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Empowering municipalities for climate-resilient food security in India and challenges in achieving food security in India

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Abstract

A distinct but complex relationship exists between climate, food, and nutritional security of human beings. Climate change impacts agriculture, livestock, fisheries, etc. reducing its productivity and yield leaving an adverse effect on the economic condition of the people, which in turn affects food availability, accessibility, and utilization. With increased food and nutritional insecurity, the nation is at risk of higher malnutrition. To address these insecurities, all sectors like agriculture, food, environment, health should join hands. Various solutions can be taken up for tackling the problems like diversification of agriculture, leading to diet diversification and introduction of innovative alternative nutritious food sources. Bringing into limelight the underutilized fruits, vegetables, cereals, and grains could help reach food and nutritional security. Blending indigenous knowledge and scientific understanding can pave ways to improve the utilization of existing resources. Value addition of empty-calorie food with food wastes obtained during processing such as vegetable and fruit peels, cereal brans, etc. can increase the nutritional quality of such food products contributing to nutritional security. To remove food and nutritional insecurities, nutrition education will render a helping hand also with the capacity building of people.

Keywords: Climate change, nutrition security, malnutrition, diet diversification

Introduction

Ensuring food security ought to be an issue of great importance for a country like India where more than one-third of the population is estimated to be absolutely poor and one-half of all children malnourished in one way or another. There have been many emerging issues in the context of food security in India in the last two decades. These are: (i) economic liberalization in the 1990s and its impact on agriculture and food security; (ii) establishment of WTO: particularly the Agreement on Agriculture (AoA) under it; (iii) challenges of climate change; crisis of the three Fs, viz., food prices, fuel prices, and financial crisis; (iv) the phenomenon of hunger amidst plenty, i.e., accumulation of stocks in the early years of this decade and in 2008-09 along with high levels of poverty; (v) introduction of targeting in the Public Distribution System (PDS) for the first time in the 1990s; (vi) 'Right to Food' campaign for improving food security in the country and the Supreme Court Orders on mid-day meal schemes; (vii) proposal for National Food Security Law (Right to Food); and (viii) monitor able targets under the Tenth and Eleventh Five Year Plans similar to the Millennium Development Goals (MDGs) on poverty and women and child nutrition. These developments in the last two decades have provided both opportunities and challenges for food and nutrition security of the country. It is, by now, well known that the question of food security has a number of dimensions that extend beyond the production, availability, and demand for food. There has been a paradigmatic shift in the concept of food security, from food availability and stability to household food insecurity, and from assessment of input measures like energy intake to output indicators such as anthropometric measures and clinical signs of malnutrition. According to Food and Agriculture Organization (FAO), food security exists when all people, at all times, have physical and economic access to sufficient, safe, and nutritious food to meet their dietary needs and food preferences for an active and healthy life. Food security has three components, viz., availability, access, and absorption (nutrition).

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The three are interconnected. Many studies have shown that improvement in nutrition is important, even for increase in productivity of workers. Thus, food security has intrinsic (for its own sake) as well as instrumental (for increasing productivity) value.

Reasons for the existing food insecurity in India In rural and tribal areas

This is mainly due to lack of improvement in agricultural productivity owing to inadequate resources and markets needed to obtain agricultural stability. An agrarian crisis is currently being unleashed in India and it has a variety of causes, the prominent being the huge cut in government's development expenditure in the nineties, particularly in rural areas [6]. Following the adoption of structural adjustment policies from the early 1990s, the focus was shifted on expenditure reduction. As against an average of 3.8 percent of the country's Net National Product (NNP) spent on rural development per year during the seventh plan period 1985-90, the share of spending on rural development was down to 1.9 percent of NNP in 2000-01 and rose only to 2.3 percent in 2004-05. This adversely affected the availability and expansion of irrigation facilities, improvement in agricultural technology and overall food grain output [7]. Lack of education and job opportunities in rural areas have further added to the problems. Climate change too, has an impact on the agricultural productivity, which affects the availability of food items and thus, food security. Major impact of climate change is on rain fed crops, other than rice and wheat [8]. For the tribal communities, habitation in remote difficult terrains and practice of subsistence farming has led to significant economic backwardness.

In urban population

The key issue which catalyzes the problem of food insecurity in urban areas and needs to be addressed is the large proportion of informal workforce resulting in unplanned growth of slums which lack in the basic health and hygiene facilities. Rural-to-urban migration has shown a gradual increase, with its share in total migration rising from 16.5% to 21.1% from 1971 to 2001 [9]. These rural migrants form a large chunk of population referred to as 'informal sector'. The emergence of these rural origin pockets in the urban areas has resulted in a number of slum settlements characterized by inadequate water and sanitation facilities, insufficient housing and increased food insecurity [10]. Another important point which might promote food insecurity is the dependence of this labourer class on daily employment wages which tends to be variable on different days of the month and thus the food procurement and access is also fluctuating. A striking issue is that in India, all the privilege of the government schemes and programmes, 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 thus are deprived of the government schemes. People from these un-notified slums have to buy their food from the common market at the competitive price and are devoid of the subsidized food made available through Public Distribution System (PDS) [11]. In spite of rapid economic growth since the early 1980s and 1990s, the access and absorption indicators of urban food insecurity convey a notion that there has been relatively negligible improvement in nutritional intake and deterioration in terms of food security.

Challenges

Faulty food distribution system

Inadequate distribution of food through public distribution mechanisms (PDS i.e. Public Distribution System) is also a reason for growing food insecurity in the country. The Targeted Public Distribution System (TPDS) has the disadvantage in the sense that those people who are the right candidates for deserving the subsidy are excluded on the basis of non-ownership of below poverty line (BPL) status, as the criterion for identifying a household as BPL is arbitrary and varies from state to state. The often inaccurate classification as above poverty line (APL) and below poverty line (BPL) categories had resulted in a big decline in the off take of food grains. Besides this, low quality of grains and the poor service at PDS shops has further added to the problem.

Unmonitored nutrition programmes

Although a number of programmes with improving nutrition as their main component are planned in the country but these are not properly implemented. For instance, a number of states have yet to introduce the Mid Day Meal Scheme (MDMS). In states such as Bihar and Orissa where the poverty ratio is very high, poor implementation of nutritional programmes that have proven effectiveness has a significant impact on food security [18].

Lack of intersectoral coordination

Lack of coherent food and nutrition policies along with the absence of intersectoral coordination between various ministries of government such as Ministry of Women and Child Health, Ministry of Health and Family Welfare, Ministry of Agriculture, Ministry of Finance etc have added to the problem.

Challenges and Way Ahead

There is a compelling need to operationalise the concept of nutrition security which implies physical, economic and social access to balanced diet, clean drinking water, safe environment, and health care. Ensuring food security alone will aid in reducing hunger but will not eliminate malnutrition or impact nutrition status largely if other components such as safe drinking water and health care are also not envisaged. Implementing measures to improve agricultural productivity and food storage. The government policy needs to adopt an integrated policy framework to facilitate the increased use of irrigation and newer farming techniques. The measures should focus mainly on rationale distribution of cultivable land, improving the size of the farms and providing security to the tenant cultivators apart from providing the farmers with improved technology for cultivation and improved inputs like irrigation facilities, availability of better quality seeds, fertilizers and credits at lower interest rates. One main reason why food is not distributed equitably is that a significant amount is wasted [19].

It would be useful to adopt strategies for food storage which have been implemented successfully in other countries. For example, China has an excellent system of grain storage education and research [20]. The country has invested in building advanced storage facilities that are armored with modern equipments. India can take professional help from the China in order to improve the quality of food storing facilities so that the food grains that are wasted and spoiled

could be used to satisfy the hunger of those people who really need it.

Ensuring food availability and accessibility to below poverty line (BPL) candidates. It is essential to ensure availability of food grains to the common people at an affordable price. This can be done by more accurate targeting of the BPL population so that they get food at substantially low price. There is a problem associated with the BPL listing. There is a debate about the exact number of people falling under this category. The estimates of the government are around 30 percent of the population. The Planning Commission (under the Government of India) has now recommended a 37 percent cut off based on the Tendulkar Committee report ^[21, 22]. Besides helping out the BPL population, there should be a provision for subsidy on the sale of food grains to above poverty line (APL) customers too. Also, all restrictions on food grains regarding inter-State movement, stocking, exports and trade financing should be removed. This will reduce the food prices and increase affordability. The Public Distribution System must be made transparent and reliable.

Improving purchasing power through employment generating schemes

The government should come up with more holistic schemes like Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) ^[23]. Poverty alleviation programmes like the Integrated Rural Development Programme (IRDP) and employment generation schemes like Jawahar Rozgar Yojana, Nehru Rozgar Yojana etc need to be re-oriented and up scaled to make a positive impact on the purchasing power of the lower socio-economic segment of the population. Also, it is equally important to enhance the quantity and quality of wage-paid employment. Focus needs to be shifted to the workers in the informal sector by providing decent wages and healthy working conditions. In the urban areas, providing assistance to the small scale enterprises will lead to expansion of employment opportunities. It should be ensured that nutritional objectives should be an integral part of all the poverty alleviation programmes. Crop diversification, establishing food grain banks and promoting household gardening Another area which needs to be explored is 'crop diversification'. Higher profitability and the stability in production highlight the importance of crop diversification, e.g. legumes alternative with rice and wheat. Growing of non-cereal crops such as oilseeds, fruits and vegetables etc need to be encouraged. The creation of decentralized food grain banks in each village or block of the district, from which people may get subsidized food grains against food coupons, will be a good option. This concept will improve the delivery of food grains and eliminate corruption.

One of the ways to ensure direct access to good quality food that can be easily grown and prepared could be the concept of home gardening. One excellent example of household gardening can be seen in Bangladesh where as part of its global effort to eliminate vitamin A deficiency and nutritional blindness, the NGO Helen Keller International implemented a home gardening and nutrition education project ^[24]. The concept worked upon was that promotion of low-cost vegetable gardens amalgamated with nutrition education could prove to be instrumental for improving the nutritional status, particularly women and young children. As a result of this intervention, the average household

income increased and also the nutritional intake. Using community leaders through a group approach will indirectly ensure community participation and will add to the success of the concept.

Community awareness through IEC activities and social marketing

Need based IEC and training materials should be developed for effective dissemination of nutrition messages. Local community education on key family health and nutrition practices using participatory and planned communication methodologies will be helpful. Incorporating health and nutrition education into formal school curriculum for girls and adult literacy programmes could greatly improve women's health and nutrition. Social marketing of iodized salt, iron and folic acid and vitamin A supplements, nutritious food mixes and other low cost vitamin/mineral preparations will prove to be beneficial.

Monitoring and timely evaluation of nutritional programmes

A complete community based approach needs to be adopted. Focus on even simple interventions like promoting exclusive breastfeeding, proper complementary feeding and growth monitoring and promotion (GMP) can be expected to give outstanding results. Efforts should be made by the concerned health departments and authorities to initiate and supervise the functioning of the nutrition related schemes in an efficient way. Annual surveys and rapid assessments surveys could be some of the ways through which program outcomes can be measured. Evaluations must be timely performed and should provide relevant information regarding the effectiveness of interventions. Use of information technology to improve program monitoring can be thought of too.

Revamping of existing direct nutrition programmes to enable management by women's Self Help Groups (SHGs) and /or local bodies along with orientation and training of community health workers, Panchayati Raj Institution (PRI) members, other opinion leaders, care givers and other stakeholders can be another area, if addressed, can give positive results. Delivering very basic, well-targeted package of nutrition services through a multi-sectorial approach will improve the nutrition level of people. Attention needs to be given to school based interventions including hygiene, sanitation and nutrition education. Community based nutrition programs (CBNP) which create scope for community participation, must be facilitated by effective policy implementation.

The objective

The objective of this paper is to examine the performance, challenges, and policies in food security in terms of availability, access, and absorption over the last three decades. The paper addresses the following questions specifically:

- a) What is the progress in food supply in terms of availability at the national level?
- b) How far has India progressed in terms of access to food and nutrition requirements at the household level?
- c) What are the programmes and policies India has followed in order to realize food and nutrition security?
- d) What should be done to realize food and nutrition security for all the citizens of India?

Availability of Food after Independent

Food security at the national level refers mainly to availability in the country of sufficient stocks of food to meet domestic demand, either through domestic supply or through imports after independence. Here we look at the performance and policies with regard to availability of food.



Performance: Attainment of self sufficiency in food grains at the national level is one of the country's major achievements in the post-independence period. After remaining a food deficit country for about two decades after independence, India became largely self-sufficient in foodgrain production at the macro level. There have hardly been any foodgrain imports after the mid-1970s. Foodgrain production in the country increased from about 50 million tonnes in 1950-51 to around 233.9 million tonnes in 2008-09. The growth rate of foodgrains has been around 2.5 percent per annum between 1951 and 2006-07. The production of oilseeds, cotton, sugarcane, fruits, vegetables, and milk has also increased appreciably. The experience of the last two decades shows that growth rates of production and yield have declined for crop groups/crops during the period 1996-2008 as compared to the period 1986-97 (Table 1). The growth rate of foodgrain production declined from 2.93 percent to 0.93 percent during the same period. The growth rate of production was much lower than that of population in the latter period. Similarly, growth rate of yields of foodgrains declined from 3.21 percent.

Conclusion.

Food security is needed because the poor section of society is more insecure as compared to the person above the poverty line when the country faces national disasters or calamities like earthquakes, drought, flood, failure of crops, etc. 1 Nov 2023. If there is enough nutritious food accessible for all of its residents, if everyone can access it at a fair price, and if there are no barriers to obtaining it, then a country is considered to have adequate food security. One of the pillars of international human rights law is the right to eat. 26 Apr 2023

References

- Bhalla GS, Hazell P, Kerr J. Prospects for India's Cereal Supply and Demand to 2020, Food, Agriculture and the Environment. Discussion paper 29. Washington, D.C.: International Food Policy Research Institute (IFPRI); c2001.
- Chopra S. Holding the State Accountable for Hunger. *Econ Polit Wkly.* 2009 Aug 15;44(33).
- Dercon S. Children and the Food Price Crisis. Young Lives Policy Brief 5. Queen Elizabeth House, University of Oxford, Department of International Development; c2008.
- Dev SM. Right to Food in India. Working Paper no. 50. Hyderabad: Centre for Economic and Social Studies; c2003.
- Dev SM, Subbarao K, Galab S, Ravi C. Safety Net Programs in India: Outreach and Effectiveness: Village Level Perspectives in Three States. Background paper prepared for a study on social protection by the World Bank; c2006.
- Dev SM. Inclusive Growth in India: Agriculture, Poverty and Human Development. Delhi: Oxford University Press; c2008.
- Dev SM, Kannan KP, Ramachandran N. Towards a Food Secure India. Institute for Human Development and Centre for Economic and Social Studies. New Delhi; c2003.
- Dreze J. Democracy and Right to Food. *Econ Polit Wkly.* 2004 Apr 24;39.
- Dreze J. Universalisation with Quality: ICDS in a Rights Perspective. *Econ Polit Wkly.* 2006 Aug 26-Sep 1;XLI(34).
- Dreze J, Sen A. Hunger and Public Action. Oxford: Clarendon Press; c1989.
- Dyson T, Hanchate A. India's Demographic and Food Prospects: State Level Analysis. *Econ Polit Wkly.* 2000 Nov 11;35.
- Menon P, Deolalikar A, Bhaskar A. The India State Hunger Index: Comparisons of Hunger Across States. IFPRI. New Delhi; c2008.
- Gaiha R. Does Right to Food Matter? *Econ Polit Wkly.* 2003 Oct 4;38(40).
- Government of India. Report of the High Level Committee on Long Term Grain Policy. Department of Food and Public Distribution System; c2002.
- Government of India. Economic Survey 2006-07. New Delhi: Ministry of Finance; c2007.
- Government of India. Report of Steering Committee on Agriculture for the XIth Plan. Planning Commission; c2007.
- Government of India. Draft 11th Five Year Plan. Planning Commission; c2008.
- Gulati A. Emerging Trends in Indian Agriculture: What can we Learn from These? Second Prof. Dayanath Jha Memorial Lecture. New Delhi: National Centre for Agricultural Economics and Policy Research; c2009.
- Joshi PK, Gulati A. From Plate to Plough: Agricultural Diversification in India. Paper presented at the Dragon and Elephant: A Comparative Study of Economic and Agricultural Reforms in China and India, New Delhi, India, March 25-26; c2003.
- Jones N, Mukherjee M, Galab S. Ripple Effects or Deliberate Intentions? Assessing Linkages between Women's Empowerment and Childhood Poverty. UNICEF/Young Lives Social Policy Paper 002. May 2007.
- Assessing Linkages between Women's Empowerment and Childhood Poverty", UNICEF/Young Lives Social Policy Paper 002, May; c2007
- Kannan KP. Dualism, Informality and Social Inequality: An Informal Economy Perspective of the Challenge of Inclusive Development in India.

- Presidential Address, 50th Annual Conference of the Indian Society of Labour Economics, December 13-15, 2008, Giri Institute of Development Studies, Lucknow.
23. Khera R. Right to Food Act: Beyond Cheap Promises. *Econ Polit Wkly*. 2009 Jul 18;42(29).
 24. Minhas BS. On Estimating the Inadequacy of Energy Intakes: Revealed Food Consumption Behaviour versus Nutritional Norms. *J Dev Stud*. 1991;28(1).
 25. <http://www.fao.org/docrep/005/y4671e/y4671e06.htm>, accessed on 14.07.2011
 26. Report of the Committee on: India Vision 2020. Planning Commission, Government of India. New Delhi. c2002. p. 52. Retrieved from: http://planningcommission.nic.in/reports/genrep/pl_vsn2020.pdf, accessed on 16.07.2011
 27. Sharma S. Indian Capitalism in Directed Economy- Challenges in the path to prosperity. p. 16. Retrieved from: http://works.bepress.com/cgi/viewcontent.cgi?article=1002&context=shashi_sharma, accessed on 16.07.2011.
 28. Food and Agriculture Organization of the United Nations. The state of food insecurity in the world. Eradicating world hunger-taking stock ten years after the World Food Summit. FAO corporate documentary repository; c2006. p. 14.
 29. Food and Agriculture Organization of the United Nations. The State of Food Insecurity in the World: Addressing food insecurity in protracted crisis. Rome; c2010. p. 50.