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Directories of Publishing Opportunities, U.S.A

# FOOD SECURITY SYSTEM IN INDIA – ISSUES AND CHAENGES

# Dr A K Sannigrahi\*

#### **Abstract**

India has now achieved self sufficiency in food production but due to lack of adequate number of warehousing facilities a considerable portion of agricultural products is spoiled every year by rotting in rain water. Even though Indian Public Distribution System (PDS) is the world's largest social safety network for distribution of food materials and Indian Government since independence has started many scheme to facilitate its people with sufficient food availability, but rural populations in many areas are still facing uncertainties in food security on a daily basis. The major issues on which success of food security depend, are availability of food for all citizens, accessibility of food throughout India, absorption of balanced food intake and stability of food supply. Indian Government has made food security a right for poor through National Food Security Act (NFSA), 2013. The cropping pattern in India is changing continuously with change in weather pattern in Indian subcontinent as well as with gradual reduction in ownership of cultivable land in India due to fragmentation among family members. The major challenges which India have to face for sustaining NFSA program in near future, are availability of required quantity of food grains produced by Indian farmers, extra budget allocation for importing food materials without hampering country's development program, cautious dealing of PDS avoiding emerging corruption as well as crime due to rapid increase in unemployment and keeping the youth busy in building modern India avoiding laziness and provocative drinking habit among a group of people getting food materials without any effort as spoon feeding in the name of food security.

Keywords: Food security, Human right to food, NFSA, PDS, Welfare schemes.

<sup>\*</sup> Scientist 'F'& Additional Director, Proof & Experimental Establishment (PXE), DRDO, Chandipur, Balasore, Orissa

#### Introduction

In 21<sup>st</sup> Century when India is proceeding towards achieving the status of developed nation with its lots of advancement in science and technology resulting 'Green', 'Blue', 'White' and 'Yellow' revolutions, it is very painful to listen that some countrymen are still facing starvation and death due to malnutrition. Nature has provided enough opportunities to India in the form of good rainfall, favourable climate, fertile lands, big rivers and vast crop diversity for producing sufficient foods for its own people. After independence India has achieved self-sufficiency in food production by increasing its net production from 50.8 million tons in 1950-51 to 255.36 million tons in 2012-13 (Table 1) but most rural population still has to deal with the uncertainties of food availability on a daily basis. Food, being the first among many basic needs, 'human right to food' and 'food security' are recognised by United Nations as important factor for development of any nation. Food security is said to exist 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. Since the beginning of Five - Year Plan system in India, food production and its distribution has got prime importance. The Government of India has been trying over the past few decades to address the food insecurity

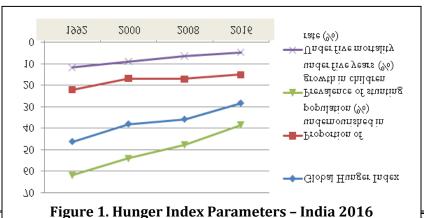
'Integrated Child Development Services (ICDS)' in 1975 for improving the nutritional and health status of children below the age of 6 years along with pregnant and lactating mothers through Anganwadi network; 'Mid Day Meal Scheme (MDMS)' in August 1995 for supplying food grains free of cost to students up to Class V standards of government primary schools or primary schools aided by the government or local bodies at the rate of 100 grams per child per school per day in the form of cooked hot meal for a minimum of 200 days per year; 'Targeted Public Distribution System (TPDS)' in June 1997 for ensuring availability of minimum quantity of food grains at reasonable price to the families living below the poverty line (BPL); 'Antyodaya Anna

Table 1.	India's food grain						
production (Million tons)							
Year	Food grain (Rice,						
	Wheat, Coarse						
	grain and Pulses)						
	production						
1950-51	50.8						
1960-61	82.0						
1970-71	108.4						
1980-81	129.6						
1990-91	176.4						
2000-01	196.8						
2010-11	244.5						
2011-12	259.3						
2012-13	257.1						
2013-14	265.6						
2014-15	252.0						

Yojana (AAJ)' in December 2000 for identifying one crore poorest of the poor families from

amongst the BPL families and for supplying them food grains through more focused TPDS; 'Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA)'in 2005 for enhancing livelihood security of households in rural India by providing guarantees wage employment, etc. (Gupta, 2014).

India is the second most populous country in the world with an estimated 1.2 billion people and the third largest economy by Gross Domestic Product (GDP). It has been classified as a middleincome country by the World Bank in 2012. As per World Bank report in 2010 about 32.7% of the Indian population fall below the international poverty line of US\$ 1.25 per day while 68.7% lives on less than US\$ 2 per day. According to erstwhile Planning Commission, Government of India report, about 21.9% population (Roughly about 300 million people) still lied below the poverty line in India at the end of 2011-12 (Sengupta and Mukhopadhyay, 2016). India ranks 55<sup>th</sup> in Global Hunger Index (GHI) 2015 as per International Food Policy Research Institute (IFPRI) report. The Figure 1 clearly shows that in 2016 the GHI score for India is 28.5, the undernourished population is 15.2%, prevalence of stunting growth in children below five years is 38.7% and mortality rate of children below five years is 4.8% even though marginal improvement is noticed since 1992 (IFPRI, 2016). It is a matter of great concern that India is the home to the largest number of malnourished children in the world, approximately 0.65 million children die before their fifth birthday every year due to malnutrition and around 44 million Indian children under 5 are stunted in growth (Hellman, 2016). According to Kumar et al (2012), the incidence of hunger has declined from 17.0% in 1983 to about 1.0% in 2009-10 in rural India and from 6.5% to 0.3% in Urban India, but they themselves put a doubt on the reliability of this survey data due to over-reporting or hesitation of household heads to express the reality. The incidence of hunger in Eastern states like West Bengal, Odisha, Bihar and Assam is still more than other states while Tamilnadu and Karnataka have almost eradicated this problem.



## National Food Security Act (NFSA) – 2013

After running different Government sponsored welfare schemes as mentioned earlier for past several years it was felt that those efforts could not give the desired success in ensuring food security to the targeted beneficiaries due to misuse of resources and mismanagement of PDS program. According to Upadhyay and Palanivel (2011), the causes of existing food insecurity can be better viewed under three concepts namely the 'Traditional concept' which includes factors such as unavailability of food and poor purchasing capacity; 'Socio-demographic concept' which includes illiteracy, unemployment, overcrowding, poor environmental conditions and gender bias; 'Politico-developmental concept' comprising of factors such as lack of intersectoral coordination and political will, poorly monitored nutritional programs and inadequate public food distribution system. Indian PDS, though the world's largest social safety net for distribution of food materials, failed to achieve the success mainly due to some deceitful dealers who replaced good supplies received from the Food Corporation of India (FCI) with inferior stock and sold the good food grains in the black market. Even after over three decades of its operation, Public Distribution System meets only 21.7% and 12.7% of the total rice and wheat consumption respectively in the country in 2009-10 and has reached to the 40% of targeted beneficiaries. India's population is 1.2 billion while food grain production is about 255 million tons, yet 35% population remain food insecure. The minimum (threshold) food – energy requirement for maintaining health and body weight as well as carrying out light physical activity in Indian condition has been taken as 1800 kcal/person/day for rural and 1575 kcal/person/day for urban households. Similarly the threshold level for food – protein intake has been considered as 48 g/person/day and for fat 16 g/person/day for an average Indian, below which were treated as malnourished (Dandekar, 1996). Kumar et al. (2012) reported that in India during 2009-10 the per capita consumption of calorie (1754 kcal/day), Protein (48 g/day) and fat (29 g/day) in the poor households were very less than the intake by the rich classes (Calorie – 2819 kcal/day, Protein – 85 g/day and fat – 71 g/day), the difference mainly due to difference in purchasing capacity and food availability. They also reported that one-fourth of the rural population and one-sixth of the urban population were undernourished in 2009-10. The continuance of energy deficiency among the poor households at alarming rates year after year is a matter of concern.

The present paradox of high economic growth and slow reduction in the number of food insecure persons as well as inefficiencies of operations of various welfare scheme and entrepreneurial inabilities forced Indian government a paradigm shift in addressing the problem of food security from the current 'welfare approach' to 'right to food based approach' and subsequently passed the 'Food Security Act 2013' on September 2013 for providing subsidized food grains to approximately two-thirds of India's 1.2 billion people (75% in rural areas and 50% in urban areas). It includes the Midday Meal Scheme, Integrated Child Development Services Scheme and the Public Distribution System. This is probably the largest food security program in the world which will not only ensure the food security for the poorest section of the population, but will also constrain the increasing food inflation and will reduce considerably the number of poor people suffering from hunger. According to this Act, citizens of India can be categorised into three clear groups based on their income levels. Group – I comprises of the poorest section of people who earned only subsistence marginal income. The Group – II is economically in better position compared to Group – I, but they comes under low income category. Group – III consists of financially affluent people, commonly known as APL group. Group – I households will get 5 kg of food grain per person per month at the rate of Rs 3, Rs 2 and Rs 1 per kg for rice, wheat and coarse grains (millet), respectively. Beneficiaries under Group – II will be able to purchase 3 kg food grains per eligible person per month at the price which is half of the procurement price. Group – III will not get the benefit of this scheme. However, pregnant women, lactating mothers, and certain categories of children are eligible for daily free cereals. The eldest woman in the household, 18 years or above, will be considered as the head of the household for the issuance of the ration card. Central and state governments will share the cost and undertake PDS reforms. The distribution will also be through TPDS – identification of BPL (Below Poverty Line), APL (Above Poverty line) and AAY (Antyodaya Anna Yojana) households.

#### **Important issues**

Food Security Act 2013 provides an opportunity to eradicate unwanted situation of human hunger and malnutrition, especially in rural India where many families are still deprived off getting at least one meal every day. The success of food security depends on interaction among four pillars or dimensions such as Availability, Accessibility, Utilisation / absorption and Stability. **Availability of food grains** in any region depends on its cropping pattern and crop

productivity, which in turn is dependent on climate, soil fertility, pest infestation, water availability, cultivation technology and high yielding crop varieties. Post independence the Indian Government active support on subsidised inputs (fertilizers, pesticide, farming tools, etc), infrastructural developments, favourable price for agricultural products, increased research and extension efforts on developing improved high-yielding varieties of seeds and modern farming technologies, etc helped in accelerating the production of food grains through successful green revolution. This has helped India to become exporter of food grains by eliminating its dependence on food import and increasing per capita availability of food grains.

Accessibility means ensuring the availability of food grains to the common people at an affordable price. It is the ability to acquire the requisite quantum of foods by the beneficiaries which mainly depends upon their income levels and purchasing power along with effective distribution systems including storage and transportation for successful doorstep delivery of food grains. Since poor people cannot afford to purchase the required food materials from the market due to high level of market price, various employment generation programs like MGNREGA and 'Work for 100 days', etc were started by the government for increasing incomes and for purchasing subsidized food grains. The Central government through Food Corporation of India (FCI) has assumed the responsibility for procurement, storage, transportation and bulk allocation of food grains to the State government. With the increase in production of food grains there is a requirement of more warehousing facilities throughout India. Warehouse Receipt Development Act, 2007 was introduced to facilitate stocking and credit facilities to farmers. Rotting of food grains stock lying in FCI Godowns is common news every year during rains. In the data accessed through RTI, FCI has admitted that the amount of damaged wheat has increased from 2010 tons in 2009-10 to 2401.61 tons in 2011-12 (Gupta, 2014). India initiated world's largest Public Distribution System (PDS) in 1965 which was later modified into Targeted Public Distribution (TPDS) in 1997. State government manages the distribution of food materials to respective beneficiaries through its PDS. The performance of PDS varies from state to state. Where PDS is working well with proper monitoring of State Governments, the households are taking advantage of this system. Storage, transportation and distribution infrastructure and systems are to be improved in order to prevent grain from going bad and to increase their accessibility to the people who need it.

Utilisation or absorption is more related to balanced nutritional intake and its proper assimilation in human body. It depends on quality of diet, health, awareness and sanitation amongst the population. Since children and women are more vulnerable to malnutrition and anaemia, Indian government has taken up many welfare schemes like Midday Meals for school children, Integrated child development services, Annapurna scheme, Nutritional program for adolescent girls, etc for taking care of absorption of nutrition. In NFSA, 2013 special protection has been given to pregnant women, lactating mothers, and certain categories of children who are eligible for daily free cereals. Khera (2011) observed that access to PDS improved cereal consumption by the households due to its easy availability. Kumar et al. (2012) recorded about 5 percent increase in consumption of calorie both in the rural and urban areas between 2004-05 and 2009-10. However, wide differences in the intake of calorie and protein were recorded across states, locations (rural and urban) and income classes (poor and rich). Krishnamurty et al. (2014) found that PDS reforms dramatically increased the availability of PDS food grains in Chhattisgarh, which in turn motivated the households to increase their calorie consumption from pulses, other non-grain produce and animal-based protein also.

Stability is the certainty of food supply in future to the beneficiaries which requires more and more production of food grains keeping a pace with ever-growing population, buffer stocks maintenance through timely procurement and transparent leakage free public distribution system. Green revolution primarily focussed on rice and wheat production. Excessive use of chemicals in the form of fertilizers and pesticides resulted soil degradation, water depletion and environmental pollution creating a threat to sustainability of crop productivity. Climate change due to global warming is another threat which will also reduce the crop productivity throughout India including coastal region due to erratic rainfall, draught, flood, cyclone, etc. Government has to keep constant vigil for maintaining stability in food grain supply through various disaster management and procurement of food grains from internal markets or importing from other countries.

### **Merits of Food Security System**

Lack of job opportunities and hard rural life without proper basic amenities like roads, electricity, communication and education, etc. have usually forced many rural people to migrate

to urban areas for earning some income resulting unplanned growth of slum areas. A gradual increase from 16.5% to 21.1% has been noticed in rural to urban migration during 1971 to 2001 (Upadhyay and Palanivel, 2011). Arrangement of food grains at subsidized rate in rural area under food security scheme will, no doubt, help to **reduce migration** from rural to urban areas. Employment generation in rural area through different ongoing welfare scheme under NFSA, 2013 will **increase the purchasing power of poor** / **labour class**. Fulfilment of one important basic need, the food will improve the health of people and healthy mind and environment will help to **reduce the crime**. Growth in incomes not only enhances greater access to food but can improve the health of people by **declining malnutrition**. It is seen that when a country conquers malnutrition, its **GDP can rise by 2-3% per year**. That is the reason Bill gates said if he could wave a magic wand to solve any global health problem, he would use it to end malnutrition (Hellman, 2016).

#### Major challenges

There is a compelling need to operationalise the concept of nutrition security and at present all the 29 States and 7 Union Territories (UTs) of India are covered under this important food security legislation. This ambitious program of the Government, besides offering several opportunities, throws many challenges in its successful implementation. Some important points are discussed below.

Government has made food security a right for poor through National Food Security Act (NFSA), 2013 which has provision for covering 67% of Indian population covering the priority and Antyodaya eligible households. Priority households are entitled to 5 kg food grains per person per month while Antyodaya households will get as usual 35 kg food grains per household per month. This Act will provide food grains at subsidised rate as mentioned earlier to 81.35 crore people. The state wise list of number of persons to be covered as published by Department of Food & Public Distribution, Government of India is given below in Table 2. As per current coverage, monthly allocation of food grains to states / UTs under the Act is about 45.5 lakh tons with subsidy implication of about Rs 11726 crore per month or about Rs 1,40,700 crore per year.

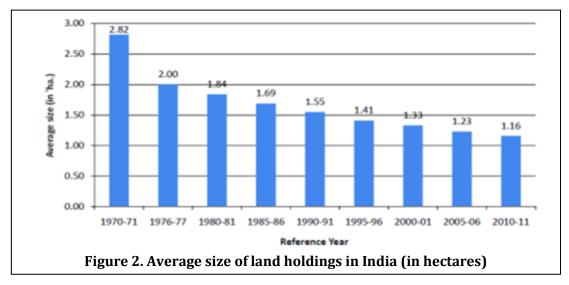
The performance in the Agriculture sector is extremely vital for ensuring adequate availability and access to food. But the cropping pattern in India has undergone significant changes in recent

years. The cultivable land per person is declining gradually from 2.8 hectare to 1.1 hectare across a span of 40 years (Figure 2) because of the fragmentation of farms due to rising population. Seventy five percent of the holdings belong to small and marginal farmers who have great difficulty in adoption and implementation of modern sophisticated technology.

Table 2. Coverage of population under National Food Security Act, 2013

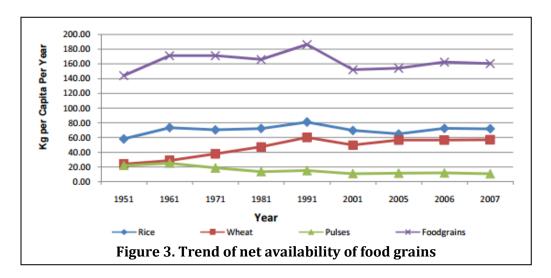
No.         (in lakh)         Urban         Total         Rural         Urban         Total         Rural         Urban         Total           1         Andhra Pradesh (New)         328.41         165.36         493.77         200.20         68.03         268.23           2         Arunachal Pradesh         10.69         3.13         13.83         7.09         1.62         8.71           3         Assam         267.81         43.89         311.69         225.41         26.49         251.90           4         Bihar         920.75         117.30         1038.05         783.74         87.42         871.16           5         Chhatisgarh         196.04         59.37         255.40         165.16         35.61         200.77           6         Delhi         4.19         163.34         167.53         1.58         71.20         72.78           7         Goa         5.51         9.06         14.58         2.33         2.99         5.32           8         Gujarat         346.71         257.13         603.84         258.78         124.06         382.85           9         Haryana         165.31         88.22         253.53         90.28	Sl.	States / UTs	Population (Census 2011)			<b>Total Number of persons to</b>			
Andhra Pradesh (New)	No.		(in lakh)			be covered (in lakh)			
New			Rural	Urban	Total	Rural	Urban	Total	
Arunachal   Pradesh   Same   Same	1	Andhra Pradesh	328.41	165.36	493.77	200.20	68.03	268.23	
Pradesh		(New)							
3         Assam         267.81         43.89         311.69         225.41         26.49         251.90           4         Bihar         920.75         117.30         1038.05         783.74         87.42         871.16           5         Chhatisgarh         196.04         59.37         255.40         165.16         35.61         200.77           6         Delhi         4.19         163.34         167.53         1.58         71.20         72.78           7         Goa         5.51         9.06         14.58         2.33         2.99         5.32           8         Gujarat         346.71         257.13         603.84         258.78         124.06         382.85           9         Haryana         165.31         88.22         253.53         90.28         36.21         126.49           10         Himachal Pradesh         61.68         6.89         68.57         34.68         2.13         36.82           11         Jammu & Pradesh         91.35         34.14         125.49         58.05         16.08         74.13           Kashmir         1         Karnataka         375.53         235.78         611.31         285.55         116.38	2	Arunachal	10.69	3.13	13.83	7.09	1.62	8.71	
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Himachal Pradesh         61.68         6.89         68.57         34.68         2.13         36.82           11         Jammu & Pradesh         91.35         34.14         125.49         58.05         16.08         74.13           12         Jharkhand         250.37         79.29         329.66         216.52         47.73         264.25           13         Karnataka         375.53         235.78         611.31         285.55         116.38         401.93           14         Kerala         174.56         159.32         333.88         91.87         62.93         154.80           15         Madhya Pradesh         525.38         200.60         725.98         420.83         125.59         546.42           16         Maharashtra         615.45         508.28         1123.73         469.71         230.45         700.17           17         Manipur         20.22         8.34         28.56         17.91         7.15         25.06           18         Meghalaya         23.69         5.95         29.64         18.43         3.03         21.46           19         Mizoram         5.29         5.62         10.91         4.33         2.73         7.06	8	Gujarat	346.71	257.13	603.84	258.78	124.06	382.85	
Pradesh         91.35         34.14         125.49         58.05         16.08         74.13           12         Jharkhand         250.37         79.29         329.66         216.52         47.73         264.25           13         Karnataka         375.53         235.78         611.31         285.55         116.38         401.93           14         Kerala         174.56         159.32         333.88         91.87         62.93         154.80           15         Madhya Pradesh         525.38         200.60         725.98         420.83         125.59         546.42           16         Maharashtra         615.45         508.28         1123.73         469.71         230.45         700.17           17         Manipur         20.22         8.34         28.56         17.91         7.15         25.06           18         Meghalaya         23.69         5.95         29.64         18.43         3.03         21.46           19         Mizoram         5.29         5.62         10.91         4.33         2.73         7.06           20         Nagaland         14.07         5.74         19.81         11.23         3.56         14.79	9	Haryana	165.31	88.22	253.53	90.28	36.21	126.49	
11         Jammu Kashmir         & 91.35         34.14         125.49         58.05         16.08         74.13           12         Jharkhand         250.37         79.29         329.66         216.52         47.73         264.25           13         Karnataka         375.53         235.78         611.31         285.55         116.38         401.93           14         Kerala         174.56         159.32         333.88         91.87         62.93         154.80           15         Madhya Pradesh         525.38         200.60         725.98         420.83         125.59         546.42           16         Maharashtra         615.45         508.28         1123.73         469.71         230.45         700.17           17         Manipur         20.22         8.34         28.56         17.91         7.15         25.06           18         Meghalaya         23.69         5.95         29.64         18.43         3.03         21.46           19         Mizoram         5.29         5.62         10.91         4.33         2.73         7.06           20         Nagaland         14.07         5.74         19.81         11.23         3.56         14.	10	Himachal	61.68	6.89	68.57	34.68	2.13	36.82	
Kashmir         Jharkhand         250.37         79.29         329.66         216.52         47.73         264.25           13         Karnataka         375.53         235.78         611.31         285.55         116.38         401.93           14         Kerala         174.56         159.32         333.88         91.87         62.93         154.80           15         Madhya Pradesh         525.38         200.60         725.98         420.83         125.59         546.42           16         Maharashtra         615.45         508.28         1123.73         469.71         230.45         700.17           17         Manipur         20.22         8.34         28.56         17.91         7.15         25.06           18         Meghalaya         23.69         5.95         29.64         18.43         3.03         21.46           19         Mizoram         5.29         5.62         10.91         4.33         2.73         7.06           20         Nagaland         14.07         5.74         19.81         11.23         3.56         14.79           21         Odisha         349.51         69.96         419.47         287.19         39.02         326.2		Pradesh							
12         Jharkhand         250.37         79.29         329.66         216.52         47.73         264.25           13         Karnataka         375.53         235.78         611.31         285.55         116.38         401.93           14         Kerala         174.56         159.32         333.88         91.87         62.93         154.80           15         Madhya Pradesh         525.38         200.60         725.98         420.83         125.59         546.42           16         Maharashtra         615.45         508.28         1123.73         469.71         230.45         700.17           17         Manipur         20.22         8.34         28.56         17.91         7.15         25.06           18         Meghalaya         23.69         5.95         29.64         18.43         3.03         21.46           19         Mizoram         5.29         5.62         10.91         4.33         2.73         7.06           20         Nagaland         14.07         5.74         19.81         11.23         3.56         14.79           21         Odisha         349.51         69.96         419.47         287.19         39.02         326.21 <td>11</td> <th>Jammu &amp;</th> <td>91.35</td> <td>34.14</td> <td>125.49</td> <td>58.05</td> <td>16.08</td> <td>74.13</td>	11	Jammu &	91.35	34.14	125.49	58.05	16.08	74.13	
13         Karnataka         375.53         235.78         611.31         285.55         116.38         401.93           14         Kerala         174.56         159.32         333.88         91.87         62.93         154.80           15         Madhya Pradesh         525.38         200.60         725.98         420.83         125.59         546.42           16         Maharashtra         615.45         508.28         1123.73         469.71         230.45         700.17           17         Manipur         20.22         8.34         28.56         17.91         7.15         25.06           18         Meghalaya         23.69         5.95         29.64         18.43         3.03         21.46           19         Mizoram         5.29         5.62         10.91         4.33         2.73         7.06           20         Nagaland         14.07         5.74         19.81         11.23         3.56         14.79           21         Odisha         349.51         69.96         419.47         287.19         39.02         326.21           22         Punjab         173.17         103.87         277.04         94.88         46.57         141.45		Kashmir							
14         Kerala         174.56         159.32         333.88         91.87         62.93         154.80           15         Madhya Pradesh         525.38         200.60         725.98         420.83         125.59         546.42           16         Maharashtra         615.45         508.28         1123.73         469.71         230.45         700.17           17         Manipur         20.22         8.34         28.56         17.91         7.15         25.06           18         Meghalaya         23.69         5.95         29.64         18.43         3.03         21.46           19         Mizoram         5.29         5.62         10.91         4.33         2.73         7.06           20         Nagaland         14.07         5.74         19.81         11.23         3.56         14.79           21         Odisha         349.51         69.96         419.47         287.19         39.02         326.21           22         Punjab         173.17         103.87         277.04         94.88         46.57         141.45           23         Rajasthan         515.40         170.81         686.21         356.09         90.53         446.62	12	Jharkhand	250.37	79.29	329.66	216.52	47.73	264.25	
15         Madhya Pradesh         525.38         200.60         725.98         420.83         125.59         546.42           16         Maharashtra         615.45         508.28         1123.73         469.71         230.45         700.17           17         Manipur         20.22         8.34         28.56         17.91         7.15         25.06           18         Meghalaya         23.69         5.95         29.64         18.43         3.03         21.46           19         Mizoram         5.29         5.62         10.91         4.33         2.73         7.06           20         Nagaland         14.07         5.74         19.81         11.23         3.56         14.79           21         Odisha         349.51         69.96         419.47         287.19         39.02         326.21           22         Punjab         173.17         103.87         277.04         94.88         46.57         141.45           23         Rajasthan         515.40         170.81         686.21         356.09         90.53         446.62           24         Sikkim         4.56         1.52         6.08         3.45         0.61         4.07	13	Karnataka	375.53	235.78	611.31	285.55	116.38	401.93	
16         Maharashtra         615.45         508.28         1123.73         469.71         230.45         700.17           17         Manipur         20.22         8.34         28.56         17.91         7.15         25.06           18         Meghalaya         23.69         5.95         29.64         18.43         3.03         21.46           19         Mizoram         5.29         5.62         10.91         4.33         2.73         7.06           20         Nagaland         14.07         5.74         19.81         11.23         3.56         14.79           21         Odisha         349.51         69.96         419.47         287.19         39.02         326.21           22         Punjab         173.17         103.87         277.04         94.88         46.57         141.45           23         Rajasthan         515.40         170.81         686.21         356.09         90.53         446.62           24         Sikkim         4.56         1.52         6.08         3.45         0.61         4.07           25         Tamil Nadu         371.89         349.50         721.39         232.62         132.08         364.69 <td>14</td> <th>Kerala</th> <td>174.56</td> <td>159.32</td> <td>333.88</td> <td>91.87</td> <td>62.93</td> <td>154.80</td>	14	Kerala	174.56	159.32	333.88	91.87	62.93	154.80	
17         Manipur         20.22         8.34         28.56         17.91         7.15         25.06           18         Meghalaya         23.69         5.95         29.64         18.43         3.03         21.46           19         Mizoram         5.29         5.62         10.91         4.33         2.73         7.06           20         Nagaland         14.07         5.74         19.81         11.23         3.56         14.79           21         Odisha         349.51         69.96         419.47         287.19         39.02         326.21           22         Punjab         173.17         103.87         277.04         94.88         46.57         141.45           23         Rajasthan         515.40         170.81         686.21         356.09         90.53         446.62           24         Sikkim         4.56         1.52         6.08         3.45         0.61         4.07           25         Tamil Nadu         371.89         349.50         721.39         232.62         132.08         364.69	15	Madhya Pradesh	525.38		725.98	420.83	125.59	546.42	
18         Meghalaya         23.69         5.95         29.64         18.43         3.03         21.46           19         Mizoram         5.29         5.62         10.91         4.33         2.73         7.06           20         Nagaland         14.07         5.74         19.81         11.23         3.56         14.79           21         Odisha         349.51         69.96         419.47         287.19         39.02         326.21           22         Punjab         173.17         103.87         277.04         94.88         46.57         141.45           23         Rajasthan         515.40         170.81         686.21         356.09         90.53         446.62           24         Sikkim         4.56         1.52         6.08         3.45         0.61         4.07           25         Tamil Nadu         371.89         349.50         721.39         232.62         132.08         364.69	16	Maharashtra	615.45	508.28	1123.73	469.71	230.45	700.17	
19         Mizoram         5.29         5.62         10.91         4.33         2.73         7.06           20         Nagaland         14.07         5.74         19.81         11.23         3.56         14.79           21         Odisha         349.51         69.96         419.47         287.19         39.02         326.21           22         Punjab         173.17         103.87         277.04         94.88         46.57         141.45           23         Rajasthan         515.40         170.81         686.21         356.09         90.53         446.62           24         Sikkim         4.56         1.52         6.08         3.45         0.61         4.07           25         Tamil Nadu         371.89         349.50         721.39         232.62         132.08         364.69	17	Manipur	20.22	8.34	28.56	17.91	7.15	25.06	
20         Nagaland         14.07         5.74         19.81         11.23         3.56         14.79           21         Odisha         349.51         69.96         419.47         287.19         39.02         326.21           22         Punjab         173.17         103.87         277.04         94.88         46.57         141.45           23         Rajasthan         515.40         170.81         686.21         356.09         90.53         446.62           24         Sikkim         4.56         1.52         6.08         3.45         0.61         4.07           25         Tamil Nadu         371.89         349.50         721.39         232.62         132.08         364.69	18	Meghalaya	23.69	5.95	29.64	18.43	3.03	21.46	
21       Odisha       349.51       69.96       419.47       287.19       39.02       326.21         22       Punjab       173.17       103.87       277.04       94.88       46.57       141.45         23       Rajasthan       515.40       170.81       686.21       356.09       90.53       446.62         24       Sikkim       4.56       1.52       6.08       3.45       0.61       4.07         25       Tamil Nadu       371.89       349.50       721.39       232.62       132.08       364.69	19	Mizoram	5.29	5.62	10.91	4.33	2.73	7.06	
22         Punjab         173.17         103.87         277.04         94.88         46.57         141.45           23         Rajasthan         515.40         170.81         686.21         356.09         90.53         446.62           24         Sikkim         4.56         1.52         6.08         3.45         0.61         4.07           25         Tamil Nadu         371.89         349.50         721.39         232.62         132.08         364.69	20	Nagaland	14.07	5.74	19.81	11.23	3.56	14.79	
23       Rajasthan       515.40       170.81       686.21       356.09       90.53       446.62         24       Sikkim       4.56       1.52       6.08       3.45       0.61       4.07         25       Tamil Nadu       371.89       349.50       721.39       232.62       132.08       364.69	21	Odisha	349.51	69.96	419.47	287.19	39.02	326.21	
24     Sikkim     4.56     1.52     6.08     3.45     0.61     4.07       25     Tamil Nadu     371.89     349.50     721.39     232.62     132.08     364.69	22	Punjab	173.17	103.87	277.04	94.88	46.57	141.45	
25 <b>Tamil Nadu</b> 371.89 349.50 721.39 232.62 132.08 364.69	23	Rajasthan	515.40	170.81	686.21	356.09	90.53	446.62	
	24	Sikkim	4.56	1.52	6.08	3.45	0.61	4.07	
Z6         Telangana         234.71         118.18         352.89         143.08         48.62         191.70	25	Tamil Nadu	371.89	349.50	721.39	232.62	132.08	364.69	
	26	Telangana	234.71	118.18	352.89	143.08	48.62	191.70	

27	Tripura	27.10	9.61	36.71	20.26	4.76	25.02
28	Uttar Pradesh	1551.11	444.70	1995.81	1234.06	286.52	1520.59
29	Uttrakhand	70.26	30.91	101.17	45.85	16.09	61.94
30	West Bengal	622.14	291.34	913.48	463.31	138.53	601.84
31	A & N Island	2.44	1.36	3.80	0.61	0.02	0.63
32	Chandigarh	0.29	10.26	10.55	0.11	4.85	4.96
33	Dadar & Nagar	1.83	1.60	3.43	1.54	0.82	2.36
	Haveli						
34	Daman & Diu	0.60	1.83	2.43	0.16	1.03	1.19
35	Lakshadweep	0.14	0.50	0.64	0.05	0.17	0.22
36	Pudducherry	3.94	8.50	12.44	2.35	3.99	6.34
	TOTAL	8332.10	3771.18	12103.28	6249.30	1885.61	8134.92



The increased demand for food because of increase in population and urbanisation puts cultivated land under stress resulting in crop intensification and substitution of food crops with commercial crops. The area under coarse cereals, which is generally cultivated in dry regions, has also declined by 13.3% between 1970-71 and 2007-08 (Kannan and Sundaram, 2011). Intensive cultivation, for example rice-wheat rotations in north western India has resulted in salinity and water logging, ground water depletion, loss of soil nutrients, formation of soil hard pans and building up of pests and diseases. With declining growth in yields, farming is increasingly becoming a non-viable activity. The problems face by farmers is reflected in increasing trend in widespread farmer's suicides. Government policies like 'Minimum Support Price (MSP)', 'Market Interventions Scheme (MIS)' backed by gigantic procurement system mainly encourage to focus on production of two cereals i.e. rice and wheat undermining the

importance of other vital crops like pulses, jowar, bajra and oilseed (Chauhan et al. 2014). Lack of substantial improvement on per capita availability of food grains as shown in Figure 3 clearly indicates that availability of food grains for sustaining the NFSA program will be a great challenge in future.



To meet the shortage of food grains, Government will have to resort to imports from other countries by spending a good amount of budget. As per the current coverage the Central Government will be spending about Rs. 1,40,700 crore per year, a big share of annual budget as subsidy to Food Security scheme which does not generate any revenue to the government but will raise the fiscal deficit. This is merely the tip of the iceberg. Additional expenditure is essential to support this scheme by creating administrative set up, scaling up of operations, enhancement of production, investments for storage, movement, processing, and market infrastructure. State governments are also being provided central assistance for meeting expenditure of intra-state transportation and handling of food grains. Extra arrangement of money in budget without hampering development activities in the country is also a major challenge.

According to NFSA, 2013, the supply of subsidised food grains limits to only BPL families. **Identification of beneficiaries is a debatable issue**. In one side among 81.34 crore people all are not incapable for purchasing food grains in normal rate from market. Spending money on the capable people not only wasting of vital budget amount but also may encourage

those people to misuse the saved money on purchasing non important things creating inflation. In other side rural migrants staying in urban slums are deprived of this ambitious scheme being 'informal sector' who have to buy their food from the common market at the competitive price. A striking issue is that in India, all the privilege of the government schemes and programs, aimed at helping the urban slum people, is enjoyed only by those slums that are notified. Ironically, around 50% of the urban slums are not notified and are devoid of the subsidised food made available through PDS (Upadhyay and Palanivel, 2011). Gender inequality in rural areas places the female child and woman at disadvantage situations compared to male and causes them to suffer. This type of disparity among poor class on getting benefit encourages crime, corruption and leakages in PDS system which needs cautious dealing.

In order to make the Public Distribution System leakage proof, beneficiary's data base has been digitized in all the 36 States / UTs, where in information can be sought right up to beneficiary levels. Central government is determined to focus on further reforms of PDS, which will include end to end computerization of the system for which states / UTs are being technically and financially assisted. The direct benefit transfer is being carried out in two different modes. In first mode in UTs of Chandigarh, Puducherry and urban areas of Dadar & Nagar Haveli, food subsidy is being transferred in cash into the bank account of beneficiaries, who then have the choice to buy food grains from the open market. The second mode involves automation of fair price shops, for distribution of food grains through a electronic point of scale (e-PoS) device which authenticates beneficiaries at the time of distribution and also electronically captures the quantum of food grains distributed to the family. Maintenance of this modern system in remote areas and from the clutch of wicked minded people is also a serious challenge. Besides this, low quality of grains and poor service at PDS shops aggravate the problems.

Adequate availability and access to food does not necessarily mean that the food would be absorbed to ensure higher levels of nutrition. Malnutrition is a major problem particularly in rural areas and urban slums. The capacity for the body to absorb food depends crucially to other characteristics of a person that are influenced by non-food factors such as medical attention, health services, basic education, sanitary arrangements, provision of clean water, eradication of infectious epidemics and so on (Dreze and Sen, 1989). The shift of focus from nutritional crops

to rice – wheat cultivation as discussed earlier in food security scheme may adversely affect the supply of proteins, vitamins and minerals leading to diseases and deficiencies in women and children. Protein energy malnutrition (PEM) and stunted growth are the repercussion of deficient diet in children and anaemic syndrome in women. These deficiencies are also contributed by paltry intake of fruits and vegetables in the daily diet of economically weaker section of India (Chauhan et al., 2014). Motivating beneficiaries by bringing awareness on tackling the malnutrition is a serious concern to the implementing authority.

Though logic says that food security will motivate people to work hard for their betterment, but in reality different situation is coming up. Poor people after getting all food grains for his family for the month becomes lethargic and don't feel to work for more earning. Agriculture is labour oriented job. In city different jobs like Riksha pulling, house premises cleaning, gardening, contractual work in offices, etc also requires lot of labours. A huge labour crisis is faced both by farmers in village areas and common people in city areas. Getting easily the subsidised food grains by the beneficiary may create provocation towards drinking habit or organising crime. Ideal brain is devil's workshop. Keeping this in mind government can generate some schemes to provide them work for earning their livelihood with pride instead of supplying free food.

Mid day meal started in school in fact **spoils the education system** in school since teachers remain busy in arrangement of safe meals for students instead of teaching. Sometimes free food itself brings doubt on the mind of beneficiaries on its quality. They hope for still better food. It is seen sometimes the poor people after collecting rice and wheat in subsidised rate, **exchange with better quality food grains at shop outside** which in turn use as feed for pet animals or birds **defeating the objective of the scheme**.

# Conclusion

For avoiding any food insecurity, priority has to be assigned to agriculture and rural development along with promoting women empowerment, ensuring sustainable employment and improving environmental conditions like water, sanitation and hygiene. The National Food Security Act advocates PDS reforms following doorstep delivery of food grains, seamless

connectivity, identification of beneficiaries using Aadhaar card and introduction of schemes like cash transfers, food coupons, etc. Solutions to above mentioned challenges for sustaining the NFSA are very vital. Instead of free food, government can generate schemes to provide work for BPL group so that they can earn from their own effort and feed their family with pride. In urban slum areas their hard work can be utilized for cleaning, planting and development of roads while in rural areas their hard work can be utilized for development of community agriculture, gardening with nutritious varieties plants and various welfare activities.

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