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Towards a National Quality Assurance Framework for Agricultural Statistics

Pietro Gennari
FAO Chief Statistician

Background & Objectives (1/3)

The existence of **data quality standards** and **assessment frameworks** for is critical for ensuring that food and agricultural statistics produced at country level meet national and international users' requirements

Currently, there is no single National Quality Assurance Framework (NQAF), specifically dedicated to Agriculture Statistics (AgStats), defining the best methodologies to produce them

Recently (2019) the UN updated the **generic NQAF** to:

- support agencies willing to develop a NQAF/revise already existing one

- respond to the challenges posed by the use of new data sources.

The UN 2019 NQAF manual comes along with a **self-assessment checklist** primarily meant for an assessment of the NSS carried out by the coordinating body (typically the National Statistical Office)

The UN self-assessment checklist, however, is too generic for identifying strengths and weaknesses in a specific statistical domain, like AgStats.

Background & Objectives (2/3)

The 2021-22 workplan of the UN Committee of Experts on Food Security, Agricultural and Rural Statistics (UNCEAG-UNSC body) includes the development of NQAF for agriculture statistics and a set of self-assessment checklists for the main sub-domains of agriculture statistics

One of the main difficulties is the variety of sub-domains that fall under the AgStats umbrella:

- production of crops and livestock;

- inputs (fertilizer/pesticides; machinery; employment);

- prices (producers/consumers);

- food security/food access

- land use/land cover

- Public/private investment

- Etc......

Background & Objectives (3/3)

The Task Team on Experts involved in this workstream decided to:

- Adopt the IMF DQAF approach (where the generic DQAF serves as an umbrella to 7 dataset-specific frameworks in the domain of economic statistics) for AgStats

- and develop an initial set of self-assessment checklists for the key sub-domains:
  - crops and livestock production statistics;
  - statistics on producer's prices of agriculture commodities;
  - land use/cover statistics.

The Checklist for AgStat (1/2)

Same general structure (4 levels) of the 2019 UN NQAF checklist

First 2 levels refer to the whole AgStats domain, other are tailored to the specific sub-domains

Level	Principles considered
1. National Statistical System (wrt the whole AgStat domain)	• Coordination
2. Institutional framework (wrt the whole AgStat domain)	• Independence • Impartiality • Resources
3. The statistical process for producing the statistical outputs in the specific AgStat sub-domain	• Methodological soundness • Appropriate statistical procedures (*compliance wrt to the "ideal" process for producing statistics in the sub-domain*)

The Checklist for AgStat (2/2)

Level	Principles/ dimensions considered
4. The quality of the statistical outputs in the specific AgStat sub-domain	• Relevance • Accuracy & Reliability • Timeliness & Punctuality • Accessibility & Clarity • Comparability & Coherence • *Metadata management*

The self-assessment based on the checklists

The checklist includes several assessment-type questions related to the implementation of guidelines/best practices/standards:

- ➢ Fully implemented => score 1
- ➢ Partially implemented => score 0.5
- ➢ Not implemented => score 0
- ➢ NA (Not Applicable) => *no score assigned*

Elementary scores aggregated so as to align with IMF DQAF ROSC (Reports on the Observance of Standards and Codes) that adopts a four-point rating scale:

- "O" = Practice Observed
- "LO" = Practice Largely Observed
- "LNO" = Practice Largely Not Observed => *Improvement actions*
- "NO" = Practice Not Observed => *improvement actions*
- NA = Not Applicable

Self-assessment checklists being developed

- Crops & livestock statistics
  - Finalized after a pilot test (Summer 2021) conducted by some member countries of the TT of the UNCEAG
  - Web-based questionnaire in Survey Solutions
  - Forthcoming: training seminars/workshops; global application

- Statistics on producers' prices for Ag commodities
  - *Under development*

- Land use/cover statistics
  - *Development to start in 2022*

Thank you

Pietro.gennari@fao.org