



ASIA AND PACIFIC COMMISSION ON AGRICULTURAL STATISTICS

TWENTY-SIXTH SESSION
Thimphu, Bhutan, 15-19 February 2016
Agenda Item 6.4
Food Security Statistics in the transition from the Millennium Development Goals to the Sustainable Development Goals

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Presentation given at the 26th session of the
Asia and Pacific Commission on Agricultural Statistics
Thimphu, Butan 15-19 February 2016

Millennium Development Goals



Goal 1: Eradicate extreme poverty and hunger

Target 1.C: Halve, between 1990 and 2015, the proportion of people who suffer from hunger

Indicator 1.8: **Prevalence of underweight children under-five years of age**
(WHO/UNICEF/WORLDBANK)

Indicator 1.9: **Proportion of population below minimum level of dietary energy consumption** (FAO)

The Prevalence of Undernourishment

- Existing indicator produced by FAO since 1974, and used to monitor the World Food Summit (WFS) goal
- Undernourishment (French: *sous-alimentation*; Spanish: *sub-alimentación*) is defined as the condition of an individual by which **habitual food consumption levels do not provide sufficient dietary energy to cover normal requirements for an active and healthy life**
 - While, in principle, assessment could be based on the analysis of **individual food consumption and demographic data**, in practice this is difficult due to the **high cost of collecting them on a regular, frequent basis**
 - Global monitoring by FAO has been possible thanks to the **integration of data from different sources: national food balances, population data and household expenditure/consumption surveys**

The Prevalence of Undernourishment

- Estimates are obtained through a **statistical model** of the probability distribution for **habitual, daily dietary energy consumption levels in a population**
 - Lacking individual dietary intake assessments, a model is necessary to overcome the **impossibility to match food consumption with food requirements at the individual level**
 - Limited understanding of the FAO PoU model has spurred unfounded criticism
- Lack of sufficiently reliable, disaggregated data, has allowed thus far **only estimates of the PoU at national levels and if > 5%**
 - Sound methods to analyze existing data on the food consumption patterns of households and individuals are needed, while, at the same time, more and better data may be needed in the future

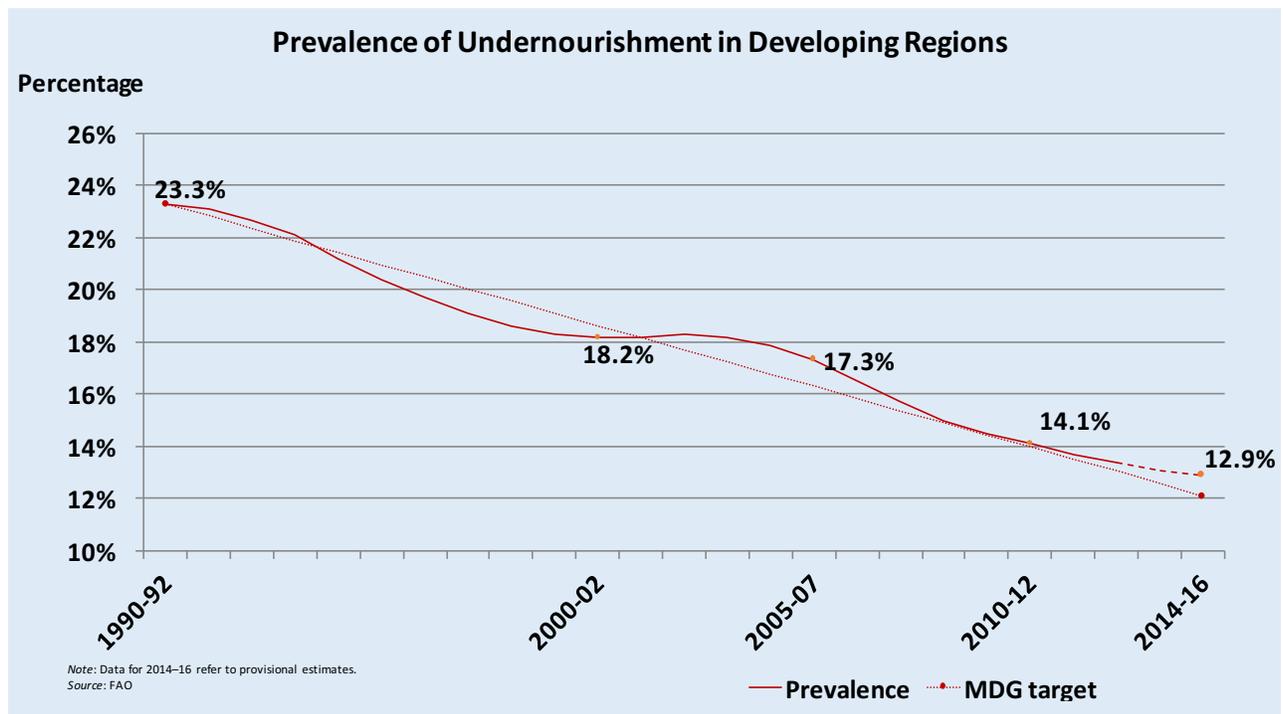
Overview of global food security

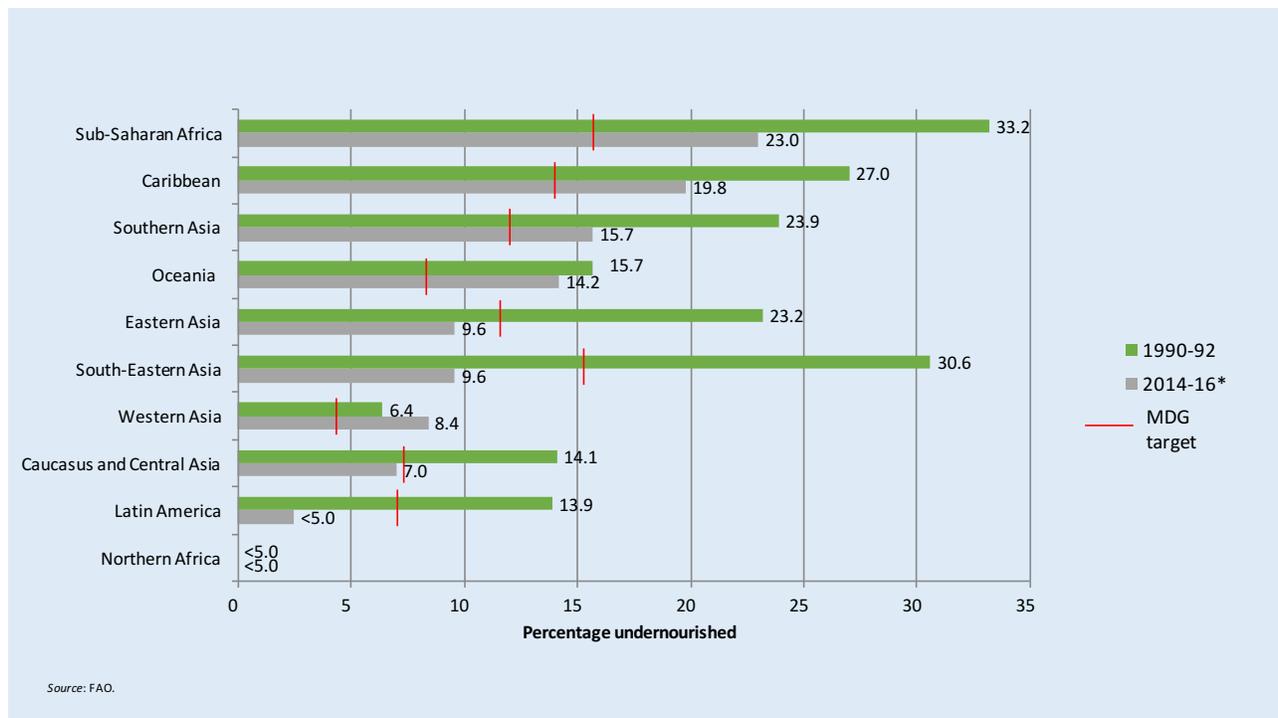
The State of **Food Insecurity in the World**

Meeting the 2015 international hunger targets:
taking stock of uneven progress

The MDG Target 1C has been almost met

- For the group of countries in developing regions as a whole, the PoU dropped from 23.3% to 12.9% (a reduction of more than 45%)
- The target has been met in
 - Eastern Asia
 - South-Eastern Asia
 - Caucasus and Central Asia
 - Latin America
- 73 out of 129 developing countries monitored have reached the MDG hunger target

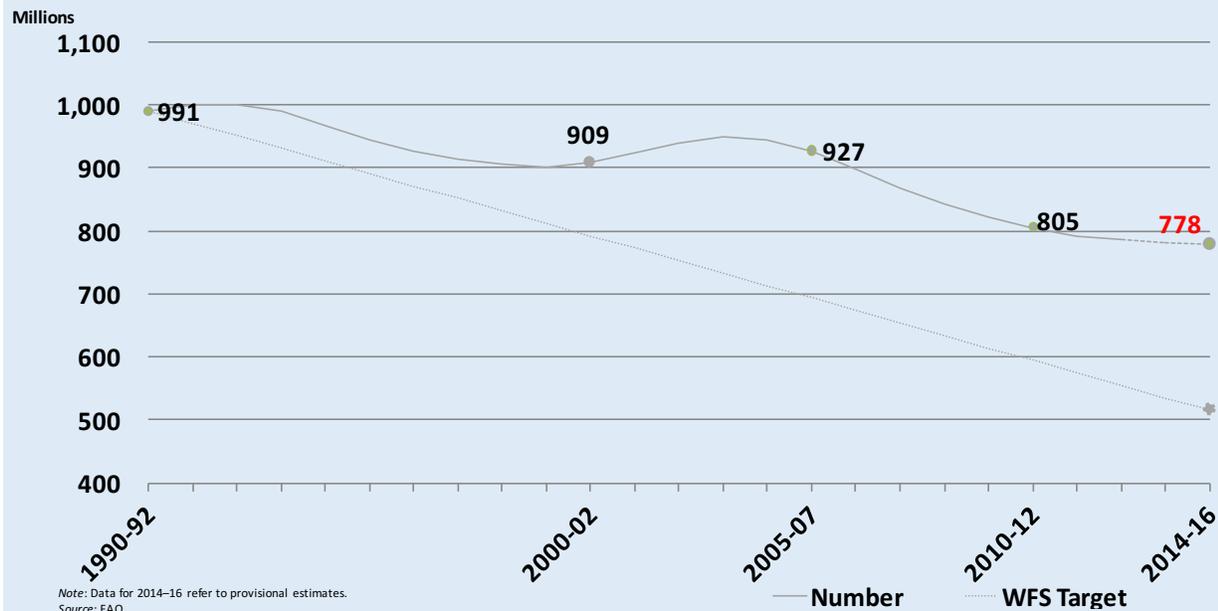




... but the WFS goal has been missed

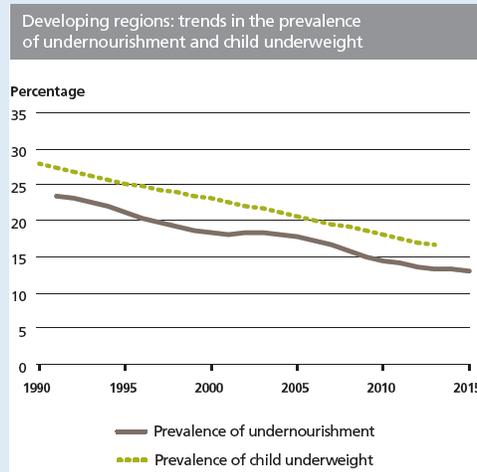
- A reduction of only 213 million undernourished people in the world since 1990-92 (a reduction of **21.5%**)
 - During the same period, world population has grown by 1.9 billion
 - However, 29 out of 129 monitored countries have achieved the WFS goal
 - Progress has been faster in the last decade
- **793 million** are estimated still to be undernourished in the world in 2014-16
- **778 million** of them live in developing regions

Number of Undernourished in Developing Regions

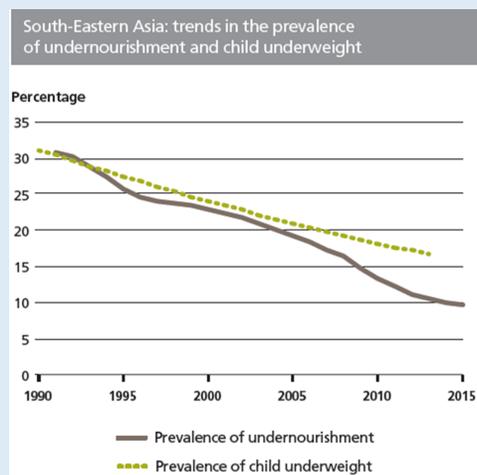


2014-16 Estimates, by region	Number (millions)	Share (%)
Southern Asia	281	35.5
Sub-Saharan Africa	218	27.5
Eastern Asia	145	18.3
South-Eastern Asia	61	7.6
Latin America & the Caribbean	34	4.3
Western Asia	19	2.4
Northern Africa	4	0.5
Caucasus & Central Asia	6	0.7
Oceania	1	0.2
Developed regions	15	1.9
Total	793	100.0

For the group of countries in developing regions, the two indicators reveal similar trends



In South-Eastern Asia undernourishment declined faster: room to improve food utilization



The correlates of success

1. Economic growth is necessary but not sufficient. It needs to be inclusive to reach the poorest
 2. Increasing productivity of smallholder & family farming improves incomes and access to food
 3. Social protection (e.g. school-feeding, cash transfers) is doubly effective:
 - a. Reduces hunger directly
 - b. Fosters economic opportunities and builds resilience
 4. Access to rural markets provides market and employment opportunities
 5. International trade openness delivers benefits, but also risks
 6. Protracted crises severely impact food security:
 - a. Resulting from by natural or human-made disasters (e.g. conflicts, political instability)
 - b. Of the 20 countries in protracted crisis, only Ethiopia reached the MDG hunger target
- **Sustained political commitment at the highest level, and sound institutions and policies, are prerequisites for hunger eradication**

Sustainable Development Goals



Goal 2 : “End hunger, achieve food security and improved nutrition and promote sustainable agriculture”

Target 2.1 - “By 2030, **end hunger** and ensure **access by all people**, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round”

- Indicator 2.1.1: Prevalence of undernourishment
- Indicator 2.1.2: Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale (FIES)

Sustainable Development Goals



- IAEG-SDG is in charge of the definition of the SDG monitoring framework
 - Members are representatives of National Statistical Authorities (FAO and other International Organizations are observers)
 - **Can endorsement of an indicator be taken as an implicit commitment to produce the data necessary for its implementation? We believe it does.**
- As an outcome of the 2nd meeting in Bangkok, a note on data disaggregation was issued:

“SDG indicators should be disaggregated where relevant by income, sex, age, race, ethnicity, migratory status, disability and geographic location, or other characteristics, in accordance with the Fundamental Principles of Official Statistics”

Two different agendas

	MDGs	SDGs
Geographical scope	Developing Regions	Universal
Focus	National level	“Leave no-one behind”
Ambition	“Halve the proportion...” <i>(or bring it below 5%)</i>	“Eradicate... End...”
Governance	U.N. led process	Country driven

The Prevalence of Undernourishment

- In monitoring the SDG Target 2.1, the PoU should be computed for all countries in the world and be able to capture also levels that are less than 5%
 - Having 350 million undernourished (roughly 5% of the world population) would still be very far from eradication
- It should be computed also for sub-national population groups
 - This is going to be possible only through **expanded use of survey data** and only if a concerted, strong effort is made in **improving the quality of food consumption data** collected via large-scale national surveys

The Prevalence of Undernourishment

- Relevant FAO Activities
 - Improved methods for the **compilation of Food Balance Sheets (FBS)** and research on **reconciliation of food consumption data from FBS and from household surveys**
 - Definition of a **harmonized Food Consumption Module** for inclusion in any Economic or Living Standard Measurement survey
 - **Data validation and analysis** through the **ADePT Food Consumption Module**
 - **Technical assistance** on the use of the ADePT Food Consumption Module
- **Recommendations**
 - **Agricultural Statistic units to coordinate with Economic, Social and Health Statistics units to integrate available information sources on food consumption**
 - **Elementary data from household budget and expenditure/consumption surveys shared with FAO Statistics**

The Food Insecurity Experience Scale (FIES)

- This new indicator has been chosen also as a result of information provided by FAO on the successful application of the FIES in 146 different countries and territories in the world in 2014, within the “**Voices of the Hungry**” (VoH) project
 - A technical report on “*Methods for estimating comparable prevalence rates of food insecurity experienced by adults throughout the world*” has been prepared
 - Heads of statistical offices of most countries in the world have had the opportunity to review the draft Technical Report and the results it contains
 - It will be released for public use later this month

The Food Insecurity Experience Scale (FIES)

- Experience-based food security scales have long been used in the US, Canada, Brazil and several other countries for regular monitoring of the food insecurity condition of households.
 - In all these cases estimates are obtained at national and subnational levels, as the data are collected in large-scale surveys, representative also at State or District level.
- Estimates are based on data collected through **simple questionnaires** for **personal interviews** included at **very low cost** in face-to-face or telephone surveys.

The Food Insecurity Experience Scale (FIES)

- Building on the experience with existing food security scales, the “Voices of the Hungry” project was established by FAO – and generously supported by the Government of the UK and Belgium – to respond to two very important extant questions:
 - Whether or not experience based scales are **sufficiently robust** for application in a broader range of countries that **differ by language, culture, development and food security condition**
 - Whether a **common standard reference scale could be created**, to allow calibration of the measures obtained in different countries.

The Food Insecurity Experience Scale (FIES)

- The FIES was developed as a direct derivation of the existing *Escala Latinoamericana y Caribeña de Seguridad Alimentaria* (ELCSA), itself derived in turn from the US Household Food Security Survey Module (HFSSM).
- It has been adapted for use through the Gallup World Poll (GWP), an international survey established in 2005 by Gallup Inc., which reaches about 160,000 people from more than 150 countries every year.
- FAO has contracted Gallup to collect FIES data on its behalf in 2014, 2015 and 2016, with a plan to continue until 2018.

The Food Insecurity Experience Scale (FIES)

- Results from the first two years of data collections have been exceptionally good.
 - A global reference metric for the severity of household or individual food insecurity has been established
 - Methods to calibrate the measures obtained from the FIES or any of the other existing compatible scales (EBIA, HFSSM, ELCSA, etc.) have been developed
 - Severity thresholds can be defined unambiguously to define classes of food insecurity that are equivalent across countries
 - A panel of experts in the fields of statistics, metrology, educational measurement, econometrics, and food security analysis, convened in a Scientific Workshop at FAO in May 2015, thoroughly reviewed the FIES methodology
 - Results for 2014 have been peer reviewed by NSO's

The Food Insecurity Experience Scale (FIES)

- Results from the Voices of the Hungry project for each individual country **only apply at the national level**
 - The only feasible disaggregation is by sex. In a few cases, by urban and rural areas.
- The longer-term objective is that national institutions take over the task of estimating the prevalence of food insecurity in the population, using the FIES, at national and subnational level, with the methodology and the harmonized standard provided by FAO
- **It is recommended that countries include the FIES in large-scale national population survey**
 - Average estimated survey time less than three minutes
 - Validated questionnaires are available in the more than 200 different languages
 - FAO stands ready to provide any necessary technical support

Questions for discussion

- Are countries ready to report on the PoU at national and subnational level, using FAO methodology?
- What kind of technical assistance is needed?
- Is there scope for coordinating on the use of common survey tools for the collection of food consumption data?
- How feasible is that the FIES be included in future national surveys?
- How the two FAO indicators relate to other initiatives for food security assessment (e.g., the Integrated Phase Classification?)