

## FOOD SECURITY IN INDIA AND ITS CHALLENGES

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### **Abstract**

Food security means an access by all people at all times to enough food for an active and healthy life. The world food day is celebrated every year on 16<sup>th</sup> of October which gives an impulsion to the necessity of food security. It is basic right of everyone to adequate diet. But at present the food security in India is insecure because food is not available with the recommended quantity of nutrients and number of malnourished/undernourished persons in every year. The Global hunger index of 2012 of India is more than 30.0 (extremely alarming 20-29.9, alarming 10.0-19.9, serious 1.5-9.9, low to moderate hunger).

Despite ensuring ample availability of food, existence of food insecurity at the micro-level in the country has remained a formidable challenge for India. Improving food security ought to be an issue of great importance for a country like India where half of the population is estimated to be absolutely poor and one-half of children malnourished in one way or another. This paper is an attempt to bring out the major challenges of the national food security bill in India.

### **Keywords**

Food security, NFSB, Challenges

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## Introduction

The recently introduced National Food Security Bill (NFSB) aims to address marks of shift in addressing the problem of food security. The aim of this bill is to provide large scale subsidized grain to almost two-thirds of the country's population of 1.2 billion. NFSB was passed by a voice vote in the parliament and from 10th of September it has become the National Food Security Act (NFSA). The National Food Security Act, 2013 aims to provide for food and nutritional security in human life cycle approach, by ensuring access to adequate quantity of quality food at affordable prices to people to live a life with dignity.

The rationale for the Bill is best summarized by the following excerpts from the Bill:

“Article 47 of the Constitution, inter alia, provides that the State shall regard raising the level of nutrition and the standard of living of its people and the improvement of public health as among its primary duties. Eradicating extreme poverty and hunger is one of the goals under the Millennium Development Goals of the United Nations.”

“In pursuance of the constitutional obligations and obligations under the international conventions, providing food security has been focus of the Government's planning and policy. Food security means availability of sufficient food grains to meet the domestic demand as well as access, at the individual level, to adequate quantities of food at affordable prices”.

The main objective of the paper are-

- a. This paper attempts to see the importance of the National Food Security Mission(NFSM) in India from different aspects.
- b. It tries to bring out the problems and challenges that the mission needs to overcome to make it successful.

The data used in the paper are collected from secondary sources viz. Ministry of Agriculture, Govt of India, NFS Bill, 2011 as introduced by Lok Sabha and National Climate Centre.

## Overview

The objective of the Bill is “to provide for food and nutritional security in human life cycle approach, by ensuring access to adequate quantity of quality food at affordable prices to people to live a life with dignity”. In line with the stated objective, the Bill provides a legal entitlement to receive foodgrains at subsidized prices by persons belonging to priority households and general households under TPDS. The entitlement shall be provided up to 75% of the rural population and up to 50% of the urban population( table 1) . Further, in order to improve the nutritional security, the NFSB brings various other ongoing welfare schemes of the government under one umbrella(table 2).

**Table 1: Right to receive foodgrains at subsidised prices**

|                                    | Priority   | General   |
|------------------------------------|--|---|
| <b>Foodgrains Entitlement</b>      | 5 kg per person per month  | 3 kg per person per month   |
| <b>Price 10</b>                    | Not exceeding Rs. 3 per kg for rice, Rs. 2 per kg for wheat and Rs. 1 per kg for coarse grains | Not exceeding 50% of the MSP for wheat & coarse grains; not exceeding 50% of derived MSP for rice |
| <b>Coverage</b>                    | At least 46% of rural population   | Up to 29% of rural population   |
| <i>Rural population</i> - Upto 75% |  |   |
| <i>Urban population</i> - Upto 50% | At least 28% of urban population   | Up to 22% of urban population   |

Source: NFSB Bill, 2011-As introduced in Lok Sabha

**Table 2: Provisions for Nutritional Security and Entitlements to Special Groups Target Group**

| Target Group                             | Entitlement   |
|--|---|
| Pregnant woman/ Lactating Mother         | Meal, free of charge, during pregnancy and six months after child birth<br>Maternity benefit of Rs 1000 per month for a period of six months  |
| Children (6 months-6 yrs)                | Age appropriate meal, free of charge, through the local <i>anganwadi</i>  |
| Children (6 years-14 yrs)                | One mid-day meal, free of charge, everyday, except on school holidays, in all schools run by local bodies, Government and Government aided schools, up to class VIII, so as to meet the nutritional standards |
| Children suffering from Malnutrition     | Meals through the local <i>anganwadi</i> , free of charge   |
| Destitute persons                        | At least one meal every day, free of charge   |
| Homeless persons                         | Affordable meals at community kitchens  |
| Emergency and disaster affected persons. | Two meals, free of charge, for a period up to 3 months from date of disaster  |
| Persons living in starvation             | Free Meals, two times a day, for 6 months from date of identification;  |

Source: NFSB Bill, 2011-As introduced in Lok Sabha

Apart from this, the Bill also proposes the following steps11:

1. Revitalisation of Agriculture: increase in investments in agriculture, including in research & development, ensuring remunerative prices, credit to farmers, crop insurance, etc;

2. Procurement, storage and movement related interventions: incentivizing decentralized procurement including procurement of coarse grains, augmentation of adequate decentralized modern and scientific storage etc;
3. Reforms in TPDS: application of information and communication technology tools to improve PDS system, leveraging 'Aadhaar' for unique identification of beneficiaries for proper targeting of benefits under this Act etc, ensure transparency;
4. Others: Provision of safe and adequate drinking water and sanitation, nutritional health and education support to adolescent girls, senior citizens, persons with disability and single women.

## CHALLENGES

The major challenges of the Bill are discussed as below:

### 1 Operational challenges

The existing system of foodgrain management is characterized by the dominant presence of the government in all the basic aspects of marketing viz., procurement, storage, transport and distribution, with all these operations being bundled and carried out by the FCI. The following sections elaborate the operational challenge thrown up by NFSB as it would entail a huge procurement/distribution infrastructure.

#### 1.1 Production

Since the NFSB creates a statutory entitlement for the included population and its obverse namely a legal obligation for the government, it is important to ensure adequate availability of grain with the public authorities. Attainment of self-sufficiency in food grains at the macro level has been one of the country's major achievements in the post-independence period. The production of food grains increased from 51 million tonnes in 1950-51 to 108.4 million tonnes in 1970-71 and has touched 257 million tonnes in 2011-12. Agriculture has been growing at a rate of growth of 2.9% during 1991-92 to 2011-12 much lower than the targeted 4% in the Five Year Plans. The average growth rate of food grain output has declined from 2.2 percent in 1990s to 1.8 percent in 2000s. Similarly, growth rate of yield of food grains has declined from 2.4 per cent in 1990s to only 1.3 percent in 2000s.

Indian agriculture has not witnessed any major breakthrough since the Green Revolution. Punjab and Haryana are the two states that contribute the largest to food grains production but this is at the cost of annual negative balance in the ground water reserves for these states. According to the latest assessment of ground water situation in India (CGWB 2009-10), 75% blocks in Punjab are overexploited, only 18% are considered safe. Under 'Bringing Green Revolution to Eastern India' (BGREI), States like Bihar, Madhya Pradesh & West Bengal are emerging as large producers but gross lack of marketing and procurement

infrastructure has caused distress to farmers. This raises doubts on the sustainability of production without commensurate investments in agri-infrastructure, especially marketing.

### 1.2 Volatility

Volatility in food systems due to exogenous shocks from weather related events or instability in international markets compromises national food security. More than 50% area under cultivation is still at the mercy of monsoons. Further, the sustainability of irrigation is also significantly dependent on rainfall. Increasing resistance of Indian agriculture against drought and managing water resources sustainably remains still a challenge. Because of the low price elasticity of demand for food staples and the thinness of markets, problems in food availability translate into large increase in domestic prices and reductions in real incomes of poor consumers. Rice and wheat experience wide fluctuations in wholesale prices during a year. This volatility in prices creates uncertainty in the access of food security

### 1.3 Procurement

NFSB would require procurement and would depend upon the FCI. Currently, FCI procures mainly paddy and wheat from farmers (at MSP) and in the form of rice from rice millers. It is essentially a system under which FCI is obligated to buy all the grains that farmers offer to sell at the prescribed procurement price as long as the grains meet a certain quality standard. The high cost of operations has been evident and well documented. Currently, the economic cost of FCI for acquiring, storing and distributing food grains is about 40 percent more than the procurement price.

In case of deficit production, countries tend to resort to imports from global markets. While smaller imports can meet small deficits in domestic production to bridge the supply gap, if quantities demanded are too large, they can send the global markets into a tizzy.

## 2. Financial Challenges

The large-scale subsidized grain distribution to almost 70% of the country's population of 1.21 billion implies massive procurement of food grains and a very large distribution network entailing a huge financial burden on the already burdened fiscal system. The stated expenditure of NFSB is of Rs 1, 20,000 crore annually. Indeed the yearly food subsidy bill itself is likely to gallop. The estimate of food subsidy would depend upon economic cost, central issue price of food grains, number of beneficiaries covered and quantities of food grains allocated. The food subsidy in the coming years will increase due to the lower central issue price of grain, a significant rise in the number of entitled beneficiaries and the need to keep raising the MSP to cover the rising costs of production and to give incentives incentivize to increase production. These issues raise doubts on the sustainability of the financial obligations entailed in NFSB.

During the last ten years, food subsidy has increased from Rs 17,494 crore in 2001-02 to Rs 72,823 crore in 2011-12 at current prices. As a ratio of GDP-Agri, it has increased from 3.6 percent to 5.1 percent in the

same period. The cost of production of rice and wheat has gone up by more than 45% during last three years (2010-11 to 2012-13 marketing seasons), i.e., on an average, by about 15% per year. This is primarily due to sharply rising labour and energy costs, including fertilizers. There is an acute shortage of labour in agriculture. In some states, labour costs have gone up by more than 100% over the same period. Due to these rising costs, the margins of production for farmers have been declining both for paddy and wheat.

The increased level of procurement and distribution of the food grains as a result of the Bill will require higher storage and warehousing capacities. The implementation of the Bill will require additional storage capacity between 22- 32 million tonnes. Some rough estimates show that the additional cost of storage infrastructure would be Rs. 2,500 to 8,500 crore

As per the calculations made by the Government, the food subsidy alone will cost about Rs 95,000 crores to start with. If one counts the other parts of the Bill the Bill may touch an expenditure of in between Rs 125,000 to 150,000 crores. And if one adds to it the money needed to produce extra foodgrains on sustainable basis then an expenditure of Rs 1,10,600 crores would be needed over a five year period. For the success of the Bill, this expenditure will have to be front loaded in the first three years.

### 3. Challenges of climate change

Climate Change and agriculture are interrelated and on crop production and food availability. It is expected that the effect of global warming will threaten about 15% of the land in the Nile delta by 2020. In South Asia also, loss of many staple food crops (rice, millet, maize) could attain a proportion of 10%. The UN Intergovernmental Panel on Climate Change (IPCC) estimated that GDP in the developing and less developed countries would decline by 1.4–3.0% due to climatic change. In India, the effects of global warming are likely to be more severe. For every 2°C rise in temperature, the reduction in GDP is 5%. Likewise, FAO has estimated that India would lose up to 125 m t of cereals. In Haryana, wheat production has declined from 4106 kg/ha in 2000–01 to 3937 kg/ha in 2003–04, with maximum temperature rising by about 3°C during February–March in the last seven years. Thus, the direct impact of climate change on agriculture and food supply includes shortage in grain production resulting in less availability of food items. The IPCC has predicted that the greenhouse gases (GHGs) will cause temperature to increase from 1.5 to 5.8°C resulting in the increase of sea water level. There would be floods on coastlines and no agricultural activities would be possible in these areas. Ultimately, people would strive for their livelihood. The IPCC report indicated that an overall increase of 2°C in temperature and 7% in rainfall would lead to an almost 8% loss in farm level net revenue. High probability of crop losses with increase in temperature in the tropical regions is also foreseen. Water supply will suffer because of scanty rainfall in the Himalayas. According to the National Climate Centre in Pune, rainfall has decreased in July and greater rainfall has been recorded in August. Another major change in the monsoon pattern is that there has been a shift westwards, with the

rainfall getting confined to certain regions which may result in floods, resulting in the lack of food for people.

Thus climate change will undoubtedly have important effects on global agriculture and thus on food security.

## Conclusion

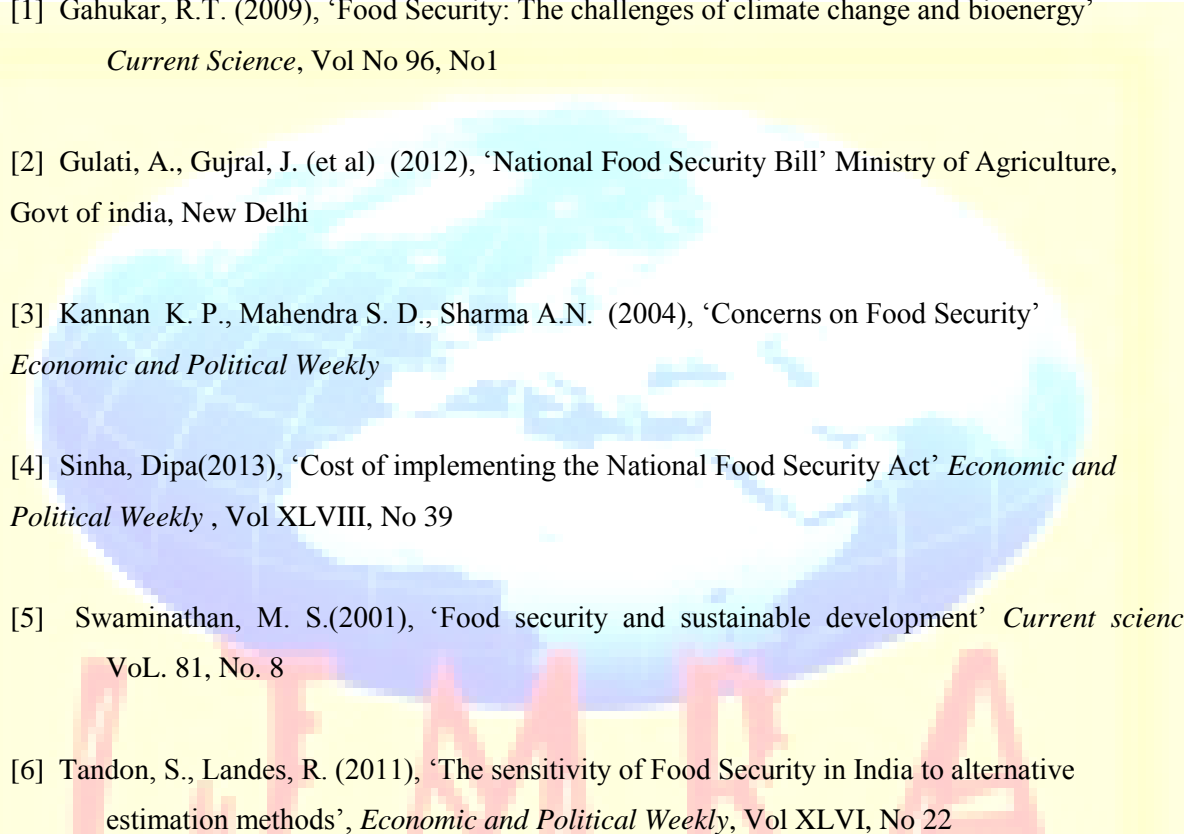
The NFSB is a way forward strategy in Indian civilization providing food and nutritional security to major portion of the masses of the country. Providing right to food- one of the basic needs of any human being, to the country people is like giving some extra years to live in to the people who are malnourished or under nourished and can't afford meals. The quantitative and qualitative benefits of the mission do not only lie in providing foods but it can also increase the peace and security, health and hygiene and can create huge human resources in the country.

But the bill is not free from criticisms, few of them are discussed below-

1. The Bill focuses on rice and wheat goes against the trend for many Indians who are gradually diversifying their diet to protein-rich foods such as dairy, eggs and poultry, as well as fruit and vegetables.
2. Food and nutrition security can be effective only with adequate attention to ensuring access to safe drinking water and hygiene and sanitation facilities.
3. The scheme does not provide meals to those who does not attend the school.
4. India's population is likely to reach 1.5 billion by 2030, the challenge facing the country is to produce more and more from diminishing per capita arable and irrigation. Given the rising costs of the scheme and rising population, its sustainability is under question. This is a mega program and will require a huge food subsidy. The cost of it will go up from 0.8% of Gross Domestic Product to around 1.1% of GDP. This is a serious increase in a situation where the government does not have enough resources .
5. The Bill does not categories properly between BPL and APL and both are entitled to 5 Kg grains per person per month.
6. Widen the already swollen budget deficit next year, increasing the risk to economy.
7. A combination of the quantum of public procurement and a regulatory framework would drive the private sector out of the food grains sector.
8. According to RBI, the inflationary impact of NFSB will depend on the extent to which it will raise demand for food grains relative to the normal increase in supply. This will create demand pressures, which will inevitably spillover to market prices of food grains. Furthermore, the higher food subsidy burden on the budget will raise the fiscal deficit, creating macro level inflationary pressures.

It has to be appreciated that the issue of food security is not so much about availability of food grains but more the composition of the overall food basket as observed in changing consumption patterns. In light of the issues raised above, the long-term feasibility of the envisaged strategy under NFSB needs to be carefully debated in national interest. The policy makers should recommend for strategies which focuses more in increasing food grains in a sustainable manner to make it even successful.

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