

# Food Security

February 16, 2021

The world now produces much more food than is required to provide everyone with an adequate diet, yet 840 million people – almost one person in seven – do not have enough to eat. Most of these people live in South Asia and sub-Saharan Africa. That hunger should still be such a massive problem in today's world defies logical explanation.

**In news:** More evidence of India's food insecurity

**Placing it in syllabus:** Economy

**Dimensions**

- Hunger, undernourishment, malnutrition
- Types of food insecurity
- FAO pillars of food security
- Approaches to food security
- Food security act
- Programs and policies (poshan 2.0, one nation one card, computerisation of pds)

## Content:

### Hunger, Undernourishment & Malnutrition

#### **Hunger:**

- Hunger is usually understood as an uncomfortable or painful sensation caused by insufficient food energy consumption.
- Scientifically, hunger is referred to as food deprivation.
- Hunger which is a physiological condition experienced by an individual.
- It becomes chronic when the person does not consume a sufficient amount of calories (dietary energy) on a regular basis to lead a normal, active and healthy

life.

- All hungry people are food insecure, but not all food insecure people are hungry.
- This is because there are other causes of food insecurity, including those due to poor intake of micro-nutrients.

### **Malnutrition:**

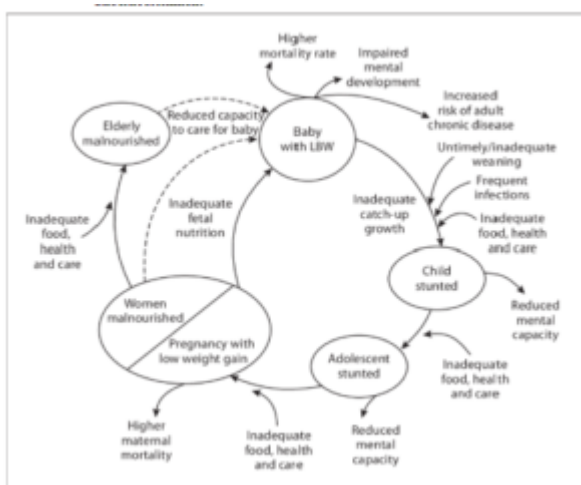
- Malnutrition results from deficiencies, excesses or imbalances in the consumption of macro- and/or micronutrients.
- Malnutrition may be an outcome of food insecurity, or it may relate to non-food factors, such as:
  - inadequate care practices for children,
  - insufficient health services; and
  - an unhealthy environment.
- Malnutrition can refer to undernourishment, overeating, overnutrition or nutrient deficiency

### **Undernourishment :**

- It is a subset of malnutrition that results from undernutrition, and/or poor absorption.
- There is a quantitative aspect of the word undernourishment as it implies that people in a particular place or country do not have access to enough food to eat.
- According to FAO, undernourishment refers to the proportion of the population whose dietary energy consumption is less than a pre-determined threshold.
- This threshold is country specific and is measured in terms of the number of kilocalories required to conduct sedentary or light activities.
- The undernourished are also referred to as suffering from food deprivation.
- Under-nourishment can lead to diseases depending upon which of the important nutrients are lacking in the diet

of the person.

- It can be gauged from the following symptoms:
  - Underweight: An underweight person is a person whose body weight is considered too low to be healthy.
  - Stunting: child short for their age as a result of chronic undernourishment during the most critical periods of growth and development in early life.
  - Wasting: child's weight is too low for their height as a result of acute undernourishment



## Hidden Hunger

- Even if a person consumes enough calories, this does not guarantee adequate intake of essential micronutrients – vitamins, minerals and trace elements.

**Micronutrient malnutrition** – often called “hidden hunger” because it is not readily apparent from clinical signs of a wasted body – afflicts a far greater portion of humanity than insufficient calorie intake.

## Types of food insecurity

- A person is food insecure when they lack regular access to enough safe and nutritious food for normal growth and development and an active and healthy life.
- This may be due to unavailability of food and/or lack of

resources to obtain food. Food insecurity can be experienced at different levels of severity.

- **Food and Agriculture Organisation (FAO)** measures food insecurity **using the Food Insecurity Experience Scale (FIES)**.

**The FIES scale categorises food insecurity under the following:**



### **Severe Food Insecurity:**

- When someone is severely food insecure, they have run out of food and gone a day or more without eating.
- In other words, they have most likely experienced hunger.
- This is manifest in physical symptoms like stunting, arrested growth, muscle wasting etc.

### **Moderate Food Insecurity:**

- For those who are moderately food insecure, access to food is uncertain. They might have to sacrifice other basic needs, just to be able to eat.
- When they do eat, it might be whatever is most readily available or cheapest, which might not be the most nutritious food.
- The rise in obesity and other forms of malnutrition is partly a result of this phenomenon. Highly processed foods that are energy-dense, high in saturated fats, sugars and salt are often cheaper and easier to come by than fresh fruits and vegetables.
- Eating those foods may mean daily requirements of calories are met, but the person is missing essential nutrients to keep the body healthy and functioning well.
- In addition, the stress of living with uncertain access

to food and going periods without food can lead to physiological changes that can contribute to overweight and obesity.

- Children facing hunger, food insecurity and undernutrition today may have a higher risk of overweight, obesity and chronic diseases like diabetes later in life.
- In many countries, undernutrition and obesity coexist and both can be consequences of food insecurity.

### **Mild Food Insecurity**

- A household may worry about running out of food.
- However, there is no compromise on quality and quantity.

On the basis of duration of Food insecurity, Food security analysts have defined following general types of food insecurity:

### **CHRONIC FOOD INSECURITY:**

- It is long-term or persistent.
- Here, people are unable to meet their minimum food requirements over a sustained period of time.
- It is caused by extended periods of poverty, lack of assets and inadequate access to productive or financial resources.
- Solutions: typical long term development measures also used to address poverty, such as education or access to productive resources, such as credit. They may also need more direct access to food to enable them to raise their productive capacity

### **TRANSITORY FOOD INSECURITY**

- It is short-term and temporary.
- There is a sudden drop in the ability to produce or access enough food to maintain a good nutritional status.

- short-term shocks and fluctuations in food availability and food access, including year-to-year variations in domestic food production, food prices and household incomes.
- transitory food insecurity is relatively unpredictable and can emerge suddenly.
- This makes planning and programming more difficult and requires different capacities and types of intervention, including early warning capacity and safety net programmes

### ***SEASONAL FOOD INSECURITY***

- It falls between chronic and transitory food insecurity.
- It is similar to chronic food insecurity as it is usually predictable and follows a sequence of known events.
- However, as seasonal food insecurity is of limited duration it can also be seen as recurrent, transitory food insecurity.
- It occurs when there is a cyclical pattern of inadequate availability and access to food.
- This is associated with seasonal fluctuations in the climate, cropping patterns, work opportunities (labour demand) and disease.

### **FAO Pillars of Food Security:**

Food security exists when all people, at all times, have physical and economic access to sufficient safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life.

### ***Food Security has the following Dimensions:***

#### **Food Availability:**

- It means food production within the country, food

imports and the previous years stock stored in government granaries is sufficient to meet the demands.

- Food availability addresses the “supply side” of food security and is determined by the level of food production, stock levels and net trade.

### **Food Accessibility:**

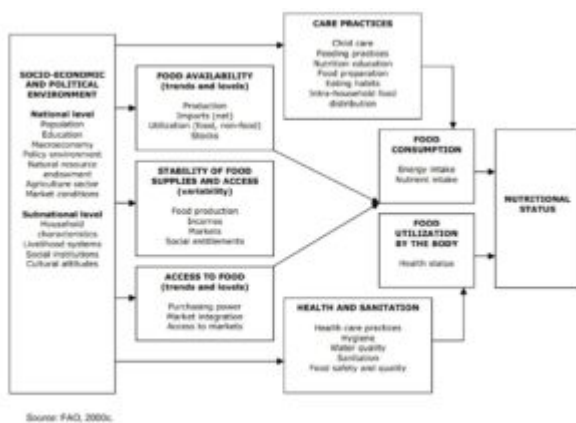
- It means food is within reach of every person. It includes both economic and physical ACCESS to food
- people must be able to regularly acquire adequate quantities of food, through purchase, home production, barter, gifts, borrowing or food aid.
- It implies that an individual has enough money to buy sufficient, safe and nutritious food to meet one’s dietary needs.
- Concerns about insufficient food access have resulted in a greater policy focus on incomes, expenditure, markets and prices in achieving food security objectives.

### **Food Utilization:**

- Utilization is commonly understood as the way the body makes the most of various nutrients in the food.
- Consumed food must have a positive nutritional impact on people.
- It entails cooking, storage and hygiene practices, individuals health, water and sanitation, feeding and sharing practices within the household.
- Sufficient energy and nutrient intake by individuals is the result of good care and feeding practices, food preparation, diversity of the diet and intra-household distribution of food.
- Combined with good biological utilization of food consumed, this determines the nutritional status of individuals.
- This brings out the importance of non-food inputs in food security.

## Food Stability:

- To be food secure, a population, household or individual must have access to adequate food at all times.
- They should not risk losing access to food as a consequence of sudden shocks (e.g. an economic or climatic crisis) or cyclical events (Seasonal food unavailability).
- The concept of stability can therefore refer to both the availability and access dimensions of food security.



## State of Hunger in India:

- According to FAO estimates in 'The State of Food Security and Nutrition in the World, 2020 report, 189.2 million people are undernourished in India.
- By this measure 14% of the population is undernourished in India.
- Also, 51.4% of women in reproductive age between 15 to 49 years are anaemic. Further according to the report 34.7% of the children aged under five in India are stunted (too short for their age), while 20% suffer from wasting, meaning their weight is too low for their height.
- Malnourished children have a higher risk of death from common childhood illnesses such as diarrhea, pneumonia, and malaria.
- The Global Hunger Index 2019 ranks India at 102 out of 117 countries on the basis of three leading indicators –



prevalence of wasting and stunting in children under 5 years, under 5 child mortality rate, and the proportion of undernourished in the population.

## **Approaches to Food Security**

### ***United Nations MDG***

- The UN Millennium Development Goals are one of the initiatives aimed at achieving food security in the world. The first Millennium Development Goal states that the UN “is to eradicate extreme hunger and poverty” by 2015.
- It advocates for a multidimensional approach to food security challenges.
- This approach emphasizes the physical availability of food; the social, economic and physical access people have to food; and the nutrition, safety and cultural appropriateness or adequacy of food.

### **FAO**

The FAO has proposed a “twin track” approach to fight food insecurity that combines sustainable development and short-term hunger relief.

#### ***Approach 1: Sustainable Agricultural Growth***

- They include investing in rural markets and rural infrastructure.
- In general, the FAO proposes the use of public policies and programs that promote long-term economic growth that will benefit the poor.

#### ***Approach 2: Targeted programmes***

- To obtain short-term food security, vouchers for seeds, fertilizer, or access to services could promote agricultural production.

- The use of conditional or unconditional food or cash transfers was another approach the FAO noted.
- Conditional transfers could include school feeding programs, while unconditional transfers could include general food distribution, emergency food aid or cash transfers.
- Another is the use of subsidies as safety nets to increase the purchasing power of households.

The FAO stated that “approaches should be human rights-based, target the poor, promote gender equality, enhance long-term resilience and allow sustainable graduation out of poverty.

### **The World Food Programme (WFP)**

- It is an agency of the United Nations that uses food aid to promote food security and eradicate hunger and poverty.
- In particular, the WFP provides food aid to refugees and to others experiencing food emergencies.
- It also seeks to improve nutrition and quality of life to the most vulnerable populations and promote self-reliance.

### **National Food Security Act:**

- The enactment of the National Food Security Act, (NFSA) 2013 on July 5, 2013 marks a paradigm shift in the approach to food security from welfare to rights based approach.
- It is being implemented in all the States/ UTs, on an all India basis.
- The Act legally entitled upto 75% of the rural population and 50% of the urban population to receive subsidized food grains under Targeted Public Distribution System.
- About two thirds of the population therefore is covered under the Act to receive highly subsidised food grains.

- Food grains under NFSA were to be made available at subsidized prices of Rs. 3/2/1 per kg for rice, wheat and coarse grains respectively for an initial period of three years from the date of commencement of the Act (July 13, 2013).
- Thereafter, prices were to be fixed by the Central Government from time to time, but not exceeding MSP.
- The identification of beneficiaries by States/ UTs is a continuous process, which involves exclusion of ineligible/ fake/ duplicate ration cards and also exclusion on account of death and migration and inclusion on account of birth as also that of genuine left-out households.

## Programs and Policies in India

### **Mission POSHAN 2.0**

- In order to strengthen nutritional content, delivery, outreach, and outcome, the Union Budget has proposed merger of the Supplementary Nutrition Programme and the Poshan Abhiyan. These will form the umbrella of Mission Poshan 2.0.
- An intensified strategy to improve nutritional outcomes across 112 Aspirational Districts has been proposed under the recent Union Budget.
- For alleviation of malnutrition, the Government has announced Mission Poshan 2.0 to strengthen nutritional content, delivery, outreach and outcomes with focus on developing practices that nurture health, wellness and immunity to disease and malnutrition.
- Saksham Anganwadi and POSHAN 2.0 will cover the Integrated Child Development Services (ICDS) Scheme – Anganwadi services; national nutrition mission or POSHAN Abhiyaan; scheme for adolescent girls; national crèche scheme.

### **One Nation One Ration Card (ONORC)**

- ONORC is an ambitious plan and endeavour of the D/o Food & Public Distribution, Government of India to introduce the nation-wide portability of ration cards under the National Food Security Act, 2013 (NFSA).
- The Union Government launched the 'One Nation, One Ration Card' scheme on a pilot basis in four states in 2019.
- Under the existing system, a ration cardholder can buy food grains only from the PDS in the locality where he or she lives.
- The new ONORC system, based on a technological solution, will identify a beneficiary through biometric authentication on electronic Point of Sale (ePoS) devices installed at the FPSs, and enable that person to purchase the quantity of foodgrains to which she is entitled under the NFSA
- This scheme aims to ensure all beneficiaries, especially migrants get ration (wheat, rice and other food grains/NFSA food grains/benefits ) across the nation **from any Public Distribution System (PDS) shop of their own choice**
- Presently, this system is seamlessly enabled in 32 States/UTs, covering about 69 Crore beneficiaries (86% NFSA population) in these States/UTs.
- Any citizen, who is declared under Below Poverty Line (BPL) category will be eligible to get the benefit of this scheme across the country.

### ***End-to-End Computerization of TPDS Operations' scheme***

- As part of efforts being made to bring in reforms in the Public Distribution System and to improve the distribution of foodgrains across the country, the Department of Food and Public Distribution, in association with all States & UTs, is implementing a Plan Scheme on "End-to-end Computerisation of Targeted Public Distribution System (TPDS) Operations".

- It is being implemented to improve the efficiency and transparency in Public Distribution System (PDS) operations.
- The scheme comprises digitization of ration cards/beneficiary and other databases, online allocation, computerization of supply-chain management, setting up of transparency portal and grievance redressal mechanisms.
- The Scheme has been declared as a Mission Mode Project (MMP) by the Government. National Informatics Centre (NIC) is the Technical Partner under the scheme.

**Mould your thought:** What is Food Security? Discuss the pillars of Food Security. Also comment on the status of malnourishment in India. ***Approach to the answer:***

- Introduction
- Define Food Security
- Briefly discuss 4 pillars of Food Security
- Mention the level of malnourishment in India
- Discuss the policy & programmes of GoI
- Conclusion