

A Review on challenges and strategies for Improvement of Food and Nutrition Security in India

¹S. Ravi Kiran and ²J. Achyutha Devi*

¹Department of Botany and Food & Nutrition, R.B.V.R.R. Women's College, Narayanaguda, Hyderabad – 500027 (India)

²Department of Zoology, R.B.V.R.R. Women's College, Narayanaguda, Hyderabad – 500027 (India)

*Corresponding Author E-mail: achyuthadevi@gmail.com

Abstract

The agricultural, cereal, and export price indices closed 3 percent, 3 percent, and 4 percent higher, respectively, since the last update. In low-income nations, domestic food price inflation is still high. The State of Agricultural Commodity Markets 2024 report from the Food and Agriculture Organization of the United Nations (FAO) highlights the complex relationships between diets, nutrition, and food commerce as well as the ways in which international food trade can affect dietary trends and nutritional results. The United Nations Office for the Coordination of Humanitarian Affairs (UNOCHA) describes the dire state of food security globally in its Global Humanitarian Overview 2025, noting that over 280 million people experience acute hunger every day. With 1.6 billion inhabitants, India is projected to be the world's most populated nation by 2030. Currently, 456 million people, or 41.6% of the world's population, live in poverty and make less than \$1.25 a day, making up more than 17% of the total population. The primary issue that is present in all four of its dimensions—availability, access, usage, and stability—is nutrition security. This study focuses on key tactics to increase nutritional security in India, such as encouraging home kitchen gardens, diversifying diets, empowering rural women, educating people about nutrition, mitigating the effects of climate change, and utilizing ICT. Therefore, there is a need for a paradigm shift in policy formulation from focusing on food security at the aggregate level to nutrition security at the level of each child and adult.

Key words : Food and Nutrition Security, WHO, FAO, Socioeconomic and Climate change.

Nutritional security, as defined by the Food and Agriculture Organization (FAO), emphasizes the health component and nutritional status of the individual or community. It is the urgent need to ensure access to a diet that is appropriately nutritious, including all essential nutrients and water, as well as a hygienic environment, adequate health services, and care to ensure a healthy and active life for all household members⁹. The malnutrition effects of overweight and obesity demonstrate the complexity of the link between food security and nutrition security. Undernutrition, imbalances, and overnutrition are all components of malnutrition, the most significant health issue in the world and the leading cause of death for children. Given that efforts to eradicate these issues have stalled in recent years, policymakers are becoming more and more concerned about food and nutrition security¹⁰. Many people now have less access to food, either physically or financially, as a result of climate change, a global pandemic (COVID19), and escalating conflicts (such as the Russian invasion of Ukraine and civil war in many other countries, including Ethiopia, Myanmar, Sudan, and Afghanistan). The dynamics of the agrifood system are influenced by a wide range of additional elements, such as dietary development¹³, socioeconomic change¹⁷, and the integrity of the natural resource base¹¹. The Sustainable Development Goal for Zero Hunger (SDG 2.1) is just a few years away, thus it's critical to examine the global hunger situation and possible future directions through 2030 and beyond. In order to achieve sustainable food security and improve nutrition, it is necessary to acknowledge that the global food system is facing a number of difficulties, each of which has a variable degree of uncertainty

regarding its manifestation and scope³. Through the projection and description of a variety of different futures, foresight approaches—whether through qualitative methods or quantitative models—allow scientists and decision makers to be more prepared.

In recent years, the sophistication of foresight tools has increased, particularly the creation of more integrated structural models that integrate socioeconomic and biophysical modelling to predict future changes in environmental factors, nutrition, emissions, and agricultural supply and demand as well as food security¹⁴. Crucially, scenario analysis enables decision makers to examine how several future paths, with a variety of assumptions, simulated policies, and investments, affect different food, nutrition, and health outcomes²¹. Using the most recent Intergovernmental Panel on Climate Change (IPCC) climate projections (ISIMIP3b/CMIP6) and modelled estimates of food and nutrition security that arise from the intricate interactions of various factors and drivers across commodities, nations, and regions, we focus on the possible impacts of climate change on the agrifood system in this paper. We use IFPRI's International Model for Policy Analysis of Agricultural Commodities and Trad²² to investigate how food security, diets, and nutrition are affected by the climate and broad socioeconomic changes. According to FAO,¹⁰ report, 735 million people worldwide are thought to be at chronic risk of not eating enough food for a healthy life. This is a reversal of the long-term downward trend over the last ten years, even though it is lower than the 828 million two decades ago. Since 2018, the number of people experiencing hunger has

increased significantly, and there is evidence that climate change has had quantifiable effects on food security in all regions over the past ten years, as well as lowering the nutritional value of raw foods^{2,6}. The beneficial impacts of poverty-reduction and economic development initiatives on food security may be reversed by climate change, particularly in Africa⁶.

For a variety of causes, data show that obesity is more common among groups experiencing food insecurity. For instance, there are multiple ways in which a lack of resources for nutritious meals might lead to weight increase. Low-income households may choose to eat inexpensive, high-energy foods rather than more costly, high-nutrient foods in an effort to make the most of their meagre finances⁵. With 1.6 billion people, India is predicted to have the largest population in the world by 2030. More over 17% of the world's population currently lives there, and regrettably, 456 million of them—or 41.6%—make less than \$125 a day⁴. Therefore, it implies that the only way to address hunger and health problems is through nutrition security. However, almost 75% of India's hungry and impoverished reside in rural regions and rely on agriculture as their main source of income, work, and food.

Global Trends :

Social protection data is now included in the Global Food and Nutrition Security Dashboard, providing important information about how resilient disadvantaged populations are to shocks that could jeopardize their food security. Users can find gaps in social safety

nets that need investments to strengthen the resilience of vulnerable communities and advance equitable access to food in the face of adversity by examining the coverage and sufficiency of social protection programs, especially when broken down by urban and rural populations as well as those in the bottom welfare quintile. The agricultural, cereal, and export price indexes have increased since the last update in December 2024, closing 3, 3, and 4 percent higher, respectively. Rice prices closed at the same level as in the previous update, wheat prices closed 2% lower, and maize prices closed 9% higher. Prices for maize are up 2 percent year over year, while those for wheat and rice are down 10 and 16 percent, respectively. Compared to January 2020, prices for maize have increased by 24%, wheat by 3%, and rice by 26%.

The inflation of domestic food prices, which is determined by comparing the change in the food component of a nation's Consumer Price Index (CPI) from year to year, is still moderately high. Many low- and middle-income countries have high rates of inflation, according to data from the most recent month between September and December 2024 for which food price inflation data are available in the published reports. Inflation is higher than 5 percent in 72.2 percent of low-income countries (3.4 percentage points higher since the last update on December 13, 2024), 43.5 percent of lower-middle-income countries (3.2 percentage points lower), 38.0 percent of upper-middle-income countries (5.0 percentage points higher), and 7.4 percent of high-income countries (3.5 percentage points higher) and 7.4 percent (3.5 percentage points higher) of high-income nations. Of the 161 nations for which food CPI and overall CPI indexes are

available, 43.5 percent had real food price inflation higher than overall inflation (as determined by the year-over-year change in the overall CPI).

Emerging Issues :

The FAO's 2024 State of Agricultural Commodity Markets report highlights the complex relationships among diets, nutrition, and food trade, as well as the ways in which international food commerce can affect dietary trends and nutritional results. According to the report, the food trade accounted for approximately 85% of the entire agricultural and food commerce, which increased from USD 400 billion in 2000 to USD 1.9 trillion in 2022. By stabilizing food supplies and prices, especially during disruptions caused by extreme weather or other crises, trade plays a critical role in ensuring access to a diverse range of foods worldwide. The report emphasizes the significance of trade in the movement of food from surplus to deficit regions. However, worries regarding the detrimental effects of the fast globalization of food markets have arisen. It has the potential to impair diets and nutritional outcomes by depleting natural resources, increasing the availability of energy-dense, low-nutrition foods, and increasing inequality in nations with a large number of resource-poor farmers. According to the report, there is no globalized dietary pattern that results from nutrition transition trends, which differ from nation to nation. Between 1961 and 2019, both high-income and emerging nations saw a significant shift in their general dietary patterns, with a decrease in the proportion of calories from basic foods. Lower-income countries' food patterns changed more slowly during the same time span. The most important aspect of the

nutrition transition is the change from undernutrition to overnutrition, overweight and obesity.

The impact of trade on food costs and the affordability of nutritious diets are examined in the report. Although there is worry that trade openness, which is frequently demonstrated by low import tariffs, may disproportionately lower the cost of energy-dense, low-nutrient foods, potentially aggravating poor nutrition, it is generally believed that trade openness results in lower food prices, which can increase access to a variety of foods. This is especially important when discussing ultra-processed meals, which account for a large amount of the value of imported food even though they only make up a small portion of total caloric consumption. The FAO report also looks at how trade might help fill nutrient shortages in nations with inadequate domestic supply. Trade can improve the nutritional profile of diets in these areas by making it easier to import foods high in vital nutrients. This is particularly crucial for nations with scarce natural resources or harsh climates that make it difficult to produce a variety of foods. Therefore, increasing commerce in foods high in nutrients can be a vital strategy for preventing malnutrition and enhancing public health. Another area of interest is how trade policies and nutrition interact. In order to guarantee favourable health outcomes, the report promotes a unified strategy in which trade regulations are in line with dietary goals. Trading nutrient-dense foods while minimizing the introduction of less nutrient-dense options is one recommendation. Policies encouraging healthy diets must take into consideration the intricacies of the dynamics of the global food trade in order to be successful.

Strategic Approach by World Bank to Global Food Security :

Shobha Shetty, the World Bank's Global Director for Agriculture and Food, in her blog, highlights noteworthy advancements and aspirational goals for sustainable agriculture and global food security. With USD 22.3 billion in funding over the last five years, the World Bank is the largest financier of food and agriculture in developing nations, underscoring its unique position to spur change, Shetty says. In order to link unbanked farmers to global value chains and generate employment in emerging economies, the Bank has pledged to invest USD 9 billion yearly in agri-finance and agribusiness by 2030.

The main three features include

1. Using the new Food and Nutrition Security Global Challenge Program to its maximum capacity in order to mobilize coordinated action on food and nutrition security: In order to lessen fragmentation in foreign development assistance and make better use of already-existing resources, the World Bank will concentrate on growing partnerships.
2. Extending planet-healing solutions: The World Bank will step its efforts to promote technologies that lower methane emissions, extend agroforestry, and boost crop yield per water unit (crop per drop). Science, innovation, and knowledge will be heavily emphasized in order to expand on tried-and-true methods that can improve agricultural sustainability and productivity while also healing the earth.
3. Refocusing on sustainable, healthful diets and agriculture that is responsive to nutrition:

The World Bank will address the economic consequences of poor diets and seek to increase the availability of nutrient-dense food. This initiative is in line with the organization's mission to improve food and nutrition security for over 200 million people and impact policy changes in over 40 nations.

Problems of nutritional insecurity in India:

A nutrition gap between what is ingested and what is required for adequate nutrition is known as nutritional insecurity. Access to and availability of food do not ensure proper absorption or nutrition, particularly as nutrition is dependent on numerous other factors, including breastfeeding, health conditions, drinking water, cleanliness, and the state of pregnant women. Therefore, one of the main factors influencing nutritional security is having access to medical care and sanitary facilities. India's economic growth is undoubtedly positive, but the country's chronic and pervasive poverty, undernutrition, and growing inequality are also getting worse in absolute terms⁷. Therefore, nutritional security cannot be achieved solely through economic growth; rather, targeted interventions are needed to address nutritional issues through "nutrition-sensitive" food and agriculture protection in order to promote food and nutrition security. Indeed, advancements in transportation, processing, and production technologies have made food more accessible, but efforts to address nutrition security have gotten somewhat less attention due to the population's food consumption's quality and accessibility. Diets have consequently grown less varied and nutrient-dense, which has had perversely detrimental effects on human health. A healthy

diet is essential for optimum health. In exchange, agriculture provides the foods—cereals, pulses, fruits, vegetables, fish, milk, and dairy products—needed for a balanced diet that satisfies human need for vitamins, minerals, energy, and protein. Nutrition security should be attained by paying much more attention, particularly to low-income rural households, which lack “Hidden Hunger” and are therefore nutritionally insecure due to a monotonous daily diet pattern that is high in starchy staples and low in micro and macronutrients.

Strategies for improvement of Nutrition Security in India :

1. Strategies based on Food
 2. Household strategies
 3. Women Empowerment
 4. Linkage with Public Health
 5. Educational programmes
 6. Climate change mitigation
 7. Groundwater improvement
 8. Diversification of food production
 9. Inclusion of ICT tools in Nutrition awareness programmes
 10. Improving sanitation and other facilities
 11. Improving Hygiene
 12. Strengthening Agri policies
- One of the complete measures to promote nutritional security is the marketing of industrially fortified products, such as fortified wheat and iodized salt. The World Health Organization has recognized iron (Fe), zinc (Zn), and vitamin A (VA) as some of the most important micronutrients that are most deficient in the diets of the poor. Therefore, we can attain nutrition security, particularly for the impoverished, through better plant breeding and agronomic techniques. For instance, golden rice and improved orange-fleshed sweet potato varieties are high in beta-carotene⁸.
 - In order to cultivate nutrient-rich fruits and vegetables, households with backyard space and members who suffer from anaemia and vitamin A deficiency were specifically targeted. This promotes a significantly higher intake of fresh vegetables, eggs, and milk, and improved maternal nutritional status is linked to better child health and survival, particularly during life stages like pregnancy and lactation.
 - Nutritional security and the empowerment of rural women are closely related. The men themselves came to the conclusion that women were doing around half of the work and that, since they are the owners, they should be paid half of the compensation for the work and for the women's health rather than the full amount¹⁵.
 - Dietary strategies, nutrition education, and public health should work together. When combined with primary health centers and community health programs, food-based treatments will be more successful.
 - To make sure that increases in food supply and income result in better household nutrition, interventions should involve a robust program of nutrition education and behavior modification aimed primarily at women and teenage girls. It can be accomplished through supplementary nutrition programs like ICDS and Anganwadi centers, as well as food transfer programs like the Public Distribution System.
 - The most recent developments in food security concern climate change and how it affects agriculture. Food security and economic livelihoods are certain to be

threatened by the negative effects of climate change, which include decreasing rainfall and rising temperatures, which exacerbate drought and flooding¹⁸.

- Despite the abundance of food, the effects of diminishing water resources pose a serious danger to food security. It's interesting to note that Gujarat has contributed significantly to the replenishment of water tables by investing in over 100,000 check dams since 2000 with the help of non-governmental organizations. Gujarat, which has the highest agricultural growth rates (over 9% annually) among all Indian states that support decentralized food supply and nutritional security, has benefited greatly from this concept¹⁶.
- Diversifying food production through the introduction of horticultural crops, fish, and livestock that are appropriate for the local agro-ecological conditions and can address micronutrient and micronutrient deficiencies in the local diet is the most sustainable strategy for subsistence farming households. Therefore, the supply and consumption of complementary foods including roots, tubers, legumes, fruits and vegetables, animal-derived products, medicinal herbs, spices, and others grew as a result of food-based nutrition interventions like family and community gardens and farms.
- To influence consumer eating habits and farmers' production patterns, it is imperative to raise awareness of the nutrition issue and the necessity for a varied diet. In this situation, ICT can be crucial for farmers' marketing and production as well as for consumers' price, knowledge, and awareness.
- India concentrated on improving the rather positive efforts to turn food security into

nutrition security in every manner imaginable. However, we cannot overlook the connection between food security, sanitation, and nutrition security, as without better water, sanitation, and hygiene (WASH), food and nutrition security cannot be achieved. To ensure that WASH is a component of the solution to undernutrition, much more work needs to be done at the policy and implementation levels, notwithstanding significant progress in this direction toward greater policy coherence. A key component of healthy communities is having access to WASH services, which include safe drinking water, sanitation, and hygiene. These services also have a significant positive influence on nutrition. Although it is commonly known that water, sanitation, and hygiene play a significant role in undernutrition, incorporating these factors into integrated approaches can be difficult. This manual provides guidance on how WASH activities can help reduce the incidence of undernutrition and optimize its treatment by gathering specific programmatic examples in a range of contexts, according to Marie-Sophie Whitney, a global nutrition expert with the EU Civil Protection and Humanitarian Aid Operations.

- There is no worldwide system in place to keep an eye on hand washing habits in families and communities, unlike household access to drinking water and sanitation. Furthermore, accurate worldwide data about soap-washing hand hygiene are hard to come by. Only 19% of people worldwide, according to a recent systematic evaluation of 42 studies of observed hand washing with soap in 19 countries, wash their hands after possibly coming into touch with excreta¹². There is a dearth of reliable data

on food and environmental hygiene habits, despite signs of their significance for nutrition and health. Security of food and nutrition is a persistent problem in the current environment. To support evidence-based policies and programs, it is evident that more comprehensive and up-to-date statistics covering the various facets of food and nutrition security are required. The possible significance of nutrition security should also be investigated. Malnutrition and poverty are the results of intricate interactions and interactions between various actors and factors in the food environment.

- One of the key avenues for lowering the nation's rate of malnutrition has been identified as agricultural policy. Stronger ties between the fields of agriculture, nutrition, and health should be established. For the nation's nutritional security, safe, clean, and green food must be the main focus of all governmental policies and the efforts of all economic actors²¹.

With increased access to school meals through PM POSHAN and food grains through the PDS and PMGKAY, India's nutrition security status for 2025 demonstrates progress. But problems still exist, with about 12% of people undernourished, high rates of stunting in children (35.5%), and severe anemia in women (53.7% in 2023). Improving the variety and affordability of diets, strengthening nutrient database systems, reducing the combined burden of obesity and malnutrition, and combining policies related to agriculture, health, and education to address the complex nature of nutrition insecurity are important future directions.

Important aspects of India's Current Nutrition Security Situation (2025)

Advancements in Food Access :

PDS & PMGKAY : With automation improving transparency, the Public Distribution System (PDS) still supplies food grains to a sizable population. Millions of people are also guaranteed free food grains through the Pradhan Mantri Garib Kalyan Anna Yojana (PMGKAY).

PM Poshan : Also referred to as the mid-day meal scheme, the PM POSHAN program keeps schoolchildren nourished while also increasing their attendance and nutritional status.

Challenges :

1. **Undernourishment:** The 2025 State of Food Security and Nutrition (SOFI) report estimates that 12% of India's population is still undernourished.
2. **Child malnutrition:** 35.5% of children under five suffer from stunting, which is a substantial number.
3. **Anemia:** More over 53% of women aged 15 to 49 had anemia in 2023, which is a startlingly high prevalence. India is one of the nations with the highest rates in the world.
4. **Double Burden of Malnutrition:** India has to deal with the twin problems of obesity and undernutrition, which need for coordinated remedies.

The following are factors that contribute to nutrition insecurity:

1. **Poverty:** This is preventing access to

enough food.

- 2. Cultural Practices & Diet-Induced Illnesses:** The issue is exacerbated by broader eating habits and the increase of non-communicable diseases (such as diabetes and heart disease).
- 3. Climate Change:** Severe weather events worsen food and nutrition insecurity by lowering agricultural yields and upsetting food supplies.
- 4. Food Waste:** India has a large amount of food waste, which affects the availability of food in general.

Other elements involved :

Integration of Policies: To develop a more thorough strategy for nutrition security, it is imperative that policies pertaining to agriculture, health, and education be integrated.

Diverse and Reasonably Priced Diets: To make nutritious, nutrient-dense meals, including millets, affordable for everyone, food subsidies must be changed.

Monitoring of Nutrients: For focused treatments, state and district-level real-time nutrient database systems must be strengthened.

A Comprehensive Agenda for Nutrition: To address the various nutritional needs of all demographics and take advantage of local food systems, a more comprehensive agenda is required than only addressing maternal and child malnutrition.

Government initiatives to Guarantee Nutrition Parity in India :

Putting Food Security Measures in Place in India: Moving from Policy to Practice, India's food security programs cover a wide range of activities aimed at preventing hunger and malnutrition in various populations. These programs include both local and national initiatives aimed at vulnerable groups, including the elderly, children, and low-income families. The Central Pool has 608.75 lakh metric tonnes of foodgrains as of July 2024, which is far more than the 411.20 lakh metric tonnes required for stocking. This excess ensures that the Targeted Public Distribution System (TPDS), different Welfare Schemes (CWS), and other government initiatives nationwide will have enough supply. In India, a number of government programs give free or heavily discounted meals to certain groups of people. Among the most important of these are:

The NFSA, or National Food Security Act :

Up to 75% of rural residents and 50% of urban residents are legally entitled to subsidized food grains through the Targeted Public Distribution System under the National Food Security Act. As a testament to its dedication to uplifting women, NFSA serves almost 81 million people nationwide, including 16 crore women. This extensive coverage, which includes Antyodaya Anna Yojana (AAY) and Priority Households (PHH) categories, guarantees that a sizable section of the populace can get subsidized food grains.

Pradhan Mantri Garib Kalyan Anna Yojana (PMGKAY) :

With the express goal of easing the suffering endured by the poor and needy as a result of the COVID-19 pandemic's economic

disruptions, the Pradhan Mantri Garib Kalyan Anna Yojana (PMGKAY) was introduced. Beginning on January 1, 2024, the Pradhan Mantri Garib Kalyan Anna Yojana (PMGKAY) will be extended for a further five years by the Central Government. About 81.35 crore people would receive free food grains as a result of this program (PMGKAY Guidelines²⁰).

PM POSHAN (Poshan Shakti Nirman):

By improving the nutritional status of children in government and government-aided schools and promoting regular attendance among underprivileged pupils, the PM POSHAN Abhiyaan seeks to combat hunger and advance education. With a financial investment of ¹ 54061.73 crores from the Central Government and ¹ 31733.17 crores from State Governments and UT administrations, the Hon. Prime Minister has approved the continuation of the national PM POSHAN in Schools program for the five-year period 2021–2022 to 2025–2026. Additionally, the Central Government would pay an additional ¹ 45,000 crore for food grains. As a result, ¹ 130794.90 crore will be the overall scheme budget¹⁹.

Anna Yojana Antyodaya (AAY) program :

One crucial social welfare program that aims to provide food security for the most vulnerable members of society is the Antyodaya Anna Yojana¹. Over 8.92 crore people are currently supported by the program¹. Notably, over 2 crore of these beneficiaries are women, underscoring the program's emphasis on meeting the needs of female participants and guaranteeing their access to vital resources. In addition to meeting the nutritional needs of the poorest families, this focused approach

highlights the value of integrating women into social welfare programs to meet their needs and empower them in the process. The program's dedication to reaching out to all facets of society and improving their lives is demonstrated by the significant number of female beneficiaries.

Overview of India's Rice Fortification :

Rice that has been fortified with vital vitamins and minerals to increase its nutritional content is known as fortified rice. The Public Distribution System (PDS) has been used to distribute about 406 lakh metric tonnes of fortified rice since the 2019–20 fiscal year till March 31, 2024.

Government Initiatives for Affordability and Price Stability :

To ensure that people, particularly those from lower-income groups, do not experience hardships as a result of price fluctuations, the government has employed the Price Stabilization Fund (PSF) to control price volatility in critical agri-horticultural goods. From 1 LMT in 2020–21 to 7 LMT in 2023–24, the onion buffer has grown. This calculated tactic seeks to keep prices steady and avoid large swings that may otherwise affect the accessibility and cost of these necessities. In July 2023, Bharat Dal was introduced, turning Chana stock into discount Chana dal that costs Rs. 60 for 1Kg packs and Rs. 55 for 30 kg packs. Additionally, NAFED, NCCF, and Kendriya Bhandar offer Bharat Atta and Bharat Rice at discounted prices of Rs. 27.50 per kg and Rs. 29 per kg, respectively.

India's Contribution to World Food Security: From Crisis to Confidence :

As the world's top producer of milk, pulses, and spices, as well as the second-largest producer of food grains, fruits, vegetables, cotton, sugar, tea, and farmed fish, India is currently a food surplus nation. India used to be a global worry for food security, but today it is contributing to global food and nutrition security. In light of this change, India's rise to prominence in the world of food and nutrition highlights its invaluable expertise in transforming the food system, which will help the Global South.

The complex relationships between food trade, diets, and nutrition, as well as how international food trade might affect dietary patterns and nutritional results, are the main topics of the Food and Agriculture Organization of the United Nations' (FAO) State of Agricultural Commodity Markets 2024 report. To promote livelihoods, food security, and diet quality, targeted agricultural initiatives and social safety nets continue to be crucial in addition to broad-based economic and productivity increases. Changes in food systems outside of the core agricultural sector, such as rural infrastructure, value chains, and public health, would also be necessary to improve food and nutrition security. Although these behavioral and policy adjustments will not be simple, their significance and urgency are increasing. Understanding the ramifications of alternate future pathways, the tradeoffs between alternative goals and strategies, and the approaches to addressing them is crucial given the growing recognition of the various food system challenges and objectives as well as the intricate interactions that define them. This is

particularly true for vulnerable and impoverished groups in low- and middle-income areas, where the stakes are higher and the problems are greatest. In order to offer the necessary skills and procedures for evidence-based decision-making to handle this challenge both now and in the future, it will be crucial to generate accurate and thorough data and information about food and nutrition security as well as to create capacity. Addressing the intricate problems of hunger and malnutrition in India requires the implementation of food security policies. India wants to guarantee that food is accessible and reasonably priced for all of its population by concentrating on raising agricultural productivity, improving food distribution networks, and stabilizing prices. In order to reduce the impacts of economic gaps and provide fair access to necessary food resources, targeted initiatives—such as subsidized food schemes and specific programs for disadvantaged groups—are important. In addition, implementing sustainable methods and including nutritional support not only meets present food security demands but also establishes the framework for a robust and long-term solution. With high rates of undernourishment, especially among children, and susceptibility to economic shocks like rising food inflation, India's food security is still a major concern. Even while India produces a lot of food, there are still many problems with price, access to a healthy diet, and the stability of food systems. Both chronic undernourishment and rising obesity rates contribute to the nation's twin burden of malnutrition, which is made worse by social and economic inequality, climate change, and inefficiencies in the public distribution system (PDS).

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