

## Food Security in India- Challenges and Policy Imperatives

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Food security refers to household's physical and economical access to sufficient, safe and nutritious food that fulfills the dietary needs and food preference of household for living an active and healthy life. Food security involves adequate physical availability of food in quantitative as well a qualitative terms to the entire population in a country. Food security does not only mean acquiring only self sufficiency, rather it also need attainment of lively, reliable and nutritionally adequate supply of food.

**World Health Organization defines** food security as having 3 facts “food availability, food access and food use”. Hence, Food Security has three dimensions-

- μ **Food availability** refers to available sufficient quantities of food on a consistent basis i.e. total food production in the country plus the imported food plus buffer stocks maintained in govt. granaries like FCI in previous years.
- μ **Food accessibility** refers to sufficient resources both economic and physical to obtain appropriate food for nutritious diet i.e. food should be within the reach of every person, which means an individual should have enough money to buy proper, safe and nutritious food to meet his dietary needs.
- μ **Food usability** refers to appropriate use based knowledge of basic nutrition and care as well as adequate water sanitation

**FAO added 4th fact** to this definition that is **Food Stability** refers to the stability of first three dimensions of food security over time.

Food security at the national level refers mainly to availability in the country of sufficient stocks of food to meet domestic demand, either through domestic supply or through imports. Attainment of self sufficiency in food grains at the national level is one of the major achievements in the post-independence period. After remaining a food deficit country for about two decades after independence, India became largely self-sufficient in aggregate food grain production. Attainment of self sufficiency-a major and important strategy of Indian Planning in 1960's emphasize on expansion of irrigation facilities, use of improved fertilizers, innovative and new technology resulted in Green Revolution and attainment of goal of self sufficiency in food grains through increased production of food grains.

Due to the multi sectoral initiatives taken during the green revolution, India achieved self sufficiency in food production to meet the needs of the growing population, and built up adequate buffer stocks within a decade. In retrospect the green revolution lead to self sufficiency in food production, public - private partnership to achieve self-sufficiency in food grain production. Self sufficiency in food grains could be achieved due to joint efforts of agriculture scientists, economists and nutrition scientists.

Moreover, under the National Food Security Mission efforts, in spite of growing population, constraints of land, water, low productivity and high input costs, India remains self sufficient in food production and overcomes seasonal food insecurity in pockets even among vulnerable segments. Food Security Bill passed in September, 2013 helped to enhance food security and access to adequate, safe and nutritious food for present and future generations especially for people below poverty line. There have hardly been any food grain imports after the mid-1970s. In subsequent decades growth in food grain production stayed ahead of population growth and India became self sufficient in food production.

Rice production has increased from 96.69 to 99.37 million tons in 2007-08 to 2008-09, wheat

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production is decreased from 78.57 to 77.63 million tons, production of coarse cereals is just decreased from 40.76 to 38.67 million tons, cereals production is decreased from 216.02 to 215.67 million tons and production of pulses is near about stable it is changed from 14.76 to 14.18 million tons in same year. In year 2006-07 buffer stock of wheat were 54.28 million tons and 119.77 million tons of rice stock. In year 2007-08 stock of wheat were 77.12 million tons and 114.75 million tons of rice and in year 2009 stock of wheat is increased to 182.12 million tons and stock of rice is increased to 175.76 million tons. There has been net growth in the major food grain production in India.

**Table 1: Statistics related to Food Production and population in India**

Year	Pop(in million)	Net production (Cereals) (M.T.)	Net imports (Cereals)(M.T.)	Net availability (Cereals) (M.T.)
2006-07	1120	170.8	-3.8	44.3
2007-08	1136.5	177.7	-7.0	64.6
2008-09	1153.01	197.2	14.4	84.0
2009-10	1169.4	192.4	-7.2	104.8

**Source:-Various issues of Economic Survey**

This data in Table 1 reveal that net imports are negative since 2006 i.e. India became net exportable of cereals which was 7.2 MT in 2009-10. Table also reveal that Population in India is continuously increasing and increase in food grain production is more than population growth i.e. food grain production rate is more than population growth rate.

In addition there is also increase in production for horticultural, fish and livestock products than food grains. The per capita availability of non-food grains food commodities witnessed a considerable increase which helped in catering to the diversified food needs of the households.

Though Several measures taken by government for food security like National Food Security of 25 kilograms of rice or wheat per month at Rs 3 per kilogram to every family below poverty line in rural as well as in urban areas; provision of food grains through ongoing targeted public distribution system; ban on grains exports to increase local supplies and prevent rise in domestic prices; increase in minimum procurement support prices for wheat; insulation of domestic rice prices from global prices and various schemes like mid day meal scheme, women empowerment programmes, the Integrated Child Development System, Mahatma Gandhi National Rural Employment Guarantee Act, Antyodaya Anna Yojana and food security bill 2013 helped in enhancing the food production, yet the situation is not as rosy as it seems to be. India has failed to achieve the objective of food security at national level despite self-sufficiency in food grains.

High economic growth rates of Indian economy have failed to improve food security in India. The achievement of Indian planning helps in facing the adverse situations like famine and acute food scarcities but still has not able to provide balanced and nutritional food for active and healthy life and hence food security in India seems to be a distant dream. A large section of Indian population is suffering from malnutrition and inadequacy of food grains. Malnutrition in India is a serious dent on its development. Out of the estimate 1.27 billion population, a total of 77% are considered poor and vulnerable, and millions of people fail to get two square meals a day. In the recently released Global Hunger Index of 2013, India ranked 63rd out of 120 countries inspite of the fact that India is one of the largest producers of food in the world. (Table 2)

**Table 2: Performance of Hunger Index**

Year	Rank in Hunger Index	Out of total number of countries	Score
1990			31.73
2007	94	118	25.03
2008	66	88	23.70
2009	65	88	23.90
2010	67	84	24.10
2011	67	81	24.20
2012	65	79	22.90
2013	63	120	21.30

**Source: Global Hunger Report, IFPRI**

Mere self sufficiency in food grain production cannot result in steep reduction in under nutrition rates or micronutrient deficiencies in the country because population needs adequate quantities of balanced diet to remain well nourished and healthy. India is at the top in vegetable and fruit production in the world, but vegetable intake of Indians remains low; consequently prevalence of anaemia and vitamin A deficiency continue to be high.

India faces today what is known as the triple burden of malnutritionthe coexistence of inadequate calorie intake and under-nutrition among a large section of the population, excess intake of dietary energy leading to obesity and related health issues among another section of the population, and pervasive micronutrient deficiencies. The National Family Health Survey in 2005/06, for instance, suggests that a third of married women have a body mass index below normal, with 28 per cent of the men falling in the same category. At the other end, 15 per cent of women are overweight or obese, as are 12 per cent of men. Micronutrient deficiencies are also very common as according to above mentioned source 56 per cent of women ever married and 24 per cent of ever-married men are anemic. The existence of this problem is not merely confined to rural areas but also extend to urban region. According to 2003-05 estimates, about 230 million population of India is undernourished which is 21% of India's population (FAO 2009).

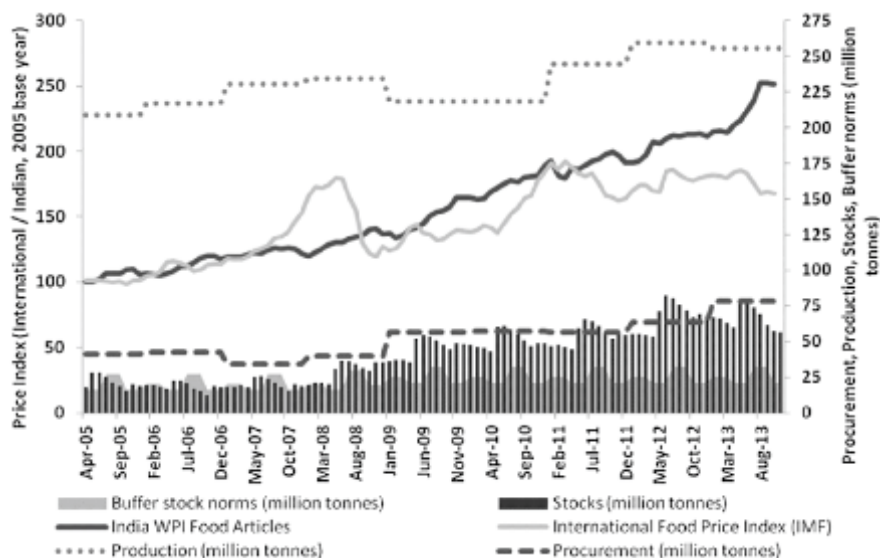
No doubt in India matters relating to availability of food have been solved up to greater extent. But still India is in the low ranks in terms of per capita availability of food, has reached the stage where, as far as food security is concerned, the accent can be, and has to be, on access of different sections of the population to what is available. This is mainly due to inefficient management of huge food grain surplus that accumulates as public buffer stocks. As clear from figure 1 that food grains production has increased at faster rate but pace of expansion of buffer stock is not same as that of food production.

India is far distant in food security not only at national level but also at household level. Self sufficiency of food grains at national level and availability of food grains at affordable cost at local level have not helped in attaining household level food security for poor strata due to faultier

Public Distribution policies for poor.

It is fact that in India net imports have fallen and agriculture production is far more as compared to Asian countries but still food prices are rising in India as agriculture exports done by India are of those commodities which are demanded in our own country. Hence Food inflation is kept on increasing (Figure 1).

**Figure 1 Food inflation, foodgrain stocks and production in India, 20052013**



**Source: cited in Narayanan Sudha (2015)**

Use of heavy inputs of chemicals and water, excessive use of the latter driven by primitive flooding methods of irrigation and mono cropping resulted in soil erosion and hence production of poor quality of food. The World Bank calculates that 300 million people in India and China are dependent on grain irrigated by unsustainable rates of extraction.

Moreover, the issue of food security especially in developing nation like India raises the twin problems of uncertain food production and unequal food distribution. The impact of unequal food distribution can have adverse impacts on rural and urban population living below the poverty line. Food insecurity is not only an economic problem but also a problem of non humanity in India.

**Policy Imperatives to attain Food Security**

It may be possible to make food security in India in good manner, if the proper planning of food grain production and fair practices in food market will be successfully opted. There is need of strong control over the food market in India.

Proposed solutions to long term global food security should be strongly influenced by analysis of future supply and demand for food. This approach highlights population growth, the presumed demand for a richer diet in emerging economies, the extension of modern farming methods and biotechnologies, and the expansion of land under cultivation.

The World Bank estimates that growth of rural economies accelerates poverty reduction four times faster than other sectors. Small farmers have modest carbon footprints and are relatively

successful custodians of biodiversity. Peasant farms do therefore have the potential to be part of the solution. There is consensus that regeneration of the rural infrastructure in developing countries is a priority for investment. India being an agriculture dominant developing economy should opt the said measures of World Bank to attain food security.

Agriculture growth should be promoted through developing cultivation skills which conserve natural resources and regenerate soil. Described as “agro-ecology” or “eco-farming”, this approach has the potential to raise yields substantially, according to UN research.

Systematic appraisal of agro-ecological situation is necessary to plan appropriate land use and regulate the use of ground water resources by exploring recharging possibilities and water harvesting.

Buffer stocks maintained by Central and States are not sufficient so for better management of food co-operatives should come forward. There should be integration of various enterprises to ensure greater food security.

Cost reducing, advanced crop production technologies should be used to reduce the production cost so that rise in food prices can be controlled.

Steps should be taken to ensure the efficient working of Public distribution system to overcome the problem of speculation by the private traders. It is crucial to ensure that farm and trade policies of developed countries do not artificially reduce the prices of their food grains as it virtually makes impossible for farmers from developing countries to compete both in their own domestic markets, due to cheap food imports, and also in the international market.

The farmers should be encouraged to form cooperatives as a recognized means of accessing urban and export markets. To smooth over the volatility of world food prices, developing countries are more actively creating national food reserves, perhaps coordinated with neighbors in a regional strategy. This trend to stronger state intervention in food policy is sometimes described as “food sovereignty”.

#### **Conclusion:-**

Although, we can say that food security problem in India is not serious yet the problems of faultier public distribution system, failure of regulation and control of food markets by Government, poor quality food, over use of chemicals, fertilizers, pesticides and insecticides make it worse. The problem becomes serious due to the unfair trade practice by private traders doing in abnormal situations like poor monsoon, drought, famine etc. The problem of hunger is due to poor economic accessibility which is result of poor implementation of policy measures.

Agriculture is more challenging, competitive, demand driven, knowledge based and market oriented sector hence there is need to infuse professionalism, responsiveness, and accountability and sound managerial abilities among professionals so that balanced agriculture production could be increased and food security could be attained.

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