

FOOD SECURITY IN RURAL INDIA

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ABSTRACT

According to 2011 Census, 833 million people currently live in rural India. They largely depend upon agricultural activity for their livelihood .Despite 2.5 times more yield of major food grains since 1950, under and malnutrition (especially among children and women) remain widespread in India. According to World Food programme, nearly 50% of the world's hungry live in India and 35% of total population is food insecure, so ensuring food security ought to have a great importance in India. FAO (2002)defined food security as "a situation that exists when all people, at all times have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life". India has experimented several programmes for improving food security e.g. Public Distribution Services (PDS), Integrated Child Development Services (ICDS), Mid-day Meals Programme, Provision of health facilities, Employment Targeted Programmes. But still India has not been completely able to solve the problem of chronic food insecurity. In the present paper the trend of growth rates in production and yields of food grains, has been critically examined along with India's performance, challenges and policies in food security.

KEY WORDS: Indian agriculture, Food Security, PDS, ICDS, Mid-day Meal, Rural poverty, Malnutrition.

INTRODUCTION

Since the population of India has been rising sharply in comparison with the food grain production; the problem of food crisis is also accelerating day by day. In the absence of adequate and balanced food, many people in India have been suffering from hunger and malnutrition .Nearly 50% of the world's hungry live in India and 35% of total population is food insecure (World Food Programme). Lack of food causes several health diseases; in many cases, it brings the condition of famine and epidemics. So, in this situation, food security ought to be a meaningful, long-term right of the people of India. There have been many emerging issues in the context of food security in the last two decades like: (i) economic liberalization in the 1990s and its impacts on agriculture and food security; (ii) challenges of food security; crisis of the three Fs, viz., food prices, fuel prices, and financial crisis; (iii) the phenomenon of hunger amidst plenty, i.e., accumulation of stocks in the early years of this decade and in the public years of this decade and in 2008-2009 along with high levels of poverty; (iv) introduction of Public Distribution System (PDS) for the first time in 1990s. (v) 'Right to Food' campaign for improving food security in the country and the Supreme Court Orders on the mid-day meal scheme; (vi) monitorable targets under Tenth and Eleventh five year plans similar to the Millennium Development Goals (MDGs) on poverty and women and child nutrition (Dev & Sharma, 2010).

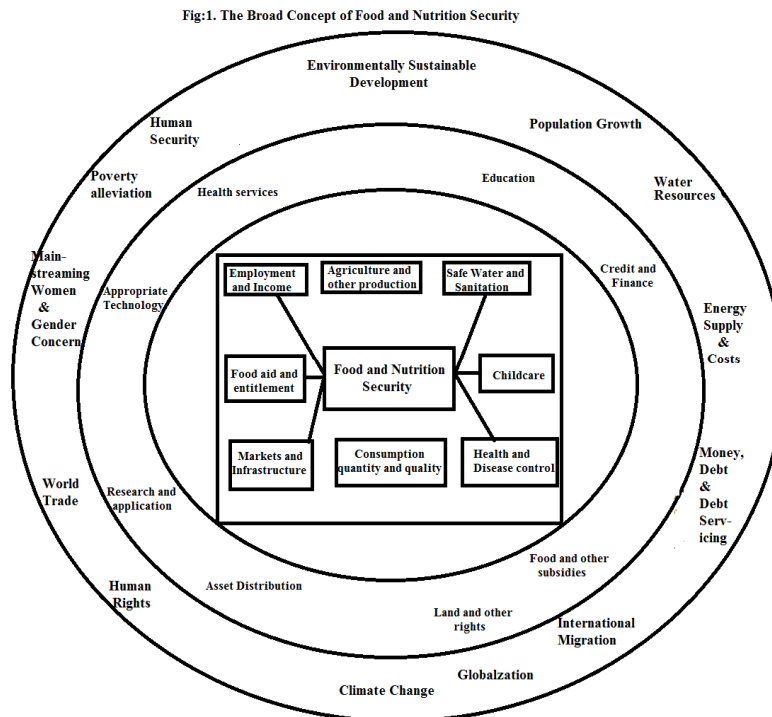
THE CONCEPT OF FOOD SECURITY

According to Food and Agricultural Organization (FAO) "food security exists when all people, at all the 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".

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M. S. Swaminathan (2010) defines food security as “physical, economic, social and environmental access to balanced diet, clean drinking water for every child, women and man.” He mentioned that physical access is a function of the availability of food in the market; economic access means purchasing power and employment opportunities; social action is conditioned by gender equity and justice; and environmental access is determined by sanitation, hygiene, primary healthcare and clean drinking water.

The broad concept of food and nutrition security, its different magnitude and interconnectedness can be understood from the figure no 1.



Source: Shaw,J.D. (2007)

PATTERN OF FOOD PRODUCTION & YIELD IN INDIA

Table 1 summarizes the trend of growth rates in production and yield of main crops since last three decades. The table 1 shows that there are considerable decrease in the production and yield of total food grains including rice and wheat since 1980-81 to 2010-11. The production of rice and wheat has been decreased 2.4 & 1.7 times respectively; while in the case of yield, it decreased 1.9 times for rice and 3.10 times for wheat. During the decade of 1980-81, production and yield of rice and wheat was higher because of the impact of green revolution, but after due course of time, their production and yield rates are rapidly declining. This is not a good sign for self-sufficient growth of Indian agriculture. The growth rate of cereals and oilseeds production also gets declined during same period. During the period of 1900s, negative growth (-0.02) has been recorded in the production of cereals. But there are significant increase in the production and yield of coarse cereals and pulses. So from the table no 1, we find that there is a pattern of shifting in terms of area and production from rice and wheat to cereals, pulses and oilseed in the post economic reform period. Table 2 depicts per capita availability of food grains since last four decades. It

shows that from 1971 to 2011, per capita availability of food grains (like rice, wheat, cereals, gram, pulses) got steadily declined.

REASONS FOR DECLINING THE PRODUCTION AND PER CAPITA AVAILABILITY OF FOOD GRAINS

- The performance of food grains production (Table no 1) provides negative growth rate. There are several factors which have great impact on food grain production. These are -
- Rapid growth of population in India at the expanse of growth rates of food grains.
- The increase in the price of crude oil and devaluation of U.S. Dollars led to increase in food prices in India as well as all over the world. Commercialization of agricultural products during the era of globalization has decreased the production of food grains. Due to liberalization and globalization, the production of food grains is considered as unprofitable in India.
- Rapid urbanization and industrialization in India have led to encroaching of the agricultural lands.
- Because of unscientific, unsystematic and excessive use of chemical fertilizers, fertility of land has been reducing day by day.
- Exploitation of groundwater because of agricultural, Industrial and Domestic use also creates critical situation for food grain production.
- Food security is directly or indirectly related to climate change. Any alteration in climatic parameters such as temperature and humidity which govern crops growth will have direct impact on the quality of food produced. Indirect linkages pertain to catastrophic events such as floods and droughts which are projected to multiply as consequences of climate change leading to huge crop loss and leaving large patches of arable land unfit for cultivation and hence threatening food security (Chaudhury & Agarwal, 2007).

Table no 1. Compound Growth Rates of Area, Production and Yield of Principal Crops

Crop	1980-81 to 1989-90			1990-91 to 1999- 2000			(% per annum) 2000-01 to 2010-11		
	A	P	Y	A	P	Y	A	P	Y
	2	3	4	5	6	7	8	9	10
Total Food grains	-0.23	2.85	2.74	-0.07	2.02	1.52	0.37	2.12	2.89
Rice	0.41	3.62	3.19	0.68	2.02	1.34	-0.10	1.51	1.61
Wheat	0.46	3.57	3.10	1.72	3.57	1.83	1.28	2.16	0.87
Total Cereals	-0.26	3.03	2.90	0.04	-0.02	1.59	0.09	2.01	3.19
Coarse Cereals	-1.34	0.40	1.62	-2.12	-0.02	1.82	-0.75	2.80	4.24
Total Pulses	-0.09	1.52	1.61	-0.60	0.59	0.93	1.62	3.35	1.90
Total Oilseeds	1.51	5.20	2.43	-0.86	1.63	1.15	2.14	4.60	3.59

Source: Directorate of Economics and Statistics, Department of Agriculture and Cooperation, 2011.
A = Growth rates of Area, P = Growth rates of production, Y = Growth rates of Yield

FOOD-BASED SAFETY NETS: AT A GLANCE

Food based safety net programmes are very essential to address the problems of food insecurity. The Government of India has launched several programmes for ensuring food security, these are described below-

Table No 2: Per Capita Net Availability (Grams Per Day) of Food grains (Per day) in Rural India							
Year	Rice	Wheat	Other Cereals	Cereals	Gram	Pulses	Food Grains
1	2	3	4	5	6	7	8
1971	192.6	103.6	121.4	417.6	20.0	51.2	468.8
1976	187.2	79.5	107.4	373.8	20.2	50.5	424.3
1981	197.8	129.6	89.9	417.3	13.4	37.5	454.8
1985	188.8	138.6	87.9	415.3	12.9	38.1	453.4
1990	212.1	132.6	86.8	431.5	10.7	41.1	472.6
1991	221.7	166.8	80.0	468.5	13.4	41.6	510.1
1992	217.0	158.6	58.9	434.5	10.1	34.3	468.8
1993	201.1	140.2	86.6	427.9	10.7	36.2	464.1
1994	207.4	159.5	67.1	434.0	11.8	37.2	471.2
1995	220.0	172.7	64.9	457.6	14.9	37.8	495.5
1996	204.4	176.0	62.0	442.5	11.3	32.7	475.2
1997	214.0	179.1	72.9	466.0	12.4	37.1	503.1
1998	200.3	151.5	62.4	414.2	13.4	32.8	447.0
1999	203.4	162.3	63.4	429.2	14.6	36.5	465.7
2000	203.7	160.0	59.0	422.7	10.8	31.8	454.4
2001	190.5	135.8	56.2	386.2	8.0	30.0	416.2
2002	228.7	166.6	63.4	458.7	10.7	35.4	494.1
2003	181.4	180.4	46.7	408.5	8.5	29.1	437.6
2004	195.4	162.2	69.3	426.9	11.2	35.8	462.7
2005	177.3	154.3	59.4	390.9	10.6	31.5	422.4
2006	198.0	154.3	60.5	412.8	10.7	32.5	445.3
2007	194.0	157.8	55.5	407.4	11.9	35.5	442.8
2008	175.4	145.1	54.1	394.2	10.6	41.8	436.0
2009	188.4	154.7	63.9	407.0	12.9	37.0	444.0
2010	184.8	167.9	54.3	407.0	13.5	31.6	438.6

Source: Directorate of Economics and Statistics, Department of Agriculture and Cooperation, 2011

PUBLIC DISTRIBUTION SYSTEM (PDS)

PDS has been considered as an imperative step taken by Government of India for attaining the goal of food security. The basic objective of the PDS is to provide essential consumer goods at cheap and subsidized prices to the consumers to insulate them from the impact of rising prices and to maintain the minimum nutritional status of our population. (Mishra & Puri, 2010). The important items covered under PDS in India have been rice, wheat, sugar and kerosene. Together these four items have accounted for 86% of the PDS sale. Pulses, which constitutes as an important source of protein for the poor, has a share less than 0.2% in total PDS sale. Thus PDS distributes commodities worth more than Rs 30,000 cores annually to about 160 million families and is perhaps the largest network of its kind in the world (Baby, 2012).

TARGETED PUBLIC DISTRIBUTION SYSTEM (TPDS)

TPDS was launched by GOI in June 1997, which aims at providing food grains to the people below poverty level. The most typical feature of TPDS is that entire population was divided into two categories BPL & APL, based on the poverty line defined by Planning Commission. Initially BPL population was provided 10kg of food grain at subsidized price per month, later on from April 2002; GOI raised this to 35kg per month to BPL household.

ANTYODAYA ANNA YOJANA

In order to make TPDS more focused and targeted towards the poorest section of population, the Antyodaya Anna Yojana (AAY) was launched in December, 2000. Initially AAY contemplated identification of crore poorest of the poor families from amongst the BPL families covered under TPDS within the states and providing them food grains at a highly subsidized rate of Rs 2/kg for wheat and Rs 3/kg for rice. The AAY Scheme has been expanded in subsequent years and presently it is covering 2.5 crore households (Hazra, A, 2012).

INTEGRATED CHILD DEVELOPMENT SERVICES

It is a centrally sponsored scheme launched in 1975. It aims to improve nutrition and health status of children up to six years of age (with special focus on children up to two years) and for pregnant and lactating mothers. It has a holistic package of six basic services: supplementary feeding, immunization, health check-ups, referral services, non-formal pre-school education, and advice on health and nutrition.

MID-DAY MEAL SCHEME

It is a national programme of nutritional support to primary education, launched in 1995. The scheme was anticipated to improve the enrollment and regular attendance and reduce drop out and also to improve nutrition status of school children. MDM scheme is world's largest school nutrition programme which provides cooked food comprising 100gm of food grains per school in a day or 3 kg food grains per months for 6 to 14 years children.

NATIONAL FOOD SECURITY MISSION

It is also a centrally sponsored scheme, launched in 2007 to augment the production of rice, wheat, and pulses by 10, 8, and 2 million tonnes respectively by the end of 2011-2012.

WEAKNESSES OF FOOD-BASED SAFETY NETS

- It has been observed that despite huge stocks of food grains in Food Corporation of India's (FCI) godowns; hunger and malnutrition, death are still reported. It shows the failure of food based safety net programmes. Some of the root causes of failure have been pointed out here-
- In many areas of our country, dishonest ration dealers make rationing system faulty. They sell food grains in open market; hence food security of rural poor is hampered.
- The level of poverty defined by the Planning Commission of India for categorizing BPL is really problematic, because in those circumstances, the chances of miss-identification and exclusion of vulnerable poor people from TPDS are very high.
- The lists of BPL families are also flawed. It shows hegemony of politically and economically strong people over TPDS.
- Regional disparities of food grains distribution under PDS also have been found. Bihar, Orissa, U.P, M.P, Maharashtra, West Bengal, comprise about 80% of total rural poor in India, but get very low PDS allocation.
- In PDS system, though the government announces the minimum support price, the agencies cannot purchase the entire quantity offered due to lack of buffer stock of food grains and hence the producers are forced to sell their products at lower prices to private traders (Bairagya & Sarkhel, 2011).
- The operation of PDS has in fact in an all round price increase, this is due to the reason that large procurement of food grains every year by the government actually reduces the net quantities available in the market (Baby, 2012).
- ICDS is being hampered because of irregular supply of food and medicine and lack of community participation.
- Main problems arising in MDM scheme are irregular and insufficient supply of food grains, and rampant corruption.
- Apart from food-based safety nets, GOI has launched many anti poverty programme for the employment of poor people to improve their affordability of food as well as the quality of life. Integrated Rural Development Programme (IRDP), National Rural Employment

Programme (NREP), Training of Rural Youth for Self Employment (TRYSEM), National Rural Livelihood Mission (NRLM) etc. are remarkable among those.

CONCLUSION AND RECOMMENDATION

In this paper, the Researcher has examined the performance, challenges, and policies in food security. The above discussion shows that the total agricultural area, production, yield and per capita availability of food grains have declined in the last few decades. Despite many policies and programmes, food insecurity and malnutrition continue to be high. The main problem is that there is no simple solution for sustainable food security to feed 120million people of India. A broad range of alternatives is needed to be pursued simultaneously so that satisfactory progress of food security can be achieved.

- The first thing needed for achieving food security is to bring sustainability in agricultural production, yield, storage, marketization, delivery system.
- For getting significant development in agricultural evolution, Prof. M.S.Swaminathan pleaded for converting green revolution into the ever-green revolution by mainstreaming the principle of ecology in technology development and dissemination. According to him, the major pathways for fostering an ever-green revolution are organic farming and green agriculture. Both of these are environment friendly, it will help to prevent the degrading quality of soil, water, biodiversity, forest and atmosphere; it also helps to boost up the production of food grains.
- Nowadays, how can we achieve food security under changing climate scenario has become a matter of great concern. We need reorientation of agricultural research towards impact of climate change and also to find out the vulnerable regions. Simultaneously upgradation and innovation of new technology are required so that plants and seeds can adopt themselves in changing climatic condition.
- India's geo-climatic condition is disaster prone. Floods, drought, cyclone, earthquake and landslide make heavy loss of agriculture. So we need proactive use of various types of planning measures, supportive infrastructure and implementation of risk reduction mechanism to fight against disaster.
- "Right to food" should be recognized as fundamental rights. Strong political will, adequate budgetary provision, reform in existing delivery mechanism and community participation are of immense importance for achieving food security.
- Reform of food-based safety net programme and employment generation programme to ensure food and nutrition rights of the poor and marginalized rural people.
- The shift in policy regarding agricultural production and land management, nationally and internationally is based on the premise that since agriculture is increasingly becoming the domain of women, enhancement of women's endowment through land will increase production, reduce poverty and ensure food security(Krishnaraj, Maithreyi. 2005).
- Rate of increase of population growth is strongly related with food insecurity. So to bring out stability in population growth we have to successfully implement employment generation programme and education.

Finally, we can say that we must have to achieve the food security but not in the way of providing food grains to all the people of India, because it cannot be a permanent solution for achieving food security. Instead of this, focus should be given to make this huge rural poor to be self-dependent by the development of education, employment, infrastructural development in agricultural and middle and small scale industry so that they can meet the demand of food profoundly.

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