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Combating Malnutrition: A Vision For Viksit Bharat

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Abstract

One of the most pressing public health challenges in India is still seen in poor diets that have resulted in malnutrition. Though India has experienced economic progress, it has a dual burden of malnutrition which consists of under nutrition, overnutrition and micronutrient deficiencies. The key objective of this issue is to realize the ideal situation of Viksit Bharat (Developed India), a country where everyone has access to wholesome food, first-rate medical care, and an education. This paper covers the key approaches for solving malnutrition, which are based on recent research and policy analysis. Reducing child undernutrition can be strongly reduced by strengthening government interventions like POSHAN Abhiyan and the Mid Day Meal Scheme (PM – POSHAN). National food security can be improved through PDS reforms with inclusion of nutrient dense foods like millets and fortified cereals. Biofortified crops and AI driven nutrition tracking are highlighted as key contributors in addressing micronutrient deficiencies. In addition, promising results have been produced by the community based initiatives including nutrition gardens and maternal nutrition education to increase household dietary diversity. These include running gender-sensitive nutrition programs that empower women, promoting climate resilient crops such as millets and using real time malnutrition mapping that uses AI. For Viksit Bharat that means a multi sectoral approach with policy reforms and technological development to offset the local elements of adaption of better options. What this study illustrates is that there is a need for holistic and evidence based interventions for better health outcomes and future economic prosperity.

Keywords: POSHAN Abhiyan, PDS reforms, AI in nutrition, Public health, Food security, Gender-sensitive policies.

Introduction

Despite impressive economic and technological development, malnutrition continues to remain one of India's most pressing public health challenges. There are different forms including an under nutrition, over nutrition and micronutrient deficiency which is generally known as dual burden of malnutrition (Roy et al., 2025). It is essential not only to address malnutrition for the improvement of public health but also for the promotion of economic growth, human capital development. The mantra of Viksit Bharat (Developed India) is to create a nation, where every citizen would be provided nutrition foods, quality healthcare, and educational opportunities making them healthy and productive workforce.

1. The Persistent Challenge of Malnutrition in India

It is one of the countries that bear a high burden of malnutrition among children and women. Many people consider that nearly 35% of the India children under five suffer from stunting, 19% from wasting and 33% from underweight conditions, according to the Global Nutrition Report (2022). While different governments have invested in easing the problem of malnutrition, India remains a country where poverty, a lack of awareness, inadequate dietary diversity and gender disunity in food distribution have thwarted efforts to move the needle down on the malnutrition index.

Maternal malnutrition is known to contribute significantly to child malnutrition and Saikia et al. (2024) construct studies indicate pregnant women in multiple rural Indian states have bad dietary diversity that leads to low birth weight and stunted growth from infants. Furthermore, Singh et al. (2024) emphasize that besides the micronutrient deficiencies, dependence on calorically rich (and nutritious poor) staple foods such as rice and wheat but few micronutrient dense foods has further augmented it among large segments of the population.

Furthermore, Pattar and Kumar (2024) discovered that although the PDS is vital for food security in India, the bulk of grains provided by it are deficient in essential vitamins and minerals, thereby leading to hidden hunger. In order to tackle the menace of malnutrition, the PDS can be reformed to have fortified grains, pulses, and millets.

2. The Emerging Threat of Overnutrition and the Dual Burden of Malnutrition

Obesity and lifestyle-related disease have grown in India, and especially in cities. National Family Health Survey (NFHS-5, 2021-22) has revealed that the rate of obesity has almost doubled in last decade among women and adolescents. Roy et al. (2025) provide studies which show that urban populations have been consuming more processed foods (refined in unhealthy sugars and fats) than calories, thus resulting in nutrient deficiencies, but overall, high calories.

More specifically, the coexistence of under nutrition and over nutrition in the same population constitute dual burden of malnutrition and it is emerging as a new challenge for the public health policies. According to Khubchandani & Raman (2025), the research on Gen Z eating habits in Pune, India, indicated that fast foods consumption, digital food services delivery and lack of dietary awareness all are contributing to the increase in obesity related disorders among the youth adults.

3. The Socio-Economic Impact of Malnutrition

The health implications of malnutrition go beyond. It has a direct effect on economic productivity, on cognitive development, on educational outcomes. According to Tripathi & Shukla (2025), malnourished children are more prone to learning difficulties and lower academic performance, thereby facing less possibilities of employment in adulthood. The World Bank (2023) estimates that malnutrition related productivity losses in India are probably somewhere between 2–3 percent of the GDP per year, showing the need to tackle malnutrition for the economic development of India.

In addition, gender inequalities worsen due to malnutrition as women and girls are more likely to be the first to suffer from food insecurity. Saikia et al. (2024) have also found in many Indian households that consumption rates of food and lower quality diets among women are lower than that of men with higher prevalence of the anemia and other deficiencies. Efforts to address gender based food inequalities through targeted interventions could have a strong effect on national nutrition outcome.

4. The Vision for Viksit Bharat: A Malnutrition-Free Future

Ideally, Viksit Bharat is a scenario where NO Indian child should suffer hunger or any nutrient deficiencies. This is also in line with the United Nations Sustainable Development Goals (SDGs) targets particularly SDG 2 (Zero Hunger), and SDG 3 (Good Health and Well-being).

Key Strategies for Achieving a Malnutrition-Free Viksit Bharat

To realize a vision of Viksit Bharat, India will need to practice strategic intervention programmes that are multi-dimensional, based on evidences and act against under nutrition, micronutrient deficiency and obesity. Policy reforms, community-based efforts, technology and diets diversification should form these strategies. This is supported by previously conducted research and data and is listed below.

1. Strengthening Nutrition-Based Government Policies

The Government of India has introduced several policies and programs to combat malnutrition, yet challenges persist in their implementation, reach, and efficiency. Strengthening existing programs and launching data-driven, targeted interventions can significantly improve their impact.

a) POSHAN Abhiyan: Expanding and Enhancing Impact: The initiated program POSHAN Abhiyan from 2018 works to reduce stunting together with undernutrition and anemia among women and children. Recent studies show that POSHAN Abhiyan has struggled during execution because the public lacks knowledge about it along with insufficient financial support and insufficient oversight (Akhter 2025). His research investigated PoshanAbhiyan program effectiveness in Jammu and Kashmir by demonstrating the importance of enhancing local involvement and health service coordination. According to Jaleel et al. (2025), when POSHAN Abhiyan government programs aided in the execution of nutritional programs provided to Tamil Nadu and Odisha communities, the results were better.

b) Mid-Day Meal Scheme (PM-POSHAN): Improving Quality and Coverage: One of the most important tools for combating child malnutrition and increasing student attendance at school is the Mid-Day Meal Scheme (PM-POSHAN). The food supply program requires immediate action to resolve problems with poor nutrition standards and issues with food delivery and meal diversification. Elizabeth & Bindusha (2025) reported school meal programs decreased severe acute malnutrition in children but unstable food quality limited sustained advantages. Biofortified food introduction combined with expanded nutritional diversity in school lunch programs showed potential for enhancing both physical well-being and mental development of students according to Tripathi and Shukla (2025).

c) Public Distribution System (PDS) Reforms: Ensuring Nutrient-Dense Foods: Although the PDS maintains its importance for food security the provided rice and wheat lack necessary micronutrients within the dietary scheme. The PDS system will experience substantial nutritional outcome improvements when it starts distributing millets along with pulses and fortified cereals together with dairy products. Pattar & Kumar (2024) showed that reforming PDS operations would help decrease deficiencies in essential micronutrients especially reducing iron-deficiency anemia in women and children. According to Singh et al. (2024) adding millets to the Public Distribution System would improve both dietary variability and nutritional benefits for users.

2. Promoting Millets and Nutrient-Rich Crops

Diversifying staple foods to include nutrient-rich options can address hidden hunger (micronutrient deficiencies) while also ensuring climate-resilient agriculture. Millets, in particular, have been identified as a superfood for combating malnutrition. Singh et al. (2024) conducted a cost-benefit analysis of millet promotion and found that millets are high in protein, fiber, and essential micronutrients, making them ideal for improving national food security. Saikia et al. (2024) reported that maternal dietary diversity was significantly improved when millet-based meals were introduced in nutrition programs.

3. Leveraging AI and Technology in Nutrition Programs

The power of technology exists to transform nutrition data monitoring as well as implement health interventions and execute policy guidelines. The analysis of data through AI and its collection capabilities aids in finding malnutrition areas while enabling professionals to develop adjusted intervention solutions. A study by Khubchandani & Raman (2025) determined through research on AI-based dietary tracking that eyegaze tracking features and AI applications enhanced Gen Z consumers' dietary understanding in India. Jaleel et al. (2025) found that using mobile health (mHealth) applications for maternal nutrition monitoring improved health outcomes in pregnant women.

4. Community-Based Approaches for Sustainable Nutrition

Community-driven models are crucial for long-term behavioral change and local empowerment. Encouraging nutrition gardens, maternal education programs, and grassroots interventions can improve dietary habits at the household level. Jaleel et al. (2025) studied the impact of community nutrition gardens in Tamil Nadu and found that they significantly improved dietary diversity in households. Saikia et al. (2024) demonstrated that maternal nutrition education led to better infant health outcomes, particularly in tribal and rural areas.

5. Addressing Gender-Based Food Disparities

Malnutrition in India is disproportionately high among women, particularly pregnant and lactating mothers. Ensuring gender-sensitive food security measures is essential for tackling maternal and child malnutrition. Saikia et al. (2024) found that dietary intake among women was lower than men in most rural Indian households, leading to high anemia and low birth weight babies. Tripathi & Shukla (2025) emphasized that providing targeted nutritional support to adolescent girls and young mothers is key to breaking the intergenerational cycle of malnutrition.

Conclusion

Achieving a malnutrition-free Viksit Bharat requires coordinated efforts between government, private sector, civil society, and communities. The key strategies discussed—strengthening government policies, diversifying diets, leveraging technology, promoting community-based approaches, and addressing gender disparities—are all scientifically supported and evidence-backed interventions. By integrating nutrition-focused reforms with AI-based monitoring, millet promotion, and gender-sensitive policies, India can ensure that future generations grow up healthier, stronger, and more productive.

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