India's Quest for Nutritional Security

This editorial is based on ["Counting the 'poor' having nutritional deficiency"](#) which was published in The Hindu on 07/08/2024. The article brings into focus the findings from the Household Consumption Expenditure Survey (HCES) 2022-23 by the National Sample Survey Office, detailing the calorific intake of different expenditure classes in India and highlighting the need for targeted nutritional schemes for the poorest sections to ensure adequate nourishment.

For Prelims: National Sample Survey Office, Household Consumption Expenditure Survey 2022-23, Nutritional security, World Inequality Report 2022, Global Hunger Index 2023, Global Climate Risk Index 2021, Annual Status of Education Report (ASER) 2022,National Family Health Survey-5, Economic Survey 2023-24, Mission Poshan 2.0, Integrated Child Development Services (ICDS) Scheme,Pradhan Mantri Matru Vandana Yojana (PMMVY, Mid-Day Meal Scheme

For Mains: India's Nutritional Challenges, Indian Government Initiatives Related to Nutritional Security.

The National Sample Survey Office's recent Household Consumption Expenditure Survey (HCES) 2022-23 provides crucial insights into India's poverty and nutrition landscape. Using this data, an analysis was conducted to estimate poverty levels based on calorie intake and expenditure. The study found that the average daily per capita calorie requirement for a healthy life is **2,172 kcal in rural India** and **2,135 kcal in urban India.** However, the **poorest 10% of the population falls far short of these requirements**, with average daily intakes of only 1,564-1,764 kcal in rural areas and 1,607-1,773 kcal in urban areas.

Based on the analysis, which considers both food and non-food expenditures, an estimated **17.1% of the rural population and 14% of the urban populatio**n can be classified as "**poor" or "deprived.**" The stark nutritional deficiency among the poorest segments of society highlights the **urgent need for targeted nutritional schemes.** While the government has implemented various welfare programs aimed at food security, there is a pressing need for initiatives specifically designed to **improve the nutritional status of the most vulnerable populations,** enabling them to lead healthier lives.

What is Nutritional Security?

- Nutritional security refers to a state where a set of individuals have access to **adequate, safe, and nutritious food** that meets their dietary needs and food preferences for an active and healthy life.
    - It encompasses **not only the availability and accessibility of food but also its quality and the ability of individuals to utilize it** effectively to maintain good health.

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Why is Nutritional Security Necessary Alongside Food Security?

- **Holistic Health Outcomes:** Nutritional security goes beyond mere calorie intake, focusing on the quality and diversity of nutrients consumed.
  - While food security ensures availability and access to sufficient calories, **nutritional security addresses the body's need for a balanced intake of macro and micronutrients.**
  - This underscores the fact that calorie sufficiency alone does not guarantee optimal health outcomes.
- **Economic Productivity:** Nutritional security directly impacts economic productivity. Malnutrition leads to reduced **work capacity, increased healthcare costs, and lost productivity due to illness.**
  - The short-term economic cost of micronutrient malnutrition in India amounts to **0.8% to 2.5% of the gross domestic product.**
  - Ensuring nutritional security, therefore, is not just a health imperative but an **economic necessity**, contributing to a more productive workforce and reduced healthcare burden.
- **Cognitive Development and Education**: Adequate nutrition, especially in early childhood, is crucial for cognitive development and educational outcomes.
  - Studies show that children who receive proper nutrition in their **first 1000 days have higher IQs, better school performance**, and higher earning potential as adults.
  - By focusing on nutritional security alongside food security, societies can enhance **human capital development** and break intergenerational cycles of poverty and malnutrition.
- **Resilience to Diseases:** Nutritional security plays a vital role in building resilience against diseases.
  - A well-nourished population is better equipped to fight infections and recover from illnesses.
  - The Covid-19 pandemic has highlighted this aspect, with studies showing that individuals with pre-existing conditions often linked to poor nutrition (such as **obesity, diabetes**) were at higher risk of severe outcomes.
  - Ensuring nutritional security is thus a key strategy in public health, reducing the burden on healthcare systems and improving overall population health.
- **Biodiversity and Nutrition**: Nutritional security promotes dietary diversity, which in turn supports biodiversity conservation.
  - The FAO reports that of the 6,000 plant species cultivated for food, but **just 9 account for 66% of total crop production.**
  - Focusing on nutritional security encourages the cultivation and consumption of a wider variety of foods, **including neglected and underutilized species.**
  - This not only improves **nutritional outcomes but also enhances agricultural biodiversity,** ecosystem resilience, and cultural food heritage preservation.

Why does India Persistently Face Nutritional Challenges?

- **Economic Disparity-The Wealth-Nutrition Gap**: Despite India's economic growth, wealth distribution remains highly uneven.
  - The 2022 World Inequality Report shows that the top **10% of Indians hold 57% of the national income.**
  - Poorer households struggle to afford diverse, nutrient-rich diets, often relying on cheap,

calorie-dense but nutrient-poor foods (as highlighted by **Bennett's Law).**
- This economic disparity indirectly translates to nutritional inequality.
  - The recent HCES 2022-23 data corroborates this, showing that the **poorest 10% consume far below the recommended daily calorie intake,** highlighting the persistent link between poverty and malnutrition.
- **The Green Revolution's Mixed Legacy:** India's agricultural policies, largely shaped by the Green Revolution, have prioritized **staple crop production (mainly wheat and rice)** over diverse, nutrient-rich crops.
  - While this approach has **ensured food security in terms of calorie availability**, it has inadvertently led to **micronutrient deficiencies.**
  - The Global Hunger Index 2023 **ranks India 111th out of 125 countries,** indicating that food abundance alone does not solve nutritional challenges.
  - Recent initiatives like the **promotion of millets** (2023 was the International Year of Millets) are steps in the right direction, but a more comprehensive overhaul of agricultural policies is needed to address nutritional diversity.
- **Climate Change-The Looming Threat to Nutritional Security**: Climate change poses a significant threat to India's food security and nutrition.
  - **Erratic weather patterns,** increased frequency of droughts and floods, and rising temperatures affect crop yields and nutritional quality.
  - The Global Climate Risk Index 2021 ranked India as the **7th most affected country by climate change** impacts.
  - These environmental stresses not only reduce food availability but also increase food prices, making nutritious diets even more unaffordable for vulnerable populations.
- **The Knowledge Gap**: Despite improvements in literacy rates, nutritional awareness remains low in many parts of India.
  - **Lack of knowledge about balanced diets,** the importance of dietary diversity, and proper infant and young child feeding practices contribute to poor nutritional outcomes.
  - The Annual Status of Education Report (ASER) 2022 shows that while school enrollment has improved, learning outcomes remain suboptimal.
  - This **education-nutrition nexus is critical,** as better-educated individuals are more likely to make informed dietary choices and break intergenerational cycles of malnutrition.
    - India is indeed becoming more literate, but the ability to decipher food labels, as highlighted by the recent controversy surrounding the **removal of the "health drink" tag from Bournvita,** underscores a significant gap in nutritional literacy.
- **Healthcare Infrastructure**- **The Missing Link in Nutrition:** India's healthcare system, particularly in rural areas, often **struggles to provide adequate nutritional interventions** and support.
  - The **Covid-19 pandemic** exposed and exacerbated these weaknesses.
  - While schemes like the **National Health Mission** have improved healthcare access, the National Family Health Survey-5 shows that only **77% of children are fully immunized,** indicating gaps in basic health services.
- **Urbanization-The Double-Edged Sword**: Rapid urbanization in India presents both opportunities and challenges for nutrition.
  - While urban areas often have better access to diverse foods, they also face issues of **food deserts, over-reliance on processed foods, and sedentary lifestyles.**
  - The Economic Survey 2023-24 highlighted that social media, screen time, **sedentary habits, and unhealthy food** are a lethal mix that can undermine public health and productivity and diminish India's economic potential.
- **Policy Implementation-The Gap Between Intent and Impact**: India has numerous nutrition-focused policies and programs, such as the Poshan Abhiyaan (National Nutrition Mission).
  - However, the implementation of these policies often falls short due to **bureaucratic inefficiencies, corruption, and lack of coordination** between different government departments.
  - Poshan Abhiyaan fell short of its goals and one of the main reasons for this is the **underutilization of funds in many cases.**
    - Mid-Day Meal's egg distribution faced challenges due to religious sensitivities, resulting in its rollout.
- **Food Safety and Quality-The Overlooked Dimension:** Food safety issues significantly impact nutritional outcomes in India.

- **Adulteration, contamination, and poor food handling** practices not only pose health risks but also reduce the nutritional value of food.
- A report from the [Food Safety and Standards Authority of India](#) (**FSSAI)** in Karnataka revealed that almost **22% of pani puri samples** sold in the state did not meet quality standards.
- **Food Loss and Waste:** India loses a significant portion of its food production due to inadequate storage, transportation, and processing facilities.
    - The UN estimates that more than 40% of food produced in India is wasted before it reaches the consumer.
    - This not only represents a loss of potential nutrition but also **drives up food prices, making nutritious diets less affordable.**

What Steps have been Taken by the Government of India to Address Nutritional Challenges?

- [Mission Poshan 2.0](#)
- [Integrated Child Development Services (ICDS) Scheme](#)
- [Pradhan Mantri Matru Vandana Yojana (PMMVY](#)
- [Mid-Day Meal Scheme](#)
- [Scheme for Adolescent Girls (SAG)](#)
- [Mother's Absolute Affection (MAA)](#)
- [Poshan Vatikas](#)

What Measures can India Adopt to Bridge the Nutrition Gap?

- **Nutrition-Integrated Social Safety Nets:** Enhance existing social welfare programs by integrating comprehensive nutrition components.
    - For instance, expand the [Public Distribution System (PDS)](#) to include a wider variety of **nutrient-rich foods like pulses, millets, and fortified oils.**
    - Introduce nutrition education sessions as a **prerequisite for receiving benefits under schemes like** [MGNREGA.](#)
    - Implement a **"Nutrition Credit System"** within the PDS, where beneficiaries earn additional points for choosing healthier food options, which can be redeemed for health-related services or products.
- **Targeted Nutrition Coupon Program**: To tackle malnutrition, India could implement a **Targeted Nutrition Coupon Program.**
    - This initiative would provide customized **food coupons to individuals and families identified as malnourished or at high risk.**
    - The coupons would be redeemable for specific nutrient-rich foods at local markets and from farmers, **adapting to seasonal availability.**
    - By providing immediate nutritional support and empowering beneficiaries to make healthier food choices, this approach aims to break the cycle of poverty and malnutrition.
- **Transforming Educational Institutions into Nutrition Hubs**: Revamp the Mid-Day Meal Scheme into a comprehensive "**School Nutrition Program."**
    - This would include not just providing balanced meals but also **establishing school gardens,** integrating nutrition education into the curriculum, and conducting regular health check-ups and nutrition assessments for students.
    - Introduce "**Sports and Nutrition Report Cards" a**longside academic reports to engage parents in their children's physical and nutritional well-being.
- **Nutri-Preneur Program:** Launch a "Nutri-Preneur" program to support and incubate businesses focused on improving nutrition.
    - This could include **start-ups developing innovative fortified food products,** companies creating low-cost nutrition testing kits, or enterprises establishing efficient cold chains for fresh produce.
    - Provide seed funding, mentorship, and market linkages to these nutrition-focused entrepreneurs.

- Create a special "**Nutrition Innovation Fund"** to finance promising projects in this space, potentially through a public-private partnership model.
  - **Behavioral Economics for Nutrition:** Apply behavioral economics principles to nudge people towards healthier food choices.
    - This could include **redesigning food packaging to make nutritional information more prominent and understandable,** placing healthier options at eye level in stores.
    - Collaborate with marketing experts to create compelling public health campaigns that make nutritious eating aspirational.
  - **Integrated Nutrition Surveillance System:** Establish an Integrated Nutrition Surveillance System that collects real-time data on nutritional indicators across the country.
    - This could leverage **existing health infrastructure, Anganwadi centers, and mobile technology for data collection.**
    - Use advanced analytics and machine learning algorithms to predict nutritional trends and potential crisis areas.
    - Implement a "**Nutrition Emergency Response Protocol"** that triggers immediate interventions when certain nutritional thresholds are breached in any region.
    - This system would enable rapid, data-driven responses to evolving nutritional challenges.
  - **Fortification Plus- Enhancing Staple Foods:** Expand and strengthen the national food fortification program.
    - Focus on fortifying staple foods like **rice, wheat flour, and edible oils** with essential micronutrients such as **iron, folic acid, and vitamin A.**
    - This approach leverages existing food distribution channels to improve nutritional intake without significantly altering dietary habits.
  - **Nutri-Smart Agriculture:** Introduce a "Nutri-Smart Agriculture" initiative that incentivizes farmers to cultivate more diverse, nutrient-dense crops.
    - Revamping MSP towards nutritional crops that include **subsidies for growing biofortified varieties, support for crop rotation systems** that improve soil health and nutrient content, and **market linkages for lesser-known but nutritious indigenous crops.**
    - Implement a "**Nutrition Extension Service"** alongside existing agricultural extension services to educate farmers on nutrition-sensitive farming practices.
  - **Community Nutrition Champions**: Establish a nationwide network of **"Community Nutrition Champions"** that can consist of ASHA workers- trained local volunteers who act as **nutrition educators.**
    - They would conduct regular nutrition awareness sessions, cooking demonstrations using **locally available nutritious ingredients,** and provide personalized nutrition counseling.
    - This peer-to-peer approach can effectively overcome cultural barriers and promote sustainable dietary changes at the grassroots level.

Drishti Mains Question:

Discuss the major challenges in achieving nutritional security in India. How can policy interventions be improved to ensure better nutritional outcomes for the population?

UPSC Civil Services Examination, Previous Year Question (PYQ)

Prelims:

Q. Which of the following is/are the indicators/ indicators used by IFPRI to compute the Global Hunger Index Report? (2016)

1. Undernourishment
2. Child stunting
3. Child mortality

Select the correct answer using the code given below:

(a) 1 only

(b) 2 and 3 only

(c) 1, 2 and 3

(d) 1 and 3 only

Ans: C

Mains:

Q. How far do you agree with the view that the focus on lack of availability of food as the main cause of hunger takes the attention away from ineffective human development policies in India? **(2018)**