



Food security in India; Challenges and Suggestions for effectiveness

KEYWORDS

Food security, Challenges, Suggestions, NAP, Agriculture

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ABSTRACT

Production of certain cereals has increased in India and now the country is one of the largest producers of cereals like rice and wheat. However, the number of people who are struggling with hunger and malnutrition remains very high. India's strategy of agricultural development and approach to food security has proved its resilience in the wake of recent global food crisis, which has created political and social unrest in several countries of the developing world. The same had earlier helped India tide over the severe food crisis of the mid-sixties within a period of one and half decade and had also proved its aptness in the wake of economic liberalisation and globalisation since the early nineties. Though India's performance in terms of reducing hunger and malnutrition has not been remarkable given the political and socio-cultural milieu, the achievements have indeed been significant. Indian agriculture has undergone a phenomenal transformation during the past five decades. The metamorphosis was brought by not only technological changes such as the green revolution, but also by institutional innovations in delivering farm inputs and marketing of output. Contract farming is one such institutional initiative undertaken in recent years to address some of the problems faced by Indian farmers. The National Agricultural Policy (2000) announced by the Government of India, seeks to promote contract farming by involving the private sector to accelerate technology transfer, capital inflow and assured marketing of crop production. Food security both at the national and household levels has been the focus of agricultural development in India ever since the mid-sixties when import dependence for cereals had gone up to 16 per cent and the country faced severe drought continuously for two years. The new Approach intended at maximising the production of cereals and involved building a foundation of food security on three key elements, namely, vision of an improved agricultural technology package for the farmers, delivery of modern farm inputs, technical know-how and institutional credit to the farmer. For achieving these objectives, several policy instruments were used that influenced the production potential. This paper focused on the challenges India faces to meet its food security and measures to ensure food security and discussed suggestions for ensuring food security.

INTRODUCTION:

Currently, millions of people around the world suffer from hunger and malnutrition. 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 insecurity. 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. Well, we have achieved self-sufficiency in food production; the majority of the Indian population does not get enough food or balanced food. Due to the increase in average cereal production per capita consumption of cereals is satisfactory, but there is a decrease in consumption per capita pulse. Production and consumption of 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.

DEFINITIONS:

1. According to the Organization for Food and Agriculture.

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.

Methodology:

The present study is based on the secondary data which have been collected from Books, journals, articles, internet sources etc.

Objectives of the study:

The present study is based on the following objectives

1. To anticipate the challenges of food insecurity in India.
2. To know measures to reduce food insecurity in India
3. To discuss the various suggestions for ensuring food security

FOOD SECURITY IN INDIA:

Food security both at the national and household levels has been the focus of agricultural development in India ever since the mid-sixties when import dependence for cereals had gone up to 16 per cent and the country faced severe drought continuously for two years. The new Approach intended at maximising the production of cereals and involved building a foundation of food security on three key elements, namely, vision of an improved agricultural technology package for the farmers, delivery of

modern farm inputs, technical know-how and institutional credit to the farmer. For achieving these objectives, several policy instruments were used that influenced the production potential. South Asia, including Bangladesh, Bhutan, India, Nepal, Pakistan and Sri Lanka has high population pressure on land and other natural resources to produce food and meet other developmental needs. South Asian countries have made significant advancement in food production during the past three decades, transforming the region from a food deficit to a food self-sufficient region. This could occur due to developments in agriculture research and effective dissemination of research output. These changes have been elicited by the green revolution in South

Asia, involving the development and diffusion of high yielding varieties (HYVs), especially of rice and wheat, from the mid- 1960s, accompanied by the use of increased levels of inputs, principally irrigation, fertilisers and tractors, and policy support. Government investment in infrastructure, research and extension, price and other policies along with strategies for crop, livestock and fisheries production have drastically helped to increase food production and its availability.

Government of India has taken several steps to increase productivity of agriculture. These include schemes like; Rashtriya Krishi Vikas Yojana (RKVY), National Food Security Mission (NFSM), Development and Strengthening of Infrastructure facilities for Production and Distribution of Quality Seed, National Horticulture Mission (NHM), Rain fed Area Development Programme (RADP), Integrated Scheme of Oilseeds, Pulses, Oil Palm and Maize (ISOPOM), Gramin Bhandaran Yojana etc. In addition, Government has also improved the availability of farm credit; implemented debt waiver; introduced better crop insurance schemes; increased Minimum Support Price (MSP), improved marketing infrastructure, etc. Further in order to provide food security to the people by ensuring availability of food at affordable prices, Government has enacted National Food Security Act, recently. The National Food Security Act is a historic initiative for ensuring food and nutritional security to the people. It gives right to the people to receive adequate quantity of food

Salient features of the act are:

- Up to 75% of the rural population and up to 50% of the urban population will have uniform entitlement of 5 kg food grains per month at highly subsidized prices of Rs. 3, Rs. 2, and Rs. 1 per kg. For rice, wheat, coarse grains respectively
- The poorest of poor households would continue to receive 35 kg food grains per household per month under Antyodaya Anna Yojana at subsidized prices of Rs 3, Rs 2 and Re 1.
- Pregnant women and lactating mothers, besides being entitled to nutritious meals according to nutritional standards prescribed also receive maternity benefit at least Rs. 6000 / -. Children in the age group 6 months to 14 years have the right to take home ration or hot cooked food according to the prescribed nutritional standards
- The central government will provide funds to States / Union territories, in case of shortage of grain from the central pool. In case of failure to supply food grains or Meals to entitled people, the concerned state / UT governments are required to provide such allowance of food security as may be prescribed by the Central Government to beneficiaries.

- Central government will provide assistance to States to wards cost of intra-state transportation, handling of food grains and FPS dealer's margin. This will ensure timely transport and efficient handling of food grains.
- Reforms have been undertaken for home delivery of grain, the application of information and communication technologies (ICT), including end to end computerization, diversification of products covered by TPDS etc. For Effective implementation food security Act
- Women Empowerment: Eldest woman of 18 years old and above will be the head of household for the issuance of ration card, and if not available, the eldest male member is to be the head of the family.

CHALLENGES OF FOOD SECURITY:

The challenges India faces to meet its food security are as follows.

- Productivity increase of Indian agriculture using high yielding seeds and modern technology.
- Changes in food consumption pattern due to changes in dietary habits of the population
- Malnutrition in India, especially in children to be reduced to zero.
- Development of supply chains of high value to cover the last recipient in time.
- Food security is a right and it is pre-requisite to enjoy other rights available to an individual.
- Hunger and poverty must be reduced to ensure food security for all beneficiaries.
- More investment in agriculture is needed within and outside India.
- Government neglect of agriculture is reflected in the suicide of the farmer.
- Research on new challenges that farmer's face like climate change, droughts and floods

M.S Swaminathan has suggested the measures to ensure food security to all as below.

- Revisiting international trade rules, in order to promote a "food security oriented" trading system.
- Creating a better market information system, inclusive on the level of stocks, to help restore confidence in international markets.
- Tightening up speculation on the futures market to avoid price manipulations.
- Reducing food waste and post-harvest losses and ensuring food safety.
- Increasing investment in ever-green agriculture and in agricultural research.
- Giving greater attention to the net income of small-holder farmers.

Suggestions for ensuring food security:

The following are the various suggested for ensuring food security in India.

1. Education and literacy:

Role of education in improving farm efficiency and technology adoption has to be well established (Lockheed et al, 1980; Fader et al, 1985; Phillips, 1994). As agriculture transformed from subsistence to commercial level, farmers seek information on a wide range of issues to acquire knowledge or upgrade their skills and entrepreneurial ability. Literacy emerged as an important source of growth on adoption of improved technology components and production. The role of literacy is more pronounced during the liberalisation era than the pre -1990 period, where knowledge based decisions influence input use efficiency

and productivity. Literacy emerges as an important source of growth in adoption of technology, and use of modern inputs like machines and fertilisers. Recognising that in the liberalised economic environment, efficiency and growth orientation will attract maximum attention, literacy will play a far more important role in the globalised world than it did in the past. An educated work force makes it easier to train and acquire new skills and technologies required for productivity growth. Thus, contribution of literacy will be substantial on yield growth and domestic supply of food (Mittal and Kumar, 2000)

2. Integrated Nutrient Management:

Attention should be given to balanced use of nutrients. Phosphorus deficiency is the most widespread soil fertility problem in both irrigated and un-irrigated areas. To improve the efficiency of fertiliser-use, what is really needed is enhanced location-specific research on efficient fertiliser practices, improvement in soil testing services, development of improved fertiliser supply and distribution systems and development of physical and institutional infrastructure (Kumar and Desai, 1995)

3. Water for sustainable food security:

India, being crop-based, needs to produce more and more from less and less of land and water resources. Alarming rates of ground water depletions and increasing environmental and social problems pose acute threats to humankind. Improved management of irrigation water is essential in enhancing production and productivity, food security, poverty alleviation. In India, water availability per capita was over 5000 cubic metres per annum in 1950. It stood at around 2000 cubic metres during 2001 and was projected to decline to 1500 cubic metres by 2005. Further, the quality of available water is deteriorating faster (Kumar, 2001). Agriculture is the biggest user of water accounting for about 80 per cent of the water withdrawals. There are pressures for diverting water from agriculture to other sectors. It has been projected that availability of water for agriculture use in India may be reduced by 21 per cent by 2020, resulting in drop of yields of irrigated crops, especially rice, leading to price rise and threat to food security of the poor. The needs of other sectors for water cannot be ignored. As a result, it is necessary that an integrated water use policy is formulated and judiciously implemented

4. Enhancing yield of major commodities:

The yield of major crops and livestock commodities must be increased. There is a need to strengthen adaptive research and technology, assessment and refinement capabilities of the country so that the existing gaps in technology can be bridged. For this, an appropriate network of extension service will have to be created to stimulate and encourage both top-down and bottom-up flow of information among farmers, extension workers and researchers. The agronomic and soil research need to be intensified to deal with the area-specific problems as decelerating productivity growth in the major production systems. Research on coarse grains, pulses and oil seeds must achieve a production breakthrough. Hybrid rice, single cross hybrids of maize and pigeon pea hybrids offer new opportunities. Soybean sunflower and oil palm will help in meeting the future oil demands successfully. Forest cover must be preserved to keep off climatic disturbances and provide adequate fuel and fodder. Milk, meat and draught capacity of our animals need to be improved through Management practices

5. Increase in productivity:

It is imperative for India to maintain a steady growth rate in productivity. As productivity increases, the cost of production decreases and the prices also decrease and stabilises. Both producer and consumer share the benefits. The fall in food prices will benefit the urban and rural poor more than upper income groups, because the former spends a much larger proportion of their income on cereals than the latter. All the efforts need to be concentrated on accelerating growth in productivity, whilst conserving natural resources and promoting ecological integrity of agricultural system. More than half of the required growth in yield to meet the target of demand must be met from research efforts by developing area-specific and low input use technologies with emphasis on the regions where the current yields are below the national average yield.

6. Making dry areas as green:

Resource-poor farmers in the rain-fed ecosystems practise less intensive agriculture; they depend on local agriculture for their livelihood and benefit little from increased food production in the irrigated areas. To help them, efforts must

be increased to disseminate the available dry land technologies and to generate new ones. Farming system research to develop location-specific technologies must be intensified in the rain-fed areas. (Singh et al, 2002). The Government of India has already extended high priority to watershed development programmes in Rain-fed areas

7. Emphasis on empowering small farmers:

Contribution of small farm holders in securing food for the growing population has increased considerably even though they are the most insecure and vulnerable group in the society. Some definite human resource and skill development programme will make them better decision-makers and highly productive. Human resource development for increasing productivity of these small farm holders should be given high priority. Thus, awareness generation and skill development of rural people in both agriculture and non agriculture are essential for achieving economic and social goals

8. Support for risk management:

Small farmers not only have few resources to invest, but also face higher level of risk in any capita investment, as compared to wealthy farmers. The small farmers Can be prevented to take extreme steps by creating the necessary policy environment to reduce risk, like diversification, generation of new livelihoods, off-farm income, and institutional support, access to information, technology, inputs, credit and crop insurance

India and most of the countries in South Asia have concentrated on enhanced production of a few food commodities like rice and wheat, which could quickly contribute to their total food agricultural production. The rice-wheat based cropping system, spread in the most fertile areas, is the backbone of food security in South Asia. All the efforts in the future have to be concentrated on breaking the yield plateau by conserving natural resources and promoting ecological integrity of the agricultural system. Producing more with less of inputs will be the major challenge in the next two decades. Research problems in the rain-fed unfavourable ecosystems and breaking of the current irrigated yield ceilings are more complex and challenging. To make headway in them will require mobilisation of the best of science and the best of scientists in the National Agri-

cultural Research System. This needs higher investment in agricultural research. An integrated approach of developing crop varieties with greater efficiency in utilisation of nutrients and other natural resources,

CONCLUSION:

Cereal production in India increased and the country has become the world's largest producers of cereals like rice and wheat. However, the levels of hunger and malnutrition remain high. At present, the biggest challenge is not only improving the productivity of agriculture, but also making the food grains accessible to the poor and needy. In such a situation, the Food Security Act would be an opportunity for India to assume full responsibility of food safety of its citizens.

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