Chapter-2
Hunger and Malnutrition in India - Policies and Programmes
As discussed in Chapter 1, banishing hunger and ensuring food security has been accepted as the primary responsibility of the state towards its citizens, and is repeatedly endorsed at policy initiatives. Physical and economic access to food at the household level, at all times, to ensure healthy and active life is the main crux of policies framed for food security. This chapter is an attempt to review the policies and programmes aimed at ensuring food security or improving nutritional status of masses in India.

An Overview

Article 47 of the Constitution of India states that "the State shall regard raising the level of nutrition and standard of living of its people and improvement in public health among its primary duties". Thus improvement in nutritional status has remained a constitutional responsibility of the public policies.

Successive Five-Year Plans laid down the programmes and strategies for achieving this goal. As stated in the X Plan at the time of Independence the country faced two major nutritional problems. One was the threat of famine and the resultant acute starvation due to low agricultural production and the lack of an appropriate food distribution system. The other was chronic energy deficiency due to:
• low dietary intake and low purchasing power because of poverty;
• high prevalence of infection because of poor access to safe-drinking water, sanitation and health care;
• poor utilization of available facilities due to low literacy and lack of awareness.

For combating these problems multi-sectoral, multipronged strategy was adopted to improve the nutritional status of the population. Along with emphasis on rapid economic growth, education and health has remained core areas of planning.

Post independence era witnessed three major policy paradigms in tackling the problem of hunger and malnutrition. Upto the 5th Five Year Plan the main emphasis was given for enhancement of productive capacity of the economy expecting its trickle-down effects on poverty and related problems. The direct attack strategy was initiated in the year 1980 and specific programmes like Integrated Rural Development Programme were implemented for deprived classes of society. During last three Five Year Plans restructuring of programme has become an important area for policy planning.

The Ninth Five Year Plan (1997-2002) studied the problem of food security at the national level as well as household level. The approach related to food security relies largely on domestic production of food needed for consumption as well as for building buffer stock. This can be described as a strategy of self-sufficiency (Planning Commission, 1999, p. 4).
Reviewing the 50 years’ effort in this direction the Ninth Five Year Plan stated: Even though self-sufficiency in food production has been achieved, the population still lacks access to balanced food. It is a matter of concern that even though cereal production has kept progress with the increasing requirements and average per capita intakes have remained satisfactory, there has been a fall in the per capita consumption of pulses. It is important not only to improve pulses production but also make them available at affordable cost. The production and consumption of vegetables continues to remain low. Special efforts have to be made to improve production of and improved access to vegetables especially green leafy vegetables at affordable cost both in rural and urban areas (Planning Commission, 1999, p. 54).

The Ninth Five Year Plan reviewing the situation at the household level underlined the stark reality: "In spite of mounting food subsidies, evaluation studies indicate that supply of subsidized food grains through PDS has not resulted in improvement in household level food security. Self-sufficiency of food grains, at national level and availability of food grains at affordable cost at local level have not got translated into household level food security for the poor" (Planning Commission, 1999, p. 529).

Realizing these shortcomings, the IX Plan objectives for ensuring food security comprise of acceleration and growth in food and agricultural sectors, evolving development strategies and macro-economic policies to augment growth with equity, promotion of rural development which focuses on the poor, greater access to land and cultural resources, enhancement of employment opportunities, introduction of income
transfer scheme with provision for PDS of cheap subsidized food, stabilization of food supplies and prices improvement in emergency preparedness for providing food during natural calamities like drought, famine, flood, earth quacks etc.

The Tenth Five Year Plan (2002-07) had drawn the attention to the changes in consumption pattern which had taken place in the Post-Green-Revolution period. It stated: “Between 1972-73 and 1993-94 the food basket has become much more diversified, with the share of cereals seeing a dramatic decline of 10 per cent in most regions. At the all India level, cereals consumption in the rural areas declined from 15.3 kg per capita per month in 1972-73 to 13.4 kg per capita per month in 1993-94. The corresponding decline in the urban areas was more modest form 11.3 kg to 10.6 kg over the same period. At the same time, consumption of milk and meat products as well as vegetables and fruits has increased. Such changes are a natural outcome of economic development (Planning Commission, 2002, p. 365).

In view of this the following assessment was obtained in the Tenth Five Year Plan restructuring of PDS:

Among other things wheat and rice items were excluded from the scope of food subsidies. Sugar should be kept outside the purview of PDS. The plan emphasized that coverage of Targeted Public Distribution System (TPDS) and food subsidy should be restricted to below poverty line (BPL) population and to reduce malpractices, food stamps should be issued to female members of the family who can be designated as heads of households for the purpose.
It was recognized in the XI Five Year Plan that 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. As far as causes are concerned 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 regarded as a major threat to social and economic development because it is among the most serious obstacles in attaining and maintaining health of the important age group (3-5 years). When poor nutrition starts in utero, it extends throughout the life cycle, particularly in girls and women. In terms of persistence of this problem the XI Plan asserts that this not only amplifies the risks to the individual’s health but also increases the likelihood of damage to future generations, through further fetal retardation.

It is realized in the Plan document that 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 the elderly. Thus, XI Plan has explored the cause-effect relationship for devising strategies.

Assessment of past efforts shows inadequacy and ineffectiveness of earlier programmes. Plan states that 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.

**Major Policies and Stakeholders**

Currently governmental programmes are guided by the National Nutrition Policy (1993) of the Department of Women & Child Development (DWCD) which prescribes set of short term and long term measures to reduce under-nutrition rates in India. The short term measures being implemented are expansion of Integrated Child Development Services (ICDS) to pregnant and lactating women and adolescent girls, strengthening the immunization and oral rehydration programme, essential food fortifications and popularization of low cost nutritious foods.

The National Health Policy of India was framed in 1983 and revised in 2002. Main objectives of the policy are to reduce the Infant Mortality Rates (IMR) and Maternal Mortality Ratio (MMR), the TB-related mortality, malaria and other vector & water borne diseases by 2010 through the structures of National Rural Health Mission (NRHM).

Apart from Government departments many Indian research institutions work to improve the quality of social schemes (e.g. NIPPCD). The institutes related to nutrition research in India include the Indian Council for Medical Research (ICMR) and the NIN. The NIN also works as a nodal agency for technical supervision of the National Nutrition Monitoring Bureau (NNMB).
UN agencies: UNICEF, WFP, WHO, UNDP etc. have an important role in supporting governmental programs as well as the efforts of non-governmental sector. WHO provides technical assistance and collaborates with the Government of India and major stakeholders in health development efforts. It assists significantly in Policy Development; Capacity Building and Advocacy. Technical assistance to the Government for under nutrition is provided through: Family and Community Health, including Reproductive Health and Research; Child and Adolescent Health; Gender and Women’s Health; Immunization and Vaccine Development including Hepatitis B; Nursing and Midwifery; Nutrition and Development and AYUSH.

UNICEF extends support to programmes aimed at reducing and preventing malnutrition, and improving the development of children under three-years-of age, especially those in marginalized groups. UNICEF is assisting the government to further expand and enhance the quality of ICDS in various ways: by improving the training of Anganwadi Workers; by developing innovative communication approaches with mothers by helping to improve monitoring and reporting systems but providing some of the essential supplies; by developing community based early childcare interventions.

WFP focuses on combating malnutrition through investing in human resources, improving food security for targeted groups and increasing the participation of women in various projects. Their focus is on prevention with higher impact, mainly on food security.

UNDP focuses on reducing poverty and further is trying to achieve the MDGs. They also work on HIV, democratic governance, crisis prevention, energy, and more.
Despite the presence of many actors working in the field of under-nutrition for long number of years, it is obvious that their impact is either very limited or too thinly spread as the levels of under nutrition continue to remain at unacceptable levels in India.

The main focus to combat underweight and stunting has always been through supplementary feeding and micro-nutrient supplementation. Dozens of different supplementary feeding formulas have been developed, following local taste and consumption patterns for underweight treatment. Some of the formulas, such as High Calorie Cereal Milk were locally produced as ready-to-use-food (RUF).

Several forums have been formed to discuss nutrition related issues. These include Coalition for Sustainable Nutrition Security (CSNS), Solution Exchange (Food and Nutrition Security community) and Public Health Foundation of India (PHFI). Sphere India, launched in 2002, aims at contributing towards the quality of humanitarian response by ensuring improved coordination among various stakeholders involved in humanitarian work in India.

The multitude of governmental and non-governmental research and educational stakeholders working actively in the field of under-nutrition has not been completely able to provide meaningful solution to the problem of acute malnutrition. High under-nutrition and acute malnutrition rates persist in the background of the “shining” India of exemplary economic growth. The issue has transformed to an object of high political criticism and sensitivity which, to some degree, restricts constructive dialogue, coordination and collaboration between stakeholders. The blockage over RUTF use has additionally created
suspicions towards international NGOs and delays further de-freezing of the situation.

**Present Scenario of Malnutrition**

Sixty five years after independence, nearly half of India’s children under three are malnourished. India has the largest number of children in the world who are malnourished. Even more significantly, India’s rate of malnutrition is worse than the number of malnourished is likely to have actually increased.

<table>
<thead>
<tr>
<th>Table 2.1</th>
<th>Trends in Childhood (0–3 Years of Age) - Malnutrition in India</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stunted</td>
<td>52.0</td>
</tr>
<tr>
<td>Wasted</td>
<td>17.5</td>
</tr>
<tr>
<td>Underweight</td>
<td>53.4</td>
</tr>
</tbody>
</table>

*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.

Over the years, there has been improvement in access to food through the PDS; the food for work programme has addressed the needs of the vulnerable out-of-work persons. The ICDS programme aimed at providing food supplementation for pre-school children, pregnant and lactating women, nearly covers all blocks in the country. The Mid-day-meal programme aimed at improving the dietary intake of primary school children and reduction in the school dropout rates. There has been substantial improvement in access to health care.
The data from the third round of the National Family and Health Survey (NFHS-3), released in 2007 shows that the rate of child malnutrition in India is a staggering 46 per cent. The fact that half of the children in the country are underweight is serious enough. Even more disturbing is that there has been virtually no change in the rate of malnutrition since the NFHS-2 survey of 1999 which estimated the percentage of malnourished children at 46 per cent.

An age wise distribution of absolute weights for the population as compared to the international norms (NCHS Median Values) shows that for every age group the weight is much lesser than the international norms. At the age of one, male children in India are 1.4 kilogram less than the international norm and girl children are 1.6 kilogram less than the international norm. This increases to gaps of 3.6 kilogram and 4.1 kilogram respectively for boys and girls by the age of five. In the age group of 20-24 the difference in weight of Indian adult males as compared to the international average is 12.8 kilogram and it is 18 kilogram for women.

IFPRI calculates a ‘global hunger index’ for each country by combining the proportion of calorie deficient people with child mortality rates and child underweight rates. Since Indian adults and children have among the worst indicators in the world in relation to food intake and anthropometric measures, it is not surprising that the latest IFPRI global hunger index for 2012 shows India sliding backwards over the last three years – currently ranked 65, lower than Pakistan and significantly lower than China. While countries like Angola, Ethiopia, Ghana, Mozambique, Nicaragua and Vietnam made significant improvements in their hunger
index scores between 1990 and 2010, India remains mired in the ‘alarming’ category.

At the macro or aggregate level, estimates of hunger vary from 1.9 per cent of households ‘self reported’ as being ‘hungry in NSSO 2004/05, and there are many reasons to treat this number with caution, to as high as 75 per cent of households when a more meaningful 2400/2100 calorie-cutoff is used (Deaton and Dreze, 2008). Other estimates (FAO, 2009) suggest that undernourishment prevalence has increased from 19 per cent in 1990 to 21 per cent during 2005-2007 using different cut-off points for calorie intake. By these estimates, the calorie deficient population surged from around 172 million in 1990 to more than 235 million by 2005-2007. Most of the increase occurred recently, during years of rapid economic growth.

Looking inside the aggregate data, there is considerable heterogeneity across Indian states, and within states, across districts and villages in relation to food and nutrition insecurity. All Indian states have ‘serious’ levels of hunger (IFPRI ISHI 2009) but in 12 of the 17 states studied, hunger levels were described as ‘alarming’. In Madhya Pradesh hunger levels have been described as ‘exceedingly alarming’. Even in states that have performed well in economic terms, ‘seriously high’ levels of hunger persist. It is obvious that economic growth alone cannot lead to food and nutrition security at the aggregate and state level. Study shows that there was highest rate of hunger in Madhya Pradesh, Jharkhand, Bihar and Chhattisgarh, all above an index of 25 and even in the latter three that featured good rates of growth in state-level per capita income, the food and nutrition situation did not
improve. Systematic research into reasons for the extremely poor outcomes in these particular states is needed; possible initial explanations conclude that India’s interior states have large tracts of poverty as a result of very poor infrastructure and low connectivity, harsh weather and climate events, and overall low education levels and other social service delivery. Other factors could lie in practices related to women such as high birth frequency and childhood marriages.

While per capita expenditures have risen across India, real per capita expenditures on food have stagnated over the last twenty years. This is an important observation because it suggests that poverty estimates based on rising household expenditure levels could have declined from this movement in expenditures, nutrition indicators based on calorie consumption have certainly not improved. Families are struggling to afford sufficient nutritious food while having to spend more on items like housing and shelter, health, education and transport. It is simply incredible that vast sections of the population are still unable to eat a ‘decent’ meal. Food availability, when measured in terms of cereal output per capita, has been declining rather rapidly following the green revolution bubble, which raised agricultural productivity, but at the same time generated food and nutrition insecurity and inequity because it bypassed the smaller farmers – and omitted the landless.

This represents a situation of alarming proportions since the difference with regard to the international standards is so high. This trend is evident for heights as well. While it is well known that weights represent a robust indicator of nutritional status, it is now scientifically established that heights also represent nutritional status equally well.
The difference in heights, as compared to the international standards has also remained largely unchanged over the decades. From a difference of 5.9 cm. for male children and 6.7 cm. for girl children, at the age of five, the difference in heights of Indian population as compared to the International standard by the time they reach adulthood becomes 15.2 cm. for adult males 13.5 cm. for adult females. These figures show that the average Indian population is not only underweight but also stunted and that there has been no significant increase in the weights or the heights of the Indian population over a period of time.

The most robust indicator of nutritional status, according to nutritionists today is the Body Mass Index (BMI). If we use the Body Mass Index (BMI) to calculate the nutritional adequacy of the Indian population, and take a 20 year trend analysis, we would find that nearly 40 per cent of the adult population in the country has a BMI of less than 18.5. The World Health Organization classifies such a situation as 'alarming' and a nutritional emergency. The prevalence of anemia among pregnant women and children is more than 70 per cent.

It is important to reflect on the reasons for this situation and correlate it with the declining consumption and availability of food grains in the country. The paper by Prof. Utsa Patnaik shows the clearly declining trends on consumption and availability of food grains that has led to this situation.

When we examine the per capita availability of food grains in the country, we see a clearly declining trend after the early 1990s. It was 490 kilograms in 1994 which had declined to 440 kilograms in the year 2005. In short it shows that there is a drastic decline in the availability
and consumption of food grains over the years and this is directly linked to the food grain availability through the food based programmes.

All the evidences cited above reflect the fact that the public intervention has not achieved its objectives fully. The findings of the latest evaluation study of Programme Evaluation Organization, Planning Commission (2005) shows that about 57 per cent of subsidized grains do not reach the target group, of which a little over 36 per cent is siphoned off the supply chain. Implementation of TPDS is plagued by large errors of exclusion and inclusion. PDS is a less efficient mode of income transfer to the poor. The economic costs of grains are higher than the market prices in most of the states. Only 23 per cent of sample FPSs are viable. The rest survive on leakages and diversions of subsidized grains and irregular delivery of quota to FPSs.

Studies reveal that the overall impact of ICDS and MDM on malnutrition is very limited due to a meagre allocation of budgetary resources, faulty project design, irregular supply of food and medicines, and lack of community participation.

India’s rambunctious success, often against difficult odds, belies the fact that socio-economic security remains an enormous challenge for an overwhelming majority of Indian households who struggle with less than $2 per day (76 per cent, World Bank 2009). Hunger, nutrition insecurity and chronic as well as acute malnutrition are the most severe of their daily experiences.

The fight against hunger, the grim and silent crisis, has been a bitter – and unjustifiable failure, globally, and even in India.
Internationally, according to the 2012 Global Hunger Index constructed by IFPRI, India dangles at an ignominious 65th out of 79 countries and is classified as having ‘alarming’ levels of hunger. It could therefore be said that the real growth story in India is about the silent growth of socio-economic insecurity, hunger and socio-economic disparities – the sordid underbelly of ‘mother India’.

The persistence of multidimensional hunger in India is home to the largest number of ‘hungry’ people in the world – more than for example sub Saharan Africa – which is the region usually cited as the worst off in terms of lack of human development or socio-economic security. Conservative estimates (FAO, 2009) suggest that even before the financial and food-price crises of 2008/2009, more than 230 million people were ‘food insecure’ in India – meaning, in simple terms, they did not know where their next meal would come from and suffered from chronic under-nutrition. To put this into perspective, this is like the entire population of the UK, France and Germany all going hungry and systematically being deprived of their right to food.

The global financial and food price crises of 2008/2009 which brought income losses in parallel with rising domestic food and fuel prices is likely to have tipped these numbers even higher: the dense number of households at the margin, already vulnerable and typically spending as much as 60 per cent of their household budget on food, would have suddenly found themselves food insecure due to price and income shocks. One estimate (UNICEF ROSA, 2009) puts the number of additional hungry people at roughly 20 million more in India. These numbers suggest that India’s poor carry between 1/3rd and 1/4th of the global burden of food insecurity.
At the root of the hunger issue – the massive food and nutrition insecurity - are several demand side and supply side factors: the first is the fact that for millions of Indians who work in the informal economy and earn less than $2 per person per day at the household average, a full day’s work still does not create socio-economic security and generate sufficient income to live in dignity, not only because the generated income is spent on food purchases but also on other essential items like shelter, clothing, education, health and access to clean drinking water, none of which are becoming cheaper or easier to access. This is then compounded by India’s de facto inability to protect the vast majority of its citizens, especially the most vulnerable and disadvantaged, from price and income fluctuations, often unexpected, that imposes their cruel slings and arrows on millions of households and robs them of their fundamental right to food and nutrition security and a life with dignity.

Women and children are especially vulnerable: nearly every other Indian child is malnourished (46 per cent, UNICEF, 2010), denying them of their universal rights to survival and wellbeing, and inflicting a terrible blight on their future. Underlying these numbers, wasting and stunting rates, reflecting acute and chronic nutrition deficiencies, are at 48 per cent and 20 per cent respectively (NFHS-3). Deficiencies in essential micronutrients such as Vitamin A and Iodine affect 50 per cent of India’s preschool children while nearly 8 out of every 10 children suffer from anemia (NFHS-3). Child nutritional status continues to remain one of the worst in the world and has been virtually unchanged in recent years. According to the National Food and Nutrition Bureau, responsible for monitoring nutrition in India, about half of the children of India might not have reached their physical or mental potential and
about one fifth of the children might be functionally impaired (Bhandari and Zaidi, 2004). Food and nutrition security is the central nexus for health and well-being: nearly two million children die each year from hunger related causes before reaching their fifth birthday, equaling nearly 6000 child deaths every day (Indian Express, September 8th 2010). About half of these deaths occur within the first month of birth reflecting the combined impact of acute severe infant malnutrition, poor and starkly uneven neonate services, and the precarious health and nutrition status of mothers. This is just one aspect of deprivation these children face (UNICEF, 2009): more than 50 per cent of India’s children are exposed to concomitant deprivations such as shelter, clothing, health, education, water and sanitation.

Unchecked, this portends serious ramifications for the future. This bleak outlook at the aggregate level is further exacerbated due to sharp disparities arising from intersecting socio-economic inequalities (Kabeer, 2010) such as economic status, gender, caste/tribe, birth order, birth interval, mother’s education, religion, mother’s nutrition status at birth, children’s living arrangements, residential and geographic area. For instance, children from the lowest wealth quintile are nearly 3 times more likely to be underweight than children from the top wealth quintile. Rural underweight prevalence is nearly 40 per cent higher than the corresponding urban rates. Children who belong to underweight mothers are 34 per cent more likely to be underweight than children belonging to mothers with a normal BMI. In SC/ST and OBC households (disadvantaged caste and ethnic groups listed as requiring 5 affirmative action by the government – scheduled castes and tribes and so called other “backward” castes), children are nearly 50 per cent more
likely to be underweight than children from other ethnic backgrounds. Mothers with little or no education have children who face a 66 per cent higher chance of being underweight when compared to children whose mothers have 5 or more years of education (NHFS-3).

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 2.2

<table>
<thead>
<tr>
<th></th>
<th>Calorie (K cal/day)</th>
<th>Protein (gm/day)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rural</td>
<td>Rural</td>
</tr>
<tr>
<td>1983 (NSS 38th Round)</td>
<td>2221</td>
<td>2089</td>
</tr>
<tr>
<td>1993–94 (NSS 50th Round)</td>
<td>2153</td>
<td>2071</td>
</tr>
<tr>
<td>1999–2000 (NSS 55th Round)</td>
<td>2149</td>
<td>2156</td>
</tr>
<tr>
<td>2004–05 (NSS 61st Round)</td>
<td>2047</td>
<td>2020</td>
</tr>
<tr>
<td>2009–10 (NSS 66th Round)</td>
<td>2147</td>
<td>2123</td>
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</tbody>
</table>

*Source: NSS Report No. 540, Nutritional Intake in India, 2012.*
‘Hunger’ has remained persistent; NSSO data (various rounds) suggest that per capita calorie intake as well as per capita protein intake in India have systematically declined over the last decade (Deaton and Dreze, 2008). The fall in per capita calories from cereals over the same period is significant: in rural India especially, there was no substitution towards alternative sources of calories resulting in a decline in per capita calorie consumption. Not surprisingly, per capita calorie intake at poverty line has declined over the same time period (Patnaik, 2006).

**Introduction of Programmes covered under Study**

The government has been implementing a wide range of nutrition intervention programmes for achieving food security at the household and individual levels. The Public Distribution System (PDS) supplies food items such as food grains and sugar at administered prices through fair price shop. There has been a range of food-for-work and other wage-employment programmes where people are paid in part or full in food grains for working in public works. Another approach adopted by the government is to target women and children directly; this includes the mid-day-meal programme for school going children and supplementary nutrition programme for children and women under the Integrated Child Development Services (ICDS).

**Integrated Child Development Services (ICDS) Scheme**

Launched on 2nd October 1975, ICDS is the world’s largest programme for early childhood development. Foremost symbol of India’s response to the challenge of providing pre-school education on one hand and breaking the vicious cycle of malnutrition, morbidity, reduced learning capacity and mortality, on the other.
ICDS was launched with the following objectives:

- to improve the nutritional and Nutritional Status of children in the age-group 0-6 years;
- to lay the foundation for proper psychological, physical and social development of the child;
- to reduce the incidence of mortality, morbidity, malnutrition and school dropout;
- to achieve effective co-ordination of policy and implementation amongst the various departments to promote child development; and
- to enhance the capability of the mother

The above objectives are sought to be achieved through a package of services comprising:

- supplementary nutrition,
- immunization,
- health check-up and referral services,
- pre-school non-formal education and
- nutrition & health education.

The concept of providing a package of services is based primarily on the consideration that the overall impact will be much larger if the different services develop in an integrated manner as the efficacy of a particular service depends upon the support it receives from related services.

Supplementary Nutrition, Immunization, Health Check-up and Referral Services for Children below 6 years and Pregnant & Lactating Mother (P&LM), Pre-School Education for Children 3-6 years and
Nutrition & Health Education for Women (15-45 years) are main components of ICDS.

Immunization, Health Check-up and Referral Services are delivered through Public Health Infrastructure under the Ministry of Health & Family Welfare.

- **Funding Pattern:** ICDS is a centrally-sponsored Scheme implemented through the State Governments/UT Administrations. Prior to 2005-06, 100% financial assistance for inputs other than supplementary nutrition, which the States were provided out of their own resources, was being provided by the Government of India. Since many States were not providing adequately for supplementary nutrition in view of resource constraints, it was decided in 2005-06 to provide support to States up to 50% of the financial norms or to support 50% of expenditure incurred by them on supplementary nutrition, whichever is less.

- From the financial year 2009-10, Government of India has modified the funding pattern of ICDS between Centre and States. The sharing pattern of supplementary nutrition in respect of North-eastern States between Centre and States has been changed from 50:50 to 90:10 ratio.

**Achievements:** There has been significant progress in the implementation of ICDS Scheme during both X and XI Plans, increase in number of operational projects, Anganwadi Centres and coverage of beneficiaries as indicated in table 2.3.
Table 2.3
Progress of ICDS Schemes

<table>
<thead>
<tr>
<th>Year ending</th>
<th>No. of operational projects</th>
<th>No. of operational AWCs</th>
<th>No. of Supplementary nutrition beneficiaries (in lakh)</th>
<th>No. of pre-school education beneficiaries (in lakh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>31.03.2002</td>
<td>4608</td>
<td>545714</td>
<td>375.10</td>
<td>166.56</td>
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<tr>
<td>31.03.2003</td>
<td>4903</td>
<td>600391</td>
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<td>31.03.2004</td>
<td>5267</td>
<td>649307</td>
<td>415.08</td>
<td>204.38</td>
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<td>31.03.2005</td>
<td>5422</td>
<td>706872</td>
<td>484.42</td>
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<td>5659</td>
<td>748229</td>
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<tr>
<td>31.03.2007</td>
<td>5829</td>
<td>844743</td>
<td>705.43</td>
<td>300.81</td>
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<td>843.26</td>
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<tr>
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<tr>
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<td>1142029</td>
<td>884.34</td>
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<tr>
<td>31.03.2011</td>
<td>6722</td>
<td>1262267</td>
<td>959.47</td>
<td>366.23</td>
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<tr>
<td>31.03.2012</td>
<td>6908</td>
<td>1304611</td>
<td>972.49</td>
<td>358.22</td>
</tr>
</tbody>
</table>

Source: ‘Data Table on ICDS’ in Child Development portion of Ministry’s Website. (http://wcd.nic.in/childdevelopment.htm)

Targeted Public Distribution System (TPDS)

The Public Distribution System (PDS) in India is more than half-a-century old as rationing was first introduced in 1939 in Bombay by the British Government as a measure to ensure equitable distribution of food grains to the urban consumers in the face of rising prices. The sixth, Price Control Conference held in September, 1942 laid down the basic principles of a Public Distribution System for India. The Food Department was set up in December, 1942 which was assigned the task of procurement, contracts for purchasing agents, public distribution, inspection and storage. The basic objective of the then policy was stabilization of food prices. With inflation spiraling and the food situation deteriorating persistently in many parts of the country, the Food Grains Policy Committee (1943) recommended for the introduction of rationing in urban centres with a population of more than 100,000.
The consequent food distribution was exclusively focused on the urban centres.

However, a policy of decontrol was announced in December, 1947 under the influence of Mahatma Gandhi. Policies kept changing with the reintroduction of controls in September, 1948, shift to decontrol during 1952-54 and recourse to controls in 1957.

The Food Grains Enquiry Committee (Ashok Mehta Committee Report, 1957) argued for controls of a flexible indirect nature, opening of more Fair Price Shops (FPSs) and continuing the zonal policy of bringing together surplus and deficit areas within zones, controlling prices within each zone.

Food Corporation of India was established in 1965, to function as an autonomous organization, working on commercial lines, to undertake purchase, storage, movement, transport, distribution and sale of food grains and other food stuff. The Study Team on FPSs headed by Shri V.M. Dandekar (1966) observed that the foreign supplies had proved inadequate in meeting the increasing demand for food grains through FPSs. The Team recommended that the pricing in FPSs should be market oriented and that they should maximize their share in the market. The Food Grains Policy Committee (1966) advocated formulation of a National Food Budget on the basis of zonal restrictions, introduction of statutory rationing in bigger urban areas, intensification of procurement, building up buffer stocks and a more important role for Food Corporation of India in inter-state trade.
Essential Supplies Programme was, introduced in 1982 as the 17th point of the New 20 Point Programme, with the objective to expand the PDS through more FPSs.

In 1984, Government of India created the Ministry of Food and Civil Supplies with two departments namely Department of Food and Department of Civil Supplies; the latter being in charge of PDS. During the Seventh Five Year Plan, an Advisory Committee on PDS headed by the Union Minister for Food & Civil Supplies was constituted by the Government of India to review its working from time to time.

Under the Essential Supplies Programme PDS was revamped in 1992 with focus on disadvantageous areas. Under Revamped PDS, 1752 blocks, were identified as economically and socially backward. Essential commodities- wheat, rice, levy sugar, imported edible oil, kerosene and soft coke were supplied in the RPDS blocks at subsidized prices. Food grains at the rate of 20 Kg per month per family (@5 Kg per capita) was envisaged to be distributed through FPSs. The scheme also envisaged creation of PDS infrastructure, on 50% subsidy and 50% loan basis, in the form of godowns for storing food grains and Mobile Vans for door-step delivery of PDS items to the FPSs and for final distribution of these items in inaccessible areas. Vigilance Committees were to be formulated at different levels to ensure proper distribution. PEO Evaluation of the working of the RPDS (1995) indicated that though the scheme was generally beneficial to the vulnerable section of the population cutting across the regions and states, there were still gaps and constraints in the implementation, availability of very limited door delivery services to FPSs, inadequate facilities for storage at FCI telling upon the quality of grains, FPS level gaps in opening time, working
hours, regularity of distribution and communication to consumers, Vigilance Committees not being able to serve their purpose meaningfully and non-consideration of socio-economic and cultural situations regarding preferences of commodities.

The Targeted Public Distribution System (TPDS) was introduced with effect from June 1, 1997. TPDS envisaged that the Below Poverty Line (BPL) population would be identified in every State and every BPL family would be given entitlement to a certain quantity of food grains at specially subsidized prices. While BPL population were offered food grains at half the economic cost, the APL, who were not to have a fixed entitlement to food grains, were supplied grains at their economic cost. TPDS intends to target the subsidized provision of food grains to ‘poor in all areas’ unlike RPDS, which laid stress on ‘all in poor areas’.

Main Guidelines of TPDS are as follow:

1) TPDS proposed to issue 10 Kg of food grains per BPL family (revised to 20 Kg with effect from April, 2000) at specially subsidized rates. The allocation of food grains for the BPL families was further increased from 20 kg. to 25 kg. per family per month with effect from July, 2001. Initially, the Antyodaya families were provided 25 kg. of food grains per family per month at the time of launching of the scheme in December, 2000. The scale of issue of food grains under APL, BPL and AAY has been revised to 35 kg per family per month with effect from 1.4.2002 with a view to enhancing the food security at the household level. States offering greater quantity or lower price should bear the additional burden of food grains and fund.
2) While the Central Government was responsible for ensuring availability, acceptability and affordability, the states should ensure accessibility of food grains to the poor through a network of Fair Price Shops (FPSs). States should design credible financial and administrative arrangements to ensure the physical movement of food grains to the FPSs and subsequent issue to the poor. The provision of subsidy would be conditional on this.

3) The BPL households were determined on the basis of population projections of the Registrar General of India for 1995 and the State wise poverty estimates of the Planning Commission for 1993-94. The total number of BPL households so determined was 596.23 lakh. Guidelines for implementing the TPDS were issued in which the State Governments had been advised to identify the BPL families by involving the Gram Panchayats and Nagar Palikas. While doing do the thrust should be to include the really poor and vulnerable sections of the society such as landless agricultural labourers, marginal farmers, rural artisans/craftsmen such as potters, tappers, weavers, black-smiths, carpenters, etc. in the rural areas and slum dwellers and persons earning their livelihood on daily basis in the informal sector like potters, rickshaw-pullers, cart-pullers, fruit and flower sellers on the pavement etc. in urban areas. The Gram Panchayats and Gram-Sabhas should also be involved in the identification of eligible families.

4) Ration cards having the photo of the head of the family on the card would give entitlement to its holder to obtain certain essential commodities, at a certain scale, at certain prices, at specified outlets and in as many installments during the month.
5) A proper system of monitoring the FPSs should be introduced and reports should be obtained every month, and if felt necessary, at shorter intervals. Too frequent inspections may harass the FPS dealers. Inspection schedules should be prepared for district and taluka level officers. A checklist may be used during inspections to make them pointed.

Remedial actions should immediately be taken. Cardholders present at the shop during inspections should be consulted.

6) The collector should make weekly review of the bottlenecks faced and the actual off-take, especially the BPL off-take, from the shops. At the state level, the secretary-in-charge should make such a review once a month.

7) It was proposed to monitor the actual issue of food grains through FPSs and take that as the consumption of PDS grains of the states (instead of lifting from FCI). States should, without fail, send the monthly reports to the GOI. Reports at other levels should also be ensured in the format communicated to the states.

8) Transparency measures: The details that needed to be displayed at the FPS are; i) total number of cards attached to the shop–BPL & APL, ii) monthly allocation made to the shop, iii) last month’s issue from the shop, iv) issue prices, v) scale of issue, and vi) authority to report grievances. Panchayats and Nagar Palikas should oversee the FPSs. The Panchyat President and members of municipalities or other local bodies should be informed about the allocation and actual off-take of FPSs. Collectors may use local press to make the public aware of these details.
9) Vigilance committees (VCs) should be formed at Taluk, District and state levels. A social audit of the working of PDS in association with the intended beneficiaries would be necessary. At FPS level, the Committee may consist of cardholders (some of whom should be women), the elected president of the Panchayat, consumer activists, etc. Taluka Committees should be formed with Taluka Supply Officer as convenor.

District Committee should be formed with district supply officer as convener. Review of working of PDS should be subject to their review in the Panchayats and Nagar Palikas at regular intervals.

10) States, with assistance from Department of Consumer Affairs & Public Distribution, may devise suitable orientation programmes for all staff engaged in the implementation of PDS. Consumer organizations, elected representatives, social workers and representatives of welfare associations in the colonies may be invited to air the views of beneficiaries.

11) Emphasis on creating infrastructure in difficult areas would continue. Provision of godowns and vans in these areas would be emphasized. States were requested to take advantage of the ‘Godowns and Vans Scheme’ in these areas.

12) All possible steps must be taken to ensure that the essential commodities meant for distribution do reach the poor and not get diverted to the open market.
New Features

For achieving transparency by way of Computerization of TPDS, the Department of Food & Public Distribution, Government of India has identified 4 key components which are required to be implemented in all the States/UTs as below:

1) Creation & Management of digitized Beneficiary Database

2) Supply-Chain Management of TPDS commodities from Food Corporation of India (FCI) till Fair Price Shops (FPS)

3) Sale of TPDS commodities at Fair Price Shops including identification and authentication of beneficiaries and recording of transactions.

4) Transparency and Grievance Redressal Mechanism

End to end computerization of PDS in States/UTs would be implemented in two parts as follows:

Supply-Chain computerization of the entire TPDS operations would cover monitoring of food grains allocation, storage and movement starting from the base depots of FCI tills the FPS. The information related to the supply-chain would be made available in public domain through the Transparency Portal.

The portal would have different dashboards catering to the varying information needs of various stakeholders involved in TPDS operations.

This component relates to the computerization of operations at the Fair Price Shop. Under the Gujarat model, new Bar Coded Ration Cards were issued to all existing card–holders as well as for fresh Ration
Cards also. The new Ration Card System captured the biometric information of at least one adult member depicted in the Ration Card. Along with Bar Coded Ration Cards, the Gujarat model requires issue of Bar Coded Food Coupons to the beneficiaries.

Based on the Report of the High Powered Committee constituted by the Supreme Court (hereinafter referred to as the HPC), the Hon’ble Supreme Court has observed that legacy systems of issuing Smart Cards/Food coupons etc. may require reengineering and replacement with online Aadhaar authentication at the time of food grains delivery which will take time. This was proposed to be taken up under Component II.

States/UTs are to implement Component I within a period of three months. The Chhattisgarh model of Computerization of TPDS should be adopted for Component I. Component II may be done on lines of Gujarat model of Computerization. However, some State/UT Governments like Government of Gujarat which is following Component II or other States/UTs which may be at advanced stage of following some other model, such States/UTs may continue to follow the same so long as it is fulfilling the end objectives of completing computerization.

Computerization needs to be completed in a time bound manner and the institutional mechanism created would be responsible for meeting the timelines. Government of India with the help of State Governments/UTs will ensure that sufficient infrastructure and finances are provided to complete the computerization in a time bound manner. States/UTs should send their action plan to Government of India by 10th November, 2011.
Mid Day Meal (MDM)

The National Programme of Nutritional Support for Primary Education—NPNSPE (i.e. the national Mid Day Meal Scheme—MDMS) was initiated by India in the year 1995. Since then the number of states providing cooked meals rose sharply from early 2002 onwards, after a Supreme Court order (dated 28 November 2001) directed all state governments to introduce cooked mid-day meals in primary schools (NAC, 2004). The MDMS dates back to 1925 when Madras Corporation developed a school lunch programme [Deodhar et. al., (2007)]. After Independence, school-feeding programme commenced in the state of Tamil Nadu during the year 1956 and got impetus under MG Ramachandran in the year 1982 [De, Noronha and Samson (2005)].

Three objectives are commonly associated with any mid-day meals programme as following: (1) to increase school enrolment and attendance among school-age children; (2) to improve the nutritional status of children in school; and (3) to improve the cognitive or academic performance of these children. Previous studies also proved that well-devised school meals have contributed a lot to the advancement of elementary education, child nutrition, and social equity. However, these achievements depend a great deal on the quality aspects of midday meals.

Multidimensional Issues

In India, the problem of chronic hunger and malnutrition persist on a massive scale. The prevalence of malnutrition is one of the highest in the world, higher than in some very poor countries of sub-Saharan Africa. Nearly one in every two of India's 120 million children is
underweight. The clearly undermines the potential demographic dividend. India today is home to 40 per cent of the World's malnourished children, and more than a third of the developing world's low-birth weight infants. The shocking statistics shows that while the new India in surging ahead, it is leaving half the young population behind.

Malnourishment is not just about hunger or the lack of access to calories – though, despite much progress over the decades, those remain serious concerns – but rather an overall lack of nutrients, which has far reaching consequences. Malnourishment stunts growth, negatively affects IQ, undermines the immune system and generally has a viciously cascading effect on the lives of the poor and, particularly, females, cascading leaves its grim mark across generations.

An undernourished child will fall to reach her human potential in her adult years – in terms of educational attainment. Health and productivity – perpetuating a vicious cycle of poverty and malnutrition. According to the National Family Health Survey, the proportion of underweight children remained virtually unchanged between 1998-99 and 2005-06 (from 47 to 46 per cent for the age group of 0-3 years). These area appalling figures, which place India among the most 'undernourished' countries in the world. Undernourishment in children retards physical development and hampers the learning and cognitive processes leading to sluggish educational, social and economic development. Ignoring under-nutrition puts the long-term health and development of population at risk.

The higher child malnutrition rate in India is a result of many factors. First, Indian women's nutrition, feeding and caring practices for
young children are inadequate. This is related to their status in society, early marriage, low weight at pregnancy and their lower level of education. Underweight women produce low birth-weight babies which become further vulnerable to malnutrition because of low dietary intake, lack of appropriate care, poor hygiene, poor access to medical facilities and inequitable distribution of food within the household.

Second, many unscientific traditional practices still continue such as not immediately starting breast-feeding for the first five hours, irregular and insufficient complementary feeding between 6 months to two years of age, (studies conclusively prove the vital contribution to a newborn's immune system by being breastfeed within an hour of birth, as well as being breastfeed for the six months) and lack of disposal of child's excreta because of the practice of open defecation in or close to the house itself. Clearly government's communication efforts in changing these age old practices are not working well.

Third, the problem starts with malnourished adolescent girls-again, by one measure, a shocking 80 per cent of who are affected in India – and is compounded by early marriage and child birth. Many Indians preference for having male offspring also extends to discriminatory attitudes towards the daughters they do have, with one common behavior being step-motherly treatment at meal times. Millions of young brides, whose anemic bodies are barely able to provide a minimum level of sustenance and health, are then further stressed by societal compulsion to prove their fecundity by quickly having babies, preferably male, of course. Thus millions of babies, both male and female are born malnourished every year, and in circumstances which worsen rather than correct the problem.
And lastly, poor supply of government services, such as immunization, access to medical care and lack of priority to primary health care in government programmes also contributes to morbidity.

**Conclusion**

The policies and programmes aimed at ensuring food security or improving nutritional status of the people in India has been reviewed in this chapter. The strategies employed to ensure food security as enunciated in the IX to XI Five Year Plan have been discussed here. Looking to the present scenario of malnutrition in India the objectives and structure of the three Government intervention programmes like the ICDS, MDM and TPDS have been discussed in this chapter.