SESSION 2

Designing and Implementing National Quality Assurance Frameworks for key food and agricultural data

Achievements and Next steps

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Task Team on
Data quality standards and assessment framework for key food and agricultural data

UN Committee Of Experts On Food Security, Agricultural And Rural Statistics (UN-CEAG)

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Background and objectives (1/2)

Objective: Develop a framework for improving the quality of food and agriculture statistics

Background:

The existence of a general National Quality Assurance framework (NQAF) guarantees consistency of statistical concepts, methodologies, as well as standards and procedures of the overall statistical program conducted by each national statistical authority

BUT

- many counties have NOT established a NQAF

- countries have a general NQAF but it is only <u>partially</u> or <u>not yet implemented</u> for agriculture statistics

Background and objectives (2/2)

Objective: Develop a framework for improving the quality of food and agriculture statistics

Major difficulty with agriculture statistics: many sub-domains

- crops and livestock;

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

- prices (producers/consumers);

- food security/access

- …

References (1/2)

UN NQAF Manual (2019)

assuring quality of statistics produced in any National Statistical System (NSS) encompasses four levels:

> (A) managing the statistical system
> (B) managing the institutional environment
> (C) managing statistical processes
> (D) managing statistical outputs

The UN NQAF Manual comes along with:

- a self-assessment checklist
- a roadmap for implementation

References (2/2)

IMF DQAF (2019)

Specific focus on economic data, three levels:

- the statistical institution
- the statistical processes
- the statistical product

Generic DQAF serves as an umbrella to dataset-specific frameworks:

National accounts statistics; Consumer/producer price index; BOP/IIP; External Debt; Financial Institution; Government Finance statistics

- basis for IMF country reviews and, in particular, for the data module of the Reports on the Observance of Standards and Codes (ROSCs)
- can also be used for self-assessment exercises

The proposed approach

Same philosophy of IMF DQAF, i.e. a general part covering:

- the statistical institution (partially, only resources)
- the statistical processes
- the statistical product

The principles (and requirements) related to these parts are those listed in the UN NQAF under levels (B), (C) and (D)

BUT

Instead of having explicit dataset-specific frameworks, as in IMF DQAF, we decided to develop tailored self-assessment checklists:

- crops and livestock statistics
- statistics on producers' prices of agriculture commodities
- statistics on land used for agriculture purposes (*being finalized*)

Skeleton of the Checklist

Level (B) – institutional environment: adequacy of resources for producing the considered statistical outputs

Level (C) – the statistical process: investigates the process by phases of the GSBPM v5.1 (design; collect, process, …)

Level (D) – the statistical outputs: investigates the quality dimensions:

- Relevance
- Accuracy and reliability
- Timeliness and punctuality
- Accessibility and clarity
- Coherence and comparability

The Generic Statistical Business Process Model (GSBPM) is a means to describe statistics production in a general and process-oriented way

Self-assessment with the Checklist

Assessment-type questions related to the **implementation of guidelines/best practices** (international standards; FAO manuals, Manuals from other international organizations, etc.):

- Full implementation => score 1

- Partial implementation => score 0.5

- Not implemented => score 0

- *NA (Not Applicable) => no score assigned*

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

"O" = Practice Observed   (0.8 < av_score <= 1)

- "LO" = Practice Largely Observed   (0.5 < av_score <= 0.8)

"LNO" = Practice Largely Not Observed (0.2 < av_score <= 0.5)

"NO" = Practice Not Observed (av_score <= 0.2)

NA = Not Applicable

The final report

For each of the **Major identified weaknesses (<u>only</u> for outcomes LNO and NO),** *assessor will list and describe the recommended actions to be undertaken to improve the statistics - possibly indicating the priorities in implementation.*

Level	Item (from above, as relevant)	Outcome
Institutional framework	Assuring Adequacy of resources in producing the considered statistical outputs	
Statistical Process for producing the investigated statistical outputs	Design	
	Data collection	
	Data treatment	
	Data processing	
Quality of the investigated statistical outputs	Relevance	
	Accuracy and Reliability	
	Timeliness and Punctuality	
	Accessibility and Clarity (and metadata)	
	Comparability and Coherence	

- **Assessor will describe the recommended actions** to be undertaken to improve the relevant statistics - possibly indicating the priorities in implementation.

- **FAO can support both in-depth quality assessments and the preparation of improvement plans.**

Checklists' development process

1) Preparation of a 1st draft (checklist and scoring criteria)

2) 1st draft reviewed by experts in the Task team --> 2nd draft

3) 2nd draft used in a small pilot study on some counties involved in the Task Team --> **final checklist**

- Each self-assessment checklist comes along with:

- List of questions that are used for scoring purposes (not all) and corresponding scoring mechanism

- Mapping between scoring questions and sub-sections of the final report allowing aggregation (averaging) of scores

- Template of the final report

Uses of the self-assessment checklist

- The country has already in place a <u>regular</u> statistical production process (survey, etc.) in the considered sub-domain:

    i)   Assessment of an <u>ongoing process</u> (survey, etc.) to get insights on it (major strengths and weaknesses)

    ii)   Assessment <u>before the re-design of the process</u> (survey, etc.) to understand where to concentrate the efforts to improve the quality of the statistics in the considered sub-domain

- The country does NOT have in place a <u>regular</u> statistical production process (survey, etc.) in the considered sub-domain:

    -     iii)   <u>Assessment before setting up a new process</u> to understand which are the main "checkpoints" (best practices, manual/guidelines, classifications, etc.) to consider in the design

Next Steps / Discussion

- Promotion of the use of the checklist to carry out self-assessment exercises (Agencies can decide in which of 3 sub-domains, one or all)

- FAO can support both quality assessments and the preparation of improvement plans

Thank you

https://www.fao.org/about/ce-on-food-security-agricultural-rural-statistics/en/