | | | |
|---|----------------|---------|-----------|--|
| Decile Group | 1987-88 | 1993-94 | 1999-2000 | |
| Lowest 30% | 1620 | 1678 | 1696 | |
| Middle 40% | 2144 | 2119 | 2116 | |
| Top 30% | 2929 | 2672 | 264 | |
| All | 2222 2152 2149 | | | |

Source: S. Mahendra Dev., C. Ravi, Brinda Vishwanathan, A Gulati and S Ramachander (2004), Economic Liberalisation, Targeted Programmes and Household Food Security: A Case Study of India, IFPRI, MTID Discussion Paper No 68.