

## Food Security in the Global Context



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## What is food security?

The World Food Summit of 1996 defined food security as existing:

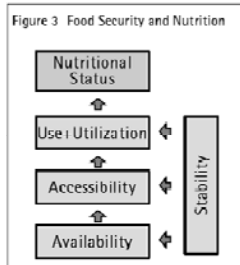
“when all people at all times have access to sufficient, safe, nutritious food to maintain a healthy and active life”.

<http://www.who.int/trade/glossary/story028/en/>

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## 5 methods of measurement:

- **FAO “undernourishment”:**
  - Dietary energy supply ÷ energy requirement
  - At national level
  - Based on food balance sheets and demographic structure of population

Measurement and assessment of undernutrition. FAO, 2002 <http://www.fao.org/docrep/005/y4249e/y4249e00.HTM>

## 5 methods of measurement:

- **Household income and expenditure surveys**
  - At national level
  - Food accessed by household
  - Makes assumptions about intrahousehold distribution

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## 5 methods of measurement:

- **Dietary intake surveys**
  - Very useful but rarely available

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## 5 methods of measurement:

- Anthropometry surveys
  - Measures more than food security

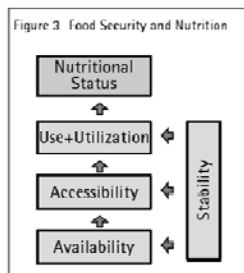
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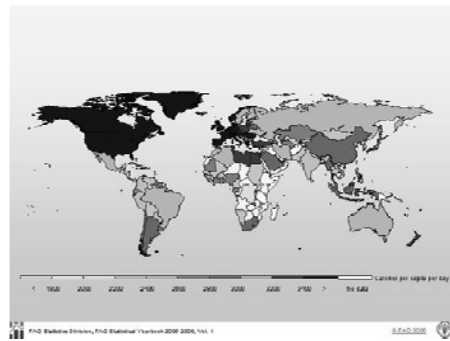
- Qualitative measures of food insecurity
  - Well-developed methods for US (begun at Cornell), require local adaptation
  - Measures eating behaviors and perceptions of hunger

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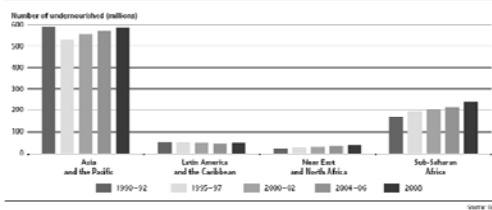


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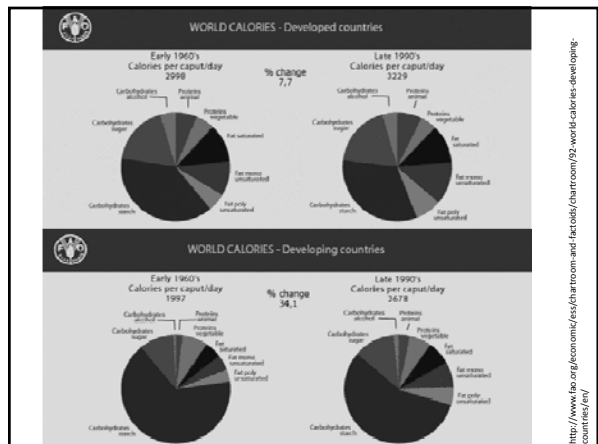


- According to this FAO map, which region has the most severe food insecurity?
- Does this concur with the assigned reading (DFID 2002)?

FIGURE 2 Undernourishment on the rise throughout the world: number of undernourished in selected regions, 1990-92 to 2008



- Sub-Saharan Africa is the “hot-spot,” but South Asia has the biggest numbers
- Diversity within regions:
  - India, China, Indonesia vs. Nepal, Bangladesh
  - Ghana vs. Democratic Republic of Congo
- FAO claims number of undernourished now exceeds 1 billion (controversial number)



## Global Hunger Index recently developed by IFPRI (Int'l Food Policy Res Institute)

THE GLOBAL HUNGER INDEX IS CALCULATED AS FOLLOWS:

$$GHI = (PUN + CUW + CM) / 3$$

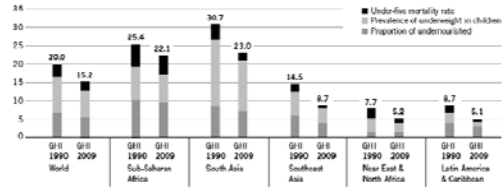
with **GHI**: Global Hunger Index

**PUN**: proportion of the population that is undernourished (in %)

**CUW**: prevalence of underweight in children under five (in %)

**CM**: proportion of children dying before the age of five (in %)

CONTRIBUTION OF COMPONENTS TO 1990 GHI (BASED ON DATA FROM 1986-02) AND 2009 GHI (BASED ON DATA FROM 2002-07)



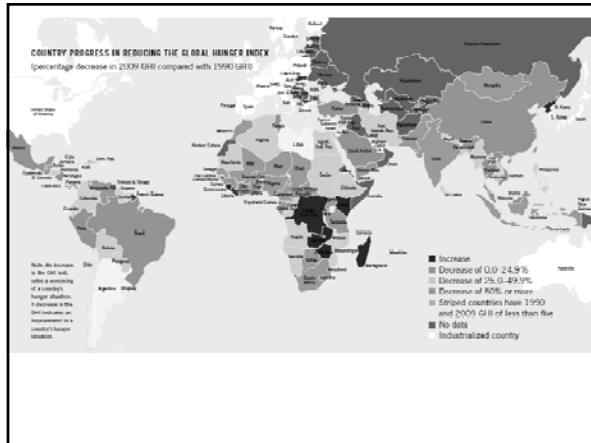
Note: For the 1990 GHI, data on the proportion of undernourished are for 1990-02, data on the prevalence of underweight in children under five are for 1986-02 and data on child mortality are for 1986-02. For the 2009 GHI, data on the proportion of undernourished are for 2002-07, data on child mortality are for 2002-07, and data on the prevalence of underweight in children under five are for 2002-07. For the 1990 GHI, the 1990 data are available.

2009 Global Hunger Index Chapter 02 | Global and Regional Trends

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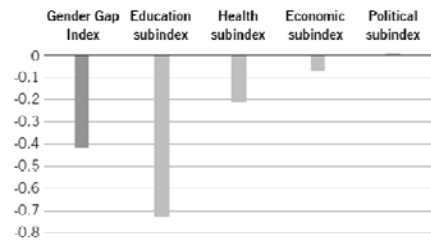
Suggested interpretation of the index:

- <5 Low
- 5-9.9 Moderate
- 10-19.9 Serious
- ≥20 Alarming



## Strong link between female education and hunger

STRENGTH OF RELATIONSHIP (CORRELATION) BETWEEN 2009 GHI AND THE SUBINDICES OF THE 2008 GENDER GAP INDEX, 90 COUNTRIES



Note: In the Global Hunger Index, higher scores mean higher levels of hunger, whereas for the Gender Gap Index and its subindices, the highest possible score is 1, representing perfect equality, and the lowest possible score is 0, representing total inequality. A negative relationship means that higher gender inequality is associated with higher levels of hunger.

## Types of food insecurity and shocks

- Chronic food insecurity --90%
- Transient food insecurity --10%

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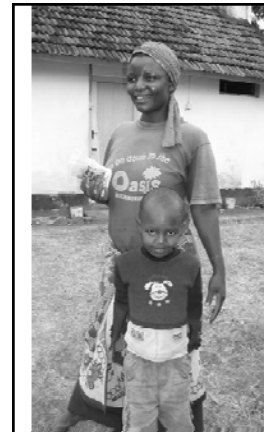
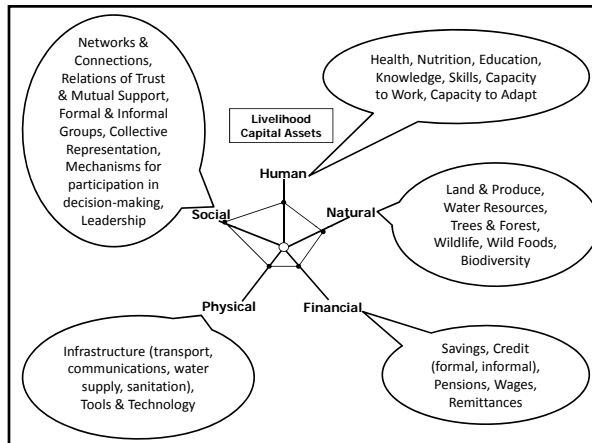
- Chronic food insecurity --90%
- Transient food insecurity --10%
- Broader societal shocks --environment, society
- Household level shocks --health events most common form

What are the structural issues underlying food insecurity?

One way to organize our thinking:

## SUSTAINABLE LIVELIHOODS FRAMEWORK

Slides adapted from International Fund for Agricultural Development (IFAD)



- **Human capital**
    - labour capacity
    - caring for 4 young daughters + niece
    - little education
    - limited skills
  - **Natural capital**
    - landless
    - access to common property resources
  - **Financial capital**
    - low wages
    - no access to credit
  - **Physical capital**
    - poor water supply
    - poor communications
  - **Social capital**
    - low social status
    - discrimination against women
    - strong links with family & friends
    - traditions of reciprocal exchange
- = an extremely reduced "livelihood pentagon"

## "Vulnerability" Context

- **Shocks**
  - Floods, droughts, cyclones
  - Deaths in the family
  - Violence or civil unrest
- **Seasonality**
- **Trends and changes**
  - Population
  - Environmental change
  - Technology
  - Markets and trade
  - Globalisation

Sustainable Livelihoods Framework

## Policies, Institutions & Processes

- **Policies**
  - of government
  - of different LEVELS of government
  - of NGOs
  - of interational bodies
- **Institutions**
  - political, legislative & representative bodies
  - executive agencies
  - judicial bodies
  - civil society & membership organisations
  - NGOs
  - law, money
  - political parties
  - commercial enterprises & corporations
- **Processes**
  - the "rules of the game"
  - decision-making processes
  - social norms & customs
  - gender, caste, class
  - language

Sustainable Livelihoods Framework

### Livelihood Strategies: *how do people live?*

They combine:

- the assets they can access

Taking account of:

- the vulnerability context

Supported or obstructed by:

- policies, institutions and processes.

.....and this leads to

*Sustainable Livelihoods Framework*

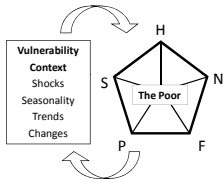
### Livelihood Outcomes

Poverty - a "poor" livelihood outcome:

- based on a fragile or unbalanced set of livelihood assets
- unable to sustain to shocks, changes or trends
- not supported, or actively obstructed by policies, institutions and processes that do not allow assets to be used as they might
- livelihood options combined in a "bad" or unsustainable strategy

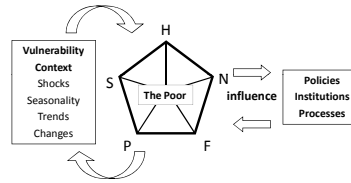
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### The Sustainable Livelihoods Framework



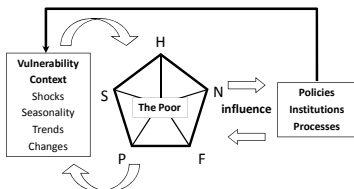
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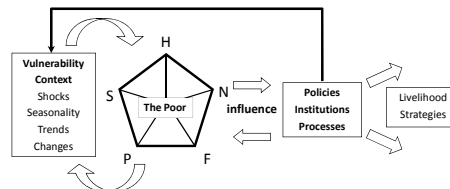
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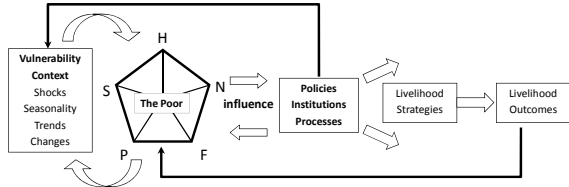
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How does all this relate to malnutrition?

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- Improve food production
  - Invest in agriculture to increase productivity and reduce risks
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- Low-cost coping mechanisms during times of shock
  - Social assistance
  - Risk insurance

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Social Protection

FIGURE 7  
Addressing vulnerability: the role of food aid in social protection



Source: adapted from WFP, 2004.

FAO. The State of Food and Agriculture 2006.

### Both the UK and the US are making food security a development priority—especially for Africa

What are the key messages from these short videos?

Eliminating Hunger: ensuring food security (DFID)

<http://www.youtube.com/watch?v=v2ejxblZxOw>

Global Food Security: US Commitment to Action

[http://www.youtube.com/watch?v=-TTor\\_NKg4k](http://www.youtube.com/watch?v=-TTor_NKg4k)