

## HUNGER AND UNDER-NOURISHMENT IN INDIA

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### Abstract

*The current global food crisis, that has emerged from the recent unprecedented increase in the price of food, especially of staples, coupled with shortages and diminishing food stocks, has reduced access to food for many people (particularly the poor) in a large number of developing countries. From a nation dependent on food imports to feed its population, India today is not only self-sufficient in grain production, but also has a substantial reserve. However, this upbeat food situation in India neglects the reality of widespread hunger and chronic malnutrition in the country. This paper highlights the global scenario of food insecurity and the current situation of food insecurity, the possible multi-dimensional impact of food insecurity in India, and the chronic hunger and under-nourishment across the states of India. It also suggests some measures for the future to combat the emerging threat of global food crisis.*

### Introduction

We live in a world of cruel paradox. Millions go to bed without food. Hunger remains one of the most pressing global problems today and almost a billion human beings all over the world are vulnerable to starvation and related diseases. The number of hungry people is steadily rising and according to the estimate of Food and Agricultural Organisation (FAO) hungry people have increased by about 50 million in 2007 (FAO 2008c). This serious problem needs to be seen in the context of the increasing interest in the relationship

between democracy and development which has attracted renewed attention in the past few years. It is therefore necessary to question not just whether certain regimes are better able and equipped to promote economic growth and eradicate poverty than others but also whether democratic regimes stand a better chance of fighting hunger. The Nobel laureate Amartya Sen has famously claimed that no famine has ever occurred in a democratic country. But, does the argument also hold good in the case of chronic hunger that lacks the sensational features of a major crisis such as a famine?

### Hunger – Understanding the Concept

Hunger is defined as the discomfort, exhaustion or painful sensation caused by the lack of food. The task of combating and ending hunger is not merely an issue of making it possible to avoid this pain and discomfort. It is a call to find the means to end food deprivation and its manifold consequences, such as fatigue, malnourishment, sickness and death.

There are two types of hunger: acute and chronic. Both are matters of grave concern. However, we hear more about the problem of acute hunger, that is, famine. It is more dramatic and sensational, and lends itself to political wrangling. It makes a better story and the images are more lasting and moving. This kind of hunger is a very visible tragedy. We see it in Ethiopia, Sudan, Central Africa, Bangladesh and closer home in Kalahandi in Orissa (India).

Chronic hunger however, is less amenable to headlines. It is the ‘insidious sabotage’ wrought on millions of children, women and men in several places around the globe. It is silent and only the sufferer can hear the growls in her or his stomach. The hungry grow to live with it by ‘shrinking their stomachs’ to survive. It is the inadequacy of food in terms of both quality and quantity which results in malnutrition and related diseases. Globally 40000 people die from hunger-related causes every day (McHarry *et al.* 2002). According to an estimate made by the UNICEF, in the year 2000 about 2420000 children in India died before their fifth birthday. This was the highest total for any country. It was estimated that in the same year about 10929000 children in the world died before their fifth birthday. Thus India accounts for more than a fifth of child mortality worldwide. About half of these deaths of children under five are estimated to be associated with

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malnutrition. This means that more than a million children die in India each year from causes associated with malnutrition (UNICEF 2002). Many may not be 'dying of hunger' but they live their whole lives at the edge of hunger. Their lives are short, harsh and insecure. It shows itself in malnutrition, illness and low life expectancy. This keeps hungry people in persistent and desperate poverty.

Both acute and chronic hunger makes for the greatest economic and moral scandal of our time. It is the greatest human right violation, for to be human one must live, and to live one must have food and drink. It makes for a situation wherein anyone who has even two assured meals a day is to be considered a privileged person and which, in one sense, deprives many others of a basic right. The direct manifestation of chronic hunger is under-nourishment or under-nutrition. Under-nourishment leads to several kinds of diseases and shorter life expectancy.

### Extent of Hunger and Under-Nourishment

The latest estimate made by the FAO shows that even before the recent surge in food prices, worrisome long-term trends of increasing hunger were already apparent. The FAO estimates that 849 million people suffered from chronic hunger or under-nourishment worldwide in 2003-05 (Table 1). This represents an increase of six million over 843 million in 1990-92, the World Food Summit baseline period, against which progress is measured. With the number of chronically hungry people in the world now higher than during the baseline period, the World Food Summit target of reducing that number of the hungry to half by the year 2015 has become more difficult to reach (FAO 2008a).

Asia and the Pacific region recorded modest progress in reducing the incidence of hunger leading to under-nourishment from 20 to 16 per cent, as well as a moderate reduction in the number of hungry people from 583 to 543 million. The region is home to over half of the world's population and to nearly two-thirds of the world's hungry people. While South-Eastern Asia has maintained progress in reducing the incidence of under-nourishment, this gain has been offset by setbacks elsewhere in the region, primarily in India. By virtue of their size, China and India alone account for 42 per cent of the

**Table 1**  
**Global Under-Nourishment in 1990-92 and 2003-05**

Country/Region	1990-92		2003-05	
	People in Million	Percentage	People in Million	Percentage
India	207	26	231	28
China	178	21	123	14
Asia & The Pacific (excluding India & China)	198	23	189	22
Sub-Saharan Africa	169	20	212	25
Near East and North Africa	19	2	33	4
Latin America & The Caribbean	53	6	45	5
Developed Countries	19	2	16	2
<b>Across The World</b>	<b>843</b>	<b>100</b>	<b>849</b>	<b>100</b>

Source: FAO 2008a

chronically hungry people in the developing world. In India, despite rapid economic growth, the number of hungry people increased by over 20 million compared to the baseline period. This can be partly explained by the fact that life expectancy in India has increased from 59 to 63 years since 1990-92, which has had an impact on the overall population structure with the result that in 2003-05 the growth in minimum energy requirements had outpaced that of dietary energy supply. China has continued registering a steady reduction in under-nourishment, with 31 per cent drop in the number of the under-nourished from 178 million in 1990-92 to 123 million in 2003-05 (FAO 2008a).

### Rising Food Prices and Hunger

The current global food crisis, that has emerged from the recent unprecedented increase in the price of food, especially of staples, coupled

with shortage and diminishing food stock has reduced access of many people (particularly the poor) in a large number of developing countries to food. There has also been a substantial increase in the food import bills of developing countries. This has created a host of humanitarian, socio-economic, developmental, political and security-related challenges. The consequences of the crisis are most pressing in low income, net food-importing countries – particularly the least developed countries, where 50-80 per cent of personal income is spent on food (UNCTAD 2008a) – but also in the larger developing economies such as India and China, as well as in some countries in Latin America. Even developed countries are not free from the negative consequences of the crisis. Rising food prices have added to inflationary or poverty tensions already being felt as a result of rising energy price and crash in financial and housing markets. The most pressing cases of immediate attention are the urgent hunger needs in over 37 developing countries, identified by the FAO, 20 of which are the least developed countries (UNCTAD 2008a). Chronic hunger and malnutrition were profound problems for the world before the food price rise of 2007–08 began. The origin of the current crisis lies not in global lack of food—there is enough food in the world to meet the demand—but in the long-term lack of access to food in the case of many people. Poverty and inequality are at the heart of hunger. Poor people do not have the opportunities to grow food or the resources to buy food, because the resources needed to get access to food are inequitably distributed.

World food prices have roughly doubled over the past three years. They increased by 85 per cent between April 2007 and April 2008 alone. This price rise has been broad-based, led by wheat (whose price almost doubled) and maize (up by 67 per cent since July 2007), and followed by rice (which has tripled since September 2007 and soared by 160 per cent between January and April 2008 alone). Prices for vegetable oilseeds and oils also shot up, multiplying by about 2.5 times since early 2006 (UNCTAD 2008b).

The impact of the rising food price on the prevalence of hunger is even more striking. Progress toward achievement of the United Nations' Millennium Development Goal (MDG) of eradicating poverty and hunger in the developing world has been steady from almost 20 per cent in 1990-92 to less than 18 per cent in 1995-97 and just above 16 per cent in 2003-05. However, the FAO estimates for the end of 2007 show a slight reversal,

with the proportion of hungry people in the developing world sliding back towards 17 per cent, about the same level as a decade ago. Meeting the internationally agreed hunger-reduction goal by 2015 is becoming an enormous challenge (FAO 2008a).

From a nation dependent on food imports to feed its population, India today is not only self-sufficient in grain production, but also has a substantial reserve. The progress made by agriculture in the last four decades has been one of the biggest success stories of free India. Agriculture and allied activities constitute the single largest contributor to the Gross Domestic Product, almost 33 per cent of it. Agriculture is the means of livelihood of about two-thirds of the workforce in the country. It is true that the country now produces enough food to feed its entire people. When there are rapid increases in hunger in some parts of India, it is now usually attributed to short-term natural events such as hurricanes or droughts. These are described as transitory, episodic events, temporary deviations from normal. India no longer suffers through large-scale famines as it had in the past. It means that there has been substantial reduction in acute hunger.

However, this upbeat food situation in India neglects the reality of widespread chronic hunger and malnutrition in the country. Temporary disruptions in the food system by natural calamities are disastrous for so many people only because they live so close to the edge of disaster under normal conditions. India could feed its entire people, but it doesn't. The chronic conditions—the conditions that are normal—for many millions of people in India are unacceptable in terms of the basic requirements of human dignity. India is classified by the FAO as a low income, food-deficit country with 231 million undernourished people (FAO 2008a).

### **Extent of Hunger**

An attempt has been made by the International Food Policy Research Institute (IFPRI) to develop the Global Hunger Index (GHI). The GHI is a multi-dimensional measure of hunger and malnutrition or under-nourishment. It combines three equally-weighted indicators: (1) the proportion of the under-nourished as a percentage of the total population (reflecting the share of the population with insufficient dietary energy intake); (2) the incidence of underweight in children under the age of five years (indicating the proportion

of children suffering from weight loss and/or reduced growth); and (3) the mortality rate of children under the age of five years (partially reflecting the fatal synergy between inadequate dietary intake and unhealthy environments).

This multi-dimensional approach to calculating the GHI offers several advantages. It captures various aspects of hunger and under-nutrition in one index number, thereby presenting a quick overview of a complex issue. It takes account of the nutrition situation not only of the population as a whole, but also of a physiologically vulnerable group – children – for whom lack of nutrients creates high risk of illness and death. In addition, by combining independently measured indicators, it reduces the effects of random measurement errors.

The GHI ranks countries on a 100-point scale, with 0 being the best score (no hunger) and 100 being the worst, though neither of these extremes is achieved in practice. Values up to 4.9 reflect low hunger, values between 5 and 9.9 reflect moderate hunger, values between 10 and 19.9 indicate a serious problem, values between 20 and 29.9 are alarming, and values exceeding 30 are extremely alarming (Von Grebmer *et al.* 2008). The 2008 GHI is calculated for 120 countries for which data on the three components are available. Some higher-income countries are excluded from the GHI calculation because hunger has been largely overcome by them.

**Table 2**

**Categorisation of Countries by Severity of Hunger Based on GHI**

Severity of Hunger	No. of Countries
Low	32
Moderate	23
Serious	32
Alarming	26
Extremely alarming	7
<b>Total</b>	<b>120</b>

Source: Derived from Von Grebmer *et al.* 2008

India has consistently ranked poorly on the GHI. The GHI 2008 reveals India's continued lacklustre performance at eradicating hunger. India's GHI score is 23.7 and India ranks 66th among the 88 developing countries and countries in transition for which the index has been calculated. It ranks slightly above Bangladesh (GHI score of 25.2) and below all the other South Asian nations (Von Grebmer *et al.* 2008). India's slightly better performance relative to Bangladesh is entirely due to better access to food in India relative to Bangladesh, which in turn is a consequence of India's higher agricultural productivity. On the other two components of the GHI—child underweight and child mortality—India ranks below Bangladesh. Indeed, India's child underweight rates are among the highest in the world.

**Hunger Index of States in India**

A measure of hunger, called the India State Hunger Index (ISHI) 2008 was constructed in a manner similar to the GHI 2008 to allow for comparison among the states within India, and between the Indian states and other countries (Menon *et al.* 2009). Like the GHI, the ISHI is computed by averaging the three underlying components of the hunger index, viz. percentage of calorie under-nourishment, proportion of underweight children below the age of five years and mortality rate of children below the age of five years. The ISHI 2008 score was estimated for 17 major states in India, covering more than 95 per cent of the population of India.

The GHI 2008 of the IFPRI reports the calorie-based under-nutrition for India to be 20 per cent, based on the FAO recommended daily calorie norm of 1820 kcal per person. As per National Sample Survey Consumption-Expenditure data the application of this norm yields a calorie under-nutrition rate of 34 per cent. To make the ISHI comparable with the GHI, the IFPRI has used a calorie norm that yields a national calorie under-nutrition of exactly 20 per cent – which leads to a calorie norm of 1632 kcal per person per day (Menon *et al.* 2009).

Table 3

## The India State Hunger Index and its Underlying Components

State	Percentage of calorie under-nourishment	Proportion of Under-weight children under five years	Mortality rate among children under-five	ISHI Score	ISHI Rank
Punjab	11.1	24.6	5.2	13.6	1
Kerala	28.6	22.7	1.6	17.6	2
Andhra Pradesh	19.6	32.7	6.3	19.5	3
Assam	14.6	36.4	8.5	19.8	4
Haryana	15.1	39.7	5.2	20.0	5
Tamil Nadu	29.1	30.0	3.5	20.9	6
Rajasthan	14.0	40.4	8.5	21.0	7
West Bengal	18.5	38.5	5.9	21.0	8
Uttar Pradesh	14.5	42.3	9.6	22.1	9
Maharashtra	27.0	36.7	4.7	22.8	10
Karnataka	28.1	37.6	5.5	23.7	11
Orissa	21.4	40.9	9.1	23.8	12
Gujarat	23.3	44.7	6.1	24.7	13
Chhattisgarh	23.3	47.6	9.0	26.6	14
Bihar	17.3	56.1	8.5	27.3	15
Jharkhand	19.6	57.1	9.3	28.7	16
Madhya Pradesh	23.4	59.8	9.4	30.9	17
<b>India</b>	<b>20.0</b>	<b>42.5</b>	<b>7.4</b>	<b>23.7</b>	

Source: Menon *et al.* 2009

The ISHI 2008 scores for the states in India range from 13.6 for Punjab to 30.9 for Madhya Pradesh, indicating substantial variation among the states in India. Punjab is ranked 34<sup>th</sup> and Madhya Pradesh 82<sup>nd</sup>, when compared with the GHI 2008 country rankings (Menon *et al.* 2009). All the 17 states have ISHI scores that are significantly worse than the “low” and “moderate” hunger categories. Twelve of the 17 states fall into the “alarming” category, and one—Madhya Pradesh—falls into the “extremely alarming” category (Menon *et al.* 2009).

The State of Food Insecurity in the World 2008, just released by the FAO, estimates that India is home to more than 230 million undernourished people, which is 21 per cent of the national population. The dietary energy supply (DES) for India has been estimated to be 2360 kcal per capita per day. With more than 200 million food-insecure people, India is home to the largest number of hungry people in the world (FAO 2008b).

### Hunger, Malnutrition and Poverty: Inter-Linkages

Hunger is the obvious manifestation of poverty. The poor spend a high proportion of their earning on food. Eradication of poverty, therefore, should go along with elimination of hunger. Without adequate nutrition, an individual will not have the energy needed for higher productive work output. Malnutrition contributes to poverty because it causes or aggravates illness, lowers cognitive function and thus educational attainment, reduces productivity, and relegates the individual to reduced options for livelihoods.

Food security in terms of access to adequate and quality food is required for an active healthy life as nutritious food is necessary for physical growth, resistance to, or recovery from diseases, during the period of pregnancy and lactation, and physical work. The current crisis of food price could lead to short term results of increase in malnutrition and malnutrition-related diseases, more micronutrient deficiencies (especially in women and children), larger number of children being born with low birth weight, and increase in infant and maternal

mortality. In the long run, this crisis can result in impaired mental development, diminished learning ability, reduced work productivity, and increase in the incidence of nutrition-related non-communicable diseases.

Food insecurity, in terms of lack of access to adequate nutritious food, and poverty mutually reinforce each other. Eradicating extreme hunger speeds up progress towards the development goals in other sectors. Hunger and under-nutrition make it extremely difficult for poor people to improve their own livelihoods and to make any meaningful contribution toward sustainable and broad-based growth. The persistence of hunger is a direct challenge to the efforts to reduce child mortality, to improve educational attainment and to enable people to invest in their own futures.

The challenges in achieving food security are many: reducing poverty, increasing food production and accessibility without further degrading natural resources, and coping with population growth, rising prices and demands of urbanisation. The challenge has to be met at two levels. The first is to achieve subsistence or basic food security which requires provision of the main dietary requirements to the people. Food security should safeguard the rights and interests of local communities, allowing each individual the basic human right to have access to food. Secondly, food security must contribute to sustainable agriculture, rural development and achievement of sustainable production and consumption.

Consensus is emerging among stakeholders around a common framework based on a twin-track strategy for poverty and hunger reduction. This includes carefully targeted safety nets and social programmes to protect the most vulnerable population groups from immediate threats, with measures aimed at enabling small-scale farmers to boost production in a sustainable way. This will require well targeted investments and policy measures that increase small farmers' asset endowments, facilitate their access to inputs and markets, and improve their capacity to manage risks.

## **Tackling the Threat of Food Crisis and Hunger**

The immediate need in the current situation of food crisis is to prevent hunger and ensure that people have access to safe and nutritious food. It requires multi-sector actions that involve the health sector to address the health challenges associated with adequacy, quality and safety of food access. Cooperation and collaboration with other sectors should facilitate actions to address non-health issues associated with food crisis. Renewed attention to food and nutrition should prompt action for designing and implementing sound food and nutrition policies.

The desired goal of food security can be achieved only if a decentralised approach to implementation of the policies and programmes is adopted. Elected local bodies, together with the concerned departments of the government (health, education, women and child welfare, rural and tribal development, etc.) should prepare micro level action plans. They should form a local level 'alliance for a healthy and productive life for all'. The one million elected women members of local bodies can be empowered to spearhead the movement of freedom from hunger, since they are more aware of the problems of nutrition and drinking water. Decentralisation will enhance accountability, reduce transaction costs and remove corruption in delivery systems.

There is an urgent need for enhancement of investment in agriculture and rural infrastructure development. It is also necessary to empower the small scale food producers through cooperatives, self-help groups and other socially viable methods of group endeavour both at the production and post-harvest phases of farming.

A sustainable approach to food security in both the net food-importing and exporting developing countries is necessary in building endogenous agricultural food production capacity in order to meet the current and future food needs for domestic consumption and export. In pursuit of this development strategy, it is important to have an enlightened approach that includes short term emergency relief to the immediate

hunger situation and longer term structural measure for building food security.

The neglect of agriculture has to be stopped and greater attention should be paid to financing agriculture for food security. A two-pronged channel can be considered — a rapid and comprehensive elimination of all trade-distorting subsidies and support measures in advanced countries on the one side, and aid for low-income net food importing countries on the other. Increase in assistance for agriculture development in developing countries is urgently needed to support the development and implementation of agricultural policies, supporting institutions including agricultural development banks that provide rural financing for food production, undertaking programmes of agricultural research and development especially through support to local agricultural institutions in enhancing their research and disseminating the results, promoting availability of real-time information on food supplies including commodities, and building infrastructure, especially transport and logistics networks for transporting food. Agricultural aid would also help poor and developing countries cope with the short- and medium-term adjustment costs associated with the increase in their food import bill. This type of aid must come in the form of grants, easy subsidised loans that are really targeted at generating a future stream of income from agriculture.

At the international level, preparing a coordinated global response to global speculation in food prices is another urgent task. This should include measures to allow concerted government intervention in food markets if there is a strong indication that speculation is driving prices. Similarly, international coordination could help minimise the potentially dangerous implications of food hoarding and restrictions or bans on food exports. Producer-consumer cooperation plans, and schemes that promote integrated agricultural production for food and fuel, should also be looked anew.

Combating the food crisis will require more food aid for poor people; much more investments in agriculture, especially the small farm sector;

more investment in social security schemes in social sectors like education and health; reforms to create a fair world trading system; changes to bio-fuel policies; measures to calm global food markets; better data collection and improved monitoring of the food and nutrition situation; and more support for non-government organisations that work on behalf of poor people in developing countries.

Mass media, particularly those in the public sector, like Doordarshan and All India Radio in India, can play a very important role in making the hunger-free India movement a success. Community radio stations, giving location-specific information, should be encouraged to assist other mass media in spreading messages of hope. It will be useful to set up media resource centres for hunger-free India. Priority could be given to employment of women in the most food-insecure districts. Identification of projects could be left to the gram panchayats. Monitoring of community work could be carried out by school teachers or anganwadi workers.

For ensuring nutrition security at the level of each individual, a life-cycle approach is necessary so that the nutrition needs of an individual can be met from birth to death. Special programmes for adolescent girls, pregnant women, nursing mothers, infants (0–2 years), and old and infirm persons should continue. What is needed is the horizontal integration of numerous vertically structured programmes. Such a functional integration will help synchronisation at the level of each village/town/city to ensure that all links in the food availability–access–absorption chain function efficiently and effectively. In keeping with the basic approach, of food provision with human dignity, the scheme of Food for Work (FFW) seems to be the best existing vehicle of food delivery for the poor. Effectiveness of the FFW programme could be ensured through two approaches. One is that of fine tuning, i.e. ensuring that FFW is made available during the peak hunger season, which varies across agro-climatic regions. The other major change required is to broaden the scope of the programme to ensure wider coverage, suitability

to pregnant and lactating women, the old and weak and to help embark on achieving the stated nutrition targets in a mission mode.

The recent food crisis can be seen as a wake-up call which can be turned into an opportunity by developing countries to respond to, and for the international community to do more to rectify the systemic imbalances in global agricultural production and trade that have contributed over the years to today's problem. The crisis has highlighted inherent tensions that exist because the food sector is seen as being unlike any other.

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