



## Food Security and Undernourishment in India: Assessment of Alternative Norms and the Income Effect

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During the last four decades, total food production in India has increased at a much faster pace than the growth in human population. Food production<sup>1</sup> including livestock products and fish increased from 188 million tonnes (MT) during 1970-71 to 342 MT during 1990-91 showing an 82 per cent increase over these two decades. In the next two decades, food production increased to close to 600 MT – marking a 75 per cent increase. In these two periods, the population of the country increased by 53 and 47 per cent, respectively. This has resulted in an increase in per capita production of total food from less than 350 kg per person during the early 1970s to more than 500 kg in recent years. However, the effect of an increase in per capita production of food recorded in the country is not visible in terms of the improvement in food and nutrition security. According to some studies based on the per person per day energy norms of 2400 Kcal for rural and 2100 Kcal for urban areas, there is deterioration in the prevalence of undernourishment during 1987-88 to 2004-05 based on energy intake (Deaton and Dreze, 2009). About 40 per cent children under the age of 5 years are underweight and child mortality is also high. Based on such facts, serious questions are now being raised about the country's achievements in food security. This situation has been persisting even when large surplus of grains have been lying in public buffer stock and a part of it is shown to be rotting here and there for want of proper storage and maintenance. Correspondingly, India's export of food products have been growing and the country exports a sizable quantity of cereals and livestock products.

Another disturbing factor related to nutritional deprivation in India is that income poverty and prevalence of undernutrition are not moving in the same direction despite the fact that the poverty lines were initially associated with a calorie norm. It is somewhat puzzling as to why despite a substantial increase in per capita food production and significant decline in poverty, India continues to face high levels of undernutrition and malnutrition. India's progress in improving nutrition has been excessively slow regardless of its rapid growth in income over the past two decades. It, therefore, becomes important to distinguish between those who are undernourished because of poverty and those who are not poor but are still undernourished. This has strong implications for addressing the problem of hunger and malnutrition.

A related aspect is the significant difference in undernutrition based on alternative norms derived from National Sample Survey Office's (NSSO) Consumer Expenditure Survey (CES) data and those estimated from supply-side data as reported by the Food and Agriculture Organization (FAO) of the United Nations. The studies using NSSO's household-level CES data have shown that three-fourths of India's population suffers from undernutrition (Deaton and Dreze, 2009) – as their intake of dietary energy is lower than the recommended norms of 2400 Kcal for rural areas and 2100 Kcal for urban areas in 2004-05. On the contrary, as per the FAO only one-fifth of population of India was undernourished during 2004-06, which further declined to 17.5 per cent during the period 2010-12. Surprisingly, the NSSO's CES-based studies and FAO estimate not