

Food Security In India: Challenges And Way Forward

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Abstract:

Food security refers to the reliable availability, affordability, and access to food for everyone. Achieving food security and ending hunger are central objectives of the Sustainable Development Goals (SDGs). For India, food security remains a top development priority because high economic growth rates have not translated into reduced hunger and malnutrition. While large segments of the Indian population suffer from acute undernutrition, rising incomes and urbanization are quickly changing food consumption patterns away from cereals towards high-value foods like fish and meat. As a result, total demand for foodgrains is projected to increase due to population growth and indirect demand from animal feed. Eradicating hunger and malnutrition is critical for improving overall development, since healthy people contribute more to the economy through higher productivity and efficiency. The UN's post-2015 sustainable development agenda aims to end all forms of hunger and malnutrition by 2030. To do so, the interconnected issues of water, food and livelihoods must be addressed together. Food security involves not just food distribution but also production, people's livelihoods, and overall food system management. India's National Food Security Act (NFSA) 2013 aims to provide 75% of rural and 50% of urban populations with subsidized foodgrains under the targeted public distribution system.

Key words: Food security, Malnutrition, Public Distribution System (PDS).

Introduction

The concept of Food Security is complex and has many aspects. Food security is achieved when all people have reliable access to sufficient, nutritious food that fulfills their dietary requirements for an active and healthy life. India faces major challenges in ensuring food and nutrition security given its massive population and high levels of poverty and malnutrition. Food is a basic necessity for the growth and survival of individuals. Food security has three key dimensions: (a) food availability - total food production including imports and government stockpiles; (b) food accessibility - ensuring food is within reach of every person; (c) food affordability - individuals having adequate income to acquire proper, safe and nutritious food.

India still struggles to meet the basic food needs of its population. India is home to 25% of the world's hungry people. While India has become self-sufficient in overall food production and can meet current demand through domestic production, millions still lack regular meals and around 320 million go to bed hungry each night - an alarming situation that is worsening. India's core food problem relates more to distribution rather than production.

There are various hurdles India faces in achieving food security. Natural disasters like excessive rainfall, limited irrigation water, droughts, soil erosion, diverse and unsuitable soil types have exacerbated the issues. Additionally, stagnant agriculture infrastructure, population growth, lack of education and jobs have compounded the problems. Another challenge is the dependence on monsoon rains and daily wage labor which causes fluctuating food procurement and access. Family incomes govern food affordability while inflation worsens the situation. The Public Distribution System aimed at supplying inexpensive food is not functioning satisfactorily, hampering distribution.

Against this backdrop, India enacted the National Food Security Act 2013, aiming to provide subsidized food to nearly two-thirds of India's 1.2 billion people. It is considered the largest experiment globally in distributing highly subsidized food through a rights-based approach. The Act intends to legally guarantee subsidized food grains to around 67% of the population. However, the bill has been strongly criticized since it relies on the dysfunctional PDS for distribution. With global food grain prices rising, it is uncertain how the government can provide subsidized food to 70% of the population amidst unfavorable climatic conditions.

What is Food Security in India?

Food security refers to constant availability, affordability, and accessibility of food for all people. When food crops have issues with production or distribution, poor households struggle more with hunger. Government programs like the Public Distribution System and awareness campaigns during food insecurity are crucial for maintaining food security. Like air, food is vital for survival.

According to the **United Nations' Committee on World Food Security**, food security means all individuals, at all times, have physical, social, and economic access to enough safe and nutritious food that satisfies their preferences and dietary requirements for an active and healthy life. Food security comprises three key elements:

- **Food availability:** Having adequate food quantities continuously available. This considers stock in an area and the ability to bring in food through production and trade or assistance.
- **Food access:** People can regularly acquire adequate food through purchasing, domestic production, exchange, gifts, borrowing, or food aid.
- **Food consumption:** Consumed food has a positive nutritional impact on people. This involves cooking, storage and hygiene practices, individual health, water and sanitation, indoor food, and distribution.

Availability in Per Capita Terms

Per Capita Net Availability of Food grains

Year	Per Capita Net Availability of Food grains (grams/day)
1951	394.9
1961	468.7
1971	468.8
1981	454.8
1991	510.1
2001	416.2
2011	468.2
2018	493.3

Source: Agricultural Statistics at a Glance 2018

The net availability of foodgrains divided by the population estimates for a particular year indicate per capita availability of foodgrains. In 1961, the per capita availability of foodgrains was 468.7 grams, while in 1971 it was 468.8 grams. This dipped to 454.8 grams in 1981. Net availability increased by more than 12% in the next decade to reach 510 grams per person per day in 1991. However, this increase was ephemeral and reversed back to 468 grams the very next year. Till now, we have not been able to reach the level seen in 1991, only going close in 1997, and very recently in 2018.

Need for Food Security in India

- **Population Pressure:** India has a large and rapidly growing population of over 1.3 billion people. The increasing need to feed this population puts immense pressure on food production and resources.
- With over 1.3 billion people, India has a large and growing population. The increasing demand for food places significant pressure on agricultural production and food resources.
- **Agricultural Productivity:** India's agricultural sector has low productivity because of issues like small, fragmented farms, inadequate irrigation, lack of modern techniques and technology, and limited credit access.
- India's agricultural sector is characterized by low productivity due to several factors such as fragmented land holdings, inadequate irrigation facilities, lack of modern farming techniques, and limited access to credit and technology.

- **Climate Change and Natural Disasters:** unpredictable weather patterns like droughts, floods, and extreme heat and cold negatively impact crop yields and livestock output.
- Erratic weather patterns, including droughts, floods, and extreme temperatures, affect crop yields and livestock productivity.
- **Water Scarcity:** Agriculture in India depends heavily on monsoon rains. However, rainfall is becoming more erratic, causing water scarcity in some areas
- Agriculture in India is heavily dependent on monsoon rains. However, rainfall patterns are increasingly unpredictable, leading to water scarcity in some regions.
- **Land Degradation and Soil Health:** Land degradation from erosion, overuse of chemicals, and poor management harms agricultural productivity.
- Land degradation, caused by factors like erosion, overuse of chemical fertilizers, and improper land management practices, poses a threat to agricultural productivity.
- **Storage and Distribution:** inefficient storage and lack of cold chain systems lead to major food losses and waste.
- Inefficient storage facilities and inadequate cold chain systems result in substantial food losses and wastage.
- **Poverty and Inequality:** Poverty and inequality mean many people, especially in rural communities and marginalized groups, struggle to obtain and afford nutritious food.
- Many people, particularly in rural areas and marginalized communities, struggle to afford and access nutritious food consistently.

Challenges of Food Security

India faces several challenges to achieving food security, including:

Climate Change: Higher temperatures and unpredictable rainfall make farming difficult. Climate change impacts crops, livestock, forestry, fisheries and more, leading to declining incomes and livelihoods, disrupted trade, and health issues.

Crop Diversification: Recently, agricultural scientists have emphasized implementing crop diversification. Prices for staples like rice and wheat are low, resulting in meager farmer profits. Diversifying to other crops could increase incomes. Localized food banks with subsidized grains could aid villagers and reduce corruption.

Water Scarcity: India's rainfall varies greatly in timing and location. Most rain falls during monsoon, concentrated in intense bursts. Average rainfall is 1170mm, but agriculture uses 83% of water. With other sectors' demand growing, agriculture's share may fall to 68% by 2050. Water demand and availability are mismatched.

Land Fragmentation: As India's population grew, land holdings fragmented. This is believed to lower productivity. Agricultural land has been diverted to development, further fragmenting and decreasing farm productivity. Cropping patterns and land use must shift.

Seed Quality: Quality seeds with strong genetic potential must become affordable and accessible nationwide to maximize yields.

Agricultural Marketing: Weak roads, overregulation, and poor infrastructure hamper farmers' market access. Private sector investment and FDI could improve marketing and enable better produce sales.

Globalization: Despite enabling technology, transport, communication, and services growth, globalization has challenged Indian farmers with intensified competition and interdependence. SEZs have widened inequalities.

Unsupervised Nutrition Programs: in India a number of programs have been well planned in as their main component of improving nutrition but they are not being implemented properly.

Corruption: Diverting grains to open markets, selling poor quality grains, and irregular shop openings all exacerbate food insecurity.

Government Programmes for Food Security in India

Some of the important food security programmes of India are as follows,

Integrated Child Development Services (ICDS)

The Integrated Child Development Services (ICDS) program, launched on October 2, 1975, is one of the Indian government's main programs and one of the world's largest and most innovative early childhood care and development initiatives. It symbolizes the country's commitment to its children and nursing mothers, providing pre-school education and breaking the cycle of malnutrition, illness, impaired learning capacity, and mortality. Children 0-6 years, pregnant women, and breastfeeding mothers are the beneficiaries.

Food For Work (FFW)

Introduced in 1977-78, this gave food grains to the poor instead of wages. It was later restructured into the present National Food for Work program. Highlights:

1. Launched in 150 most backward districts in November 2004 to generate supplementary wage employment.
2. Provides benefits to those needing rural wage employment and willing to do manual work.
3. 100% centrally sponsored scheme for free food grain distribution to the poor.
4. District collector is the nodal officer, responsible for planning, implementation, coordination, monitoring, and supervision.

National Food Security Mission

National Food Security Mission, Launched in 2007, sponsored by the Centre. Aims to increase production of rice, wheat, pulses, coarse grains and commercial crops by expanding area and productivity. Restores soil fertility and productivity at farm level and boosts agricultural economy. Seeks to increase edible oil availability and reduce imports.

Rashtriya Krishi Vikas Yojana (RKVY)

Rashtriya Krishi Vikas Yojana (RKVY), Started in 2007, allowed states to select agricultural and allied sector activities as per district/state plans. Converted into a centrally sponsored scheme in 2014-15 with 100% funding. This scheme Renamed as Rashtriya Krishi Vikas Yojana (RKVY-RAFTAAR) for 2017-20. Objective of the scheme is to Strengthen farmer efforts, reduces risk, promotes agribusiness entrepreneurship to make agriculture profitable. The scheme Focuses on pre- and post-harvest infrastructure besides agri-entrepreneurship and innovation.

National Food Security Act, 2013

National Food Security Act, 2013, legally entitles 75% rural and 50% urban population to subsidized foodgrains under targeted public distribution system. Eldest woman above 18 years is head of household for ration card issuance.

Key features of the act is: nutritious take-home ration for pregnant and lactating mothers; free meals for children 6 months-14 years; women empowerment; state food commissions for implementation and monitoring.

Way Forward for Food Security in India

- Invest in agricultural production systems and research
- Improve cold storage facilities
- Develop effective transportation networks

- Promote modern agriculture practices through awareness programs
- Encourage public-private partnerships
- Develop early warning systems for crop failures

In Summary

Food security for a nation means that all citizens have access to enough nutritious food, everyone can afford food of good quality, and there are no barriers to obtaining food. People living in poverty may lack food security at all times, while even wealthier people can become food insecure due to disasters or crises. Though many people in India suffer from food and nutrition insecurity, the groups most affected are landless or land-poor households in rural areas, and urban residents with low-paying jobs or seasonal work. Food insecurity disproportionately impacts certain regions, like economically disadvantaged states with high poverty rates, remote and tribal areas, and places more vulnerable to natural disasters. To ensure food availability for all, the Indian government has carefully designed a food security system with two main components: (a) buffer stock and (b) public distribution system. In addition to the PDS, various anti-poverty programs were started that address food security, like Integrated Child Development Services (ICDS), Food-for-Work (FFW), Mid-Day Meals, Antyodaya Anna Yojana (AAY), and more. Along with the government's role in food security, cooperatives and NGOs also work extensively towards this goal.

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