Overview of Food Security

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Food security is a multi-dimensional concept. Agricultural production, trade, income, food quality, and clean water and sanitation are all factors influencing one’s food security status.

How would you define food security?
Why food security

Global trends

✓ Enough food is produced and yet 815million go hungry
✓ Global population is project to increase to 10billion, an addition of 2billion.
✓ To feed another 2 billion by 2050, food production need to increase by 50% globally.
✓ Natural resources upon which food production takes place remain the same or evening reducing.
✓ Global warming/climate change/rising sea levels.
✓ Natural phenomena (droughts, floods, typhoons, epidemics) and manmade crisis.
Evolution of definitions

✓ “Ability at all times to provide the world with basic resources to support the growth of food consumption, while controlling the fluctuations and prices” WFS definition (1970s).

✓ “To ensure access to food, both materially and economically, for each individual all the time and for all needs of food” FAO definition (1980s).

✓ “Achieve when every person, at all times, has the physical and economic access to adequate, healthy and nutritious food to meet energy needs and satisfy Food choices to ensure a healthy and active life.” WFS consensual definition (1990s)

✓ “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” FAO 1996 definition which brings in dimensions (availability, access, utilization and stability)
Food security definition/concepts

- Link of the concept to two dimensions: **Peace**, **stability** and **good governance** (2000s):
  - (a) Conditions became basis for combating poverty, desertification and malnutrition.
  - (b) Global solidarity: which has become a necessary option to curb the overpricing, especially prices of basic foodstuffs

- The Arab Organization for Agricultural Development: confirmed the availability and the appropriate price.

- The World Health Organization: Emphasizes the reliability, health and suitability of food.

- Procedural definition of food security: "The possibility of all members of society at all **times** to obtain the adequate food required by their activity and health."
The ‘Four Dimensions’ of FS

Availability
Access
Utilization
Stability
The physical presence of food in a particular area and household:

- the “production side” of food security, determined by the level of food production, stock levels, imports and net trade (including food aid)
- It is supported by storage and mobilization capacity
- Availability of food is important at community and household level
- However, according to a different view, availability is not analyzed at household level and food aid is not a response to a problem of availability, but to a problem of access
Access Dimension

✓ The ability of a households to obtain food they needs through adequate resources (entitlements):
  – Access can be through various means own production, purchases, barter, gifts, borrowing, food aid
  – It is influenced by policies, institutions and processes (enabling environments)
  – Dependent on households livelihood assets and strategies
  – Influenced by marketing infrastructures and distribution networks
  – Purchasing powers and affordability key
  – Influenced also by factors such as ethnicity and gender.
Utilization Dimension

✓ Utilization in its most common definition refers to how food is physically used.
  – Physical utilization includes what is eaten, its quality and health risk, how food is stored and prepared for consumption, and how the food is allocated within the household.
  – Individual utilization – i.e. rates of absorption of nutrients – which is largely affected by biological conditions such as diseases, is not measured or understood at HH level and thus is not included (it is included when analyzing if malnutrition rates are due to FS or disease in the coming malnutrition framework).
Stability Dimension

✓ Refers to the temporal dimension of food security, that is the time frame over which food security is being considered. Stability includes inter-annual and intra-annual (seasonal) temporal units.

✓ The importance of having to reduce the risk of adverse effects on the 3 other dimensions
Dimensions summary

**Availability**
- Ensured when there is a reliable supply of food of sufficient quantity and quality.
- Dependant on:
  - Domestic production
  - Food stocks
  - Imports
  - Food aid

**Access**
- Ensured when individuals & households have adequate resources to obtain appropriate food.
- Dependant on:
  - Political, economic, social factors
  - Equitable distribution
  - Markets / infrastructure
  - Affordability
  - Purchasing power

**Stability**
- Ensured when there is permanent and durable access to food.
- Dependant on:
  - Maintenance of all three pillars over time
  - No risk of loss of supply due to economic, political or environmental factors

**Utilisation**
- Ensured when food is nutritious and can be adequately metabolised and used by the body.
- Dependant on:
  - Food safety
  - Food quality
  - Nutritional knowledge
  - Proper preparation
  - Clean water / sanitation / healthcare

**Food security**

"Exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life."

(FAO, 1996)
Dimensions summary cont’d

Food Security

- Nutritional quality of food?
- Enough supply?
- Is there a market nearby?
- Can you afford it?
- Culturally appropriate
- Transport access?
- Pre existing health status and needs?
- Food storage?
- Stability
- Accessibility
- Hygiene and sanitation?
- Cooking fuel and facilities?
- Do you have a job providing enough income?
- All these factors over time
The ANALYTICAL FRAMEWORK(s)

The Risk, Hazard & Vulnerability Framework
Risk = f Hazard, Vulnerability

The Sustainable Livelihood Framework

The '4 Dimensions' of Food Security

The malnutrition conceptual framework

Food Security indicators
Food Security indicators

Food Security Analytical Framework

Food Security Contributing Factors

Causal Factors

Vulnerability: (Exposure, Susceptibility, and Resilience) to specific hazards events or ongoing conditions.
- Livelihood Strategies (food & income sources, coping, & expenditures)
- Livelihood Assets (human, financial, social, physical, & natural)
- Policies, Institutions, and Processes

Acute Events or Ongoing Conditions (natural, socio-economic, conflict, disease and others)

Non Food Security Specific Contributing Factors:
- Disease
- Water/Sanitation
- Health Social Services
- others....

Food Security Dimensions

Availability
- Production
- Wild Foods
- Food Reserves
- Markets
- Transportation

Access
- Physical Access
- Financial Access
- Social Access

Utilization
- Food Preferences
- Food Preparation
- Feeding Practices
- Food Storage
- Food Safety
- Water Access

Stability (at all times)

Food Security Outcomes

1st Outcomes
- Food Consumption
  - Quantity & Nutritional Quality
- Livelihood Change
  - Assets & Strategies

2nd Outcomes
- Nutritional Status
- Mortality

Feedback

Food Security Outcomes (directly measured or inferred from contributing factors)
Outcome Indicators

✓ **Availability indicators**
  - Changes in production compared to previous year’s harvest by commodity
  - % of households by duration of staple food stocks
  - Change in availability of key commodities in the market
  - % of households unable to plant crops in the next season
  - Changes in herd sizes
  - Number of reported disease livestock outbreaks
  - % of households with suitable daily water and fodder consumption for livestock
Outcome Indicators cont’d

✓ Access indicators

- Change in Food Consumption patterns (FCS & HDDS).
- Change in Food Sources-(food production, purchase, borrowed, gifts, barter, food aid)
- % change in food and nonfood commodity prices
- Change in the type and frequency of coping strategies used (rCSI).
- Change in main sources of income
- Change in ability to meet survival and livelihood protection thresholds (measured HEA)
- Change in expenditure patterns
- Changes in household ownership of productive assets
- Changes in access to functioning markets
✓ Utilization indicators
  ✓ % of individuals having daily access to appropriate amount of safe water
  ✓ % of households with capacity to prepare food safely
  ✓ % of households that have changes intra-household food distribution
Means to achieve Food security

- Adopting appropriate agricultural and technological policies and practices that lead to effective and sustainable use of land and water resources and ensure their renewal.
- Increasing agricultural production and productivity, especially irrigated and rainfed crops, especially cereals, in order to achieve self-sufficiency and food.
- Integration of agricultural production (plant and animal) in order to secure all food needs (protein - energy - sugar ...).
- Rationalize the use of natural resources, especially water, by increasing the efficiency of irrigation water and the use of non-conventional water in agriculture.
- Encouraging increased reliance on renewable energies (wind, water, solar, biogas, etc.).
Means to achieve Food security

✓ Reduce the loss of agricultural production through the development of post-harvest transactions.
✓ Adopting mitigation and adaptation strategies to address climate change and drought and reduce their impact on agricultural production and the availability of food commodities.
✓ Facilitate and activate trade exchange, especially agricultural products with neighboring countries.
✓ Increasing interest in marketing and ensuring smooth, fair and secure access to food commodities.
Thank you