



## Food Security in Odisha: Problems and Policy Implications

### KEYWORDS

Food Security, Public Distribution System, Mid-day Meal, Malnutrition, AHAR

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### ABSTRACT

*To ensure food security in India is a challenging task for a country like India not only because of more than one third of its population live below the poverty line but also the proper distribution mechanism is not working properly. This paper highlights the problems associated with food security in Odisha in particular and India in General. There is a mismatch between demand and supply in food grains production and consumption. This is resulting in scarcity of food grains in the country. By utilizing the secondary data we reached at the conclusion the public distribution in the state is not working properly. The true beneficiary fails to get the benefits from the programme. In this per we have highlighted some policy measures that should be introduced to have paper distribution of food grains.*

### Introduction:

It is a great challenge on the part of the Government and policy makers to ensure food security all over the world. Food security is also linked with many other challenges. Food security can bring many solutions to unsolved problems but it is really difficult to attain food security in India in general and Odisha in particular. Food security is said to exist 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. Food security has three important components which are: availability of food, access to food and absorption of food (FAO). In recent time, economic and environmental issues have worsened the food security system all over the world. This has resulted in extreme weather conditions and indirectly it has increased the problems of the poor. The extreme weather conditions in some of the south Asian countries have affected the food grain production and the distribution system.

Attaining food security is a matter of great concern for a state like Odisha where more than one-third of the total population is estimated to be absolutely poor and more than fifty percent of the children are malnourished. Agriculture continues to be the main contributor to the state economy. The fluctuations in weather condition have affected the food production in Odisha to a great extent.

### Review of Literature:

In recent times, many studies have been made on food security in India. Most of the studies are of same importance. Our review will focus on definition, causes and attainment of food security.

So far as the definition of food security is concerned there are number of definitions on food security. But all these definitions are of same nature and spell the same term.

In an attempt to measure the food insecurity, Phillips and Taylor (1980) defined that a state of food insecurity exists when members of a household have an inadequate diet for part or all year round or face the possibility of an inadequate diet in the future. The deviation from the current status of food is based on the assessment of food insecurity risks (pre-harvest security, marketing problems and

unemployment), food insecurity insurance (land reforms, improved production technologies, food aid and feeding programme and household type (subsistence or marketable surplus).

Acharya (1983) explains food security means not only availability of food for direct consumption but has other implication as well.

According to the World Food Council (1988), food security is a two fold problem, viz. first that food is said to be available, accessible, and affordable when and where needed in sufficient quantity and quality and second that an assurance that this state of affairs could reasonably be expected to continue or in other words that it could be sustained.

International Bank for Agricultural Development (1992) defined the household food security as the stable and sustainable basket of adequate food.

According to Maxwell and Frankenberger (1992) food security had been conceptualized as a secure access at all times to sufficient food and the four basic concepts in definition were 1) sufficiency, 2) temporal consideration, 3) access and 4) security.

Swaminathan (1996) conceptualized the food security in general perspective as livelihood security for the households and all members that ensured both physical and economic access to balanced diet, safe drinking water, and environmental sanitation privacy, educational and basic health care.

According to Panth (1997) food security is the availability of sufficient quantity of food, and sufficient means to purchase it, both at the national as well as at household level.

George (1999) while analysing food security situation in India found that economic access to food could be achieved through a mix of employment and income policies for farm sector. He reiterated that the strategy for reducing poverty and enhanced food security should be based on agricultural development. Based on the consumption pattern, he indicated that about half of the rural consumers and about two third of urban consumers had nutritionally inadequate

food consumption.

In food security context, Dilly and Boudreau (2001) defined vulnerability in relation to an outcome such as hunger or famine. A household security is measured by determining whether or not by fully exercising the means at its disposal, it has access to enough food during all seasons throughout most years. The relationship between these options and different stock factors is what determines a household vulnerability

On the other hand, Gulati (2006) from his study found food security at national to household level as it is more a matter of economic access than that of physical availability in developing and developed countries.

Storm (2009) points out extreme weather events might increase as a result of climate change.

According to BBC (2010) the impact of extreme weather in Pakistan, China, Russia, North Korea and India during 2010 monsoon season ascribed to unusual distortions in the path of jet stream cause devastation to millions of lives and food supplies.

### Objectives of the Study

The objective of our study is to highlight the problems related to food security in Odisha and its effective implementation in the state.

### Data and methodology

Our study is based on the secondary data based on the government publications published in different sources. In our analysis we have taken both Government of India and Government of Odisha publications. We have tried to make a comparison between national and at the state level. The simple statistical tools were used to summarize the information in quantitative forms and discuss the findings of the survey.

### Brief overview of food security in India

All the definitions that we discussed in the review highlight three important things: the availability, accessibility and distribution of food. On this backdrop the chief food security programme in India is framed. These three things can be met when there is adequate availability of food stocks to satisfy the demand. The deficits can be maintained by the import of food grains. So for this occasion we have to closely look the demand supply gap of food grain production in India. In recent times it is found that India has attained self sufficiency in food grain production at macro level. The credit goes to the green revolution in India that increased the food grain production. Except few years there is increase in food grain production over the years. Even though there is increase in food grain production in India we find the growth rate of population is greater than the growth rate of population. This has resulted in low per capita availability of food grains. We also find there is decline in rates of production and yields for different food grain production. We also find the agricultural growth has declined during the tenth and the eleventh plan.

We have number of studies which estimate the supply and demand gap. Some of the studies also give the future food grain production and the consumption. The table -1 given below shows the demand supply gap at national level.

**Table-1: Estimated Production and Projected Demand of Cereals and Non-Cereals**

Crop	2008-09			2011-12			2020
	Projected Demand	Projected Production	Surplus/Short-fall	Projected Demand	Projected Production	Surplus/Short-fall	Projected Demand
Rice	92.87	99.15	6.28	98.79	104.21	5.42	111.9
Wheat	72.72	80.58	7.86	77.36	83.61	6.25	79.9
Coarse Cereals	35.9	39.48	3.58	38.19	35.75	- 2.44	37.3
Pulses	17.51	14.66	- 2.85	19.91	15.73	- 4.18	23.8
Food Grains	219.0	233.88	14.88	234.26	239.3	5.04	252.8
Sugarcane	275.9	271.25	- 4.66	322.54	305.51	- 17.03	--
Oil seeds	47.4	28.16	- 19.27	53.39	27.53	- 25.86	--

**Source: Ministry of Agriculture (2009)**

The Table-1 clearly shows there is scarcity in most of the cases up to 2011-12. It predicts that there will be a surplus by 2010. The prediction depends upon the climatic conditions. It is clear from this table we have to rely on imports in some food grains like coarse cereals, oil seeds as well as sugar cane.

### Food security in Odisha

Odisha extends from 17° 49' N to 22° 34' N latitude and from 81° 2' E to 87° 29' E longitude on the eastern coast of India. It became a separate state on the 1<sup>st</sup> of April, 1936 and is located on the eastern coast of India with Andhra Pradesh in the south and west, Chhattisgarh on the west and north and Jharkhand and West Bengal in the north. The population of Odisha was 368.05 lakh in 2001, which has increased to 419.47358 lakh in 2011 exhibiting a decennial growth rate of 13.97 per cent. In 2011 census there were 96,37,820 households in the state. The share of main workers to the total workers is 61 per cent and that of marginal workers to the total workers is 39 per cent. Cultivators have a share of 23.4 per cent, agricultural workers 38.4 per cent, household industry workers 4.5 per cent and other workers 33.7 per cent in the total workers. There are four well defined physical regions in the state, i.e. the northern plateau, the central table-land, the eastern ghat and the coastal tract. Like the rest of the country, the state is influenced by the monsoon climate characterised by high temperature from March to May and high rainfall from June to September. South-west monsoon is the major source of rainfall in the state. The annual average precipitation is 1482 mm. out of which 76 per cent is received from June to September and the annual average temperature is 26.20 C.

About 60 per cent of population of the state draws its sustenance fully or partly from the agriculture sector. The share of this sector in the GSDP, which was more than 70 per cent in the early 1950s, has come down to 17.49 per cent as per the advance estimates for the year 2012-13. Despite continuous decline in the share of agriculture in Odisha's GSDP, this sector continues to be vital for the state. It still provides employment and livelihood, directly or indirectly, to more than 60 per cent of the population. In this sense, the agriculture sector is still the mainstay of Odisha's economy. It suffers from frequent natural calamities like cyclones, droughts and flash floods.

The Table-2 below shows the food grain production in Odisha in the last 5 year

**Table-2: Production of different crops in Odisha (In 000 MT)**

Major Food grain Production	2009-10	2010-11	2011-12	2012-13	2013-14
Rice	6,917	6828	5807	9497	7613
Wheat	6	4	2	2	1
Maize	175	209	212	227	264
Gram	34	33	30	32	36
Tur	112	124	115	128	124

Source: Directorate of Agriculture and Food Production, Odisha

The above table shows the food grain production in the last 5 years. The cropping pattern shows Odisha is highly tilted towards rice production. Except year 2012-13 in other years there is continuous fall in the rice production. The production of wheat has come down drastically and is continuously falling over the years. But we find the consumption of wheat in the state is gradually increasing. We also find the maize production in the state has increased. There is fluctuation in the gram production in the state. The production of tur has shown fluctuating trend. We also find the average yield of food grain in Odisha is not encouraging. The instability in food production is mainly due to fluctuations in rainfall and other problems such as floods, droughts and cyclones. On the other hand we find Odisha is also not producing at its best. It is producing less than the required amounts of cereals, pulses, sugar and other food items.

We find there is demand and supply gap .We find the consumption is greater than the production, which is creating the problem, it is shown in the table below.

**Table-3: Demand –Supply gap in Food grain production in Odisha**

Year	Projected Population (In Lakhs)	Adult Population @ 88% (in lakhs)	Total Requirement (in MTS.)	Total Production (in MTS.)	Surplus/ Deficit (in MTS.)
1998-99	150.85	308.75	73.54	63.78	- 9.76
1999-00	357.91	314.96	75.02	62.65	- 12.37
2000-01	365.1	321.28	76.53	55.35	- 21.18
2001-02	371.03	326.51	77.77	82.33	4.56
2002-03	377.06	331.81	79.04	40.4	- 38.6
2003-04	383.19	337.21	80.32	77.37	- 2.95
2004-05	389.41	342.68	81.62	75.89	- 5.73
2005-06	395.74	348.25	82.95	82.21	- 0.74
2006-07	402.16	353.90	84.29	82.98	- 1.31
2007-08	408.7	359.66	85.67	92.54	6.87
2008-09	415.34	365.5	87.05	86.34	- 0.71

The above table shows the projected population in different years from 1998-2009. The adult population is expected to be 88 percent of the total population. Total requirement and the total production are shown in the table which is presenting the demand and supply gap. Except 2000-01 and 2007-08 there was short fall .This clearly shows the demand and supply gap and this give rises to scarcity in the production of food grain. Even there is production but in many cases the foods are nor accessible to the people.

We can also analyse the consumption pattern of the people of Odisha. We can compare it with national data. This is

shown in the table given below.

**Table-4: Monthly Per-capita Rice and Wheat Consumption in Odisha and at all India level (kg.)**

NSS Round	Odisha				India			
	Rural		Urban		Rural		Urban	
	Rice	Wheat	Rice	Wheat	Rice	Wheat	Rice	Wheat
1	2	3	4	5	6	7	8	9
50 <sup>th</sup> (July 93 –June 94)	15.2	0.4	11.3	2	7	4.4	5.3	4.7
55 <sup>th</sup> (July 99 –June 2000)	14.16	0.59	12.18	2.25	6.78	4.55	5.22	4.77
60 <sup>th</sup> (Jan 03-June 04)	13.78	0.61	11.59	1.93	8.8	4.25	4.88	4.67
61 <sup>st</sup> (July 04 –June 05)	13.29	0.53	11.05	2.03	6.55	4.29	4.85	4.65
62 <sup>nd</sup> (July 05 –June 06)	13.03	0.58	10.06	2.26	6.54	4.35	4.79	4.53
63 <sup>rd</sup> (July 06 –June 07)	12.57	0.48	9.6	2.17	6.56	3.97	4.8	4.43
64 <sup>th</sup> (July 07 –June 08)	13.13	0.49	10.33	2.17	6.36	4.2	4.75	4.51
66 <sup>th</sup> (July 09 –June 10)	13.16	0.63	10.37	2.00	6.14	4.36	4.65	4.34
68 <sup>th</sup> (July 11 –June 12)	12.56	0.78	9.26	2.09	6.13	4.42	4.66	4.32

Source: NSSO, Government of India

The above table shows the consumption pattern of food grain is different in Odhisha in comparison to national level consumption. Generally the people of Odisha consume more of rice in comparison to other food items. The picture is almost same both in the rural and the urban areas. The table also shows the per capita consumption in Odisha is greater than that of national level. It is important to note that Orissa produces less but eats more.

**Food security and Public Distribution System**

So to attain food security a number of policies have been undertaken by the government from time to time. Public Distribution System(PDS) is an aspect of the demand and supply management .Its aim is to meet the basic needs of the vulnerable sections of the community who cannot afford at the prevailing market price. Public Distribution System is one of the famous schemes that has been introduced by the various state governments. It was initially intended to protect consumers from food shortages and producers from price fluctuations. Initially it was started in some urban centres then it was extended to other rural areas. The states are responsible for the distribution through fair price shops .The facilities are generally given to the people those who belong to the BPL families.

In Odisha only rice, wheat and sugar are distributed in this system. In Odisha, about 33 percent of the total population lives below the poverty line. Public Distribution System has a greater significance on the economy of the poor households because it provides food (rice) for the poor and marginalized community at lower price than the market. Thus, the system plays a safety net for the poor people which protect them from competitive market economy. But the fact is that this system has many lacunas. In Odisha, the identification of beneficiary is not proper. In many cases some well to do families get the benefits. Secondly, the quality of food which is supplied under the scheme is very poor. Thirdly, the items are also not available at the right time at the centre. Fourthly, the dealers, those who distribute the items, cheat at the time of the distribution.

Recently Government of Odisha has also started AAHAR programme in the urban areas as a part of food security programmes. In AAHAR centre cheap lunch is provided at Rs. 5/- per meal. Initially it was started in 5 cities, now it has been expanded to other areas. There are about 100 AAHAR kendras at present to provide the cheaper cooked foods to the people.

In some states, there is mid day meal. The system is found in different states like Gujarat, Kerala, Karnataka, Delhi, Maharashtra and Andhrapradesh. In Odisha the midday meal is provided to the children at school to increase the school attendance.

### Policy Implications

Today we find the policy makers and the governments all over the world have come forward and have shown their commitment to eradicate hunger. But the real picture is something different. The situation is worse in some Asian countries. Some policy should be adopted to achieve this long cherished goal for the benefit of the mankind.

In recent times we find the production has increased, but special emphasis should be given to the distribution. E Public Distribution System should be regularized. There should be proper identification of true beneficiaries. Proper information should also flow to the beneficiaries by which they can know the timing of the distribution of the food grains. The policy makers have fixed the time period for lifting and distribution of PDS items. As per guideline, a retailer must ensure the lifting of his allotted quota of items from the agents before first day of the month for which the quota relates. One of the most important thing about the Public Distribution System is the quality should be maintained. There should be some supervision mechanism to control the quality and the timely distribution of the items. There must be a system to strengthen the grievance mechanism.

### Conclusion

According to a World Bank Report, physical impairments caused by malnutrition in low income Asian countries knocks of GDP by 3 per cent as malnourished children cannot reach their full potential schools, physically and mentally (IMF and World Bank 2008). The statement clearly shows the grim of the situation. This is high time to think about this. It is expected by 2050 there will be about 9 billion people in the world (FAO 2009). This will bring new problem to the whole nation. The change before us is the climate changes which have created uncertainty for the whole world. The policy should be made globally to face the situation and to save the mankind. There is need to improve the agricultural productivity through improved va-

riety of seeds. Support prices of the different food grains should be refused properly. Malnutrition is a problem before us and it should be tackled properly. The Public distribution system should be implemented at the government level properly. The food grain should be available properly to have food security.

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