



Food security: Conceptual and empirical issues

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Abstract

Food security is increasingly affected by global economic and environmental phenomena. The food prices are affected due to food scarcity which causes social and political instability. 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 an active and healthy life. This paper also studies the basic concept of food security, dimension, and per capita net availability of food grains stock in recent years, component, and food security bill and food security scheme in India. The per capita net availability of food grain is minimum stock in recent year due to less production of food grains and demand always increases.

Keywords: food security, food insecurity, empirical issues

Introduction

Food security has remained for many decades a top priority for the international community and a central topic in academic development research. Despite impressive progress in addressing the basic nutritional needs of the world's poor and most vulnerable, there still remain important pockets of food insecurity around the world, affecting hundreds of millions of people. Food security countries a core component of the human development and capability paradigm (UNDP, 1990). Enhancing food availability and entitlements is critical for reinforcing essential human capabilities and therefore, constitutes a precondition for sustainable human development. In other words, 'well-nourished people exercise their freedom and capabilities in different domains-the essence of human development' (UNDP, 2012). Amartya Sen's entitlements and capabilities analysis, which are core building blocks of the human development and capability paradigm, also constitute essential contributions to the conceptualization of the drivers of food insecurity. The entitlement approach with its focus on people's commands over food as a result of endowments, exchange conditions and production possibilities, revolutionized the understanding of the proximate triggers of hunger and famine.

Of the various survival requirements food remains the most vital. A human can survive with economic, social and political deprivation but cannot survive biological deprivation such as food and water. Food is the most crucial for human substance; every person wants to be secured about food.

Over the last 50 years India has taken significant step in its food grain production. Its output has increase from 55 million tons to over 220 million tons. India has also made significant progress beside food production, in decrease control and economic and social development since Independent.

What is food security?

1. As per world development report (1986): World development report (1986) defines food security as "access

by all people at all times to enough food for an active, healthy life".

2. As per FAO: FAO defined food security as "ensuring that all people at all times have both physical and economic access to basic food they need".
3. Spaatz (1990) defined food security as "the ability to assure, on a long term basis, that the food system provides the total population access to a timely, reliable and nutritionally adequate supply of food."

Characteristics

1. Food security involves adequate physical availability of food to the enter population in the country.
2. People have enough purchasing power so that they can acquire the food they need.
3. Foods are healthy life-The food available should be adequate in quality as well as quantity to meet nutritional requirements.
4. A nation may acquire self-sufficiency in food at a point of time but the concept of food security necessitates that timely, reliable and nutritionally adequate supply of food should be available on long term basis. This implies that a nation has to ensure the growth rate in food supply,so that it takes care of the increase in population as also the income of the people.

Dimensions of food security

Food security has six aspects/dimensions

- **Availability of food:** Means food production with in country, food imports and the previous year's stock stored in Govt. granaries. Food availability relates to thaw supply of food trough production, distribution and exchange.
- **Accessibility of food:** Means food is within reach of every person. Food access refers to affordability and allocation of food, as well as the performances of individuals and households. The UN committee on Economic, social and cultural Rights noted that the causes of hunger and

malnutrition are often not a scarcity of food but an inability to access available food, usually due to poverty. Access depends on whether the household has enough income to purchase food at prevailing prices or has sufficient land and other resources to grow its own food.

- **Affordability of food:** Implies that an individual that enough money to buy sufficient, safe and nutritious food to meet one’s dietary needs.
- **Safety:** To do with what we eat and feeling secure in the knowledge that what we eat without poisonous or do long term damage to our bodies.
- **Resilience:** As the food chain has to do capable of being protected and supported. Food stability refers to the ability to obtain food over time.
- **Confidence:** As there must be public confidence in all those issues, so that people feel that they can purchase the food.

Food security in India

The Indian planners, right from the beginning, realised the need to attain self-sufficiency in food grains as one of the important goal of planning. The Government realised that food surplus countries used their food surplus as a weapon to force food deficit countries to submit to their dictates. India’s first Prime Minister Jawaharlal Nehru realised that it was with great difficulty that India was able to avoid the political strings attach with food aid, but it did hurt national pride.

One of the first efforts of the country was to build up a food security system to ensure that the threat of famine no longer stalks the country... The fact that the country has not witnessed famine and acute starvation on a massive scale in the last five decades is the most eloquent testimony for the success of these efforts.

Table 1

Year	Per Capita Net Availability of Food Grains (000 tonnes)					
	Rice	Wheat	Other Cereals	Cereals	Pulses	Food Grains
2014	198.0	183.0	61.8	442.9	46.4	489.3
2015	186.0	168.0	77.7	421.4	48.8	465.1
2016	184.2	199.7	71.6	443.7	43.0	486.8
2017	190.5	205.2	81.7	465.3	52.9	518.1

India’s Economic Survey in 2017.

The table shows that the per capita net availability of rice production have been decrease from 2014 to 2017 and also per capita wheat production is increased from 2014 to 2017 where other types food grains also gradually increased from 2014 to 2017. The per capita net availability of rice production decreases because there are many factors such as population increases or less production in during years.

Table 2: Food grains Stock in Central Pool for Last Four Years (Figs. In Lakh MT)

Year	Rice	Wheat	Total	Unmilled Paddy
2014	2093.28	3702.8	5796.08	1637.78
2015	1529.91	3575.18	5105.09	1294.28
2016	2046.79	2782.90	4829.69	1443.96
2017	2214.63	2673.72	4888.35	1522.89

India’s Economic Survey in 2017.

Main components of the food security system in India

The main components of the food security system are the

following:

1. Promoting the domestic production to meet the demands of the growing population as also to reduce under nutrition among quite a large section of the population.
2. Providing minimum support prices for procurement and storage of food items.
3. Operating a public distribution system; and
4. Maintaining buffer stocks so as to take care of natural calamities resulting in temporary shortage of food and to act as a countervailing mechanism against traders and businessmen who try to push up prices, especially during periods of shortages of food.

Food security happens when

- People at all levels can earn a fair income for their efforts.
- Food is produced in a way that is safe for people and the environment.
- Local regional and community food production is supported.
- Social justice and inclusion are priorities.
- All people at all times to get enough food are an active, healthy life.
- Ready availability of nutritionally adequate and safe foods.
- People do not live in hunger or fear of starvation.

Steps taken by India

- Govt. took measure to increase the amount of food available to food growing population. The green revolution of 1970 and 1980 led to huge increase in output due to cultivation of HYV of rice and wheat.
- Irrigation facilities greater use of fertiliser and pesticides.
- Greater availability or credit from nationalised bank for agriculture and rural development and also various credit providing units of the bank.

What is National Food Security Bill 2013?

The Indian national food security bill, 2013(also right to food bill), was signed into law September 12, 2013.This law aims to provide subsidized food grains to approximately two thirds of Indian’s 1.2 billion people.

Under the provisions of the bill, beneficiaries are to be able to purchase 5 kilograms per eligible person per month of cereals at following prices:

- Rice at Rs. 3 per kg
- Wheat at Rs. 2 per kg
- Coarse grain (millet)at Rs.1 per kg

Table 3: States that have food security scheme

Andhra Pradesh	35 kg rice at Rs. 1 a kg
Chhattisgarh	35 kg rice at Rs.2 a kg
Kerala	Rice at Rs. 2 a kg for BPL, Universal PDS.
Karnataka	30 kg rice at Rs.1
Madhya Pradesh	30 kg wheat at Rs 1
Odisha	20 kg rice at Rs.1 a kg
Tamil Nadu	20 kg free rice a month
West Bengal	Rice at Rs. 2 a kg

Conclusion

In view of the danger of declining food grain availability at global level looming large, solution lies in encouraging food grain production in the country by offering reasonable price to

the farmer. To make available food to the masses at the reasonable prices, we need to maintain reasonable level of buffer stock, which in turn could be ensured by making sufficient procurement. The minimum per capita net availability of food grains indicates the food insecurity to bring the social poverty in human life. So, different strategies are to be followed to increase the food production and per capita net availability in grams.

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