

ISSN: 2454-3659 (P), 2454-3861(E)

Volume I, Issue 7 December 2015

International Journal of Multidisciplinary Research Centre
Research Article / Survey Paper / Case Study**STUDY OF FOOD SECURITY SCENARIO IN INDIA****Authors Details****Name: Dr. Satyendra Kumar Singh**
Affiliation: Divine International Group of Institutions, Plot. No. 13, Block No. 18, Educational Area, SADA, Gwalior, M.P
COUNTRY: India**Authors Details****Name: Ms. Shweta Singh**
Affiliation: Divine International Group of Institutions, Plot. No. 13, Block No. 18, Educational Area, SADA, Gwalior, M.P
COUNTRY: India**ABSTRACT**

Purpose of the present study is to examine the availability of food grains in India and also study provisioning made for ensuring food security in India. The study is exploratory in nature and mainly based on secondary data collected from various secondary data sources like Journals, magazines, books, news papers, websites, and reports published by UN, Indian as well as other International Government's agency. Finding suggests that there is no shortage of food grains in India as food produced in country is more than the requirement of food in the country. There is adequate provision for having adequate food and its provision of distribution to all including poorest citizen of the nation for ensuring food security in India.

Government of India ensured food security National Rural Employment Guarantee Act (NREGA) 2005 now, known as Mahatma Gandhi National Rural Employment Guarantee Act (MNREGA) by providing at least 100 days of guaranteed wage employment in a financial year to every household. Under Antyodaya Anna Yojana (AAY) 35 kilograms of rice and wheat at Rs.3 & Rs.2 per kg respectively are being provided to destitute from BPL families.

Key words: Food Security, MNAREGA, Antyodaya Yojana.**INTRODUCTION**

Today when thousands of tones of grains are being seen rotted in IFCI warehouses, delicious ready to eat foods are being wasted in social rituals like big marriage ceremony; thousands of poor are sleeping with empty stomach without any food at many locations of metros to remote villages. However, today food security condition seems to be comparatively better because of various initiatives taken over a period by Indian government after independence. Today in spite of the fact that world's most developed and developing nations are focusing their huge energy on finding probability of life on other planets by launching satellites, good chunk of people on this earth is forced to live in destitute. As per Food and Agriculture Organisation (FAO), food security for humanity is securing availability of minimum requirement of food for human kind. To ensure food security, we need to strengthen its four pillars i.e. first availability of sufficient quantity of nutritious food; second access to everyone needed food, third proper utilization and fourth stability in continuous supply of food. The United Nations (UN) in 1948 has recognized the right to food in the declaration of human rights. It was first time in 1974 during World Food Conference; term

'food security' was used and established as a formal concept. As per World Food Summit (1996), 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. It was also felt that intensive action is required to be taken at all level to eradicate food insecurity. A consistent collective and cooperative action at individual, regional and international level with resources and capacity was felt necessary to find solutions for food security. World Summit on Food Security (2009), reiterated to ensure goal of food security for all by year 2015 and shown its commitment to eradicate hunger at the earliest possible date. Indian government has also raised its concern in international forum on many occasions regarding food security of its people including in Trade Facilitation Agreement (TFA). TFA focus on fast track movement of goods and restrains subsidies to maximum 10% of the value of agricultural produce. But developing countries are bargaining for more and more subsidy package. It is also asking for relaxation from sanction up to 2017.

Indian parliament has also enacted Food Security Act in 2013 (called The National Food Security ACT, 2013), where as it promise poor to have food grains at a very subsidized rate and also help farmer by providing them input like electricity, fertilizers and agricultural finance at subsidised rate and buy back bulk yield at minimum support price, fair and remunerative price and central issue price.

OBJECTIVE

The study is being conducted for following two objectives:

1. To study the availability of food grains in India.
2. To study Provisions for ensuring food security in India.

HYPOTHESIS

Following two Hypotheses are formed for the purpose of conducting studies:

H₁ 1: There is no shortage of food grains in India.

H₁ 2: There is no shortage of adequate provision for ensuring food security in India.

SCOPE OF THE STUDY

The scope of present study is to bring out and discuss various facts about Food Security condition in India. It also discuss about food grains production in India and its availability and various steps taken by government agency for proper distribution of food grains in India.

DESIGN OF THE STUDY

The study is exploratory in nature and mainly based on secondary data collected from various sources like Journals, magazines, books, news papers, news channels, websites, and various reports published by UN, Indian as well as other International Governments, in order to test hypotheses.

AVAILABILITY OF FOOD GRAINS IN INDIA

Availability of foods for households means availability of good quality and sufficient food grains for every human being in India. After Independence and before green revolution, food deficiency was one of the major problems in feeding its population, as nation was dependent on import of food grains. Country continuously strived for growth in food production for self sufficiency. As per Dr. Ramesh Chand (17th-18th August, 2011), report of working group on food grains- balancing demand and supply, range of projection of demands for Cereals was 181-220 million tones, Pulses 13-41, Food grains 218-252, oilseeds 30-79 and sugarcane 137-266 million tones where as projected range of supply for Cereals was 240-251 million tones, Pulses 18-21, Food grains 259-272, oilseeds 30-41 and sugarcane 365-411 million tones (Table-1) are indicator of self sufficiency of food grains in India for its populations. As per WG report, demand of food grains under the households consumption approach work out to 218 million tones by the terminal year of the 12th Five Year Plan. Under the normative approach it works out to 218 million tones under sedentary life style and 245 million tones

under moderate life style tones. Under the behaviouristic approach, food grains requirement in the terminal year of the 12th Plan works out to 241 million tonnes on the bases of triennium average of 2008-09 to 2010-11 as the availability in the base year and 9 per cent rate of growth in GDP, and 240 million tonnes if the rate of growth is assumed to be 8 per cent per annum. In a different scenario where we take the NSS 2009-10 estimates of per capita consumption in the base year with a 9 per cent rate of growth in GDP, food grains requirement works out to 242 million tonnes. Under the absorption approach, food grains requirement work out to 240 million tonnes if we project the TE 2010-11, actual absorption by the observed compound annual rate of growth in absorption during the last five years (Table-2). The group was on the opinion that whichever way one looks at, the projected absorption of food grains in 2016-17 is likely to be 242 to 246 million tonnes. While making the supply projections of food grains the Working Group followed five methods namely simple regression on time trend as the explanatory variable with 10 years production, exponential method of the double log form, multiple regression method (by taking quantity of fertilizers consumption per hectare, proportion of irrigated area under the crop and area under production for each crop as the explanatory variables), average annual growth rates and compound growth rate method. The projected supply of food grains by the terminal year of the 12th FYP, i.e., 2016-17 under different methods varies from 258 to 272 million tonnes (Table-3).

During recent time India has become self sufficient in terms of production of food grains. The report of working group on food grains, oilseeds and sugarcane during 12th plan found that domestic demand projections for food grains of 218-252 million tonnes is less than supply projection of 259-272 million tons (Table No.-1). Excess food grain produced need to be either exported or added to stocks. However, National Centre for Agricultural Economics and Policy Research (NCAP) opines that due to increase in population, the country needs to boost the food grain production by 1.34% annually to 280.6 million tons by 2020-21.

ENSURING FOOD SECURITY AND ITS DISTRIBUTION IN INDIA

Government of India procure, store and distribute food for particularly destitute or vulnerable section of society through timely procurement, efficient storage of food grain stocks and distribute it timely through its distribution system at affordable price to consumers using various retail outlet including PDS. Price of food grains are kept under direct control of government using price instruments Minimum Support Price (MSP), Fair and Remunerative Prices (FRP) and Central Issue Price (CIP). Procurement involves purchase of food grains from farmers on MSP/FRP which is varying time to time as per the government policy. Keeping the interest of farmers paramount, MSPs/FRP are also being revised from time to time and that is why MSPs/FRP fixed for 2013-14 are higher than MSPs of 2009-10 by 27 per cent for wheat and 90 per cent for groundnut (Table No.-4). This is being done through government's nodal agency 'Food Corporation of India (FCI)' along with other central and state agencies. Continuous efforts from government by providing subsidies on various inputs started showing encouraging substantial progresses in acreage and productions.

THE PUBLIC DISTRIBUTION SYSTEM (PDS)

Indian Public Distribution System (PDS) is a largest distribution network of world is understood as major initiatives of Indian government towards ensuring food security at the household level in India. PDS ensures availability of essential food commodities like wheat, rice, sugar, kerosene oil and edible oil through a network of government approved PDS at subsidized price. There are around 462,000 Fair Price Shops (FPS) involved in distribution of commodities worth more than Rs. 300 billion annually to around 160 million families.

In 1997 'The Targeted PDS (TPDS) under this scheme entire population was divided in to three categories i.e., Antodaya Anna Yojana (destitute part of BPL) provided 35 kg of food grains at specially subsidized rates i.e., Rs. 2 per kg for wheat and Rs. 3 for rice and About 25 million (38 per cent of BPL) people have been covered under AAY, Below poverty line (BPL) and Above poverty line (APL). There are special cards for destitute, families living Below Poverty Line (BPL) in order to provide food grains at much lower price than the card issued to those living Above Poverty Line (APL).

NUTRITION PROGRAMS

In 1975 Indian government, launched integrated child development services (ICDS), aiming holistic development of children up to six years of age with special focus on students up to two years of age along with expectant and nursing mothers. This is being achieved using packages of services like regular health checkups, immunization, referral services, supplementary feeding, non-formal pre- school education on health and nutrition. Mid-day meals are child specific programs started from 1 September 2004 at primary school level and from 1 October 2007 at upper primary school level, where students get quality with nutrition food in correct quantity during school hours itself along with ensuring regularity in school attendance The Government also ensured that the nutritional standards for children in the age group of 6 months to 3 years, age group of 3 to 6 years and pregnant women and lactating mothers required to be met by providing "Take Home Rations" or nutritious hot cooked meal in accordance with the Integrated Child Development Services Scheme and nutritional standards for children in lower and upper primary classes under the Mid Day Meal Scheme are as follows (Table No.-5).

NATIONAL RURAL EMPLOYMENT GUARANTEE ACT (NREGA) 2005

National Rural Employment Guarantee Act (NREGA) 2005 now, known as Mahatma Gandhi National Rural Employment Guarantee Act (MNREGA) is one of the ambitious rural works programs (RWPs) taken up by Indian Government in order ensure minimum earning for livelihood and alleviate poverty, hunger and enforcement of fundamental right to live with dignity by providing at least 100 days of guaranteed wage employment in a financial year to every household.

RIGHT TO FOOD AND NATIONAL FOOD SECURITY ACT

Under this ACT, provisions have been made to ensure that beneficiaries of the Public Distribution System (PDS) should get food items as per lay down norms. Under Antyodaya Anna Yojana (AAY) 35 kilograms of rice and wheat at Rs.3 & Rs.2 per kg respectively are being provided to destitute from BPL families.

RESEARCH LIMITATIONS

While doing this study based on secondary data, it is expected that we might not have included many important facts related to the topic. Therefore, there is further need for follow up studies using primary data and covering wide area.

DISCUSSION

H₁-1: Today there is no scarcities of food in India. As per 12th Five year plan demand and supply projection, supply projections of Crops are more than the demand projections. Demand of 181 -220 million tons cereals is less than supply projection of 240-251 million tons. 13 - 41 million tons demand of Pulses is almost equal to supply projection of 18-21 million tons, 218 -252 million tons demand projection of Food grains are also less than supply projection of 259-272 million tons, where as 30-79 million tons demand projection of Oilseeds is also almost equal to supply projection of 30-41 million tons. 137-266 million tons demand projection of Sugarcane is almost half of the supply projection of 365-411 million tons. Production scenario of food grains in country has also increased significantly.

H₁-2: Indian government has also taken series of steps like opening of around 462,000 Fair Price Shops (FPS) involved in distribution of commodities worth more than Rs. 300 billion annually to around 160 million families, Mahatma Gandhi National Rural Employment Guarantee Act (MNREGA) were brought in 2005 to ensure minimum employment opportunity to rural labourers. Provisions have been made to ensure that beneficiaries of the Public Distribution System (PDS) should get food items as per lay down norms. Under Antyodaya Anna Yojana (AAY) 35 kilograms of rice and wheat at Rs.3 & Rs.2 per kg respectively are being provided to destitute from BPL families in order to ensure distribution of food to all of its residents. Food security for humanity has also been ensured by enacting National Food Security Act 2013. Per hectare yields of food grains have also increased to make India self reliant in terms of food grains.

CONCLUSION

On the basis of study it can be concluded that there is no shortage of food grains in the country. As supply of food grains is more than its demand. Government of India also adopted many programs like MNAREGA, Antyoday Yojana and its distribution to house hold using public distribution system (PDS). While doing this study based on secondary data, it is expected that we might not have included many important facts related to the topic. Therefore, there is further need for follow up studies using primary data and covering wide area. The study is useful for future study and may be of great help for government as well as other pro humanities people to think of doing bit for mankind. The study is original in nature and of great value for the future study.

FIGURES & TABLES

Table-1

**Broad Range of Projected Demand and Supply of Food grains, Oilseeds and Sugarcane
(In million tones)**

Crops	Range of Demand Projections	Range of Supply Projections
Cereals	181-220	240-251
Pulses	13-41	18-21
Food grains	218-252	259-272
Oilseeds	30-79	30-41
Sugarcane	137-266	365-411

Source: Report of Working Group on Food grains- Balancing Demand & supply, During 12th Five Year Plan

Table: 2
Projected Demand for Food grains for the Terminal Year of the 12th FYP (2016-17)
under Four Different Methods

(In million tons)

	Rice	Wheat	Coarse cereals	Cereals	Pulses	Food grains	Oil seeds	Sugar cane
Household	98	78	29	205	13	218	30	137
Normative Approach Sedentary				181	37	218	42	216
Moderate				204	41	245	48	198
Behaviouristic Approach (1)	(Base line consumption = Per capita availability TE 2010-11)							
GDP 9%	97	86	34	218	24	241	70	266
GDP 8%	97	86	35	217	23	240	68	265
Behaviouristic Approach (2)	(Base line consumption = Per capita consumption NSS 2009-10 and SFW as estimated by NCAP)							
GDP 9%	106	88	26	220	22	242	79	257
Absorption Approach	92	87	38	216	25	240		
Range	92-106	78-88	26-38	181-220	13-41	218-245	30-79	137-266

Source: Report of Working Group on Food grains- Balancing Demand & supply, During 12th Five Year Plan, Crops Division Department of Agriculture & Cooperation Ministry of Agriculture Krishi Bhawanm, New Delhi.

Table-3
Projected Supply in the Terminal Year of the 12th Five Year Plan

(Million tons)

Methods	Rice	Wheat	Coarse cereals	Cereals	Pulse s	Food grains	Oil seeds	Sugar cane
Simple regression	104.2	93.2	44.7	242.1	18.4	260.5	37.3	365.1
Exponential growth	106.0	95.2	46.2	247.3	19.0	266.3	40.8	371.4
Multiple regression	102.8	93.0	43.8	239.7	19.0	258.7	35.8	369.4
Average annual growth	97.9	103.7	48.9	250.6	21.4	272.0	32.5	411.4
Compound annual growth	102.5	98.9	41.9	243.3	18.0	261.3	30.0	396.4
Range	98-106	93-103	42-48	240-251	18-21	259-272	30-41	365-411

Source: Report of Working Group on Food grains- Balancing Demand & supply, During 12th Five Year Plan

Table No.-4**MSP/FRP of Select Crops (Rs. per quintal) in 2013-14 and 2009-10 and Per cent Change**

Crops	2013-14	2009-10	Per cent Change
Paddy (common)	1310	1000	31
Wheat	1400	1100	27
Maize	1310	840	56
Jowar (hybrid)	1500	840	79
Arhar (tur)	4300	2300	87
Urad	4300	2520	71
Gram	3100	1760	76
Groundnut in shell	4000	2100	90
Rapeseed/mustard	3050	1830	67
Sunflower	3700	2215	67
Soya bean (black)	2500	1350	85
Cotton (medium staple)	3700	2500	48
Sugarcane (FRP)	210	129.84	62

Source: Department of Agriculture and Cooperation (DAC) Minister of Agriculture Department

Table No.-5**Nutritional Standards in India**

S. N.	Category	Type of meal	Calories (Kcal)	Protein (g)
1	Children (6 months to 3 years)	Take Home Ration	500	12-15
2	Children (3 to 6 years)	Morning Snack and Hot Cooked Meal	500	12-15
3	Children (6 months to 6 years)	Take Home Ration	800	20-25
4	Lower primary classes	Hot Cooked Meal	450	12
5	Upper primary classes	Hot Cooked Meal	700	20
6	Pregnant women and Lactating mothers	Take Home Ration	600	18-20

Source: No. 29, New Delhi, Tuesday, September 10, 2013 The Gazette of India Extraordinary [Part II—Schedule II

REFERENCES

1. Annual Report 2013-14, Department of Agriculture and Cooperation Ministry of Agriculture Government of India Krishi Bhawan, New Delhi-110 001 March, 2014. Viewed on July 25, 2015 <http://agricoop.nic.in/Annualreport2013-14/artp13-14ENG.pdf>
2. Basu K. (September 2010), The Economics of Food grains Management in India, Chief Economic Adviser, Government of India, Ministry of Finance North Block, New Delhi – 1. Viewed on July 19, 2015 <http://www.finmin.nic.in/workingpaper/Foodgrain.pdf>
3. Bharat R. (2013, April 01). Grains stock: Is it a problem of storage capacity? Food grains rots due to insufficient storage capacity even as million goes to bed hungry. Viewed on November 19, 2014 http://www.livemint.com/Opinion/ryjIsy6fBOHyGAtMKin1rO/Grain-stocks-Is-it-a-problem-of-storage-capacity.html?utm_source=copy

4. Hindustan Times (2013, September 11), India wastes more farm food than China: UN. Viewed on November 18, 2014 <http://www.hindustantimes.com/india-news/newdelhi/india-wastes-more-farm-food-than-china-un/article1-1120755.aspx>
5. Misra S., Chadah S. & Pathania M., (2011, December 21), Report on Assessment of Wastage of Food and Ostentatious Behaviour During Social Gatherings Marriages/ Parties/ Meet -ings, etc) in National Capital Region Delhi. Centre for Consumer Studies Indian Institute of Public Administration. Viewed on November 21, 2014 <http://consumeraffairs.nic.in/consumer/sites/default/files/userfiles/Assessment%20of%20Wastage%20of%20Food%20and%20Ostentatious%20Behaviour%20dur%281%29.pdf>
6. Oldewage T., Wilna H., Emsie G., Carin E. (2006), "Poverty, household food insecurity and nutrition: coping strategies in an informal settlement in the Vaal Triangle, South Africa". Public Health 120 (9): 795–804.doi:10.1016/j.puhe.2006.02.009. Viewed on October 05, 2014 http://en.wikipedia.org/wiki/Food_security
7. Olivier E., and Clemens B., (2012), "Sustainable solutions for ending hunger and poverty and supported by CGIR International Food policy research institute (IFPRI)". Discussion Paper 01166 March 2012. Viewed on November 19, 2014 <http://www.ifpri.org/sites/default/files/publications/ifpridp01166.pdf>
8. Report of Working Group on Food grains-Balancing Demand & Supply During 12th Five Year Plan. Viewed on November 23, 2015 http://planningcommission.gov.in/aboutus/committee/wrkgrp12/pp/wg_grains.pdf
9. S. Mahendra Dev and Alakh N. Sharma (2010), Food Security in India: Performance, Challenges and Policies, Oxfam India working papers series, September, OIWPS – VII. Viewed on November 18, 2014 <http://www.oxfamindia.org/sites/default/files/VII.%20Food%20Security%20in%20India-Performance,%20Challenges%20and%20Policies.pdf>
10. Saxena N. C. & Mander H., Commissioner and Special Commissioner of The Supreme Court in The Case: PUCL Vs UOI & ORS. Writ Petition (Civil) No. 196 of 2001, Report on the Excess Food grains in the godowns of the Food Corporation of India and the State Civil Supplies Corporations, August 10, 2010. Viewed on July 19, 2015 <http://www.Sccommissioners.org/Correspondence/Excess Grain 100810.pdf>
11. The Associated Chambers of Commerce & Industry of India. (2014, April 09) "The Knowledge Chamber: Serving the Nation since 1920". Viewed on November 11, 2014 <http://assochem.org/newsdetail.php?id=4459>
12. The Mahatma Geandhi Rural Employment Act 2005. Viewed on November 19, 2014 <http://www.nrega.nic.in/netnrega/home.aspx>
13. The National Food Security Act 2013 (2013, September 10). NO. 20 of 2013. The Gazette of India, No. 29
14. World Food Summit (1996, November 13-17), Rome Declaration on World Food Security. Viewed on November 18, 2014 <http://www.fao.org/docrep/003/w3613e/w3613e00.htm>
15. World Summit on Food Security (November 16-18, 2009) "Rome Declaration of the World Summit on Food Security". Viewed on November 18, 2014 http://www.fao.org/fileadmin/templates/wsfs/Summit/Docs/Final_Declaration/WSFS09_Declaration.pdf