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INDICATORS FOR FOOD SECURITY & SUSTAINABLE AGRICULTURE - SDG2

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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)
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<tr>
<th>Target 2.1</th>
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<tbody>
<tr>
<td><strong>Ind. 2.1.1:</strong></td>
<td>Prevalence of Undernourishment (PoU)</td>
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<td><strong>Ind. 2.1.2:</strong></td>
<td>Prevalence of population with moderate or severe food insecurity, based on the Food Insecurity Experience Scale - FIES</td>
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<th>Target 2.2</th>
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<tr>
<td><strong>Ind. 2.2.1:</strong></td>
<td>Prevalence of Stunting (low height-for-age) in children &lt; 5 yrs</td>
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<td><strong>Ind. 2.2.2:</strong></td>
<td>Prevalence of overweight children under 5 years of age</td>
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<td><strong>Ind. 2.2.3:</strong></td>
<td>Women Dietary Diversity Score</td>
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<th>Target 2.3</th>
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<td><strong>Ind. 2.3.1:</strong></td>
<td>Value of agricultural production per labour unit by farm size</td>
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<th>Target 2.4</th>
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<td><strong>Ind. 2.4.1:</strong></td>
<td>% of agricultural area under sustainable agricultural practices</td>
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<th>Target 2.5</th>
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<tr>
<td><strong>Ind. 2.5.1</strong></td>
<td>Ex-situ crop collections indicator</td>
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<tr>
<td><strong>Ind. 2.5.2</strong></td>
<td>Number/percentage of local breeds classified as being at-risk, not-at risk, and unknown-levels of risk of extinction</td>
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**Target 2.a**

**Ind. 2.a.1:** Ratio of the agriculture share of government expenditure, over the agriculture contribution to the economy (agriculture orientation index)

**Target 2.b**

**Ind. 2.b.1:** 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 Insecurity:
  – 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
## Modular Structure

| **Core Module** | yearly data collection on *current* agricultural production integrated with economic and socio-demographic statistics |
| **Module on Specific Topics** | *structural* data to collect every 3 years (sub-samples can also be used) |

## Statistical Units

| **Agricultural Holdings** | household sector *(with associated households)* and non-household sector |

## Frames

| **Non-Household sector** | sampling based on the most appropriate list frame (agricultural census or administrative registers) |
| **Household sector** | sampling based on area frame (segments or points) or the Enumeration Areas derived from the Censuses (Agriculture or Population). |

## Sample design

Design fitted to the specific frame (use of MSF and ISF guidelines). |

## Data collection process

Use of new data collection methods, including GPS, CAPI, Remote Sensing.