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FOOD – SECURITY ISSUES AND CHALLENGES IN INDIAN POLICY

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Abstract

Food is any substance consumed to provide nutritional support for the body. It is usually of plant or animal origin, and contains essential nutrients, such as carbohydrates, fats, proteins, vitamins, or minerals. The substance is ingested by an organism and assimilated by the organism's cells in an effort to produce energy, maintain life, or stimulate growth. Food security is a condition related to the ongoing availability of food. Concerns over food security have existed throughout history. Household food security exists when all members, at all times, have access to enough food for an active, healthy life. Individuals who are food secure do not live in hunger or fear of starvation. Food security in India has to be understood as a distress phenomenon, as with marginal increase in their incomes over time they are forced to cut down on their food consumption to meet other pressing demands of health and education that were not considered important in the past. High economic growth rates have failed to improve food security in India leaving the country facing a crisis in its rural economy. If food security is a complex objective, pursued with others (shelter, safety, health, self-esteem), in a world where individual households face diverse, complex and different livelihood opportunities, what role can policy possibly play? Can governments ever know enough to act? This paper is focused on the several foods security issues prevalent in the Indian scenario and challenge.

Key Words: *Nutritional Support, Organism, Household Food Security and Indian Scenario.*

Introduction

Food plays very vital role in maintaining proper health and also helps in prevention and cure of diseases. Good nutritive food makes health, but at the same time bad or unhealthy food gives rise to several diseases. Our cells, tissues and all organs works properly only with nutritious food which we eat .All body functions metabolic, hormonal, mental, physical or chemical cannot be performed by the body without nutritive food. Food provides us with important nutrition which is important in cure of disease .Bad food is responsible for lowered immunity system of body. Human cells need 45 chemical components and other elements which are called essential nutrients and these all must be present in adequate healthy food, Oxygen and water are the two and other 43 are classified in 5 main category i.e. Proteins , fat ,carbohydrates , minerals and vitamins these all nutrients are vitally important for managing our body functions .

Food security refers to the availability of food and one's access to it. A household is considered food-secure when its occupants do not live in hunger or fear of starvation. According to the World Resources Institute, global per capita food production has been

increasing substantially for the past several decades. In 2006, MSNBC reported that globally, the number of people who are overweight has surpassed the number who is undernourished - the world had more than one billion people who were overweight, and an estimated 800 million who were undernourished. 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. In developing countries, often 70% or more of the population lives in rural areas. In that context, agricultural development among smallholder farmers and landless people provides a livelihood for people allowing them the opportunity to stay in their communities. In many areas of the world, land ownership is not available, thus, people who want or need to farm to make a living have little incentive to improve the land.

Those who are around the poverty line, this has to be understood as a distress phenomenon, as with marginal increase in their incomes over time they are forced to cut down on their food consumption to meet other pressing demands of health and education that were not considered important in the past, India's malnutrition figures are not coming down despite a number of government programmes, says a new report released by World Food Programme. The research points out the need for a revamped public distribution system and greater public investment to address the wants of rural population.

National Development Council (NDC)

The National Development Council (NDC) in its 53rd meeting held on 29th May, 2007 adopted a resolution to launch a Food Security Mission comprising rice, wheat and pulses to increase the production of rice by 10 million tons, wheat by 8 million tons and pulses by 2 million tons by the end of the Eleventh Plan (2011-12). Accordingly, A Centrally Sponsored Scheme, 'National Food Security Mission', has been launched from 2007-08 to operationalize the above mentioned resolution. 1.2 The National Food Security Mission will have 3 components (i) Rice (ii) Wheat & (iii) Pulses.

Food Security in India

The Food Security Portal, facilitated by IFPRI, aims to provide improved food security for the world's poor and increased resilience of global food systems against food and financial crises. The project brings together international, regional, and country-level data, news, and research aimed at meeting countries' immediate food security needs, as well as building long-term global food security. The open-access project encompasses a global research-based monitoring and capacity-strengthening device for successful identification and implementation of the appropriate policy actions in response to food crises. The Food Security Portal is designed to pool information in structured ways and ensure data quality, timeliness, and relevance, as well as the opportunity for collaboration among policymakers, development professionals, and researchers.

Food Security – Issues

Food security has been a major developmental objective in India since the beginning of planning. India achieved self-sufficiency in food grains in the 1970's and has sustained it since then. But the achievement of food grain security at the national level did not percolate down to households and the level of chronic food insecurity is still high. Over 225 million Indians remain chronically under nourished. In 2000-01, about half of the rural children below five years of age suffered from malnutrition and 40% of adults suffered from chronic energy deficiency. Such a high level of wasting away of human resources should be a cause for concern.

In recent years, there has been a shift in policy focus towards household level food security and per capita food energy intake is taken as a measure of food security. The government has been implementing a wide range of nutrition intervention programmes for achieving food security at the household and individual levels. The Public Distribution System (PDS) supplies food items, such as food grains and sugar, at administered prices through fair price shops. There have been a range of food-for-work and other wage employment programmes. Another approach adopted by the government is to target women and children directly; this includes mid-day meal programme for school going children and supplementary nutrition programme for children and women.

High economic growth rates have failed to improve food security in India leaving the country facing a crisis in its rural economy, warns the latest report released by the World Food Programme and the M S Swaminathan Research Foundation (MSSRF). According to the GOI Economic Survey, food grain production in India has declined from 208 kg per annum per capita in 1996-97 to 186 kg only in 2009-10, a decline of 11 per cent. Despite reduced production, India has been exporting on an average 7 million tonnes of cereals per annum, causing availability to decline further by 15 per cent from 510 gms per day per capita in 1991 to 436 gms in 2008.

Launched in the Indian capital on February 20, 2009, State of Food Insecurity in Rural India tries to give a broad indicative picture of the level of food insecurity in different states of the country and the operation of the nutrition safety net programmes. The report says that the number of undernourished people is rising, reversing gains made in the 1990s. Slowing growth in food production, rising unemployment and declining purchasing power of the poor in India are combining to weaken the rural economy.

Cash No Substitute for Food Security

Cash as a substitute for grains to ensure food security was a dangerous proposition in India as it may defy the basic purpose of providing incentive to farmers to grow more food. Food Security Bill was a legal commitment to the farmers to procure their produce. Food security should be seen in the context of food production, job creation and income generation, said Prof M S Swaminathan, father of green revolution.

Climate Change

A number of studies have recently quantified the impacts of climate change on food security. These tools, with some modifications relating to how crop changes are simulated, have also been used by others to undertake similar assessments and provide sensitivity analyses across a range of SRES and general circulation model (DCM) projections. Many other simulations have also examined the effects of climate change with and without adaption, with and without mitigation or provide impact assessments for different speeds of climate change.

First, it is likely the climate change is likely to increase the number of people at risk off hunger compared with reference scenarios with no climate; the exact impact will, however, strongly depend on the projected socio- economic development.

Second, it is very likely that the magnitude of the climate impact will e small compared with the impact of socio-economic development.

Finally, recent research suggests large positive effects of climate stabilization for the agriculture sector. However, as the stabilizing effects of mitigation measures can take several decades to be realized from the moment, the benefits for crop production may be realized only in the second half of this century.

Food Prices

Food prices fall globally, but keep rising in India

When it comes to slower economic growth, the government never fails to point out the problems in the global economy but there seems to be little link between Indian and international food prices. Latest data released by the United Nation's Food and Agriculture Organization shows that the Food Price Index fell 3.5% in December 2013, compared to a year ago. For the full year, the index averaged 209.9, which was 1.6% lower than 2012, the Rome-based agency said. In November 2013, the Food Price Index fell 4.4%. While the government will release the consumer and wholesale price inflation numbers next week, food inflation based on the WPI was estimated at close to 20% in November 2013. By all accounts, with vegetable prices coming down in December, food inflation is expected to moderate but there is no way it is going into low double-digits, at least at the moment. High rate of inflation, especially for food products, has been identified as a key reason for the Congress's drubbing in the recent state elections. High inflation and low growth in recent years have emerged as a major headache for households. At his press conference last week, Prime Minister Manmohan Singh had put much of the blame on the global economy and international commodity prices. Barring dairy products, where there has been a spurt in prices in recent months, internationally prices of other food groups tracked by FAO remain subdued. In fact, sugar and cereal prices slumped significantly in December, while meat stayed flat and vegetable oil was 1.4% more expensive in November and 2.8% costlier in December, the FAO said. The high demand for milk powder, especially from

China, has prompted processors to focus on it, ignoring butter and cheese, which has resulted in high price for dairy products. Prices of cereals are at their lowest level since August 2010 as good wheat and maize harvests have kept prices subdued. Similarly, a bumper cane harvest in Brazil, Thailand and China has pushed down sugar prices internationally. In case of India, only sugar mirrors the global trend with prices falling over 8% in both markets. For egg, meat and fish, economists reckon that higher income levels, resulting in greater demand for protein, are driving up prices as supplies lag the demand. But when it comes to cereals, It is the government's decision to hold on to record public stocks that has resulted in high prices in India. While some grains are expected to be offloaded in the international markets, economists reckon the pace needs to pick up to tame prices.

It is also a world where real incomes rise more rapidly than real food prices, which suggests that the share of income spent on food, should decline and even high food prices. Where income levels are low and shares of food expenditures are high, higher prices for food may still create or exacerbate a possible food security problem. There are a number of studies that have ventures to measure the likely impact of climate change on food prices. Price changes expected from the effects of global warming are, on average, much smaller than rice changes from socio- economic development paths.

Food Waste

India wastes Rs 44,000 cr worth food every year

Despite millions of Indians going to bed on a hungry stomach, the country is letting food worth a whopping Rs 44,000 crore go waste each year due to lack of adequate storage infrastructure. While the wasted fruits and vegetables alone was estimated at Rs 13,300 crore, other food products like rice, wheat, serials and meat are also allowed to perish without consumption. Union Agriculture and Food Processing Minister Sharad Pawar informed Rajya Sabha on Friday that setting up more large cold storages and better post harvesting facilities alone can curtail wastage. The minister claimed that the government has taken many steps to encourage creation of additional storage capacity and complimented states that had taken more interest in efficient food storage. Despite these, he insisted that requirement for cold storage remains very high. The Saumitra Chaudhuri Committee, constituted by the Planning Commission in 2012, has estimated the country's cold storage requirement as 61.3 million tonne as against the present capacity of around 29 million tonne. The Centre provides grant-in-aid for states to build cold chain infrastructure, which is 50 per cent of the total cost of plant and machinery in general, areas and 75 per cent in difficult areas including the Northeast. However, it has kept the sealing as Rs 10 crore. Reducing the amount of food wastage was one of the major arguments the government had put forth while allowing Foreign Direct Investment in retail sector last year, as it insisted that companies would invest in back-end cold storage infrastructure.

However, since the FDI clearance, it is yet to receive a proposal from the global retail giants. Earlier, Food Minister K V Thomas told Deccan Herald that nearly 30 per cent of the country's fruits and vegetables perish due to lack of cold-storage facilities, while thousands of tons of food-grain rot in ill-equipped warehouses. Between 15 and 20 per cent of cooked food at weddings, parties or restaurants is wasted as well. Though Thomas mooted the idea of introducing guest control system in marriages to prevent wastage of food, it failed to take off due to accusation from several quarters. Deccon Herald News Service India produces around 250 million tonne of food grain in a year, but its annual consumption remains far lower at 220 million to 225 million tonne. The country has failed to take advantage of the higher production levels as it is reported that more than 250 million people go to bed hungry each day. The report released by Ministry of Statistics and Programme Implementation last year said 48 per cent children under the age of five are stunted (too short for their age), indicating that half of the country's children are chronically malnourished.

Production, Yield

Table 1: Area, Production, Yield and Irrigation Coverage under Food grain in India

Year	Area (Million Hectares)	Production (Million Tonnes)	Yield (Kg/ Hectare)	% Coverage under
1	2	3	4	5
1952-53	102.09	59.20	580	18.1
1962-63	117.84	80.15	680	19.8
1972-73	119.2897.03	97.03	813	25.4
1982-83	125.10	129.52	1,035	30.8
1992-93	123.15	179.48	1,457	37.4
2002-03	113.86	147.77	1,535	42.8
2003-04	123.45	213.19	1,727	42.2
2004-05	120.00	198.36	1,652	44.2
2005-06	121.60	208.60	1,715	45.5
2006-07	123.71	217.28	1,756	46.3
2007-08	124.07	230.78	1,860	46.8
2008-09	122.83	234.47	1,909	NA
2009-10	121.37	218.20	1,798	NA
2010-11	121.21	217.32	1,787	NA

NA: Not Available

Sources: (a) Ministry of Agriculture, GoI, 2008 and 2010 & (b) Economic survey, GoI 2010-11.

The trend in the area, production, and yield and irrigation coverage under food grains during 1952-53 to 2009-10 is described in table. During 1952-53, 102.09 million hectares were covered under food grain. The total food grain production achieved in 1952-53 was 59.2 million tones with a per hectare yield of 580 kilograms/hectares. Between 1952-53 and 2009-10 only 19.28 million hectares were added to the existing are under food grain cultivation. However, due to the impact of green revolution and use of modern agro

services, the total production increased from 59.20 million tonnes in 1952-53 to 218.30 million tonnes in 2009-10 and yield increased from 580 kilograms/hectare to 1,798 kilograms/ hectare in the intervening period. While 18.1 percent area under food grains had assured irrigation in 1952-53, the irrigation coverage increased to 46.8 percent by 2007-08. Table 1 also indicates that since 2003-04, the area under food grain has remained more or less stagnant with a relatively stagnated yield rate.

The rate of growth in areas under rice cultivation was 0.7 percent during the period 1990-91. The area under wheat registers a growth rate of 1.7 percent while pulses marked a negative growth rate in areas by -0.6 percent during the same period (Table 2). A analysis of the production and yield growth of food crops under irrigation between 1990-91 and 1999-2000 and 2000-01 to 2007-08 indicated that the rice product between 1990-91 and 1999-2000 has recorded and annual growth of 2 percent vis-à-vis a growth rate of 1.9 percent between 2000-01 and 2007-08. The rate of growth of production of wheat and pulses during 1990-94 to 1999-2000 was 3.6 percent and 1.4 percent, respectively, 0.6 percent and 3.4 percent, respectively during 2000-01 to 2007-08. A comparison of the growth registers in the area under major crops their yield and production and the growth in the area during 1990-91 to 1999-2000 and 2000-01 to 2007-08 paint grim pictures in maintain the soaring staple food demand in the backdrop of the country's burgeoning population growth.

In the absence of a continuous follow up to the green revolution of 1960 and the death of a suitable technological breakthrough in Indian agriculture in the post-green revolution era, there has been a continuous decline in the total factor productivity of Indian agriculture. Annual rate of growth in GDP in agriculture and allied production reduced from 4.9 percent in 2007-08 to 1.6 percent in 2008-09. The Central Statistical Organization (CSO) had estimated agricultural growth at an annual rate of 0.2 percent during 2009-10(Gol, 2010). The volatility in the growth in the agriculture sector has posed a real challenge in ensuring food security for all.

Food Supplies

Global and regional weather conditions are also expected to become more variable than at present, with increases in the frequency and security of extreme events such as cyclones, flood, hailstorm, and droughts. By ringing greater fluctuations in crop yield and local food supplies and higher risks of landslides and erosion damage, they can adversely affect the stability of food supplies and thus food security. Neither climate change not short-term climate variability nor associated adaption is new phenomena in agriculture, of course. The fact that the areas subject to high climate variability are likely to expand, whereas the extent of short-term climate variability is likely to increase across all region. Furthermore, the rates and levels of projected warning many exceed in some regions the historical experience. If climate fluctuations become more pronounced and more

widespread, drought and floods, the dominant cause of short-term fluctuations in food production in semiarid and suhumid areas, will become more severe and more frequent. These impacts will be felt will crucially depend on whether such fluctuations can be countered by investments in irrigation, better storage facilities, of higher food imports. In addition, a policy environment that fosters freer trade and promotes investments in transportation, communication, and irrigation infrastructure can help address these challenges early on.

Global Hunger Index

The Global Hunger Index (GHI) is designed to comprehensively measure and track hunger globally and by country and region. Calculated each year by the International Food Policy Research Institute (IFPRI), the GHI highlights successes and failures in hunger reduction and provides insights into the drivers of hunger. By raising awareness and understanding of regional and country differences in hunger, the GHI aims to trigger actions to reduce hunger.

To reflect the multidimensional nature of hunger, the GHI combines three equally weighted indicators in one index number:

- Undernourishment: the proportion of undernourished as a percentage of the population (reflecting the share of the population with insufficient calorie intake);
- Child underweight: the proportion of children younger than the age of five who are underweight (low weight for age reflecting wasting, stunted growth, or both), which is one indicator of child under nutrition; and
- Child mortality: the mortality rate of children younger than the age of five (partially reflecting the fatal synergy of inadequate dietary intake and unhealthy environments).

The GHI ranks countries on a 100-point scale. Zero is the best score (no hunger), and 100 is the worst, although neither of these extremes is reached in practice.

India Took Firm Stand on Food Security Issue in WTO Meet

The government informed Parliament that India took a firm stand on the food security issue in the WTO meeting at Bali where it was agreed that the existing arrangement would continue with regard to farm subsidy. The conference agreed on a ministerial decision that provides for an interim period of protection to public stockholding programmes for food security purposes of developing country from being challenged in the WTO on allegations of exceeding the support which they are entitled to provide, Minister of State for Commerce and Industry E M Sudarsana said in a written reply to the Rajya Sabha. He said that the WTO members agreed to an interim mechanism so that even if the limit available to developing countries is exceeded, this would not be challenged provided certain conditions are fulfilled. "It further provides that this protection will be available till

Members must agree on a permanent solution on this issue for adoption by the Eleventh Ministerial Conference of the WTO," he said. The development would help India in implementing its food security plan smoothly. It was apprehended that India could breach the 10 per cent farm subsidy cap after full implementation of the programme. India's Food Security Act entitles 82 crore people to 5 kg of food grains per person a month at Rs 1-3 per kg. The country needs 62 million tonnes food grains a year to implement the law.

Challenges on Food Security in India

India is a poignant example of how food sufficiently at the aggregate level has not translated into food security at the household level. The revised thrust of the World Food Programme will be to bring the hungry, malnourished, and vulnerable within the ambit of human development.

Today, on the threshold of 60 momentous years of Independence, the nation is justifiably proud of its myriad achievements. Among these is the remarkable success in eliminating widespread famines and the impressive increases in food production. Nonetheless, there is a long road to be travelled before the vision of a truly food secure India is achieved.

As the world's leading humanitarian agency and the food aid arm of the United Nations, the World Food Programme (WFP) has been privileged to work with the Government of India in its efforts to eliminate hunger and ensure food security to the poor. Although its assistance is small compared to the scale of the Government's own programmes, yet with its international outreach, and the experience gained globally, the WFP has a special niche in complementing and sharpening government efforts to eliminate hunger.

Recent years have seen the economy booming and growth rates have been among the highest in the world. The flip side, however, is that one in every five Indians suffers from overt or covert hunger. "Hunger," as stated by Amartya Sen and Jean Dreze, is "intolerable in the modern world" in a way it could not have been in the past, because it is "so unnecessary and unwarranted." India is a poignant example of how food sufficiency at the aggregate level has not translated into food security at the household level. A staggeringly large number of undernourished — about 214 million people — is chronically food insecure. Many more, varyingly about 40 million, are exposed to natural disasters. About 50 per cent of children (mostly tribal and rural) are undernourished and stunted, 23 per cent have a low birth weight and 68 out of 1000 die before the age of one year. There is a high prevalence of anaemia and other micronutrient deficiencies.

The challenge before the WFP is to help the country attain the critical Millennium Development Goal on eradicating hunger. The Draft Approach Paper to the Planning Commission's Eleventh Five-Year Plan articulates a "vision of growth that will be much more broad-based and inclusive." These priorities of the Government match the WFP's own goals

and will guide future initiatives. As part of the U.N. system, the WFP also works within the U.N. Development Assistance Framework to achieve synergy and, at the same time, avoid costly duplication of efforts.

Committed to the vision of a hunger-free India, the WFP set itself twin goals. The first is to be a catalyst for change in the country's effort to reduce vulnerability and eliminate food insecurity. The second is to leverage policy and resources to demonstrate models that provide immediate and longer-term food security in the most food insecure areas.

The WFP seeks to achieve its strategic objectives through three major initiatives. The first is the support it extends to the Integrated Child Development Services (ICDS). India is home to the largest number of children in the world. But what distinguishes India is not the numbers but what has been called its "silent emergency": astonishingly high child malnutrition rates. As part of its assistance to the ICDS, the WFP has successfully piloted India mix a nutritious fortified food widely recognized as an innovative nutrition intervention.

Secondly, the WFP complements the Government of India's mid-day meal scheme in some districts with a mid-morning snack that is fortified with vitamins and minerals and enhances learning by children, many of whom go to school on an empty stomach. This has proved to be an effective means to increase enrolment and retention, especially that of young girls.

With increasing degradation of resources, the livelihoods of poor tribal communities are under threat. In collaboration with the International Fund for Agricultural Development, the WFP assists food-for-work activities in tribal development programmes undertaken by Governments in select States. This has led to empowerment of tribal communities and sustainable use of natural resources.

In addition to the core programmes, the WFP has proposed significant capacity-building initiatives that relate to food fortification, grain banks, and strengthening of the Government's food-based programmes. The Ending Child Hunger and Under nutrition Initiative is an alliance between UNICEF and the WFP at the global level as well as in India that holds great promise.

The WFP takes pride in the analytical rigour it has imparted to the conceptualization of food security. The Food Insecurity Atlases, prepared in collaboration with the M.S. Swaminathan Research Foundation, were a landmark. Extending the earlier work to the regional and district levels, the WFP proposes to prepare, in partnership with the Government, food insecurity atlases for several States.

The future beckons! As India surges ahead to take its rightful place in the comity of nations, we in the WFP look forward to the coming years with renewed faith and optimism and a firm belief that hunger and undernourishment can be banished.

The revised thrust of the WFP endeavours will be to bring the hungry, malnourished, and vulnerable within the ambit of human development, to change the course of their destiny and unleash their potential through opening a new world of opportunities. — Courtesy: U.N. Information Centre, New Delhi.

Conclusion

Overall, it may be concluded that food security in India can be achieved by paying higher attention to issues such as climate change, integrated water management, agricultural pricing and crop insurance. The abnormal increases and yield minimum support and procurement prices have caused and upward price movement in the food grain sector. The food grain prices have now gone beyond the purchasing power of the common consumers and facilitated diversion of food grain from market to government warehouse and have added to the overall economic cost of procuring and carrying the food grains for public distribution. Considering the enhancement in the benchmarked poverty line, variation in the availability of food grains, restricted inter-state movement of food grains and price volatility, productivity growth and a sound price management in the food sector have become necessary and the impact of climate change will be felt overall decades will conically depend on the future policy environment for the poor. The impact of globalization in the form of Special Economic Zones and other factors has been both positive and negative in terms of agricultural prosperity and there is a strong need to regulate the policies related to globalization for reducing its negative effects on food security in India.

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