



## FOOD SECURITY

Elimination of hunger and attainment of Food Security have been important goals for developing countries and the Millennium Development Goals (MDGs) adopted at the United Nations and the World Food Summit (WFS), rightly recognized the importance of Food Security. In India, even though the country has achieved self-sufficiency in food production and achieving adequate food supply at macro-level, there is wide spread poverty and malnutrition. The understanding of food security has undergone a change from earlier period of 1970s, when food security was understood as the availability of adequate supplies of basic food stuffs at all times. Amartya Sen (1981) added a new dimension to food security and emphasized that the access to food through 'entitlements' – a combination of what can be produced and exchanged in the market, along with state provided supplies. Later Mr. Sen emphasized aspects such as adequate nourishment and adequate healthiness, which should be the concern of food security. In 1995, WFS declared Food Security at the individual, household, national, regional and global levels, exists when all people have physical and economic access to adequate, nutrient food to meet the dietary needs for an active and healthy life.

The World Health Organization (WHO) defines three facets of food security i.e. food availability, food access, and food use. Food availability is having available sufficient quantities of food on a consistent basis. Food access is having sufficient resources, both economic and physical, to obtain appropriate foods for a nutritious diet. Food use is the appropriate use based on knowledge of basic nutrition and health care, as well as adequate water and sanitation. The FAC adds a fourth facet: the stability of the first three dimensions of food security over time.

Food Security in a broad sense has four dimensions : availability, accessibility, vulnerability and utilization. The availability of food essentially encompasses, domestic agricultural production and food imports. Accessibility depends mostly by the **households' purchasing power** and the **food subsidies**. The dimension of utilization is concerned with the nutritional requirements of household members, based on their age and sex. The other

dimension vulnerability – denotes risks such as environmental risks (i.e. floods, droughts, earthquakes, cyclones etc.) and the health and nutritional risks which may destabilize the food security of a population across the other three dimensions.

Food security in a country, depends on a number of factors that go beyond the production, availability and demand for food grains. Macro-policies, access to productive employment, access to education, health, sanitation, clean drinking water and other social security provisions that contribute to achieving food security.

### **1.1. Nutritional Dimensions :**

Apart from the incidence of hunger, the other important dimension of **utilization of food security** relates to nutrition. Approximately 28 per cent of the rural households use unsafe well / surface water ; the corresponding figure for urban areas is rather low, approximately 7 per cent. The availability of sanitation facility is even worse ; with 80 per cent of rural households and 19 per cent of urban households not having toilet facility.

According to NSS Report (Nutritional intake in India, 1999-2000) with norm level of 2700 K. Cals (for both urban and rural areas), the nutritional deficiency as indicated by the percentage of population consuming less than 90 per cent of the norm of calorie intake is 45.2 per cent for all classes, which is very high. This has occurred owing to the diversification of consumption baskets of non-rich and it is not a matter of concern as the calorific requirement is lower now due to various factors. However, low calorie consumption by the poor might also indicate their poor state of well-being as poor households are likely to have higher expenditure elasticities of calorie consumption (Subramanian and Deaton 1996). A matter of concern is that the incidence of nutritional deficiency, especially in the rural areas, is showing a worsening trend. While the sources of calories are highly diversified in the case of richer households, the poor households' dependence on cereals for their calorie requirements remains very high. Thus, the overall decline in calorie consumption cannot always indicate improvement in welfare. This calls for keeping food prices low for the poor with effective implementation of PDS.

Studies by the National Nutrition Monitoring Bureau (NNMB), show that consumption of many micro-nutrients, such as protein, Iron, Vitamin-A, Thiamin, Riboflavin and Carotene have been far below the recommended levels. Nutritional deficiency among the children and pregnant women is also reflected by the NNMB data, which shows that the incidence of under nutrition among rural children, was alarmingly high with the incidence at 47.7 per cent in 2000-01. Similarly National Family Health Survey (NFHS) data show that in 1998-99 in rural areas 49.6 per cent of the children were underweight and 48.5 per cent were stunted. The food security has a clear gender dimension, is apparent from the fact that approximately 54 per cent of the women in rural areas and 48 per cent in urban areas suffer from anemia (IIPS 2000). The Eleventh Plan focused on strengthening the ICDS to plug all the lacunae. At present only 46 per cent of the children are covered by SNP (Special Nutrition Program) of the ICDS and according to Human Development Report 2011, India's performance is the worst in terms of underweight children, infant mortality and under five mortality, as there has been no significant decline in the percentage of underweight children over the last decade-and-a-half when the economy has been growing at over 6 per cent per annum on an average. The numbers wise the population of malnourished children would have increased in this period. Further, it is observed that socially marginalized groups (SCs, STs) have a higher percentage of women with BMI < 18.5 and the rural children who suffer from malnutrition.

To address the problem of hunger and malnutrition, programmes such as the ICDS, MSP and the PDS need specific improvements in programme design aimed at addressing the problems faced by socially marginalized groups.

## **2. Food Intervention Programmes and Policies :**

In the wake of the high incidence of poverty levels reported by NSSO Surveys since 1970s, three important food intervention programmes were introduced – the PDS, ICDS (in 1975) and Food for Work (FW) introduced in 1977-78. Over the years several new programmes have been launched and some have been restructured. Employment programs like NREGA greatly contribute to food security by increasing the purchasing power of the poor.

## **2.1 Food Production :**

According to the World Resources Institute, global per capita food production has been increasing substantially for the past several decades. According to a 2004 article from the BBC, China, the world's most populous country, is suffering from an obesity epidemic. In India, the second-most populous country in the world, 30 million people have been added to the ranks of the hungry since the mid-1990s and 46% of children are underweight.

Worldwide, around 925 million people are chronically hungry due to extreme poverty, while up to 2 billion people lack food security intermittently due to varying degrees of poverty (source: FAO, 2010). Six million children die of hunger every year – 17,000 every day. As of late 2007, export restrictions and panic buying, US Dollar depreciation, increased farming for use in biofuels, world oil prices at more than \$100 a barrel, global population growth, climate change, loss of agricultural land to residential and industrial development, and growing consumer demand in China and India are claimed to have pushed up the price of grain. However, the role of some of these factors is under debate. Some argue the role of biofuel has been overplayed as grain prices have come down to the levels of 2006. Nonetheless, food riots have recently taken place in some countries across the world.

## **3. A Strategy for Food and Nutrition Security :**

Given the severity and the multi-dimensional nature of poverty in India, providing the food and nutrition security should form an important strategy and policy which should be multi-pronged considering short term as well as long term goals; which may also need re-orientation.

### **3.1 Agriculture :**

Mr. M.S. Swaminathan, in his article “Managing the Anticipated Food Crisis”, (2010), has recommended that farmer’s interest in agriculture need to be revived. His recommendations include that the mis-match between production and post harvest technologies should be ended, as India is the second largest producer of fruits and vegetables in the world, one third of the produce is wasted for lack of storage, appropriate marketing and value addition to be attended at village level. A nutrition dimension should be added to the National Horticultural and Food Security Missions. Deficiencies caused by the micro-nutrients like iron, iodine, zinc, Vitamin A

and Vitamin B12 can be overcome at village level by 'taking advantage of **horti-cultural remedies for nutritional maladies**'. He feels that a small farm management revolution for those operating one hectare or less, proactive action to minimize the adverse impact or risks of Monsoon or climate change and natural disasters, is the need of the hour.

**Other important measures that need immediate attention are :**

- To increase the agricultural productivity on par with East Asian countries, by improving the technologies, increasing the indigenous fertilizer production and ensuring adequate supply of safe and better seeds to the farmer, reducing the input costs.
- Increase the agriculture infrastructure, with better rural roads, storage facilities and improve credit of low and market facilities for the agriculture and horticulture products – Improve Post Harvest Management to avoid wastage of perishables.
- Take Agro-processing to the door step of the rural areas to create more rural employment.
- Encourage public and private investments to improve the rural / agriculture infrastructure.
- To find more efficient systems of income transfers to the small and marginal farmers instead of giving subsidies on inputs, which increase the inefficient use of resources.

**3.2 Buffer Stocks :**

High level of buffer stocks of food grains is very undesirable as they will increase the cost of food grains in the open market. The storage of massive food stocks has been responsible for high carrying costs (42 per cent of the central food subsidy) in addition to the cost of pilferage, wastage and deterioration in grain quality. This level of buffer stocks is mainly because of regular and arbitrary increase in Minimum Support Price (MSP), very often much more than what is recommended as a fool proof and objective system of fixing the MSP is lacking, for political considerations.

**3.3 Employment Guarantee :**

Employment Guarantee was introduced in 2005, by an Act by the Central Government, assures guarantee of providing employment to a household for 106 days in a year for identified

poor families. Effective implementation with political commitment to the scheme will enhance the food and nutritional security.

#### **4. Plan Perspective on Food Security :**

According to India Development Report – 2011, the Plan recognizes the importance of food security in order to improve, inter alia, what it calls ‘nutritional outcomes’ for the poor and to facilitate quick recovery from illness (Government of India[GOI] 2008). The issue under review is all the more important if the following Plan perceptions are true : (i) per capita cereal production has declines, and (ii) income levels of the poor have been stagnant. The document cites empirical details on nutritional outcome measures like low birth weight of newborn babies and weights and heights of adults, and explains in terms of, inter alia, deficit in energy intake. It presents evidence to show that malnutrition as reflected in estimates of underweight children did not decline between 1998-9 and 2004-5, though the economy was growing at the rate of 6 per cent per annum during that period. Hence, the Plan calls for a review of issues relating to food security not simply in terms of cereal production and consumption but also in terms of scope for improving nutritional outcome for the poor. While one may appreciate the Plan emphasis on assessing the situation with an integrated perspective e on outcomes it is also important to make factually correct assessments of food deprivation from a distributional perspective, for the poor in particular, given its bearings on policy choice and design.

The Plan recommends that, given the prevailing inequities in distribution, average calorie availability in the country should be at ‘least 20% higher than the per capita requirement (i.e. 2100 calories for urban and 2400 calories for rural areas)’ (GOI 2008:132). As regards policies, the Plan goes on to evaluate the PDS and concludes that the ‘PDs seems to have failed in serving the second objective of making food grains available to the poor. If it had, the consumption levels of cereals should not have fallen on average – as it has consistently over the last two decades’ (GOI 2008:135). Observing that purchasing power is a serious constraint on household food security, the Plan review assesses the PDS in terms of rupees transferred as given by the difference between average market price and the PDS price, and concludes that what matters is possession of ration card and its type and not economic status of the household.

#### **4.1 Cereal Consumption :**

Consistent with the observed increases in per capita total consumer expenditures at constant prices, one would expect increases in cereal consumption expenditure to be a priority. However, cereal expenditure declined for all but the poorest decile group in both rural and urban India. Generally, the percentage decrease in cereal expenditure was higher for the richer decile groups in both the sectors. This would call into the question the Plan observation that low purchasing power is a constraint on household food security and with limited purchasing power households could not diversify their consumption basket.

Changes in the composition of the consumption basket mentioned earlier could partly reflect changing tastes, consumer responses to changing relative prices, and their substitution effects on consumer choices, but largely changing production and supply conditions. Under the new agricultural growth strategy, benefiting largely wheat and rice, crop composition of food grains has changed considerably in favour of superior cereals. Structural changes in the rural economy involving a decline in coarse cereal availability and changes in labour markets could have accounted for some decline in total cereal consumption of the rural population groups. In sum, the share of wheat in the cereal basket increased and that of coarse cereals decreased in both rural and urban sectors. Thus, there have been some qualitative improvements in the consumption patterns of the population.

#### **4.2 Calorie Intake :**

With the decline in average cereal consumption, a decline in average calorie intake would follow, unless accompanied by compensating increases in non-cereal consumption. Though cereal consumption increased only for the poorest decile group, per capita calorie intake has generally increased for the bottom two decile groups in rural India and bottom three decile groups in urban India. This would suggest that there have been compensating increases in non-cereal consumption for the bottom two / three decile groups of the rural / urban population. Still, their calorie intakes fall short of the norms used for defining the poverty lines. The poor seem to have opted for some diversification in consumption, providing a more nutrition diet though not adequate energy (Suryanarayana 1995a). On the other hand, top decile groups have reduced their cereal consumption and, hence, calorie intake. The decline in the calorie

intake of the richer sections could be explained in terms of changing consumption patterns in favour of non-calorie food and non-food items at the expense of calorie intake. The combined impact of these two diverse patterns of changes across decile groups is that estimates of incidence of calorie deficiency by the conventional calorie norms for the total (rural and urban combined) population turn out to be higher for about 80 per cent for India.

The calorie norms cited earlier have been worked out in the 1950s / 1960s, and hence may be outdated and irrelevant with improvements in modes of production and standard of living. This could be the reason for voluntary reductions in cereal consumption and calorie intake of the richer decile groups. This would raise a question on the relevance of the calorie norms for food security estimates.

In sum, the NSS estimates of consumer expenditure, cereal consumption, and calorie intake by decile groups provide little evidence to corroborate the hypothesis that 'low and stagnant incomes' have proved a constraint on household food and nutritional security. Instead, they call into question (i) the relevance of calorie norms proposed half a century back for a scenario when modes of production were very dissimilar to those obtaining at present and (ii) the policy recommendation of the Plan to increase average calorie intake by 20 per cent. If the calorie norms are still valid, then they call for consumer education to guide choice of nutritious diets and healthy consumption habits among the non-poor.

## **5. Challenges to achieving Food Security :**

"The number of people without enough food to eat on a regular basis remains stubbornly high, at over 800 million, and is not falling significantly. Over 60% of the world's undernourished people live in Asia, and a quarter in Africa. The proportion of people who are hungry, however, is greater in Africa (33%) than Asia (16%). The latest FAO figures indicate that there are 22 countries, 16 of which are in Africa, in which the undernourishment prevalence rate is over 35%."

### **5.1 The agriculture-hunger-poverty nexus :**

Eradicating hunger and poverty requires an understanding of the ways in which these two injustices interconnect. Hunger, and the malnourishment that accompanies it, prevents poor

people from escaping poverty because it diminishes their ability to learn, work, and care for themselves and their family members. Food insecurity exists when people are undernourished as a result of the physical unavailability of food, their lack of social or economic access to adequate food, and/or inadequate food use. An alternative view would define the concept of food insecurity as referring only to the consequence of inadequate consumption of nutritious food, considering the physiological use of food by the body as being within the domain of nutrition and health. Malnourishment also leads to poor health hence individuals fail to provide for their families. If left unaddressed, hunger sets in motion an array of outcomes that perpetuate malnutrition, reduce the ability of adults to work and to give birth to healthy children, and erode children's ability to learn and lead productive, healthy, and happy lives. This truncation of human development undermines a country's potential for economic development for generations to come.

## **5.2 Improving agricultural productivity to benefit the rural poor :**

There are strong, direct relationships between agricultural productivity, hunger, poverty, and sustainability. Three-quarters of the world's poor live in rural areas and make their living from agriculture. Hunger and child malnutrition are greater in these areas than in urban areas. Moreover, the higher the proportion of the rural population that obtains its income solely from subsistence farming (without the benefit of pro-poor technologies and access to markets), the higher the incidence of malnutrition. Therefore, improvements in agricultural productivity aimed at small-scale farmers will benefit the rural poor first. Food and feed crop demand is likely to double in the next 50 years, as the global population approaches nine billion. Growing sufficient food will require people to make changes such as increasing productivity in areas dependent on rainfed agriculture; improving soil fertility management; expanding cropped areas; investing in irrigation; conducting agricultural trade between countries; and reducing gross food demand by influencing diets and reducing post-harvest losses.

## **5.3 Children and Food Security :**

On April 29, 2008, a UNICEF UK report found that the world's poorest and most vulnerable children are being hit the hardest by the impact of climate change. The report, "Our Climate, Our Children, Our Responsibility: The Implications of Climate Change for the World's

Children," says access to clean water and food supplies will become more difficult, particularly in Africa and Asia.

In its "The State of Food Insecurity in the World 2003", FAO states that:

'In general the countries that succeeded in reducing hunger were characterised by more rapid economic growth and specifically more rapid growth in their agricultural sectors. They also exhibited slower population growth, lower levels of HIV and higher ranking in the Human Development Index'.

As such, according to FAO, addressing agriculture and population growth is vital to achieving food security. Other organizations have come to this same conclusion and advocate improvements in agriculture and population control.

"Of the eight Millennium Development Goals, eradicating extreme hunger and poverty depends on agriculture the most. (MDG 1 calls for halving hunger and poverty by 2015 in relation to 1990.)

Notably, the gathering of wild food plants appears to be an efficient alternative method of subsistence in tropical countries, which may play a role in poverty alleviation.

#### **5.4 Gender and Food Security :**

Gender inequality is a major cause and effect of hunger and poverty. Food security can be a major concern for people who are incapable of or denied access to participating in labor, either formal, informal, or agricultural. In 2009, the U.N. estimated that 60 percent of the world's chronically hungry people are women and girls, 98% of which live in developing nations. When women have an income, substantial evidence indicates that the income is more likely to be spent on food and children's needs. Women are generally responsible for food selection and preparation and for the care and feeding of children. Women play many roles in land use, production, processing, distribution, market access, trade, and food availability. They often work as unpaid, contributing family workers, or self-employed producers, on and off-farm employees, entrepreneurs, traders, providers of services, and caretakers of children and the elderly. Women farmers represent more than a quarter of the world's population, comprising on

average, 43 percent of the agricultural workforce in developing countries, ranging from 20 percent in Latin America to 50 percent in Eastern Asia and Sub-Saharan Africa. However, women have less access than men to agricultural assets, inputs and services. Analysts suggest that if women have the same access to productive resources as men, women could boost yield by 20–30 percent; raising the overall agricultural output in developing countries by two and a half to four percent. This gain in production could lessen the number of hungry people in the world by 12–17 percent.

## **5.5 Women's empowerment in agriculture index :**

To improve the status of women in agriculture, improve nutrition, and decrease poverty, USAID created an index to study women's empowerment in agriculture in 2012.

The "Women's Empowerment in Agriculture Index" (WEAI) is the first measure to directly capture women's empowerment and inclusion levels in the agricultural sector. The index considers five factors to be indicative of women's overall empowerment in the agricultural sector:

- Decisions over agricultural production
- Power over productive resources such as land and livestock
- Decisions over income
- Leadership in the community
- Time use

Women are considered empowered if they score adequately in at least four of the components. The index functions at the country or regional level, working with individually based data of men and women in the same households. Gender-sensitive indexes such as WEAI are intended to aid governments, scholars, and organizations to make informed and educated decisions regarding food and gender policy in regionally specific agendas. Gender consciousness in policy-making may lead to decisions to support women's individual or cooperative agricultural endeavors, reform land laws, reduce market restrictions, allow for greater access to the international market, or provide targeted training and inputs.

## 5.6 Improving Governance of PDS :

In spite of all these reforms, it will not be possible for the system to be effective unless the governance of PDS is improved. Governance is the major problem in the implementation of most of the other programmes also. But in case of PDS implementation is really one of the worst, more so in north and central India. The following steps, if sincerely undertaken and implemented, may be helpful :

1. The quality of grains supplied through PDS needs to be improved. This has happened because of relaxation in quality norms on the request of the state governments. To the extent possible, it should be avoided and, even if done, the price should be appropriately reduced. A large part of the PDS stock is old and it is necessary to dispose off the very old stocks at the earliest as suggested by the Sen Committee. This will increase the confidence of the consumers in PDS.
2. Though on paper the purchase of grains by the poor is permissible on installments, but in actual practice the opening of shops in rural areas is very irregular. The regular and timely opening of shops needs to be ensured.
3. The margin of profit for PDS dealers is as low as 5 per cent in several states. On this low margin no one can run a shop and there is no option but to resort to diverting the grains to the open market. An appropriate margin of profit should be provided to the dealers so that at least some of the genuine ones are not compelled to resort to malpractices. They may also be allowed to sell products, other than PDS items, so as to make them viable.
4. At the same time, all efforts should be made to remove the unscrupulous PDS dealers, most of whom have got licences because of bribes and political patronage, and not because they have any enterprise or commitment. It will be better to give these shops to established shopkeepers, instead of these unscrupulous elements.
5. A drive against bogus ration cards should be undertaken on a war footing. Those involved with the bogus card racket should be severely punished so that it sets an example for others. Linking it with 'Aadhar' will certainly improve in eliminating the bogus ration cards.
6. At the same time, ration cards should be provided to all the poor people left out. In urban areas a large number of migrants have been generally left out. There should be

provision of temporary cards for the homeless in the urban areas as well. All these people generally constitute the poorest of the poor and most of them may be eligible under AAY.

7. Although permission has been given to non-governmental organizations (NGOs) to run food-based schemes, but in actual practice, in most of the states, it is not being done. The involvement of civil society in the implementation of the programme can help a lot in its improvement.
8. Similarly, self-help groups (SHGs) that are doing well should also be involved. They may be given a food loan by the government which can be returned after the harvest.

## **6. Addressing Nutrition Security :**

Approach to reduce malnutrition in general, involves a comprehensive package that deals with all major factors contributing malnutrition, which is called multi-sectoral nutrition planning efforts. More recent trends in the program focus, the integrated health and nutrition programs suited to a particular geographic areas, with the participation of the community. The basic philosophy of nutritional interventions is the life cycle approach to nutritional problems; starting from pregnancy, the lactation period, the weaning period early childhood and then adolescence. Each stage makes its contribution to the nutritional status of the population. Nutritional intervention should have priority to the children under the age of 3 years with emphasis on weaning period. Hence strengthening ICDS scheme will have greater impact on nutritional security. There is a need to reconsider exclusive focus on mothers and the nutritional education, since the child-care and health practices are deeply embedded in socio-cultural and economic system and household should be the unit of nutritional education according to some experts. The work-load, capacities and responsibilities of the Anganawadi worker need to be re-examined and appropriate measures for improving the efficiency of the system should be taken. Ownership by the community is pivotal in addressing the problem of malnutrition and ownerships can be in the form of supervision, providing feed back on nutrition education content and delivery systems. A nutrition and health committee at the village Panchayat, consisting of Panchayat Member, auxiliary nurse mid-wife, anganawadi workers and community members can act as a pressure group in early identification of mal-nutrition and management etc.

## **7. National Food Security Bill 2013 :**

The National Food Security Act, also referred to as the Right to Food Bill, has been passed by the Parliament in Aug-Sept., 2013 makes food availability a right for every citizen of India. It is on the look out for the 'poorest of the poor' by providing them 35 kilos of rice at the rate of 7 kg per head.

The NFSB proposed by the NAC is a potentially revolutionary bill that can have a huge impact on the economy. Well crafted and effectively executed, it can transform the lives of people. The salient features of the NFSB proposed by the NAC are:

- Households covered under 'Antyodaya Anna Yojana' be entitled to 35 kgs of food grains per hh per month at the prices of Rs.3 per kg for rice, Rs.2 per kg for wheat and Rs.1 per kg for coarse grains.
- The Priority households, identified by the State govt. shall be entitled to receive 5 kgs of food grains per person per month at subsidized prices under the targeted PDS.
- The subsidized shall extend up to 75% of the rural population and upto 50% of the urban population.
- Pregnant women and lactating mothers shall be entitled to a free meal during pregnancy and six months after the child birth through anganawadi centre to meet the nutritional standards and maternity benefits of Rs.6000 in instalments as fixed by the govt.
- Children of the age group of six months to six years shall be entitled for free meal through 'anganawadi' to meet nutritional standards.
- Children in the age group of 6 to 14 (up to VIII cl) entitled for one mid-day meal, free of charge on every day except on holidays in all govt. / local body schools.
- In case of non-supply of entitled quantities of foodgrains or meals, such persons shall be entitled to receive food security allowance by the respective state government.

## **8. Reforms in PDS :**

- The reforms include door delivery of food grains through PDS outlets.
- Application of I.T. tools, linking with 'Aadhar' for unique Identification with biometric information.

- Preference to public Institutions such as Panchayats, self help groups, cooperatives in licensing of Fair Price shops and management of fair price shops by women or their collectives.
- Diversification of commodities distribution under PDS and support to local public distribution models and grain banks.
- Introducing schemes such as cash transfer, food coupons to targeted beneficiaries in such areas as specified by the govt.
- Ration card shall be issued in the name of the female head of the household only; in families where adult female member (18+year) not available, male member is entitled to receive.
- State government shall set up vigilance committees as specified in Public Distribution System (control) order 2001, under Essential Commodities Act, 1955. The vigilance committees shall supervise and check malpractices and inform District Grievance Redressal Officer of any violations of the Act or malpractices.

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## **Some apprehensions :**

After passing the bill in the Parliament there were apprehensions that food security bill may not really help in eliminating the hunger nor it will help to win elections by the UPA in the next elections as criticized by some of the opposition parties. The bill was passed at a critical period at the fag end of UPA-2 i.e. just 6 months before the General elections 2014.

According to Swaminathan A. Iyer, NSSO survey shows that the population of hungry people fell from 15.3% in 1983 to 2% in 2004 per capita. Some of cereals have fallen steadily in all income groups including the poorer sections. They are shifting from cereal foods to proteins and milk. The percentage of expenditure on food out of over all expenditure of a household has been reduced further. The 'Antyodaya' programme which was introduced way back in 2000 for the poorest of the poor has been simply repeated in the Food Security Bill. In the food security bill while Indian hunger is very low, malnutrition among children and women is extensive.

Aravind Panagaria and Jagadish Bhagawathi, Indian Economists have stated in their book on "Indians Tryst with Destiny" which reveals that WHO norms for malnutrition, widely cited by other economists Amartyasen appears to be faulty. The last National Family Health Survey showed that, by WHO norms, 15% of even Indian elite children were stunted. Kerala's life expectancy is 74 years and Infant Mortality is 12 per thousand births. Senegal, Africa's has life expectancy of 61 years and Infant mortality of 51 per thousand births. Yet, according to WHO norms 25% of Kerala children are stunted against only 20% in Senegal. These norms of WHO are simply ridiculous. Indians are just shorter than Africans by their genes and not more stunted.

However Indians do indeed suffer very high levels of anemia even among the affluent one third. Pregnant mothers and children suffer from protein deficiencies. If drinking water is unclean and bacterial, people cannot take additional calories even if fed more food. Clearly the better nutrition requires the clean drinking water more than cheap cereals. It also needs additional protein, iron and vitamins. These could be supplied through soya bean flour fortified

with iron and vitamins. But solving malnutrition by supply of subsidized grains may not be correct solution to this problem.

It is widely argued that whether Food subsidy is affordable. According to the assessment by the Government, the scheme will cost an extra Rs.25,000 crores per year. Economist Prachi Mishra suggested that it would be Rs.50,000 crores per year. Other estimates go up to 3% of GDP or 200,000 crores, which look very exaggerated. It is also argued by some that the Food Security Bill will worsen the Fiscal deficit further.

There are already some states like Tamilnadu, which provides 20 kgs of free rice to poor families other states A.P., Karnataka provide rice @ Rs.1 per kg. Chattisgarh, Madhya Pradesh have better ways of distribution of PDS with a package of cereals, Dal and Oil.