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### INDICATORS FOR FOOD SECURITY & SUSTAINABLE AGRICULTURE- <u>SDG2</u>

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#### FAO's contribution to SDG indicators

- Goals 2,14,15 associated with FAO vision & mandate FAO leadership recognized
- For other Goals (1, 5, 6, 12, 13) FAO could make important contributions
- In 2014-15, FAO identified core set of indicators on the basis of broad technical consultation
  - Sound definition & Relevance for specific TARGET
  - Availability in national statistical system
  - Reliability, Coverage, International Comparability, Granularity
  - Baseline for 2015? Quantitative target for 2030?
- For Goal 2, a draft proposal with WFP & IFAD:
  14 indicators to monitor progress towards 8 Targets (Tier 1 and additional)

Target 2.1		
Ind. 2.1.1:	Prevalence of Undernourishment (PoU)	
Ind. 2.1.2:	Prevalence of population with moderate or severe food insecurity,	
	based on the Food Insecurity Experience Scale - FIES	
Target 2.2		
Ind. 2.2.1:	Prevalence of Stunting (low height-for-age) in children < 5 yrs	
Ind. 2.2.2:	Prevalence of overweight children under 5 years of age	
Ind. 2.2.3:	Women Dietary Diversity Score	
Target 2.3		
Ind. 2.3.1:	Value of agricultural production per labour unit by farm size	
Target 2.4		
Ind. 2.4.1:	% of agricultural area under sustainable agricultural practices	
Target 2.5		
Ind. 2.5.1	Ex-situ crop collections indicator	
Ind. 2.5.2	Number/percentage of local breeds classified as being at-risk, notat risk, and unknown-levels of risk of extinction	

#### Target 2.a

Ratio of the agriculture share of government expenditure, over the agriculture contribution to the economy (agriculture orientation index)

#### Target 2.b

Evolution of potentially restrictive and distortive trade measures in agriculture

#### Target 2.c

Ind. 2.c.1: Indicator of Anomalies in Food Commodity Prices

## Food Insecurity Experience Scale (FIES)

#### Problems with current FS indicators

#### Prevalence of Undernourishment:

- Complex methodology and low quality of basic data
- Impossible to obtain sub-national estimates (essential for designing & monitoring national policies)
- 2-3 years time lag
- Indicators based on Food consumption/nutritional outcomes:
  - Indirect measurement of food insecurity, reflecting not only changes in the target variable (health, water & sanitation access, etc.)
  - Sporadic surveys with incomplete country coverage
  - 3-5 years time lag
  - Data collection difficult and costly

#### Main benefits of the FIES

- People's access to adequate food is measured directly
- Enables assessment of the depth of food insecurity (mild, moderate, or severe) => can be used in developed countries
- A sound methodology (Item-Response Theory) allows assessment of reliability and precision of the measures
- A new metric for both households and individuals, thus proper analysis of gender related food insecurity disparities
- Rapid and low cost enables timely global monitoring
- Ideal indicator for the Post-2015 Development agenda (food access target)

#### **Expected Results**

- Establish a global standard (FIES) for measuring the severity of Food Isecurity:
  - 8 simple yes/no questions to reveal food-related behaviors associated with increasing difficulties in accessing food
- Provide estimates the prevalence of moderate and severe food insecurity in 150 countries in 2014 and 2015 (baseline to monitor SDG progress)
- Make available the linguistic and cultural adaptation of the questionnaire in more than 200 languages.
- Promote adoption of the FIES in national food security monitoring systems, by including the module in national household surveys

# Agricultural and Rural Integrated Survey (AGRIS)

#### **AGRIS** Rationale

- No regular system of farm surveys in place between two censuses
- Admin data/extension workers main data source ("eye estimates")
- Old/expensive/inefficient methods in agr. statistics
- Agricultural data often collected in institutional isolation (different statistical units & survey instruments; little coordination between MoA and NSO and with other sectors; Agriculture not mainstreamed into the NSDS)
- Specialization of surveys often conducted on ad hoc basis
- Limited policy relevance of the available data (no linkage with socio-economic dimensions; no link with non-farm activities; poor timeliness; limited access)

#### What is AGRIS?

- Standardized multipurpose survey on Agricultural Farms
- 10 yr programme with rotating modules = collection of a large number of variables with reduced costs & burden (1-2 modules per year)
  - Core Module with socio-demographic variables = every year
  - Additional Modules (Type of employment, Cost of production and prices, Use of Machinery, Production methods, etc.) = each module every 3 yrs
- Integrated approach:
  - Economic data (production, inputs, farm-gate prices, production cost, farming practices, etc.)
  - Social data (sex, age, education, type of employment, income)
  - Environmental data (land use, water use, pesticides, etc.)
- Data collection = use of new technologies, including GPS, CAPI, RS

#### **Expected Results**

- Provide countries with an integrated programme of agricultural surveys
  - for collecting annual and structural agricultural data
  - for collecting data on the economic, social and environmental dimensions of the farms
- Provide a tool for testing new cost-effective methodologies for agricultural statistics developed under the Global Strategy
- Build country capacity to collect the minimum set of core data
- Provide estimates on the productivity of small holders and other SDG indicators at national & international levels
- Make available standard modules for collecting agricultural & data in national farm surveys

#### **Modality of Implementation**

- Dependent on countries' statistical programme
- On-going annual agricultural survey: likely that the annual survey collects only part of the minimum set of core data:
  - AGRIS modules could be added to the annual survey to cover missing data and survey design could be improved using GS guidelines
- On-going LSMS-ISA survey (data collected only every 3 years and to cover only part of the minimum set of core data)
  - AGRIS could complement annual data
- No LSMS or annual agricultural survey:
  - AGRIS will be the vehicle for collecting the minimum set of core data
  - AGRIS could build on the Agricultural Census result to introduce a regular annual survey

## Agricultural and Rural Integrated Survey

Modular Structure	<b>Core Module</b> : yearly data collection on <i>current</i> agricultural production integrated with economic and socio-demographic statistics
	Module on Specific Topics structural data to collect every 3

Agricultural Holdings: household sector (with associated

appropriate list frame (agricultural census or administrative

(segments or points) or the Enumeration Areas derived from

Design fitted to the specific frame (use of MSF and ISF

Use of new data collection methods, including GPS, CAPI,

Non-Household sector: sampling based on the most

Household sector: sampling based on area frame

years (sub-samples can also be used)

households) and non-household sector

the Censuses (Agriculture or Population).

registers)

guidelines).

Remote Sensing

Statistical Units

Sample design

Data collection

process

Frames