

# HNFS program

Debre Markos University

# Food and Nutrition Security (FNS)

HNFS2102

# Course Instructors

Belete Y. & Emebet L.

# Objectives

- At the end of the course, learners will be able to:
  - Define food and nutrition security
  - Understand the different components of the conceptual framework for food and nutrition security
  - Describe indicators for the measurement of food security at different levels
  - Describe the interventions done to improve food and nutrition security at different levels
  - Understand food security and nutrition in emergency

# content

- The course covers
  - Evolution of FNS concerns
  - Conceptual framework of FNS
  - Rationale for investing on FNS
  - State of food (in)security
  - Assessing food and nutrition situations
  - Nutrition strategy framework of Ethiopia
  - Food security and nutrition in emergency

# Introduction

- Enhancing FNS and reducing undernutrition have been pledged since 1948 through the Universal Declaration of Human Rights.

# Development of FNS concepts & definitions

- Over the last three decades, several conceptual frameworks have been developed to define food security and nutrition and their nexus.
- Evolutions of definitions and paradigms can be summarized as follows:
  - Food security
  - Nutrition security
  - Food Security and Nutrition
  - Food and Nutrition Security

# Food security

- The concept and definition of food security have changed since the first introduction of the concept in the early 1940s
  - The current terminology in use, as adopted from the 1996 World Food Summit , emphasizes the multidimensionality of food security:
    - *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 2000.



# Food security 2

- This definition has widely established the four pillars of food security:
  - availability
  - accessibility
  - utilization
  - stability

# Food Security Dimensions (WFS, 1996)

Four food security dimensions – and nutrition linkage

## availability

- domestic production
- import capacity
- food stocks
- food aid

## access

- Poverty/  
purchasing power
- transport and market infrastructure
- food distribution

## stability

- weather variability
- price fluctuations
- political factors
- economic factors

## utilization

- food safety & quality
- clean water
- health & sanitation
- care and feeding

Source: FAO

# Nutrition security

- The term of nutrition security emerged with the recognition of the necessity to include nutritional aspects into food security.
- Recently, FAO has defined nutrition security as:
  - *a condition when all people at all times consume food of sufficient quantity and quality in terms of variety, diversity, nutrient content and safety to meet their dietary needs and food preferences for an active and healthy life, coupled with a sanitary environment, adequate health and care*
  - CFS 2012.

# Nutrition security

- the 3 pillars of nutrition security
  - food
  - care
  - health

# Evolution of underlying concepts

## Food Security

- Evolved over time from 'freedom from hunger' in the early 1940s into broad concept encompassing ...
- the 4 dimensions:
  - Availability of food
  - Access to food
  - Utilization
  - Stability

## Nutrition Security

- Evolved over time from 'Multi-sectoral nutrition planning' approach in the 1970s and UNICEF conceptual framework
- with the 3 determinants:
  - Access to adequate food
  - Care and feeding practices
  - Sanitation and health

# 'Food and Nutrition Security'

- **Has become into increasingly wide-spread use**
- **Is integrated way to combine both concepts linguistically and conceptually**
- **Expresses a single integrated development goal**
- **Emphasizing to achieve both**  
**food security and nutrition security**

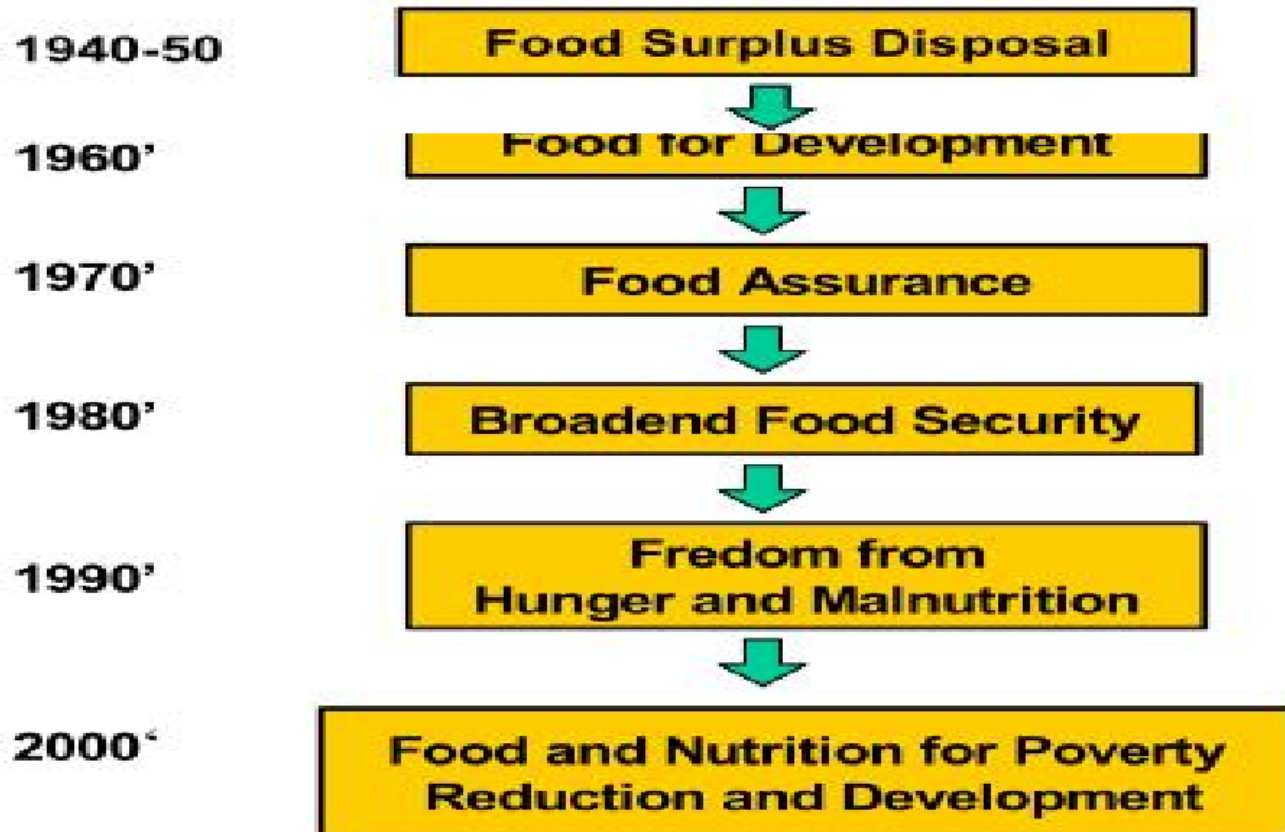
Food production	Biological approach
Food systems	Sociological aspects
Socio-economic aspects	Health and sanitation concerns
- **Encourages better integration of actions**
- **Greatly facilitates communications, decisions and actions that support the eradication of hunger and malnutrition.**

# Proposed definition

## 'Food and Nutrition Security'

“Food and nutrition security exists when all people at all times have physical, social and economic access to food, which is consumed in sufficient quantity and quality to meet their dietary needs and food preferences, and is supported by an environment of adequate sanitation, health services and care, allowing for a healthy and active life.”

# Evolution





# 1940-50

- “Secure, adequate and suitable supply of food for everyone” concept
- Following the Hot spring conference of food and Agriculture
- International agencies dispose of their agricultural surplus commodities overseas

# 1960's

- Food aid believed to hinder development of self-sufficiency, the concept of food for development was introduced and institutionalized
- WFP created in 1963

# 1970's

- Food crises in 1972/74 was a turning point
- Marked by unstable food supply and prices worldwide
- Food security insurance scheme developed - assured international access to food supply
- Coordination of donors and food availability surveillance established in recipient countries

# 1980's

- Follows success of the green revolution
- There was a large increase in food/crop production in developing countries achieved by the use of artificial fertilizers, pesticides, and high-yield crop varieties
- Food security was broadened to include both physical and economical access to food supply
- Poverty alleviation and the role of women in development was promoted.

# 1990's

- Concrete plans were defined to eradicate or at least reduce hunger and malnutrition drastically
- The human right to adequate food and nutrition was internationally reaffirmed and committed
- Reduced international public support of donor agencies decreased food aid to crisis management and prevention

# 2000's

- Decreasing hunger and malnutrition started to be seen with development, poverty reduction and the achievement of the Millennium

# Conceptual frameworks for FNS

- The UNICEF framework laid the foundations for later framework on FNS
  - UNICEF recognizes three levels of determinants of undernutrition:
    - immediate causes
    - underlying causes
    - root or structural causes
- UNICEF, 1998.

Figure 1. A Conceptual Framework of Undernutrition (Black et al. 2008)

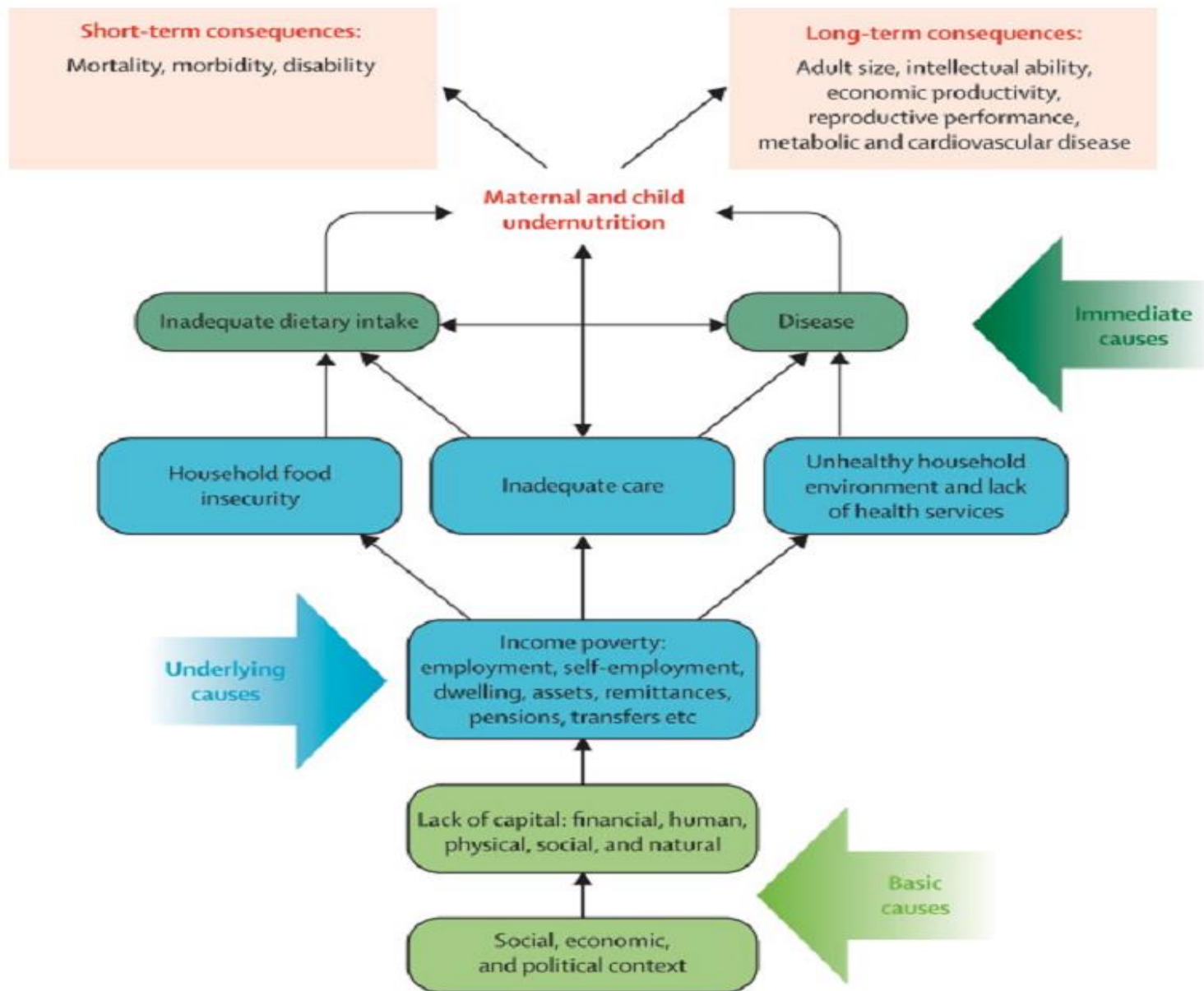
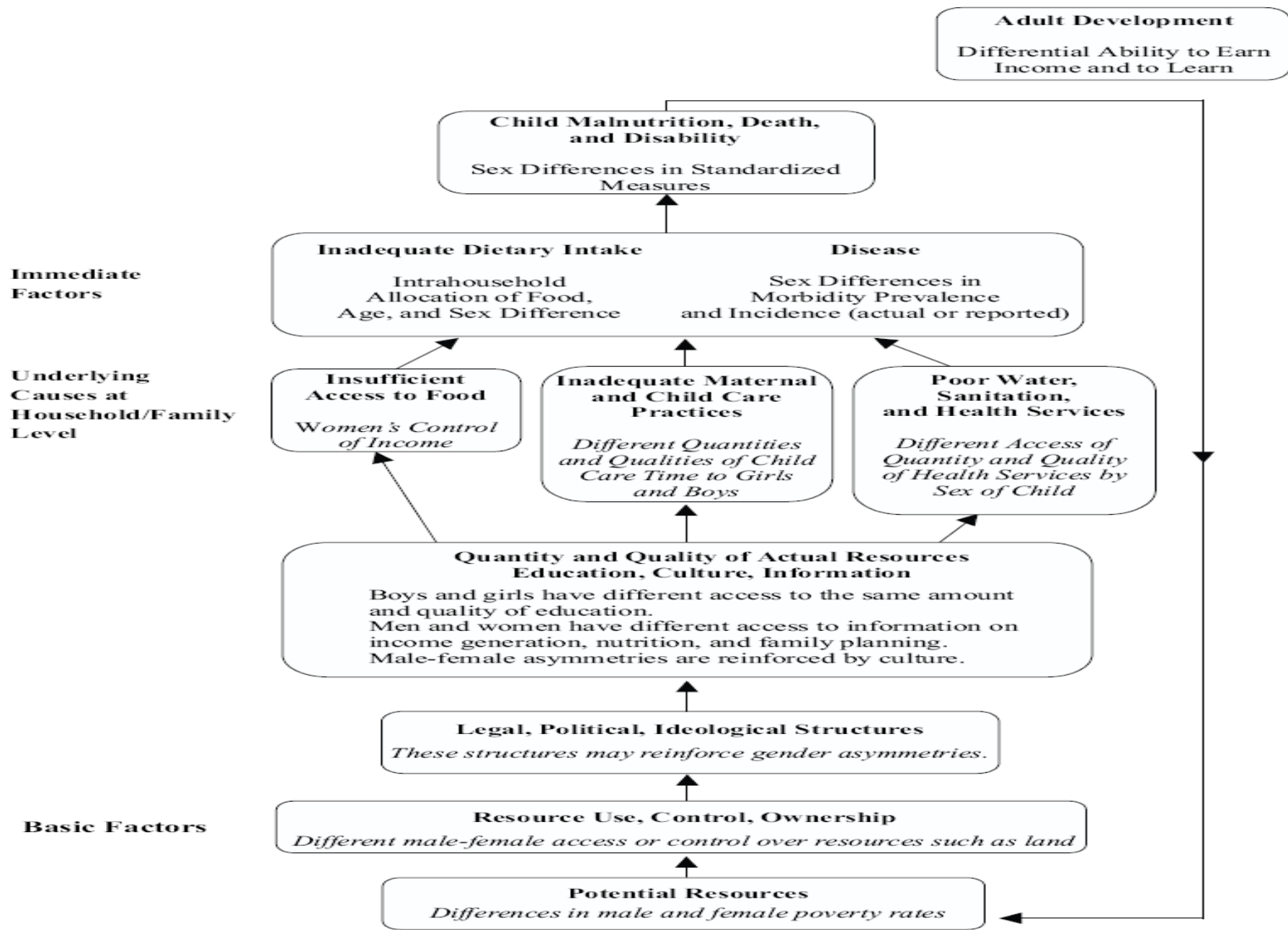
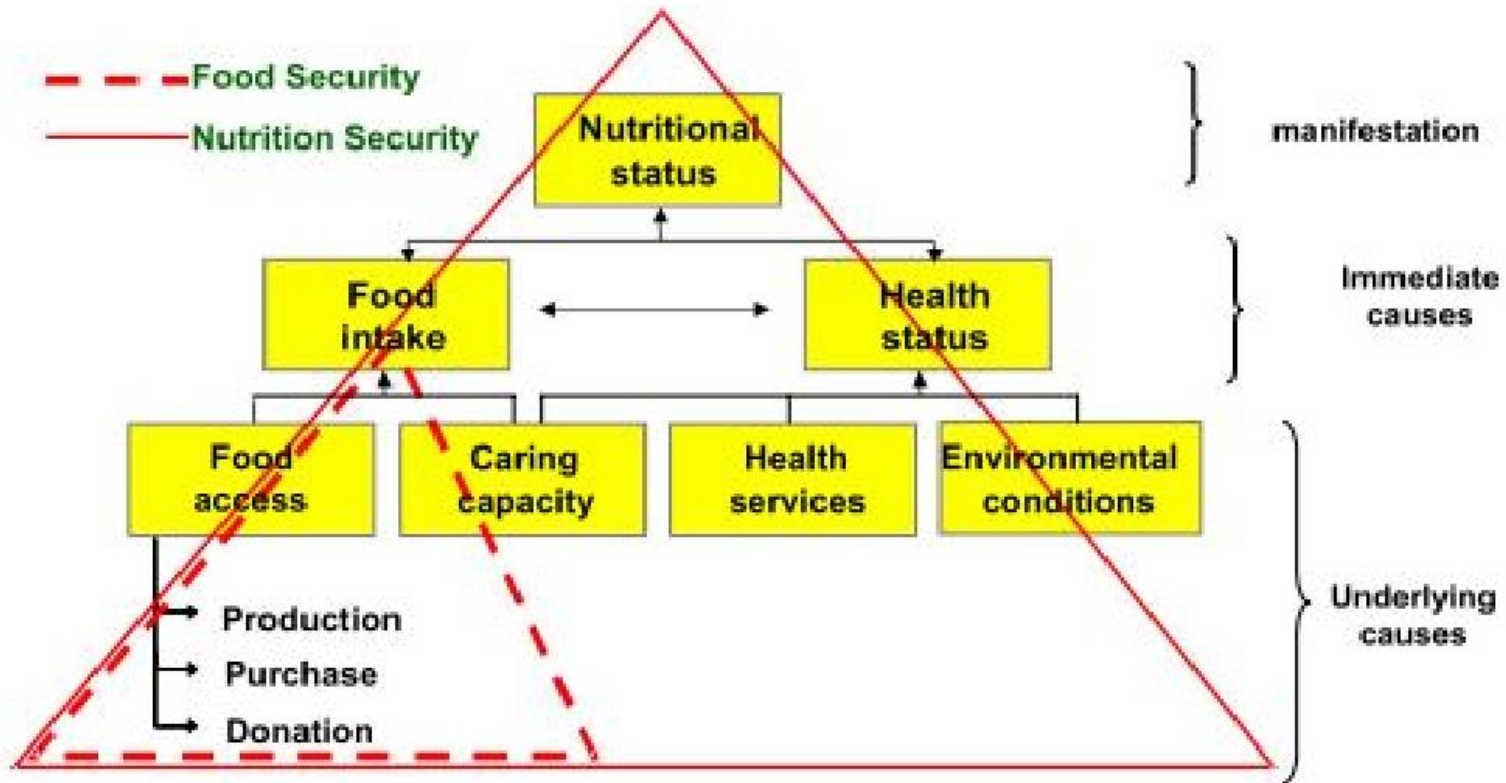




Figure 1: A Gendered Conceptual Framework of the Determinants of Nutrition Outcomes

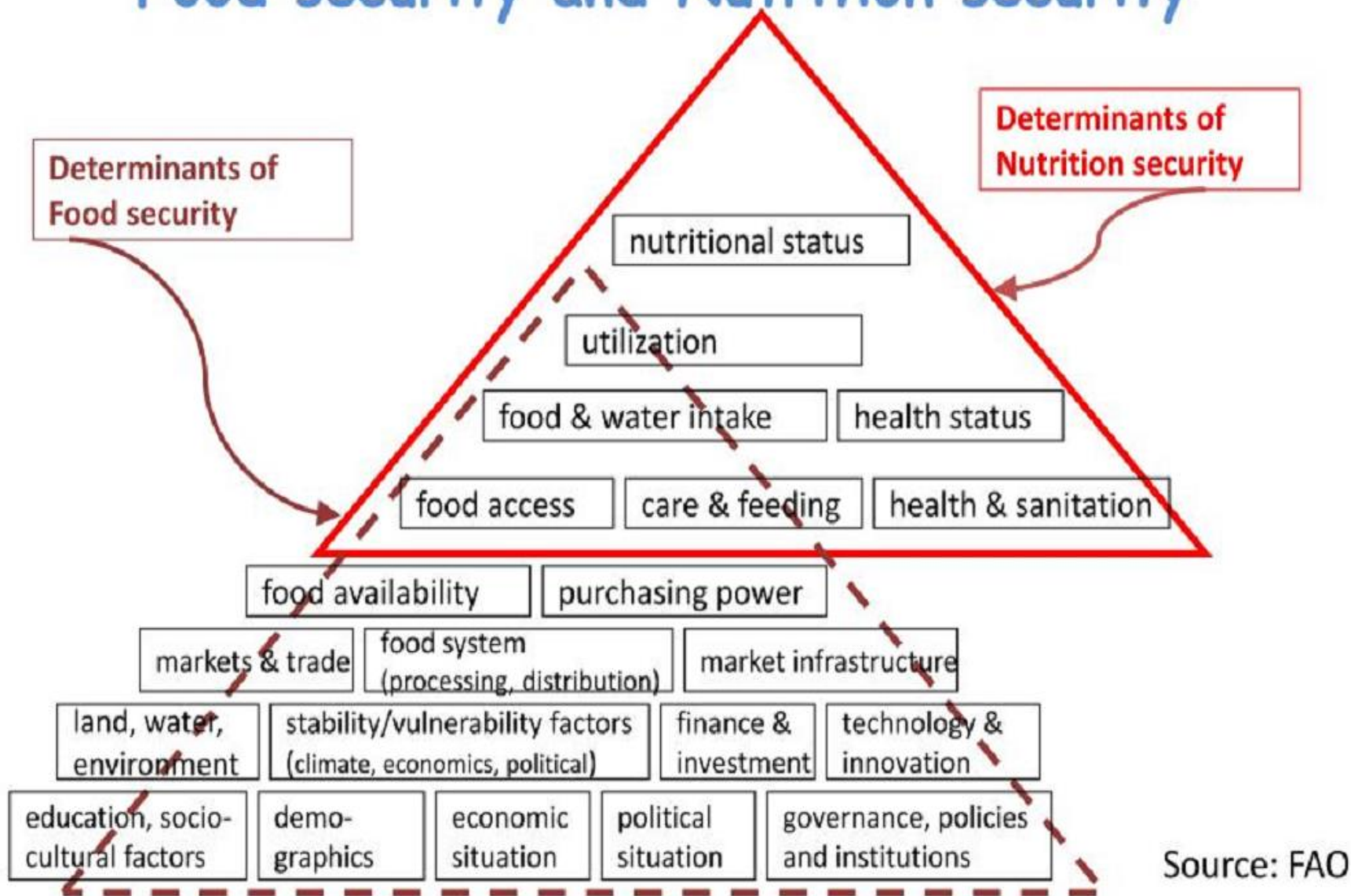


# Relationships and overlaps between FS & NS



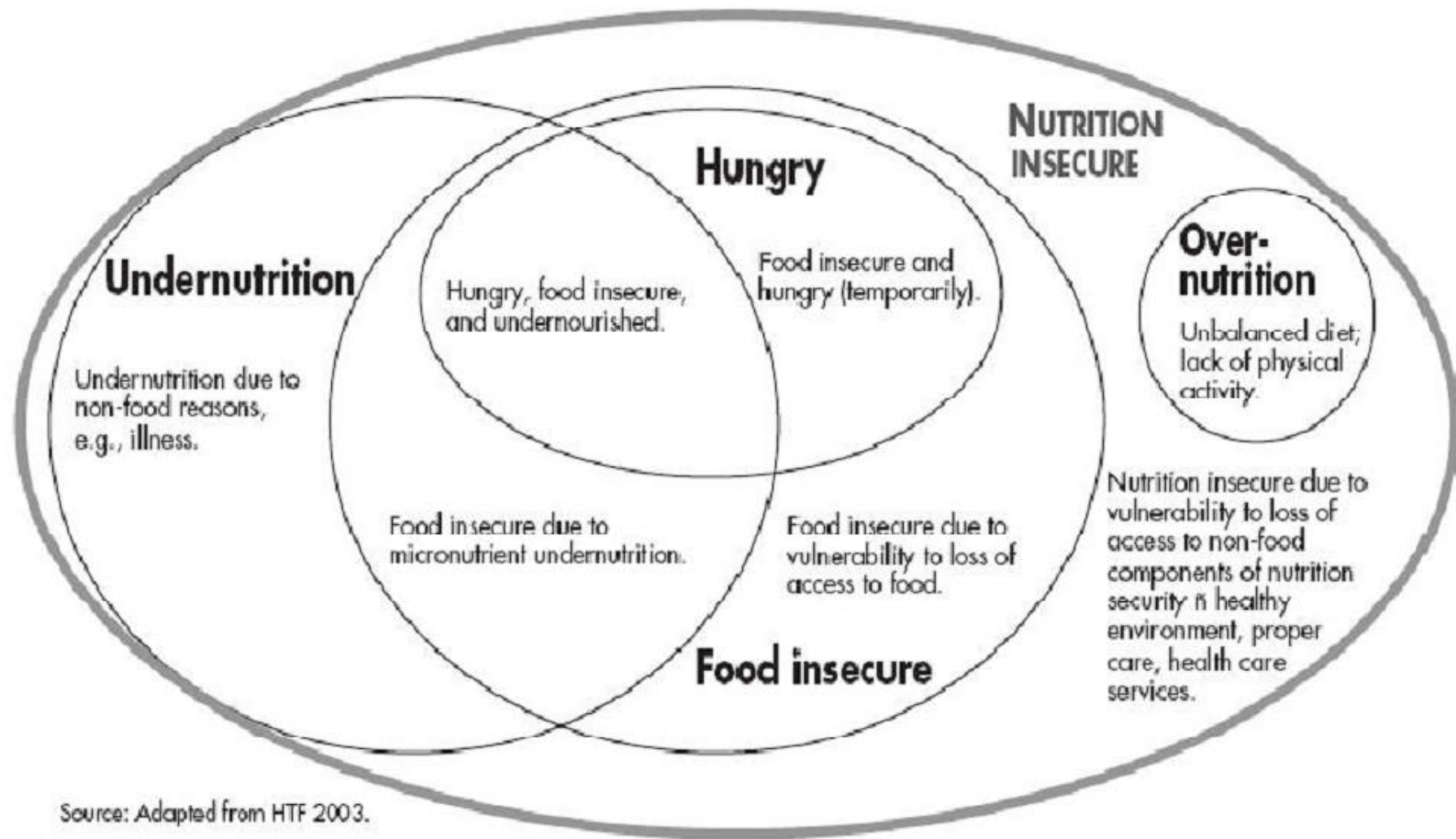
Source: Gross et al. (2000)

# Determinants of Food security and Nutrition security



Source: FAO

# Relationship between nutrition security and food security

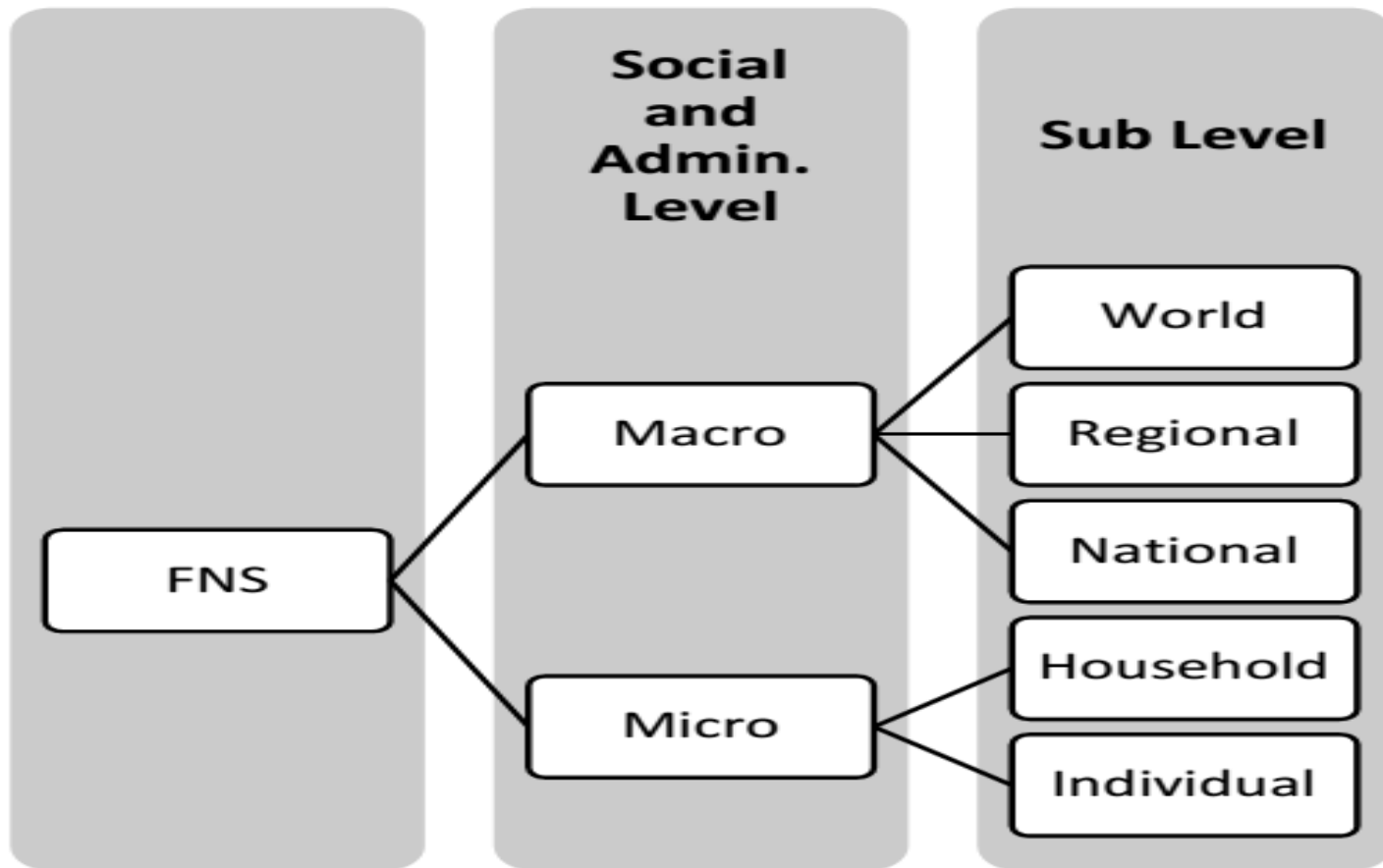


# FNS

- the FAO definition of FNS:
  - ‘food and nutrition security exists when all people at all times have physical, social and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life’
    - CFS, 2009
- this definition of FNS reflects two key dimensions:
  - the food and nutrition status
  - the stability of this food and nutrition status.

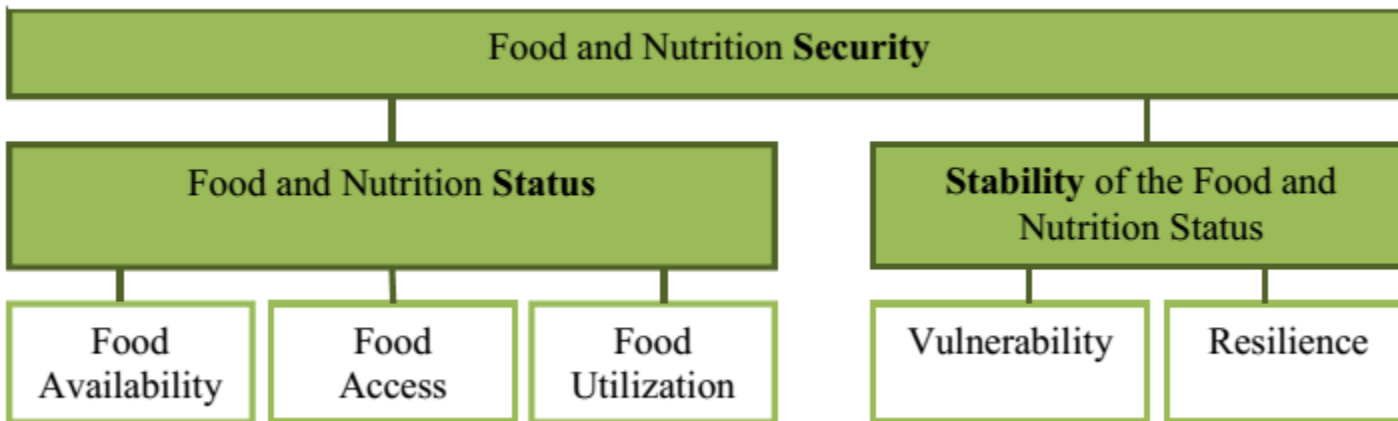
# FNS levels

Figure 2. FNS by Levels



# Dimensions for FNS

**Figure 1: Dimensions of Food and Nutrition Security at the Micro-Level**



# FNS

- NB: the relation between food and nutrition status and the stability of the food and nutrition status is non-linear and that both categories and their dimensions are highly interlinked.
- gender-specific issues affect all the different dimensions of FNS
  - a cross-cutting determinant



# food and nutrition status

- three pillars:
  - Availability - physical supply
  - Access - the ability to acquire food
  - Utilization - the capacity to transform food into the desired nutritional outcome

# Availability

- availability is a measure of the amount of food that is and will be physically available in a population during a certain period of time.
- through all forms of
  - domestic production, commercial imports and food aid

# Accessibility

- food availability does not guarantee that everyone is free from hunger
- the fact that the undernourished population has increased by 9% despite the 12% increase of global food production since 1990
  - FAO's SOFI report 2009
- implies that food insecurity occurred at a time of abundance
- it remains true that food insecurity was little affected by the increase in global food production.
- the presence of sound institutions is one of the potential routes to secure people's access to food.

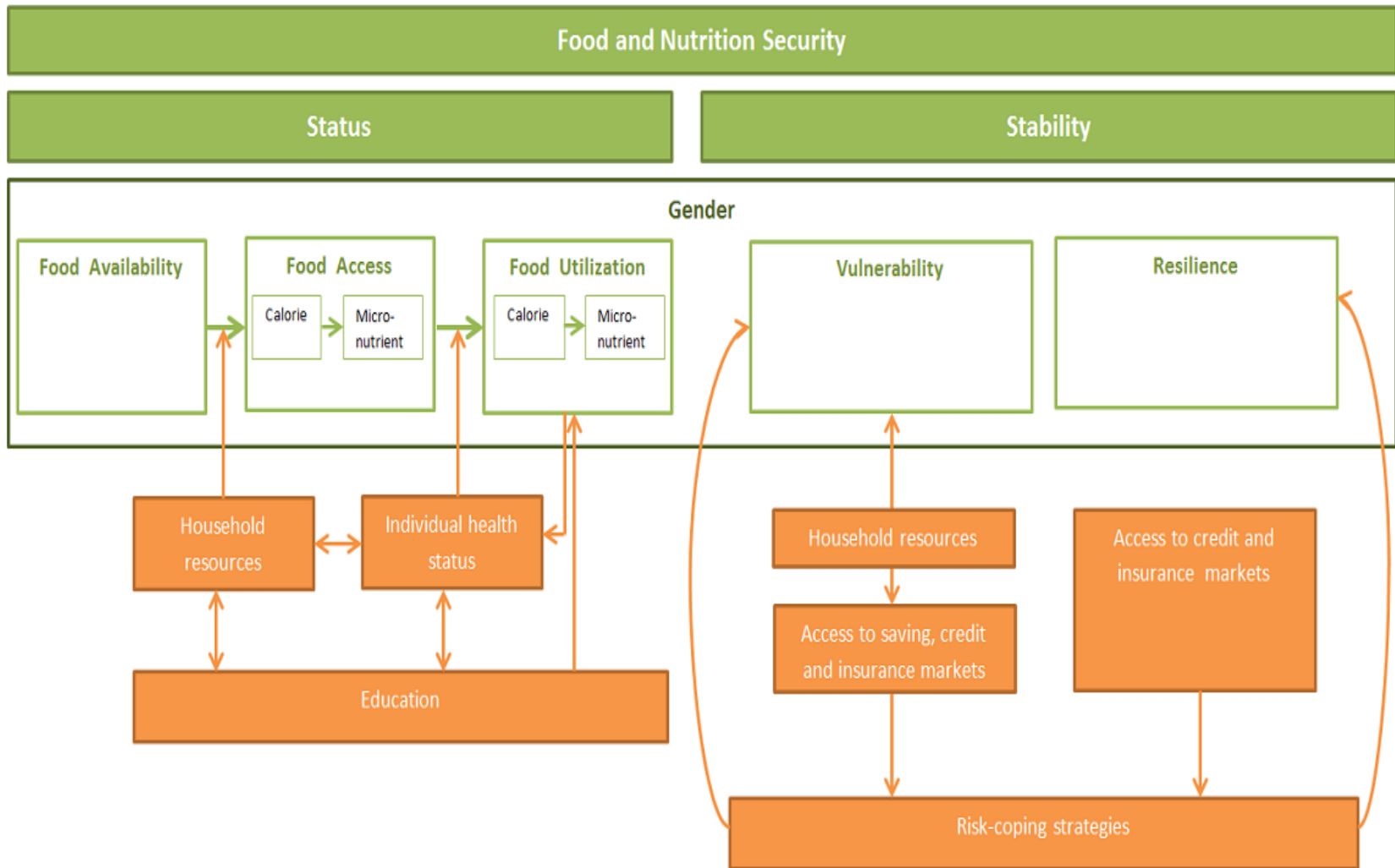
# utilization

- utilization is a measure of a population's ability to obtain sufficient nutritional intake and nutrition absorption during a given period
- how the population derives a sufficient intake and absorption of micronutrients can be assessed from their diet variety and from the anthropometric outcomes.

# Stability

- refers to the stability of the three dimensions above at all times without risks.
- the main risks which might have adverse effects on availability, access and utilization are
  - extreme weather events, energy scarcity, economic and social disruption and malfunctioning global markets.
- the stability dimension recognizes that the food and nutrition security status may change.

Figure 2: Conceptual Framework at the individual and household level



Hannah Pieters et al., 2013