

# Food Security in India: Performance Issues and Challenges

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## 1. Introduction

Food security is a fundamental human right. The right to food is one of the basic human rights which is closely linked to Right to life under Article 21 of the Constitution of India, 1950. The denial of one right inevitably influences the right of other, but also the inherent relationship between rule of law and protection of all human rights, including the right to food. Ensuring food security should be an extraordinary significance for a nation like India having 21.9 per cent people living below poverty line and about one-half of all children are malnourished. In 2007, the United Nations (UN) estimated about 850 million people worldwide who suffer from malnutrition. It also estimated that African and Asian continents have 799 million undernourished people, most of them living in developing countries. The main cause of this problem is food security. India has over 120 million people and the second most populous country in the world. To feed this population farmers are working very hard for centuries. fruits and vegetables is relatively low. Until now, specific efforts are not been taken to improve the production and distribution of vegetables at an affordable cost in both urban and rural areas. Food insecurity is a condition, where very less food is available for the household member. In such situation, the food intake of household members is reduced and their normal eating pattern is disrupted because the household lacked money and other resources for food.

Definition of food security –

**According to the Organization for Food and Agriculture (FAO) of the United Nations,** food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for active living and healthy life. 2. **According to the European Crop Protection Association,** food security often refers to food availability and an individual's access to food. A person can be considered "food secure" if they do not live in hunger or fear of starvation. In addition to hunger and starvation, food security

can also refer to the availability of a sufficient nutrition to ensure a healthy diet, avoiding the health impacts of malnutrition.

The concept of Food security is centred around two sub-concepts; food availability and food title. The former refers to supply of food available at various levels i.e. local, national or international. The latter refers to the capability of an individual or household to obtain food. The main prerequisites or dimensions of food security are as follows:

**Food availability:** The physical availability of food refers to adequate quantities of food, supplied through native production or imports. It refers to the ‘supply side’ of food security.

**Food Accessibility:** It refers to access by individual to adequate resources (entitlements) for acquiring appropriate food for a nutritious and balance diet.

**Food Utilisation/use:** Utilisation in general understood as the way the body makes the most of various nutrients in the food through balance diet, clean water, hygiene, sanitation and health care.

**Stability:** To be food secure, an individual, household or population must have access to adequate food at all times.

## 2. Performance of Food Security in India

During the last few decades, the total food production in India has increased at a much faster pace than the population. The Green Revolution started in the late 1967-68 was a noteworthy watershed resulting in phenomenal increase in the production of agricultural crops especially in food grains that has changed the food security situation in India. Wheat crop among the food grains drew maximum benefit from Green Revolution which tripled the wheat production over the next three or four decades while the production of cereals doubled in this period and consequently reduced by over 50 per cent both food insecurity and poverty in the country.<sup>11</sup> In India, security is embodied under Directive principle of State Policy (DPSP) as exemplified in the Constitution of India, 1950. Article 47<sup>12</sup> states, “The state shall regard the raising of the level of nutrition and the standard of living of its people and the improvement of public health as among its primary duties and, in particular, the state shall endeavour to bring about prohibition of the consumption except for medical purposes of intoxicating drinks and of drugs which are injurious to health”. According to some studies the per capita energy supply has increased significantly, having norms of 2400Kcal for rural and 2100Kcal for urban areas, about 58 million people have come out of the vicious circle of poverty. Despite India’s journey to ensure Food security, it is still in a pathetic state. India food security status situation remains to rank as “alarming” according to the International Food Policy Research Institute’s Global Hunger Index, 2014<sup>13</sup>. It ranks 55 of the 120 countries in the world. Due to inflation the cost of food item is

increasing day by day, leading to hardship by making them unaffordable for poverty traumatized people in India. In addition to these hardships the short supply of pulses and edible oils forces the government to import them. In addition, crop diversification, land fragmentation, climate change, lack of irrigational facilities has added up to the woes of the producers. Moreover, food availability and agricultural growth needs thorough examination as it is the key to food security. Another aspect is the food distribution through Public Distribution System (PDS), accounting for a significant part of government subsidies. The Government and its policies play a major role in ensuring Food security. These policies contain employment generation schemes, social protection programmes, vocational training programmes, National Security Bill, etc. Role of other intermediaries like NGOs, civil societies, private sector and international organisation has let to effectiveness in Food security programme.

**1. Food Availability-** In India Availability refers to physical availability of food stock at desired quantities. In other words, it means ‘sufficient’. Food production is the basis of food security. It can be alleged that the increased availability of food is an essential condition for achieving food security in India. Food availability relates to the supply of food through production, distribution, carryover stocks and imports. The net availability of food production is estimated by excluding exports and including imports. India’s self- sufficiency in food grain has been a major achievement in post-Independence period. The green revolution piloted in a dramatic and steady increase in domestic food grain production practically eliminating the need of food import, except to a very limited extend in times of extreme calamities or emergencies like famine, drought and serious crop failure. As per from the latest information from Directorate of Economics and Statistics, there has been a significant shift in the food production from 50 million tonnes in 1950-51 to 264 million tonnes in 2013-14. The average growth rate of food grain production from 1950 to 2014 is 2.5 per cent per annum. Food security directly depends upon the total production of food grains, net availability of food grains and per capita net availability of food grains including the price of it.

**2. Food Accessibility** In India In the words of Amartya Sen, the Indian philosopher, economist and Nobel laureate, “What really matters with the food is not the overall supply but, individual access.” Food access refers to the affordability in terms of individual’s capability to purchase food and to availability of food through safety nets of distribution. Food security requires the poor to have adequate purchasing power. Food- based interventions such as **Public Distribution System (PDS), Integrated Child Development Scheme (ICDS), and Mid-day Meal Scheme (MDM)** were introduced by the Government of India to meet the basic needs of the most vulnerable

section of the country. • **Targeted Public Distribution System** In order to ensure minimum availability of food grains to the vulnerable section of the country, the government launched this scheme in 1997, under this scheme, a quantity of 72 lakhs tonnes of food grains were availed at the rate of 10 kg per family per month. • **Midday Meal Scheme** Introduced in the schools, for enhancing enrolment retention and attendance for further enhanced the nutrition improvement among students since 1995. • **Antyodaya Ann Yojana** This contemplates identification of poorest of the poor people and foodgrains at the rate of Rs. 2 per kg. All these schemes are implemented by the government for supplying food grains at subsidized rate to the poor households, ensuring accessibility and vulnerability.

**Food Utilization-** In India Food utilisation refers to consumption of food by the household in the proper manner and individual's ability to absorb nutrients. Food utilisation by households depend upon (I) the facilities they have for food storage and processing (II) Their insight and practiced in relation to food preparations. (III) How food is shared inside the family. (IV) the condition of strength of every person which may be impeded by ailment, poor cleanliness, water, sanitation, absence of access to wellbeing offices and medicinal services. This is the column that guarantees the wholesome results of each person in the family unit are sufficient. In India as many as 46 per cent of children are malnourished, even after three decades of implementation of Integrated Child Development Scheme(ICDS). Every second women in India is anaemic (55.3%) and every third woman is under nourished having low body mass index (35.6%) due to inflation<sup>22</sup> . By analysing the above criteria it seems that achieving food security is a far cry for India, even though India is self - sufficient in growing food grains.

### 3. Issues and Challenges to Food Security

India is faced with a number of issues and challenges that seriously dent its pursuit of food security. These challenges are linked with the socioeconomic structure of the country and hence their proper solutions require a broad-based understanding.

#### A. Population Pressure -

- **Growing Population Statistics:** India is expected to become the most populous country in the world and is projected to reach a population of about 1.5 billion by 2030. This rapid growth in population raises food demand and puts immense pressure on agricultural systems . The greater the number of people to feed, the greater the increase in food production, which at this pace, is highly demanding for traditional agriculture and resources.

- **Increased Food Demand:** With increasing population, the requirement for more nutritious and varied food also increases. Added to this is the fact that most dietary habits are now drifting towards the consumption of more protein-related foods, fruits, and vegetables. In order to meet this growing demand, not only does the quantum of food produced have to increase but its nutritional quality also has to improve, which again is one of the major challenges in India.

## **B. Agricultural Productivity Issues**

- **Fragmented Land Holdings:** Indian farmers possess a large number of small and fragmented landholdings, averaging less than 1 hectare in size. This negates wholesome impact on the economies of scale and modernization, keeping farms small. Very small holder farmers cannot have access to advanced technologies and other resources required to improve productivity, thereby resulting in a vicious cycle of low output and poverty.
- **Inadequate Irrigation and Modern Techniques:** Although there is ample development of technology in agriculture, a considerable part of Indian agriculture remains rainfed and dependent upon erratic weather conditions. Inadequate irrigation facilities hinder the farmers from growing crops throughout the year. Besides, slow dissemination of improved farming techniques like precision agriculture and high-yielding varieties of crops is causing low productivity (The challenges of rainfed agricultural practices in Mali-redefining research agenda).

## **C. Climate Change Impacts**

- **Erratic Weather Patterns:** Most of the erratic weather patterns are a result of climate change, which consequently affects the predictability of India's essential monsoon rains. Such unpredictable rains either lead to droughts or flooding-events that destroy crops and disrupt food supply chains.
- **Natural Disasters:** Increasing natural calamities like cyclones and flooding due to changes in climate contribute to either the destruction or damage of crops. Events of this nature, combined with infrastructural damages, make their recovery and access to food much more difficult for populations that it affects.

## **D. Water Scarcity**

- **Dependence on Monsoon Rains:** Indian agriculture is greatly dependent on rainfall and therefore relies so much on the rains brought about by monsoons, which is always erratic. This makes them quite vulnerable because with insufficient amounts of rain, the result is crop failures and shortage of food. Due to these changing climatic states, these monsoon patterns seem to be altering hence creating uncertain ability for farmers to make good plans.
- **Over-extraction of Groundwater:** As rainfall is insufficient, most farmers are dependent on groundwater extraction, which is causing severe depletions to aquifers. This is an unsustainable approach that would lead to long-term non sustainability in the water supply for agricultural use and risks food security when water becomes scarce.

#### 4. Suggestion for future prospect

**Improving agricultural Productivity:** Enhancing agricultural productivity is crucial for food security. This can be achieved through better access to technology, improved irrigation, and the adoption of sustainable farming practices. Initiatives like the Pradhan Mantri Krishi Sinchai Yojana (PMKSY) aim to improve irrigation infrastructure, while the promotion of organic farming and agroforestry can help make agriculture more sustainable.

**Strengthening the Public Distribution System:** Reforming the PDS to make it more efficient and inclusive is essential. This includes leveraging technology to reduce leakages, improving targeting mechanisms to ensure that the right people receive benefits, and enhancing the nutritional quality of the food provided.

**Promoting Dietary Diversity:** Educating the population about the importance of a balanced diet and promoting the consumption of a variety of foods, including fruits, vegetables, pulses, and animal-sourced foods, can help address micronutrient deficiencies. Programs like the Mid-Day Meal Scheme in schools, which provides nutritious meals to children, play a vital role in this regard.

**Reducing Post-Harvest Losses:** Investing in better storage facilities, improving transportation infrastructure, and developing food processing industries can help reduce post-harvest losses. The government's Pradhan Mantri Kisan Sampada Yojana (PMKSY) is a step in this direction, aiming to create modern infrastructure for the food.

**Combating Climate Change:** Adapting to and mitigating the impacts of climate change is critical for food security. This includes developing climate-resilient crops, promoting water conservation practices, and investing in renewable energy for agriculture.

**Empowering Women:** Women play a crucial role in food production and nutrition within households. Empowering women through education, access to resources, and involvement in decision-making can have a positive impact on food security and nutrition.

## 5. Conclusion

Towards a Food and Nutritional Secure India Achieving food and nutritional security in India is a complex challenge that requires coordinated efforts from the government, private sector, and civil society. While significant progress has been made, much work remains to be done to ensure that all Indians have access to sufficient, safe, and nutritious food. By addressing the root causes of food insecurity, promoting sustainable agricultural practices, and enhancing the efficiency of food distribution systems, India can move closer to achieving the goal of food and nutritional security for all its citizens.

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