

Challenges in Food Security of India

Atla J. S.¹ and Panchal S. R.²

¹Ph.D. Research scholar, Department of Agricultural Economics, MPKV, Rahuri, (M.S.)

²Assistant Professor, Department of Agricultural Economics, College of Agriculture, (M.S.)

SUMMARY

A critical review of food grains play an important role in food security and major challenges for food security in India. Crop diversification, bio-fuel and medicinal plant cultivation, climate change, agricultural prices, production of high yielding varieties, special economic zones, capital investment, encouragement to horticulture products, infrastructure requirements and conservation are considered as major challenges for food security. The demand for food grains increases and gets diversified with increase in population, income and urbanization. All challenges have vital effect on both good production of food grains like rice, wheat, maize, oilseeds, millets etc. and socio-economic aspects therefore, resulting as a deleterious consequences for food security of the country.

INTRODUCTION

One of the prime concerns of India's policies has been the food and nutritional security to its population. The demand for food grains increases and gets diversified with increase in population, income and urbanization. Ensuring food security is an important issue for a country like India where more than one-third of the population is estimated to be absolutely poor and almost fifty per cent of all children malnourished in one way or another. Reflecting the varying concerns of the academics, the practitioners etc., various definitions of food security have been used since 1970s. As Frankenberger and Maxwell (1992) document that for the roots of concern with food security, we can trace back to the World Food Crisis in 1972 – 74; and, beyond that to the Universal Declaration of Human Rights (1948), which recognized right to food as a core element of an adequate standard of living. Food security became a key concept only in the 1970s and the 1980s and around it theoretical frameworks and analysis of undernourishment began to be developed. In the 1970s, many of the definitions of food security focused on the importance of the physical availability of food stocks. In the specific context of India, the „Green Revolution“ (GR) of the late 1960s and early 1970s which substantially increased food production by raising productivity levels, made it appear that the availability of food at the national level was not a big problem. In India which was previously a food-deficit country, surplus food stocks were built up. But this did not imply the absence of under nutrition or absence of food insecurity for a large section of the population. With apparent achievement of „self-sufficiency“ in food grain, in the 1980s the focus of analysis shifted to the question of economic access to food at the household level.

According to Food and Agricultural Organisation, food security means ensuring that all people at all times have both physical and economic access to the basic food they need. As defined by the World Bank (WB) in 1986, food security is access to enough food by all people at all times for an active and healthy life. Thus, the physical availability of food stocks and economic and physical access to food stocks are not the only problems that are included in food security concerns, but biological utilisation of food consumed is also important. That is, a more inclusive conception of food security, includes environmental conditions such as availability or otherwise of safe drinking water and sanitation as well as nutrition practices and knowledge that can help or hinder the absorption of food into the body. According to the World Food Summit of 1996, food security is said to exist when, in order to maintain a healthy and active life, all people at all times have access to sufficient, safe, nutritious food. According to Food and Agriculture Organization (FAO), for the food security to exist, it is necessary that to meet their dietary needs and food preferences, all people, at all times, have physical and economic access to sufficient, safe, and nutritious food for an active and healthy life. Thus, three components of food security are: availability, access, and absorption (nutrition). These three are interrelated. It has been shown by many studies that even for increase in productivity of workers, improvement in nutrition is important. Thus, there is intrinsic (for its own sake) as well as instrumental (for increasing productivity) value of food security (*Prof. Kalpana Singh, 2014*).

India has made substantial progress in food grains production by following a new agricultural strategy. As a result, the food grain production has increased from 115.6 Mt in 1960-61 to 241.4 Mt in 2010-11.

Horticulture has emerged as an indispensable part of agriculture, offering a wide range of choices to the farmers for crop diversification and much needed nutrition to the people. The crop diversification is driven by rising population, economic growth, increasing urbanization and changing tastes and preferences. Thus the demand for non-cereal crops is continuously growing in the country. (*Praduman Kumar et al.*)

Major Challenges for Food Security

Crop Diversification

Owing to remarkable approaches by ICAR, the objective of food security has been achieved by the nation in the successive years of green revolution. Further the agricultural scientist has accentuated on implementation of crop diversification as by motivating the farmers for bringing in the cultivation of cotton, chili and sunflower and also diversifying the production of rice and wheat to oilseed and pulses that yield less quantity of irrigation, high profits as compared to field crops.

Bio-Fuel and Medicinal Plant Cultivation

The another challenge for the country is the diversification in the cultivation of field crops like maize, wheat to Bio-Fuel and Medicinal plants like Ashwagandha, Sarpogandha and Jatropha. The concept of diversification primarily came from United States and other European, Asian and African Countries of the World. The cultivation of sugar and other field crops for the production of ethanol is undoubtedly considered to be a gigantic challenge in case of food security. In several instances it has been observed that in South part of India, the state Tamil Nadu is enthralling an alarming step in this case. The recorded cultivation has found to be increased from 46ha to 9020 ha from year 2000 to 2010(Dev and Sharma, 2010).

Climate Change

The changing climate is the another challenge that came forward in case of food security , as it has unusual consequences on the production of food grains in the country. The stumbling blocks like the low/ heavy rainfall, extreme high/low temperature has it influence in form of drought (due to less moisture) or floods (due to high moisture) and all this hazardously effect the crop production and vis-à-vis farm net income of the country. The climate change has vital effect on both good production and socio-economic aspects through the remarkable changes in land utilization pattern and also water resource availability. These critical upshots can be removed only through the integration of bio-physical and socioeconomic aspects of food system.

Agricultural Prices

The lack of remunerative prices for the end products, distress sale, high cost of cultivation accompanied by the unreasonable market prices, alliance of all these act as a challenge in the lane of food security. Yes, it is true that the thought of globalization has brought openness in trade, but it is incapable to ensure healthier market prices. Thus, there is a need to regulate agricultural price policy for the welfare of marketing community that would helpful in facilitating food security in India (Ghosh, 2013).

Production of High Yielding Varieties

With the changing climate scenario, the new varieties of field crops are another big confront for food grain production. The poor harvest index has been computed in case of pulses and oil seeds (Gustafson, 2011) This challenge can be achieved by introducing plant breeding programmes, employing modern biotechnology techniques and also by making farmers attentive for availing the information and utilizing the new techniques of production.

Special Economic Zones

Special Economic Zones have been promoted to stimulate industrial and economic activities. In SEZs many advantages and inducements are given to firms, but setting up of SEZs have displaced farming activities. Land and farmers are dislocated having deleterious consequences for food security of the country. No doubt, the

concept of SEZ in India, have resulted in generation of additional economic activity and also endorsed the exports of goods and services. But some initiatives like Land Acquisition Bill of the government, on the one hand promotes industrialization in the country and on the other hand create tribulations in the conduit of food security. The Polepally SEZ of Andhra Pradesh has set an example of food insecurity as out of 358 farmers 166 lost their farming occupation due to such proposal of SEZ back-up(Kumar,2013).

Capital Investment

The percentage share of capital investment in GDP for agriculture has been stagnant in recent years. Although, in Five Year Plans, the capital expenditure has shown improvement, however it has been noted that from year 2007-08 to 2009-10 the agriculture sector giving firm contribution to GDP(Economic Survey, 2010-11). The real challenge is to enhance the capital investment both from public and private sector.

Encouragement to Horticulture Products

For ensuring the food security, it is not only important to increase per capita availability of food grains but also providing right quantities of food items in the plate of common man. An encouragement is required for horticulture products for increasing per capita availability of food items and also ensuring food security (Economic Survey, 2010-11).

Infrastructure Requirements

The facilities of ware houses, roads and transports and markets should be on priority for the government. In agriculture sector encouragement to PPP model will ensure faster development of infrastructure.

Conservation

The emerging challenge is the policy of conservation. The laws related with Climate flexibilities, agriculture, management of agricultural waste, building carbon sequestration of soil and overall natural resource management is immediately desirable.

CONCLUSION

After the introduction of New Economic Policy (NEP) in India the free market has adversely affected the production of food grains and the rate of growth of food grains production. The accessibility aspect of food security is concerned, long term trend in consumption pattern at household level shows that per capita direct consumption of food grains has been declining. As per findings of a research study, despite dietary diversification, involving sharp decline in per capita direct consumption of food grains, the total demand for cereals and pulses is projected to grow at about 2 per cent per year because of increase in population and increase in indirect demand.

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