

Coordination meeting for statisticians on tracking and monitoring
food security in the Arab Region



Food Security In The Arab Region: Towards a Common Monitoring Framework

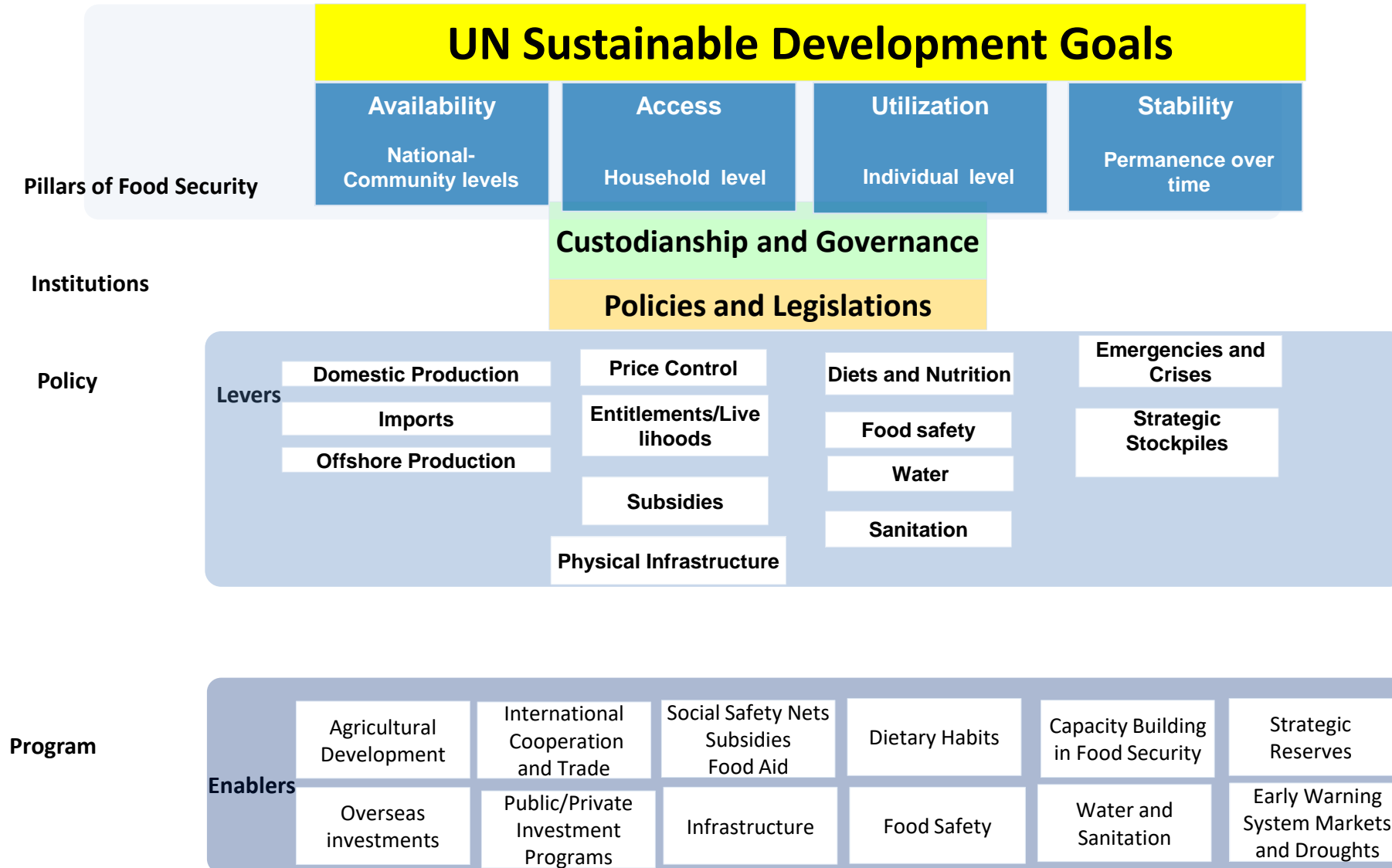
UN House – Beirut
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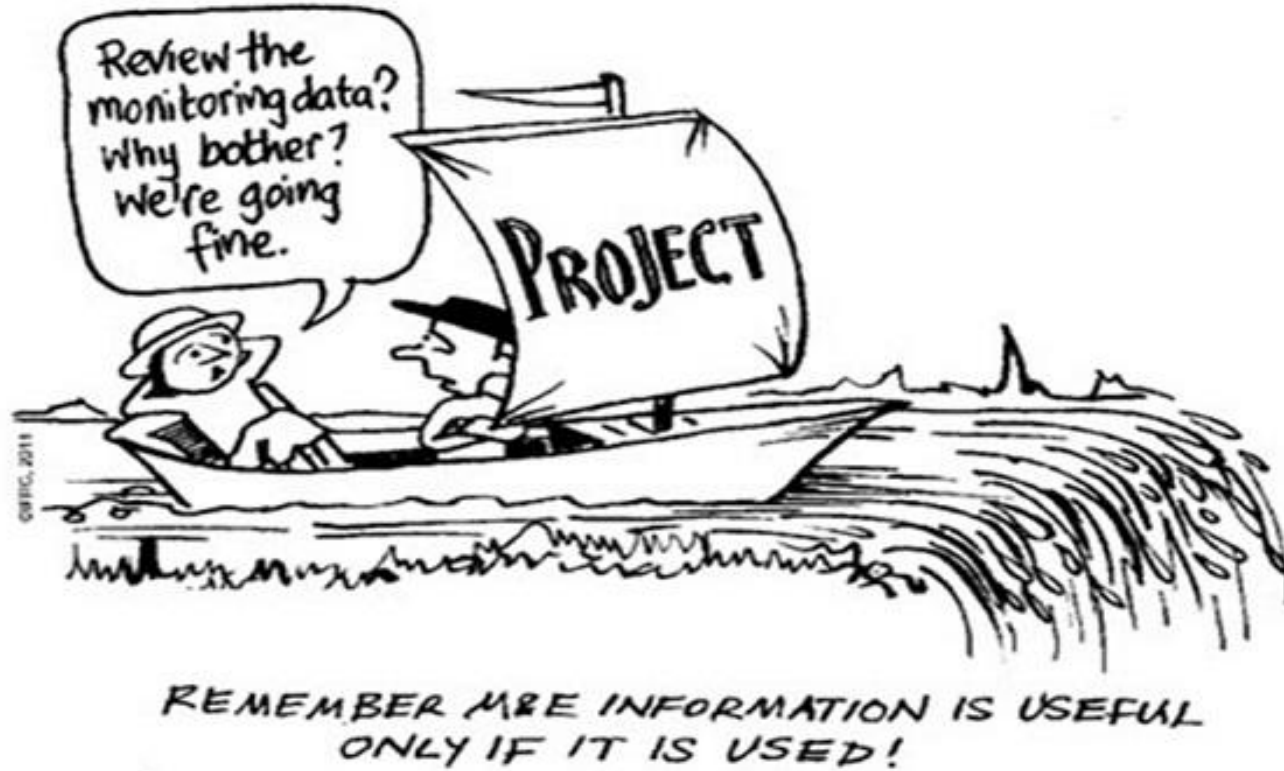
Food Security? or Food and Nutrition Security? or Food security and Nutrition?

- 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.”
- Applicable at all levels or scales (individual, household, national, regional and global levels),
- Four main dimensions: availability, access, utilization and stability over time.
- Requires a multidimensional assessment.
- SDG2...and others.

Food security policy analysis framework



The Need for Monitoring

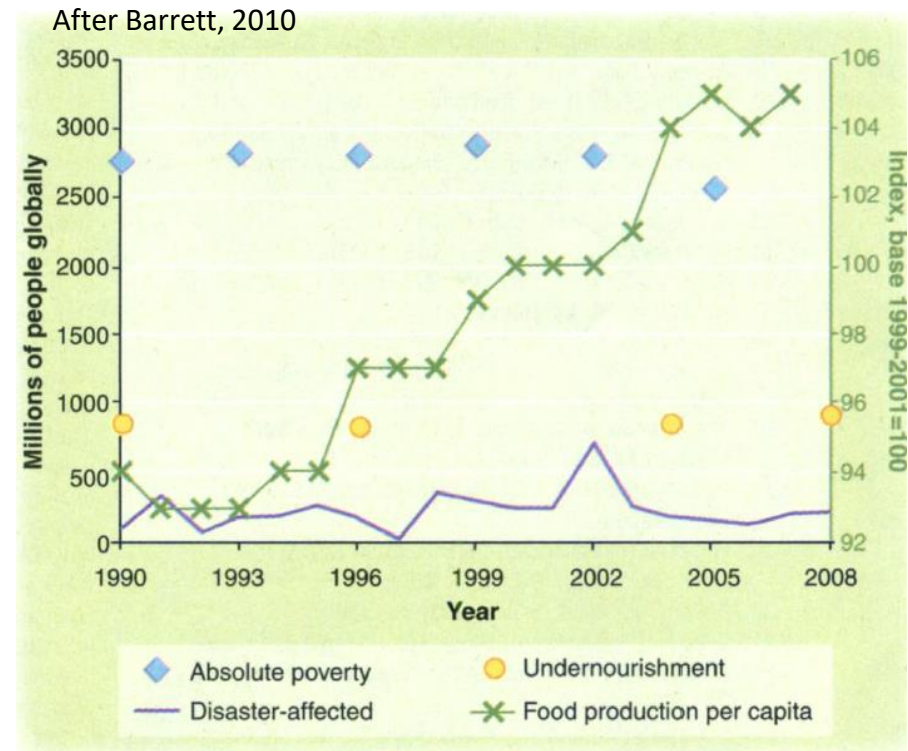


Important questions related to monitoring food security

- Why are we monitoring? “The validity of a measurement tool is inseparable from the purpose for which it is intended”.
- Individual or national?
- Chronic or acute?
- Ex-post or ex-ante?
- Hunger or malnutrition (incl. obesity)?
- Past vs Future (policy makers)?
- Targeting vulnerable population for policies and action?
- Proxy measures, depending on objective
- Availability? Neglects wastes and unequal distribution (Sen’s thesis).
- Trend: cross-nationally comparable, longitudinal monitoring and analysis at the household and individual levels (Barret, 2010)

Availability and Food Security do not always go together

- Household and individual data: better estimates, correlates well with poverty data



(New) Food-Related Problems in the Arab World

- Triple burden: Undernutrition, Malnutrition, Overnutrition
 - Child stunting remains prevalent
 - Obesity is rampant in adults (esp women) and children
 - Micronutrient deficiency: Anemia in particular
 - Food Losses and Wastes
-
- Do we need to monitor these as part of food security monitoring?

What is the status of the FS policies?

- Our mapping of 9 countries (Yemen, Sudan, Egypt, Palestine, Jordan, Iraq, Lebanon, Morocco, Tunisia) showed that the bulk of the policies affecting food security are still directed towards national production, thereby affecting the “availability” dimension of food security.
- The “Utilization” dimension remains the least addressed in terms of policies and programs.
- The stability dimension is mostly aimed at stabilizing the availability dimension.
- Monitoring is quasi-inexistent.
- Monitoring food security, when existing, is not integrated and remains separate from the SDG context, a situation that hinders positive synergies.

Types of FS measurements

- National-level compound data
- Perception data FAO's Prevalence of food Insecurity
- Household data
- Individual data

National Level Estimates

Prevalence of Undernourishment (FAO)

Widely adopted

State of the World Food Insecurity reports.

Basis is food balance sheets developed by FAO which draws on nationally combined data of food supply and utilization.

First-tier indicator of SDG2.

Relied upon by governmental and non-governmental agencies.

Composite outcome indicator and as such does not provide information on the drivers of undernourishment and food insecurity.

The FAO also publishes a set of 26 food security indicators representing drivers associated with each of the four pillars of food security.

The Global Hunger Index (GHI)

The Global Hunger Index (GHI) is a tool designed to comprehensively measure and track hunger at the global, regional, and country levels.

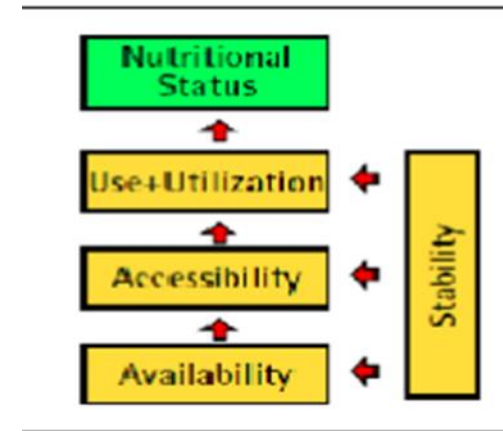
The GHI combines 4 component indicators

- The proportion of the undernourished as a percentage of the population;
- The proportion of children under the age of five suffering from wasting;
- The proportion of children under the age of five suffering from stunting;
- The mortality rate of children under the age of five.



Global Food Security Index (EIU)

- 30 indicators in 3 domains: affordability, availability, quality and safety. Weighted.
- Includes food prices, poverty, household expenditures.
- Assesses country performance
- Limitations (and strength?): reliance on experts for weights and scoring
- The Food Insecurity Multidimensional **Index (FIMI)** will synthesize the four dimensions of **food security** (availability, access, utilization and stability of food).



30 < FIMI < 39,99 MODERATE FOOD INSECURITY
40 < FIMI < 49,99 SERIOUS FOOD INSECURITY
50 < FIMI < 59,99 ALARMING FOOD INSECURITY
FIMI > 60 EXTREMELY ALARMING FOOD INSECURITY

Household level (Access)

- **Household Consumption and Expenditure Survey**
- HCEI: Poverty, consumer price index, expenditures
- Assumes that food acquisition = food consumption (wastes, gifts)

Food Consumption Score

- IFPRI
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- Positive association between per capita kcal consumption

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Household Dietary Diversity Score

- HDDS (USAID)
- Dietary diversity as a proxy for household food access
- Response data on 12 food groups
- Positively associated with food security
- Good correlation with FCS

Antropometry

- Measures utilization
- Intra household distribution may be inadequate
- Bioavailability of food nutrients
- Strong links to mortality outcomes
- Height, weight, mid-upper arm circumference, skinfold

FAO-CFS suite of indicators

Type of indicator	Source	Coverage			
Availability			Stability		
Average dietary energy supply adequacy	FAO	1990-2016	Cereal import dependency ratio	FAO	1990-2011
Average value of food production	FAO	1990-2013	Percent of arable land equipped for irrigation	FAO	1990-2012
Share of dietary energy supply derived from cereals, roots and tubers	FAO	1990-2011	Value of food imports over total merchandise exports	FAO	1990-2011
Average protein supply	FAO	1990-2011	Political stability and absence of violence/terrorism	WB/WWGI	1990-2013
Average supply of protein of animal origin	FAO	1990-2011	Domestic food price volatility	FAO/ILO/WB	2000-2014
			Per capita food production variability	FAO	1990-2013
			Per capita food supply variability	FAO	1990-2011
Access			Utilization		
Percent of paved roads over total roads	WB	1990-2011	Access to improved water sources	WHO/UNICEF	1990-2012
Road density	International Road Federation, World Road Statistics and electronic	1990-2011	Access to improved sanitation facilities	WHO/UNICEF	1990-2012
Rail lines density	WB	1990-2012	Percentage of children under 5 years of age affected by wasting	WHO/UNICEF	1990-2014
Gross domestic product per capita (in purchasing power equivalent)	WB	1990-2013	Percentage of children under 5 years of age who are stunted	WHO/UNICEF	1990-2014
Domestic food price index	FAO/ILO/WB	2000-2014	Percentage of children under 5 years of age who are underweight	WHO/UNICEF	1990-2014
Prevalence of undernourishment	FAO	1990-2016	Percentage of adults who are underweight	WHO	partial
Share of food expenditure of the poor	FAO	partial	Prevalence of anaemia among pregnant women	WHO/WB	1990-2011
Depth of the food deficit	FAO	1990-2016	Prevalence of anaemia among children under 5 years of age	WHO/WB	1990-2011
			Prevalence of vitamin A deficiency in the population	WHO	partial
			Prevalence of school-age children (6-12 years) with insufficient iodine intake	WHO	partial