FOOD & NUTRITIONAL SECURITY IN INDIA

Presented by

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"FOOD & NUTRITION SECURITY"
at AP HRDI, Bapatla
Food security means
• availability
• accessibility and
• affordability

of food to all people at all times

Food Security also means
• that the people who produce our food are able to earn a decent, living wage
growing, catching, producing, processing, transporting, retailing, and serving food
Food Insecurity can mean:

- Running out of food and not being able to buy more;

- Fear of running out of food causes anxiety and stress;

- Insufficient, low quality or unreliable food intake; Hunger when extreme
Food Security is ensured in a country only if

• Enough food is available for all the persons

• All persons have the capacity to buy food of acceptable quality and

• There is no barrier on access to food
Food security is FOR the

• The poorest section of the society might be food insecure

• The poverty line might also be food insecure when the country faces a national disaster/calamity like earthquake, drought, flood, tsunami, widespread failure of crops causing famine, etc.
How is food security affected during a calamity?

1. Calamity occurs
2. Total production of food grains decreases
3. Shortage of food in the affected areas
4. Prices increase
5. Some cannot afford to buy food

FOOD INSECURITY
A **Famine** is characterized by

a) wide spread deaths due to starvation and
b) epidemics caused by forced use of contaminated water or decaying food and loss of body resistance due to weakening from starvation.
The most devastating famine that occurred in India was the **FAMINE OF BENGAL** in 1943.

This famine killed **thirty lakh** people in the province of Bengal.

Even today, there are places like **Kalahandi and Kashipur in Orissa** where famine-like conditions have been existing for many years.

Starvation deaths are also reported in **Baran district of Rajasthan, Palamau district of Jharkhand**
Starvation

If such calamity happens in a very wide spread area or is stretched over a longer time period, it may cause a situation of starvation
Hunger

• Chronic hunger is a consequence of diets persistently inadequate in terms of quantity and/or Economics quality.

• Seasonal hunger is related to cycles of food rowing and harvesting.
Food Security Map of India

Source: (MSRF)
The distance between the child and the father is HUNGER.
Food Security Crisis

State of health

Government spending on health

10% of GDP

U.S.

Brazil

Russia

China

India

1995 2000 2005 2010

Global Hunger Index score

40

30

20

10


India 67th

China 4th

Brazil 1

Russia 1

Child malnutrition

Stunting (low height for age)

60%

50%

40%

30%

20%

10%

0%

Best rural districts

Best-focus districts

100 focus districts

Gaya Bihar

Chhattisgarh

Dhamnod Jharkhnd

Underweight (low weight for age)

Wasting (low weight for height)

60%

50%

40%

30%

20%

10%

0%

Best rural districts

Best-focus districts

100 focus districts

Gaya Bihar

Chhattisgarh

Dhamnod Jharkhnd

Severe or moderate

Severe

1. Countries with 2011 score of less than five are not included in the ranking; 2. Children under age 5; 3. Districts and states identified by UNICEF in 2009 as worst in child development; 4. Top-performing districts in Himachal Pradesh, Kerala, and Tamil Nadu

Sources: World Health Organization (spending); International Food Policy Research Institute (index); Naandi Foundation HUNCaMa Survey Report 2011 (malnutrition by district)
The Wall Street Journal
SHARE OF UNDERWEIGHT CHILDREN UNDER FIVE YEARS OF AGE

Other developing countries 43%
India 42%
Bangladesh 5%
Pakistan 5%
Nigeria 5%

NUTRITION SECURITY

Nutrition Security implies physical, economic and social access to balanced diet, clean drinking water, safe environment, and health care (preventive and curative) for every individual.
Food and nutrition security aims at
• higher food production,
• nutrition education for women and young people and
• capacity building to strengthen national and decentralized institutions.
Food-insecure groups

The food - insecure groups are those working members who are generally employed in ill-paid occupations and casual labour market.

- landless people with little or no land to depend upon,
- traditional artisans, providers of traditional services,
- petty self employed
- workers and destitutes including beggars, In the urban areas,
- The social composition
- The people affected by natural disasters, who have to migrate to other areas in search of work,
- malnutrition prevails among women.
Economically backward states with high incidence of poverty:

Uttar Pradesh (eastern and south-eastern parts), Bihar, Jharkhand, Orissa, West Bengal, Chattisgarh, Parts of Madhya Pradesh and Maharashtra account for largest number of food insecure people in the country.
Role of cooperatives in food security

• The cooperative societies set up shops to sell low priced goods to poor people.

• Tamil Nadu, around 94 per cent are being run by the cooperatives.

• In Delhi, Mother Dairy is making strides in provision of milk and vegetables

• Amul is another success story of cooperatives in milk and milk products from Gujarat.

• In Maharashtra, Academy of Development Science (ADS)
Sustainable Food Systems
A healthy, sustainable food system is one that focuses on Environmental Health, Economic Vitality, and Human Health & Social Equity.

**Environmental Health** – ensures that food production and procurement do not compromise the land, air, or water now or for future generations.

**Economic Vitality** – ensures that the people who are producing our food are able to earn a decent living wage doing so. This ensures that producers can continue to produce our food.

**Human Health & Social Equity** – ensures that particular importance is placed on community development and the health of the community, making sure that healthy foods are available economically and physically to the community and that people are able to access these foods in a dignified manner.
Dimensions of food security

They are 3

1) Food availability:
   Total food production in the country
   +
   the imported food
   +
   buffer stocks maintained in govt. granaries like FCI in previous years
What is Buffer stock?

• Buffer Stock is the stock of food grains, namely wheat and rice procured by the government through Food Corporation of India (FCI).

• Minimum Support Price.

• To distribute food grains in the deficit areas and among the poorer strata of society at a price lower than the market price also known as Issue Price.
Public Distribution System

• The food procured by the FCI is distributed through government regulated ration shops among the poorer section of the society. This is called the public distribution system (PDS).

• 4.6 lakh ration shops all over the country.

• Ration shops also known as Fair Price Shops

• The introduction of Rationing in India dates back to the 1940s against the backdrop of the Bengal famine.
2) Food accessibility:

Food should be within the reach of every person.

3) Food affordability:

An individual should have enough money to buy proper, safe and nutritious food to meet his dietary needs.
The **poorest section** of the society might be **food insecure most of the times** while persons **Above the Poverty Line (APL)** might also be **food insecure** when the country faces:

a) Earthquake  
b) Drought  
c) Tsunami  
d) Flood  
e) Famine
India has the largest food schemes in the World

- **Entitlement Feeding Programmes**
  - ICDS (All Children under six, Pregnant and lactating mother)
  - MDMS (All Primary School children)

- **Food Subsidy Programmes**
  - Targeted Public Distribution System (35 kgs / month of subsidised food grains)
  - Annapurna (10 kgs of free food grain for destitute poor)
India has the largest food schemes in the World

- **Employment Programmes**
  - National Rural Employment Scheme (100 days of employment at minimum wages)

- **Social Safety Net Programmes**
  - National Old Age Pension Scheme (Monthly pension to BPL)
  - National Family Benefit Scheme (Compensation in case of death of bread winner to BPL families)
Policies and Programmes Taken For Food Security

1. National Food for Work Programme (NFFWP)
2. Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA)
3. Antyodaya Anna Yojana (AAY)
4. Village Grain Banks Scheme
5. Integrated Child Development Scheme (ICDS)
10. National Food Security Mission - Pulses (NFSM Pulses)
11. Rashtriya Krishi Vikas Yojana (RKVY)
12. Public Distribution System (PDS)
13. Mid Day Meal Scheme (MDM)
14. Targeted Public Distribution System (TPDS)
15. Sampoorna Grameen Rozgar Yojana (SGRY) etc.
Present Scenario of Food Security in India

✓ India is home to more than 230 million undernourished people - 21% population [FAO Report, 2018]

✓ About 1/2 of the population suffers from chronic under-nutrition especially Children, Women & Elderly (lower income groups)

✓ The rise in food prices between 2005 and 2007 increased poverty by 3% on an average. Extrapolating these results globally suggest that as a result of the rise in food prices, total world poverty may have increased by 73-105 million people [A study by World Bank -2008 in 8 countries]

✓ The **rising prices** have increased **41 million hungry in Asia** and **24 million hungry in Sub-Saharan Africa**

✓ Among the farmers, 84% are marginal and small farmers operating not more than 2 hectares of land
Major Issues in Achieving Food Security in India

1. Price Rise Issue

✓ Presently the inflation in food articles (more than 10%) is higher than the general inflation (below 6%)
✓ 2010 was volatile for food and agriculture sector in-terms of high prices of essential commodities
✓ World food prices in 2010 has reached to the highest level during the last 20 years
✓ Continued volatility in prices harms poor & undermines the food security and livelihood of most vulnerable
✓ Poor people spend 60-70% of their income on food
✓ Rising food, commodity and oil prices have increased the general inflation and thus affects morbidity, morality, cognitive abilities and growth
✓ Rising food prices affect social protection programmes and MDM
Price Rise Issue

✓ Financial crisis and Food Security: Underlying causes for the rise in food prices and financial crisis are different but they are interconnected through their implications on financial stability, food security and political security (Braun, 2008)

✓ Global impact is **high in case of oilseeds and edible oils** than food grains and food articles

✓ Adverse impact on food and nutritional security of India

✓ **Undermines** the poverty reduction efforts and gains over the last several years
Reasons:
i. Rise in Oil prices
ii. Gap between supply and demand
iii. Changes in demand due to bio-fuels
iv. Export restrictions of developing countries
v. Other: like market distortions by hoarding and high profit margins by traders and commission agents, Exports, Intermediary taxations, Restrictions on movements of goods due to lack of implementation of laws by state governments, Improper storage Facilities
2. Production and Agrarian Issues

✓ Decreasing Trend in GDP of Agricultural Sector (Central Statistics Office - advance Estimates 2010-11)
  
  15.7% - 2008-09
  4.2% - 2010-11

✓ Rice and wheat are the two essential food articles on which food security depends most

✓ In 2009-10:
  
  Cereals : 15% in total food grain production
  Wheat & Rice: 78% in total food grain production

✓ Decrease in the production of rice and wheat from 3% during the 1980s to only 1.59% and 1.89% respectively during 2000-01 to 2009-10

✓ The per capita availability of milk in India is 263 gram/day which is much lower than that in developed countries [2009-10]
Production and Agrarian Issues:

- **Farmers suicides** have continued/increased in some states
- **Limited exposure of domestic agriculture** to international competition
- **Steeper decline** in per capita land availability (shrinking of farm size)
- Farming is becoming a **non-viable activity** & scope for increase in net-sown areas is limited
- Increase in **Land degradation** in the form of depletion of soil fertility, erosion and water logging
- Decrease in the **surface irrigation expansion rate & in ground water table**
- **Disparities in productivity** across regions and crops, between rainfed and irrigated areas
3. Consumption Issues:

- Percentage of population consuming less than 1890 calorie per day as food insecure [Report on the State of Food Insecurity in Rural India, 2008 by World Food programme (WFP) and MS Swaminathan Research Foundation]

- Nutrition among children, women very poor
- The **World Food Programme (WFP)** estimates:
  - 50% of World’s hungry live in India
  - 1/3rd of the New Borne still weigh less than 2.5 kg at birth
  - Nearly 9 out of 10 pregnant women are malnourished and anemic

  The anemia in pregnant women causes 20% of infant mortality

- Due to low income, the rural poor people are unable to consume the adequate amount of cereals
- Meat, fish, egg, fruits and vegetables etc. are more expensive source of energy which the rural poor people are unable to afford
- The **adequate income earners** also suffers malnutrition due to lack of awareness about nutritious food and feeding practices
4. Distribution Issues:

- The PDS provides essential consumer goods at a cheap and subsidized prices to the consumer
- For targeting better the BPL people, the TPDS divides the entire population into BPL and APL categories
- The distribution of food grains (mainly wheat & rice) is governed by:
  - The scale of allocation and its off-take by the beneficiaries
  - The off-take of food-grain (TPDS and Welfare Schemes of the GOI) has gone up

- Per-capita Availability of Food Grains has decreased (Directorate of Economics and Statistics, Department of Agriculture and Corporation)
- The government has been increasing the food subsidy in the last few years
Central Government

- Procurement
- Storage
- Transportation
- Bulk Allocation

Distribution
(Done by State Government)

Fair Price Shops
(Ration Shops)

Consumer
5. Climate Change

✓ Climate Change is the major threat to Indian agriculture

✓ The **Global warming** leads to **unfavorable temperature**

✓ **1 degree Celsius rise in temperature** reduces the production of wheat and rice and may create **Vector born diseases to crops**

✓ This may lead to:
  - lower fertility
  - untimely rainfall &
  - low productivity
6. Other Issues:

✓ Food Wastage: Spending huge money in marriage ceremony and other functions (about 15%)

✓ No proper storage/ warehousing facilities available
Suggestions for Achieving Food Security

✓ **Dual measure** should be taken. One is to contain **rise in prices** and the other is to **mitigate the adverse affect** on the poor where by **increasing the purchasing power**

✓ There should be **agricultural development** and increase in agricultural productivity which would benefit the poor in terms of wages and employment

✓ To tackle the problem of food security a comprehensive and **coordinated national effort** is required
In view of increasing demand in future there is need to raise level of production of oilseeds through **cost reducing technological change**, while research and development efforts need special emphasis (Chand, Jha and Mittal, 2004)

The gap in **supply and demand for pulses, edible oil and sugar** is expected to be **negative in future**. This implies that in the years to come, the country will have to **rely on imports** of these food items to meet the domestic requirement. Thus, we need to have necessary policy initiatives to increase the supply in future

**Greater public investment in research, expansion and development of rural infrastructure** including roads, storage capacity and organized markets, improved farmer education, effective involvement of the private sector to provide technology, investment and organizational expertise for commercialization and modification of land regulations to achieve greater production efficiency
✓ The **investment and development in agro-based industry**, poultry farming, horticultural development etc. should be increased

✓ **Nutrition Education and awareness** should be strongly promoted among common man

✓ All policies and programmes cannot address the problem of food security but in the long run, the solution is to ensure employment opportunities for all citizens (job-seekers) so that they acquire the purchasing power to meet their nutritional requirements

✓ Thus, employment or livelihood security becomes an essential and inseparable component of a comprehensive strategy for national food security
At the core of food security is access to healthy food and optimal nutrition for all.

Food access is closely linked to food supply, so food security is dependent on a healthy and sustainable food system.

The food system includes the production, processing, distribution, marketing, acquisition and consumption of food.
Thank You