

Food Security: A Challenge before rural India

Ashok.R.Herwade

Assistant Professor in Commerce Raje Ramrao mahavidyalaya, Jat Dist-Sangli,
Maharashtra, India

Abstract

Due to changes in temperature world is traveling in the route of non recoverable loss of nature, it is proved. Environmental change due to environmental destructions will definitely eat us all. Environment has extreme power to erase existence of human development of India as well as world. While facing to this global situation countries like India has a challenge to maintain the human development index level. Some proofs are shown that the existence of India's natural resources is coming in dangerous position. Obviously the weaker sections of the society i.e. local population will suffer and they will migrate at another favorable destination. In India 56% of population depends upon agriculture and another big section of society depends upon fishery and tourism and remaining section living in rural area, all these depend upon nature for food and shelter. An Indian national agriculture survey focused that nearly 40% of the cultivators want to give up farming if an option was available. The reason behind this is low output and low profit. In India 72% of population is living in rural area majority of them are poor and they live on agriculture. According to **Pachourry**, for some crops 1 Celsius increase in temperature will decrease 5 to 10% production.

Since, 1995 food security in India is coming in dangerous position till 2015 the problem will become more serious. **UNO** has warned that up to year 2050 India's population will increase by 500 million. It affects on food supply and lack of food large population will migrate. Intergovernmental panel also alarmed that due to increase in sea level the migration of population will increase on sea line. In India there is not sufficient store houses. **Hon.Minster Kapil Sibbal** said in Loksabha while answering the oppositions on FDI on 4th Dec 2012 that in India every year 8 crore tons of vegetables and fruits are perishing due to lack of storage facilities.

KEYWORDS: Food grains, Agriculture output, Livelihood security, Balanced diet, Climate change, migration of population,

1. Introduction –

India is one of the most progressive nations of the world, making waves in the field of science and technology, nuclear energy etc. Global multinationals and growing industries have changed the face of urban India with people being employed in corporate, having a fairly high standard of living and an increased purchasing power. But this just shows the glorious side of the story for India. Rural India still struggles for its basic necessities of life like food, drinking water, sanitation and education. In spite of some improvement in nutritional status at the national level, nearly half of the rural children are suffering from malnutrition. Vitamin –A deficiency, which leads to preventable blindness among the children, is found to be more prevalent among the

children from rural households. Iron deficiency is quite rampant among the pregnant women, residing in remote villages. On the other hand, micro-nutrient deficiency is equally common among the rural population and especially among the vulnerable groups such as woman and children.

2. Objectives –

1. To know necessity of food security in rural area.
2. To know the food gap between supply and demand.
3. To know the challenges before food security
4. To know the remedies for food security.

3. Hypothesis –

Food security is the necessary and it is burning challenge before rural India and also the world.

4. Research methodology –

This paper is based on secondary data and some discussion with farmers, farm workers and rural people.

From 1947 onwards, achieving food security for all is a national goal. Jawaharlal Nehru, the first Prime Minister of India, articulated this goal by emphasizing “everything else can wait, but not agriculture. Food security is now defined as physical, economic and social access to balanced diet, clean drinking water, environmental hygiene and primary healthcare. Unfortunately, in spite of numerous government schemes and safety nets, under and malnutrition remain widespread in our country. Children and women suffer the most. In spite of all the progress we have made in industry and economic growth rate, our reputation in the field of eradication of hunger and malnutrition is poor. In the last decade, emphasis in relation to basic human needs has shifted from a patronage to a rights approach. Thus, we have now legal rights through Parliament Approved Legislation in the fields of education, information and employment. Currently, there is an ongoing exercise in developing a ‘National Food Security Bill’ and which now being examined by the parliamentary Standing Committee on food.

The bill seeks to cover up to 75 per cent of the rural population and 50 per cent of urban households and proposes the right to 7 kg food grain per person – at Rs. 3 per kg for rice, Rs. 2 per kg for wheat and Re. 1 per kg for coarse grains to the priority below poverty line i.e. BPL beneficiaries. The general category i.e. above poverty line (APL) beneficiaries will get at least 3 kg of ration per person per month at half the minimum support price (MSP) of grains. Now recently the Union Agriculture Minister of India, Mr. Sharad Pawar had expressed his concern on the implementation of Food Security Bill when he said that it may be difficult to implement the proposed bill without adequate funds to boost agri-output, a must for increased food grain requirement.

What is Food Security?

Sustainable food security involves strengthening the livelihood security of all members within a household by ensuring both physical and economic access to balanced diet including the needed micronutrients, safe drinking water and environmental sanitation, basic health care and primary education. The food should originate from efficient and environmentally benign production technologies that conserve and enhance the natural resource base of crops, farm animals, inland and marine fisheries.

According to Prof. Jean Dreze, “Hunger is almost a hidden national emergency”. The following points covers why food security is necessary?

1. According to Global Hunger Index, 2009-10, India ranks 96 in a group of 119 developing countries.
2. According to the World Food Programme, nearly 50 per cent of the world’s hungry live in India.
3. 410 million the number of people who are poor and food insecure in just eight Indian states- more than in the 26 sub- Sahara African countries, according to an Oxford University report.
4. About 35 per cent of India’s population over 350 million is food insecure, consuming less than 80 per cent of the minimum energy requirement.
5. Nearly 9 out of 10 pregnant women between 15- 40 years are malnourished and anemic.
6. India contributes 21.6 per cent of total deaths in the world below 5 years age group and about one –third of under weight children under five live in India.
7. Four African nations- Nigeria, Cameroon, Kenya and Sudan- have far lower per capita income than India’s but manage hunger better (as per ranking).
8. The level of hunger in India across all state; there is not a single state with low or even moderate levels.
9. The food bowl Punjab, India’s best performing state falls in “serious” category and ranks behind Vietnam and Saudi Arabia.
10. Madhya Pradesh, India’s worst state, Gujarat, Chhattisgarh and Hariyana are worse off than Sudan.
11. Bihar and Jharkhand rank lower than Zimbabwe and Hayati.

To meet the domestic food requirements, the country either needs to increase agricultural production or depend on imports. Since agricultural growth is limited, imports can help improve the country’s supply situation for a short term. But for the long term, the country will need to focus on productivity enhancement through public investment in irrigation, efficient use of water, cold storages, research and plant nutrition. These policies will induce efficiency and can help in maintaining balance between domestic production and demand.

Projections of Food Demand-

Demand projections in general are estimated on the basis of assumptions about the base year demand, population, expenditure elasticity and economic growth. The demand and supply projection given below was developed at Indian Council for Research on International Economic Relations. The domestic demand is projected under the gross domestic product (GDP) growth rate to be 9 per cent only.

Table 1
Projected Domestic Demand for Food items in India

(Million metric tones)

Food Items	Base Year 1999- 2000	2011	2021	2026
Rice	66.6	94.4	96.8	102.1
Wheat	44.9	59.0	64.3	65.9
Total Cereals	119.0	188.5	245.1	277.2
Pulses	10.4	24.1	42.5	57.7
Edible Oil	8.6	16.8	30.2	40.9
Sugar	11.9	29.8	65.7	100.7

Source: Surabhi Mittal (2008)

As per the projection, the total cereal demand for 2011 is 188.5 Million tonnes. The cereal demand in 2026 will be 277.2 million tonnes. Demand for edible oil is projected to be 40.9 million tonnes by 2026 and sugar demand is expected to increase almost nine-fold in 2026 from base year demand of 11.9 Million tonnes.

Projections of Food Supply-

Medium and long-term supply projections of food have been made using a straightforward approach. For the most recent period of 1993- 2003 as the base year for area and production and also assumed that further area expansion will take place. Supply prospects have accordingly been presented in Table 2 for selected food items.

Table 2

Projected Domestic Supply of Food items in India

(Million metric tonnes)

Food Items	Base Year 2003- 2004	2011	2021	2026
Rice	88.3	95.7	105.8	111.2
Wheat	72.1	80.2	91.6	97.9
Total Cereals	186.9	209.1	242.2	260.2
Pulses	14.9	16.1	17.6	18.4
Edible Oil	8.6	10.1	12.5	13.9
Sugar	24.2	25.0	26.0	26.6

Source: Subabhi Mittal (2008)

If there is no area expansion and future supply is only dependent on yield growth, then total supply of cereals will be 209.7 million tonnes in 2011 and reached 260.2 million tonnes in 2026. The yield growth of total cereals has been 1.5 percent in the past decade, according to government estimates. Rice and wheat production is also estimated to increase to 111.2 million tonnes and 97.9 million tonnes respectively by 2026.

5. Food Gap-

Increase in total demand is mainly due to growth in population and per capita income as far as supply is concerned, production is constrained by low yield growth. A negative gap indicates that the demand of the commodity is more than its supply and this implies a deficit of the commodity in future. Table 3 shows the gap between supply and demand.

Table 3

Supply – Demand Gap for selected Food items

(millions metric tonnes)

Food Items	2011	2021	2026
Rice	1.26	8.98	9.13
Wheat	21.2	27.33	32.04
Total Cereals	21.19	-2.94	-16.97
Pulses	-8.05	-24.92	-39.31
Edible Oil	-6.66	-17.68	-26.99
Sugar	-4.31	-39.67	-74.13

Source: Surabhi Mittal (2008)

The gap between supply and demand is narrowing down over the years for all the food items. The supply- demand gap for total cereals is expected to be 21.19mmt in 2011 whereas it is projected at -16.96mmt in 2026. If we look at the medium- term prospect then in 2011 by the end of the Eleventh Plan, the situation for pulses, edible oil and sugar is alarming. This implies that in the years to come, the country will have to rely on imports of these food items to meet the domestic requirement.

6. Major challenges before Indian agriculture for food security –

1. Stagnation in Indian agriculture- A National survey shows that nearly 40 percent of farmers want to give up farming if an option was available. The reason is obviously low profit. Today, yields in India for almost all crops are stagnant and lower than other countries. Indian rate of growth of rice production is least in Asia, even lower than Pakistan, Myanmar and Sri Lanka.
2. Small and marginal land holding- Nearly 60 percent of the farmers on an average own 0.4 hectares, while another 20 percent on an average hold 1.4 hectares. This puts the population of small and marginal farmers at about 80 percent of the total. The declining trend in the average size of farm holdings also poses a serious problem.
3. Hunger and poverty- Our food grain production is now well over 220 million tones. We are facing double digit inflation in case of food items. There is an extremely high prevalence of hunger and malnutrition. According to Global Hunger Index, 2009-10, India ranks 96 in a group of 119 developing countries.
4. Food wastage- Recent information was that food grains worth 580 billion got spoiled due to lack of storage facilities with the Food Corporation of India. It is no less than a sin to waste such huge quantities of food grains when millions in the country remain unfed and their daily ration calories of many other is much below the minimum necessary for their survival.
5. Climate change- Threat of climate change looms large over Indian agriculture. This is due to global warming. A temperature increase in 1°C will reduce the duration of wheat and rice in north and western India by a week.
6. Dry land agriculture- Dry land is home to more than 450 million farming people. It contributes 42 percent of total food grains especially coarse grains, 75 percent of pulses and oil seeds and 40 percent of wheat. Climate change would expand dry land by 11 percent.
7. Agro – infrastructure- We still are lacking in the desired infrastructure for providing irrigation to the cultivable areas, technology for soil and moisture conservation, infrastructure for storing perishable products, road connectivity for bringing perishable products in the market at the earliest, chain of cold stores at the village, small scale industries for value addition and water harvesting structures.

7. Remedies for Food security-

Sustainable end to hunger and provision of Food Security in India can be achieved by taking different steps by integrating various ongoing programmes on nutrition and employment and by initiating some new programmes.

1. Facilitate toe setting up of local level community food banks. In such food banks, food articles should be loaned as per the need and should be realized after the surplus harvest.
2. Setting up of food buffers at Gram Panchayat and Gram Sabha level so that supply to the needy could be ensured at right time or immediately.
3. Promote the cultivation and consumption of fruits, vegetables and dairy farming.

4. Public Distribution System (PDS) should be strengthened because an effective PDS can be the backbone of food availability and food security.
5. Mid- day meal scheme being implemented in all schools to cover the children most likely to affected by the availability of food and malnutrition.
6. Nutritional security schemes of the government should focus more on the pregnant women, adolescent girls and infants.
7. Agriculture and agro- based industry has vast potential for the creation of jobs and this should be strengthened to provide opportunities for the people to earn their daily bread.
8. The concept of self help groups (SHG) should be strengthened and universalized.
9. Contract farming with private participation should be encouraged.
10. Major crops like wheat, paddy, cotton, maize should be covered under crop insurance scheme to cover up the losses due to crop failures

8. Conclusion –

Food is the first among the hierarchical needs of a human being. In the present environment, food security system is one of the most significant human development aspects. There is a close linkage between food security and socio economic development, rural health and public distribution system, for improving human development indicators in the developing countries. We should try to understand and find out the optimal solution of mitigating the problems of poverty, hunger, diseases and malnutrition.

Considering above mentioned points, it is proved that the set hypothesis, “Food security is the necessity and burning challenge before rural India and also the world” has proved.

9. References -

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