

Food Security in India: An Overview

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Abstract

The problem of food security in India has been analyzed in this paper. This paper also tries to explore the strategies of government of India [GOI] in fighting the problem. It has been observed that the government of India has taken several steps to curb the problem, which has already reached at an alarming stage, in the form of PDS, MDMS, MNREGA, SJSY, SGSY, FSB, etc. Yet, the problem of hunger has not been eradicated from the country due to several reasons such as corruption, mismanagement, inflation, natural hazards, etc. But, now-a-days, MNREGA is playing a significant role in making India hunger free and the National Food Security Bill [FSB] is also going to play a revolutionary role in this context. The paper concludes that the MNREG Act and FSB are feathers in the cap of UPA government, who seems to be feeling concerned seriously about the welfare and wellbeing of common man of India.

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Keywords: Food security, National food security bill, MNREGA, PDS

Introduction

Today, one billion plus people are very poor and suffer from food insecurity; eight hundred are facing the problem of malnutrition chronically problem; six million children under the age of five year are dying every year due to the malnutrition and related preventable diseases; millions more become blind, retarded, or suffer from other disabilities because of lack of vitamins and minerals; and further, the United Nation Hunger Task Force Report (2003) reveals that 214 million people are hungry in India, 198 millions in Sub-Saharan Africa, 56 millions in South America and 135 millions in China. In addition, the GHR [2010] shows that 42 per cent of the world undernourished children are living in India alone. Therefore, the availability of sufficient quantity and quality of food for all people, across the world's including India, is an outstanding issue.

Food Insecurity

Food insecurity means the lack of access to adequate food. Generally, there are two types of food insecurity in the World. These are

1. **Chronic Food Insecurity:** Chronic food insecurity is a continuous inadequate diet taken by a person in long term and his inability to acquire food is the major reason behind chronic type of food insecurity.

2. **Transitory Food Security:** Transitory food insecurity is a temporary decline in a household's access to sufficient food. There are several roots of this type of food insecurity such as wars, floods, drought, crop failures, the loss of purchasing power by groups of households, and market failures including sometimes high food prices, grain hoarding etc.

Food security

As per World Food Summit [1996] 'food security exists, when all people, at all times, have been physical and economic access to sufficient, safe and nutritious food for a healthy and active life'. While, the father of green revolution in India described "Food security includes not only the availability of food, but also includes economic access to food and the biological absorption of food in the body". The Sub-Committee on Nutrition within the UN Administration Committee on Coordination [1991] proclaimed that 'food security at the household level brings in further dimensions. 'A household is food secure when it has access to the food needed for a healthy life for all its members (adequate in terms of quality, quantity, safety and culturally acceptable) and when it is not at undue risk of losing such access'. On the basis of above definitions, the features of food security are as below.

Features of Food Security

- Food should be culturally acceptable and available in the system.
- The household should be able to buy food.
- Freedom should be available for household to choose food from the available food.
- The required food nutritional value should be possessed by the available food.

Contents of Food Security

There are three content of food security, first is the availability of food [depends on production and distribution], second is the access to food [depends on purchasing power of people] and last is the absorption capacity of food [means food should be digestible in a body/ quality of food].

Food Security and Economic Development

A study conducted by Sumiter Broca in 2002 in rural Ethiopia; found that 'one per cent increase in Body Mass Index [BMI] resulted into increases of farm output up to 2.3 per cent and wages 2.7 per cent simultaneously. Another 'Adult Height, BMI and wages' study was conducted in Brazil by Strauss and Thomas in 1998 and found that 'higher values of BMI and adult height were strongly correlated with wages, but only for those with BMI up to 26. Thus, we can say that the food security plays a critical role in poverty elimination through increasing per capita income in one hand, and economic development through generate high output on the another.

Problem of Food Security in India: An Overview

In India, the problem of food security is very critical. The current National Family Health Survey of India indicates that 45.9 per cent of the children [0-3 years] were underweight, 79.6 per cent were anemic in 2005-06, and the incidence of anaemia among women [15-49 year] has been 56.2 per cent. The body mass index [BMI] of women has been 33.0 per cent that was below normal. Further, the current Hunger and Malnutrition Survey [2012] reveals that out of total children of the World’s who are affected by malnutrition problem, one third is Indian. The 40 per cent of the children [under five year age] are ill, the height of 59 per cent children is below normal and 42 per cent children are under weight in India. The nutrition status of Indian children is far below from Sub-Sahara African Countries. The United Nations Hunger Task Force [2003] also reveals that 214 million people are hungry in India. Moreover, in India, the number of households with lower calorie consumption lowers than the specified calorie [minimums of 2,400 and 2,100 kilocalories in rural and urban areas respectively] have been increased over the period [see figure 1]. The figure 1 shows that the calorie poverty has significantly been increased from 66.10 to 79.80 per cent [in rural areas] and 60.50 to 63.90 per cent [in urban areas] from



Map 1. Regional Status of Hunger in India (IFPRI)
Source: Hunger, Under-nutrition and Food Security in India

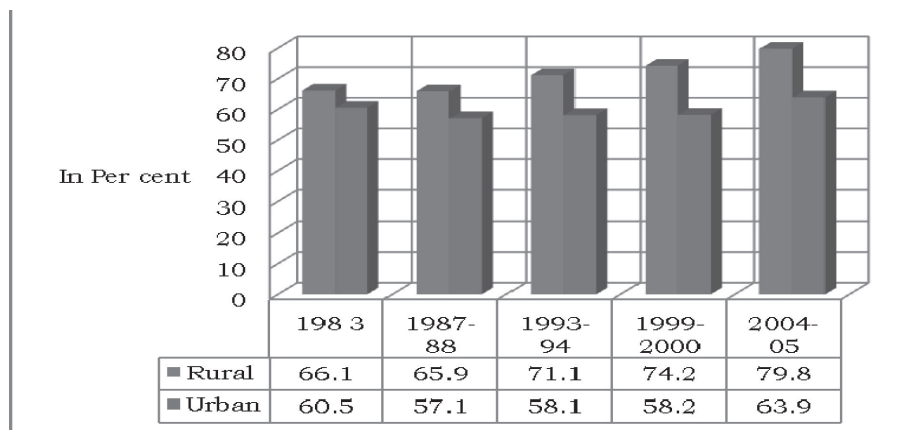


Fig. 1. Trends of Calories Poverty in India

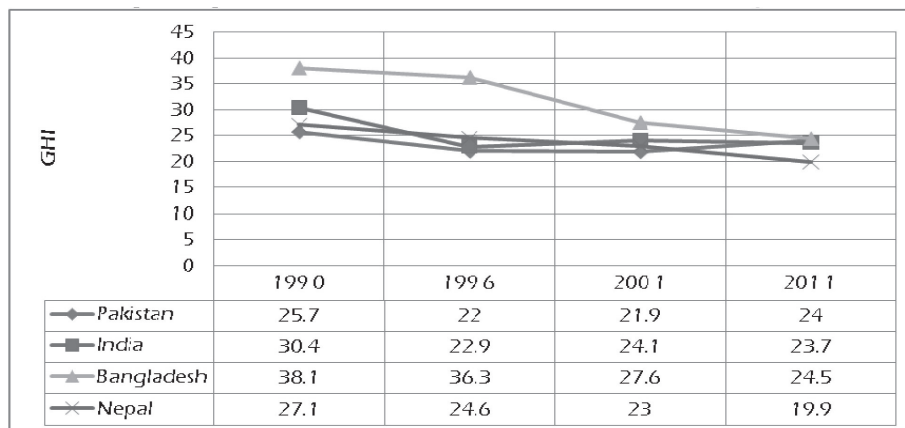


Fig. 2. Comparative position of Selected South Asian Countries in Global Hunger Index
Source: <http://www.ifpri.org/sites/default/files/publications/ghi11.pdf>

1983 to 2004-05. The calorie-based estimates of poverty suggest that 80 per cent of the rural and 64 per cent of the urban population is calorie poor in India. The detailed status of the problem of hunger in India along with all States is shown in Map1.

The GHI is the combination of three equally weighted indicators; the proportion of the undernourished as a percentage of the population; the prevalence of underweight children under the age of five; and the mortality rate of children under the age of five. Further, the GHI value is less than 4.9 shows the low, between 5 and 9.9 reflects moderate; between 10 and 19.9 indicate a serious; between 20 and 29.9 are alarming; and exceeding 30 are extremely alarming hunger problem in a country. Under the recently released Global Hunger Index 2011 by IFPRI, India is at the alarming stage ranked at 67. The index estimates that undernourished population is 21 per cent and the prevalence of underweight children less than five year is 43.5

per cent. Therefore, today, food security is a central question or first priority for all policy makers, as well as all, for political parties in India.

Roots of Food Insecurity: A Global Scenario

First, the United Nations Millennium Ecosystem Assessment Report shows that 40 per cent of the world agricultural land has been seriously degraded. Among all the regions' of the World, the worst affected regions are Central America [where 75 per cent of land is infertile], Africa [where 20 per cent soil is degraded] and Asia [where 11 per cent land is unsuitable for farming]. Second is industrializations/construction due to which a large area of cultivable land has been reduced in developing countries. For example, in Vietnam, it is estimated that around 40000 hectares of rice cultivable land is lost every year due to urban construction, industrialization zones and roads. In Thailand the amount of land under cultivation dropped by more than 13 per cent from 1995 to 2005. Third and fourth are, continuous increase in crude oil price and the pressure of World on cutting current level of emission of CO₂ are responsible for the conversions of food grain into bio fuel and due to these reasons 27.10 million tons Corn was used in production of Ethanol in 2002-03 and it increased to 108.90 million tons in 2008-09. In term of per cent, it was 4.5 per cent to total Corn production of the World in 2002-03 and it increased to 15.40 per cent in 2008-09 in America. Thus, we can say that climate change, industrialization, high price of crude oil and international trade, are the major causes in the wake of the food insecurity at the global level.

Roots of Food Insecurity: An India Scenario

First, Food Corporation of India (FCI) informed that 1.83 lakh tons of wheat, 3.95 lakh tons of rice, 22 thousand tons of paddy and 110 tons of maize has been damaged from 1997-2007, while, due to bad post-harvesting practices generally 25-30 per cent fruit and vegetables to total production of fruit and vegetables are damaged every year in India. Second is the reduced number of milk bovines in India. The NSSO Report No. 43 reveals that the number of milk bovine per 100 household has been decreased from 54 in 1971-72 to 36 in 2002-03. Third, due to industrialization, the total cultivable land has been declined from 185.09 to 182.57 million hectares from 1980/81 to 2005/06. Fourth is high growth of population. The Indian population has been growing at the rate of 1.9 per cent, while the production of food grain has been growing only at the rate of 1.2 per cent from 1990-2007. In sum, bad management of food stock, post-harvesting practices, industrialization and decreased population of live stock are the major causes in India in wake of food insecurity in India.

Current Strategy of India in Context of Food Security

There are three contents of food security [i.e., adequate supply of food, purchasing power of an individual and food should be digestible in a body]. To attain the adequate supply of food grains, the policy makers ensure the adequate provision of agriculture credit, supply of fertilizers, better management of irrigation etc., for this, National

Food Security Mission [NFSM] is the major step of the government of India. The GOI has also introduced MGNREGA to enhance the employment and income level of rural poor and a food security bill to under PDS ensure the availability of food to approx 75 per cent people of India at the cheaper rates. The detail of these programmes is given below.

National Food Security Mission in India: The National Food Security Mission was launched and implemented in 312 identified districts across 17 States by UPA government in 2007/08 with the objective of increasing the production of rice, wheat and pulses by 10, 8 and 2 million tons respectively at the end of Eleventh Five Year Plan [2011/12] through area expansion and yield improvement in the targeted districts having high potential but relatively low level of productivity performance at present. During 2008-09, an amount of Rs.883 crore was released under the Programme.

Impact: The New Delhi (Commodity Online) estimates shows that the production of rice, wheat and pulses is increased from 93.35 million tons, 75.81 million tons and 14.20 million tons in 2006-07 to 94.01 million tons, 81.47 million tons and 16.51 million tons respectively in 2010-11 as per 2nd advance estimate.

The Mathma Gandhi National Rural Employment Guarantee Act was enacted on August 25, 2005. The MNREGA provides a legal guarantee for one hundred days of employment in every financial year to adult members of any rural household willing to do public work-related unskilled manual work at the statutory minimum wage. The Ministry of Rural Development (MRD), Government of India is monitoring the entire implementation of this scheme in association with state governments. This Act was introduced with an aim of improving the purchasing power of the rural people, primarily semi or un-skilled workers to people living below poverty line in rural India. First, the Act was introduced in 200 districts during financial year 2006-07 and additional in 130 districts during the financial year 2007-08. Further, in April 2008 MGNREGA expanded to entire rural area of the country covering 34 States and Union Territories, 614 Districts, 6,096 Blocks and 2.65 lakhs Gram Panchayats. Under this act, 2.10 crore households had get employment in 2006/7, 3.39 crore in 2007/8, 4.51 crore in 2008/9 and 4.79 in 2009/10 [up to February 2010].

Impact: Manphool, in her early 40s, is a widow with no children. She is one of the beneficiaries of the scheme and has thus far earned Rs. 9, 500. “At least now, I have become economically independent. Earlier, I couldn’t even go out to work and had very little money. Now I do not have to depend on anybody,” she says.

Public Distribution System (PDS) is the oldest food security system. Established by the Government of India under the Ministry of Consumer Affairs, Food, and Public Distribution and is managed jointly by State governments of India, it distributes subsidized food and non-food items to India’s poor. The Food Corporation

of India, a Government-owned corporation, distributes food grains to FPS throughout the country, which are managed by state governments. State governments are also responsible for operational responsibilities including allocation and identification of families below poverty line, issue of ration cards, supervision and monitoring the functioning of FPSs. Under PDS scheme, each family below the poverty line is eligible for 35 kg of rice or wheat every month, while a household above the poverty line is entitled to 15 kg of food grain on a monthly basis. As of date there are about 4.99 lakh Fair Price Shops (FPS) across India. The detail progress of PDS under different category is shown in the Table 1.

Table 1. Allocation and Off take of Food Grains [Rice and Wheat] under Targeted Public Distribution System in India

Year	Allotment				Off take			
	BPL	AAY	APL	Total	BPL	AAY	APL	Total
2008/9	17405	10196	11175	38776	15656	9525	9420	34601
2009/10	17413	10196	19994	47603	16545	9794	16063	42403
2010/11	17449	10229	19869	47547	17479	9656	16616	43721
2011/12 **	17435	10243	21196*	48874	9084	4992	7852	21929

Source: http://www.tehelka.com/story_main47.asp?filename=Ne061110The_middle_class.asp

Note: BPL: Below Poverty Line, AAY: Antyodaya Anna Yojana and APL: Above Poverty Line

*Includes the ad hoc allocation made in June 2011 and ** up to September 2011

Mid Day Meal Scheme: The Mid-day Meal Scheme, launched on August 15, 1995 by the government of India providing lunch free of cost to school-children on all working days. At the time of introduction it was enforced in 2408 blocks of the country. By the year 1997-98 the coverage area of NP-NSPE was expand and enforced in all blocks of the country. It is the largest school lunch programme in the world. At present approximately 12 crore (120 million) children are covered under the Mid-day Meal Scheme in India.

Impact: A study was conducted by A. Laxmaiah, et al. in Karnataka in 1999. The results of the study indicates that better enrolment and attendance, higher retention rate with reduced dropout rate, a marginally higher scholastic performance and marginally higher growth performance of MDM children. In sum, MDM program is associated with a better educational and nutritional status of school children in Karnataka.

Integrated Child Development Scheme (ICDS): the scheme is operating since 1975 through centers in villages, called anganwadi, where local workers provide nutrition and health services; the central government provides salaries for the anganwadi staff, while the State governments are responsible for procuring food for supplemental nutrition feeding to children. Integrated Child Development Services (ICDS) in India is the world's largest integrated early childhood programme, with over 40,000 centers nationwide. The programme today covers over 4.8 million

Box 1: The Features of Strategic Steps of GOI for Eradication of Food Insecurity and Related problem

Particular	National Food Security Mission in India	MNREGA Act	Public Distribution System	Mid Day Meal Scheme	ICDP
Key Features	<ul style="list-style-type: none"> ∇ The scheme is to be implemented in a mission mode through a farmer centric approach. ∇ All the Stakeholders to be actively associated at the District level for achieving the set goals. ∇ The scheme aims to target the selected districts by making available the improved technology to the farmers through a series of planned interventions. 	<ul style="list-style-type: none"> ∇ The MNREGA guarantees a minimum 100 days of employment, each financial year, to adult members of any rural household. ∇ It is a Ram Baan for unskilled rural people. ∇ It is applicable in all State of India since April 2008. ∇ It ensures the Panchayat participation in rural development planning 	<ul style="list-style-type: none"> ∇ The PDS is the oldest and one of the most comprehensive anti-poverty programmes in India. ∇ The PDS is a massive food-rationing programme aiming at reducing the food insecurity and the welfare of the poor. 	<ul style="list-style-type: none"> ∇ It covers all school-going children from class 1 to 5th of all government, government aided and local body schools. ∇ The Government of India provides free food grains but the cooking costs are shared by the state governments. 	<ul style="list-style-type: none"> ∇ It is the world's largest integrated early childhood programme. ∇ It links to primary healthcare services such as immunization and vitamin A supplements
Objectives	<ul style="list-style-type: none"> ∇ A close monitoring mechanism is proposed to ensure interventions for benefiting the targeted beneficiaries. ∇ Increasing production of rice, wheat and pulses through area expansion and productivity enhancement in a sustainable manner. ∇ Restoring soil fertility and productivity at individual farm level. ∇ Enhancing farm level economy (i.e. farm profits) to restore confidence among farmers of targeted districts. 	<ul style="list-style-type: none"> ∇ To improve the economic status of women through providing employment. ∇ To reduce the migration from rural to urban areas in context of employment. ∇ To decrease the income gap among rural as well as urban people. 	<ul style="list-style-type: none"> ∇ To provide food grains and other essential items to vulnerable sections of society at reasonable (subsidized) prices. ∇ Ensuring equity in the matter of distribution of essential commodities. 	<ul style="list-style-type: none"> ∇ To improve the nutritional status of the children studying classes in 1st to 5th. ∇ To encourage poor children, belonging to disadvantaged sections, to attend school more regularly and help them concentrating on classroom activities. ∇ To provide nutritional support to children of primary stage in drought-affected areas during summer vacations. ∇ Social empowerment through provision of employment to women. 	<ul style="list-style-type: none"> ∇ To improve the health, nutrition and development of children less than six year age.
Strategy	<ul style="list-style-type: none"> ∇ Acceleration of seed production. ∇ Integrated Nutrient Management and Integrated Pest Management. ∇ Promotion of new production technologies like hybrid rice, timely planting of wheat and promotion of new improved variety of Pulses. 	<ul style="list-style-type: none"> ∇ To develop the sufficient infrastructure for agriculture. ∇ To increase the managerial skill of Panchayats through providing a space for them in deciding the priority work for villages. 	<ul style="list-style-type: none"> ∇ To develop a system for the people by the government, to make available good food grains at door steps and at the cheapest possible prices through quota system. 	<ul style="list-style-type: none"> ∇ To increase the value of Global Hunger Index (GHI) of India through improving the nutritional status of children under age five year in India. 	<ul style="list-style-type: none"> ∇ To increase the value of Global Hunger Index (GHI) of India through improving the nutritional status of children under age five year in India.

expectant and nursing mothers and over 23 million children under the age of six.

Impact of ICDS: a study was conducted in rural areas of three southern states (Tamil Nadu, Andhra Pradesh and Karnataka) and found that the programme had a significant impact on the psycho-social development of children, for both boys and girls. The study also showed that undernourished ICDS beneficiaries attained higher developmental scores than well-nourished children who were not enrolled in the programme.

Food Security Bill: Food security bill is a significant step of UPA government after MNREGA in context of food security in India. According to the bill, subsidized food grains are to be extended to 75 per cent of the country population. The breakup of distribution recommended is 90 per cent for rural areas and 50 per cent for urban areas. The priority households [46 per cent in rural areas and 28 per cent in urban areas] would have a monthly entitlement of 35 kg [equivalent to 7 kg per person] at a subsidized price of Rs 1 per kg for millets, Rs 2 per kg for wheat and Rs 3 per kg of rice. The general households [39 per cent rural and 12 per cent urban areas in phase-1 and 44 per cent rural and 22 per cent urban in final phase] to have a monthly entitlement of 20 kg [equivalent to 4 kg per person] at a price which would not be exceeding 50 per cent of current minimum support price for millets wheat and rice.

Conclusion Remark

In this article, we have analyzed the problem of food security in India and also explored the strategies of government of India [GOI] in fighting the problem. It is clear from the foregoing analysis that the government of India has taken several steps to curb the problem, which has already reached at an alarming stage, in the form of PDS, MDMS, MNREGA, SJSY, SGSY, FSB, etc. Yet, the problem of hunger has not been eradicated from the country due to several reasons such as corruption, mismanagement, inflation, natural hazards, etc. But, now-a-days, MNREGA is playing a significant role in making India hunger free and the National Food Security Bill [FSB] is also going to play a revolutionary role in this context. To conclude, we can say that the MNREG Act and FSB are feathers in the cap of UPA government, who seems to be feeling concerned seriously about the welfare and wellbeing of common man of India.

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