Workshop on the Implementation of a National Quality Assurance Framework for Official Statistics in countries of the Africa Region

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Session 3.2: UN NQAF principles, requirements and elements to be assured

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What is quality in Statistics (Definition)

Quality is the degree to which a set of inherent characteristics of an object fulfils requirements (see International Standards Organization, ISO 9000:2015). In the context of statistical organizations, the object is the statistical output or product, the process, the institutional environment or the whole statistical system

A simple definition of quality is "fit for use" or "fit for purpose".

What is quality in Statistics (Definition)

- It is the users' needs that define the quality, and they have to be balanced against each other.
- The concept of quality of statistical information is multi-dimensional and that there is no one single measure of quality.
- For a statistical product, the general definition of quality is operationalized by specifying a set of factors or dimensions that characterize its quality: Relevance, Accuracy and reliability, Timeliness and punctuality, Accessibility and clarity, Coherence and comparability.
- The dimensions of quality are interrelated and, there are trade-offs between some of them (and also in relation with the statistical production processes.)

General Quality Management Framework

Definition: A Quality management framework provides a coherent and holistic system as a basis for quality management

- There are various general quality management frameworks applicable to any organization and with different emphasis, such as Total Quality Management (TQM), International Organization for Standardization (ISO) , Six Sigma, European Foundation for Quality Management (EFQM), Balanced Scorecard, Lean and Lean Six Sigma.
- TQM is the foundation of all general quality frameworks. TQM is "a set of systematic activities carried out by the entire organization to effectively and efficiently achieve company objectives so as to provide products and services with a level of quality that satisfies customers, at the appropriate time and price".
- The strategic core of all major TQM models is continuous improvement.

Statistical Quality Management Frameworks

- The above-mentioned general quality frameworks inspired the statistical quality frameworks such as the
  - European Statistics Code of Practice (ES CoP),
  - the International Monetary Fund's Data Quality Assessment Framework (DQAF),
  - the Recommendation of the Organisation for Economic Co-operation and Development (OECD) on Good Statistical Practices and
  - UN Principle presented in Chapter 3 and Annex.
- These are also inspired by and consistent with the FPOS which emphasizes independence, impartiality and protection of data on individuals.

Quality Management and Quality assurance

Note on terminology:

Quality management includes quality assurance but both terms are often used synonymously; quality management is a more overarching concept while quality assurance implies a greater focus on concrete actions.

Chapter 3 and Annex: United Nations National Quality Assurance Framework (UN NQAF)

UN NQAF arranges its quality principles and associated requirements into four levels, ranging from the over-arching institutional and cross-institutional level through the statistical production processes to the outputs:

Level A: Managing the statistical system

Level B: Managing the institutional environment

Level C: Managing statistical processes

Level D: Managing statistical outputs

United Nations National Quality Assurance Framework (UN NQAF)

Level A. Managing the statistical system

Coordination of the national statistical system and managing relations with all stakeholders is a precondition for the quality and efficient production of official statistics. Ensuring the use of common statistical standards throughout the system is an important part of this management.

- **Principle 1: Coordinating the national statistical system**
- **Principle 2: Managing relationships with data users, data providers and other stakeholders**
- **Principle 3: Managing statistical standards**

United Nations National Quality Assurance Framework (UN NQAF)

Level B. Managing the institutional environment

The institutional environment is one of the prerequisites to ensure the quality of statistics. Principles to be assured are professional independence, impartiality and objectivity, transparency, statistical confidentiality, quality commitment and adequacy of resources.

- **Principle 4: Assuring professional independence**
- **Principle 5: Assuring impartiality and objectivity**
- **Principle 6: Assuring transparency**
- **Principle 7: Assuring statistical confidentiality and data security**
- **Principle 8: Assuring the quality commitment**
- **Principle 9: Assuring adequacy of resources**

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Level C. Managing statistical processes

International standards, guidelines and good practices are fully observed in the statistical processes used by the statistical agencies to develop, produce and disseminate official statistics, while constantly striving for innovation. The credibility of the statistics is enhanced by a reputation for good management and efficiency.

- **Principle 10: Assuring methodological soundness**
- **Principle 11: Assuring cost-effectiveness**
- **Principle 12: Assuring appropriate statistical procedures**
- **Principle 13: Managing the respondent burden**

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Level D. Managing statistical outputs

Output quality is measured by the extent to which the statistics are relevant, accurate and reliable, timely and punctual, readily accessible and clear for the users, and coherent and comparable across geographical regions and over time.

- **Principle 14: Assuring relevance**
- **Principle 15: Assuring accuracy and reliability**
- **Principle 16: Assuring timeliness and punctuality**
- **Principle 17: Assuring accessibility and clarity**
- **Principle 18: Assuring coherence and comparability**
- **Principle 19: Managing metadata**

Structure UN NQAF

19 Principles

A principle is implemented by complying with its requirements

87 Requirements

In general, compliance with a requirement depends on the compliance with the elements to be assured under this requirement

Elements to be assured (357)

Possible activities, methods and tools to meet the requirement, reflecting a good practice. To be followed or assured as long as they are applicable.

Structure UN NQAF - Example

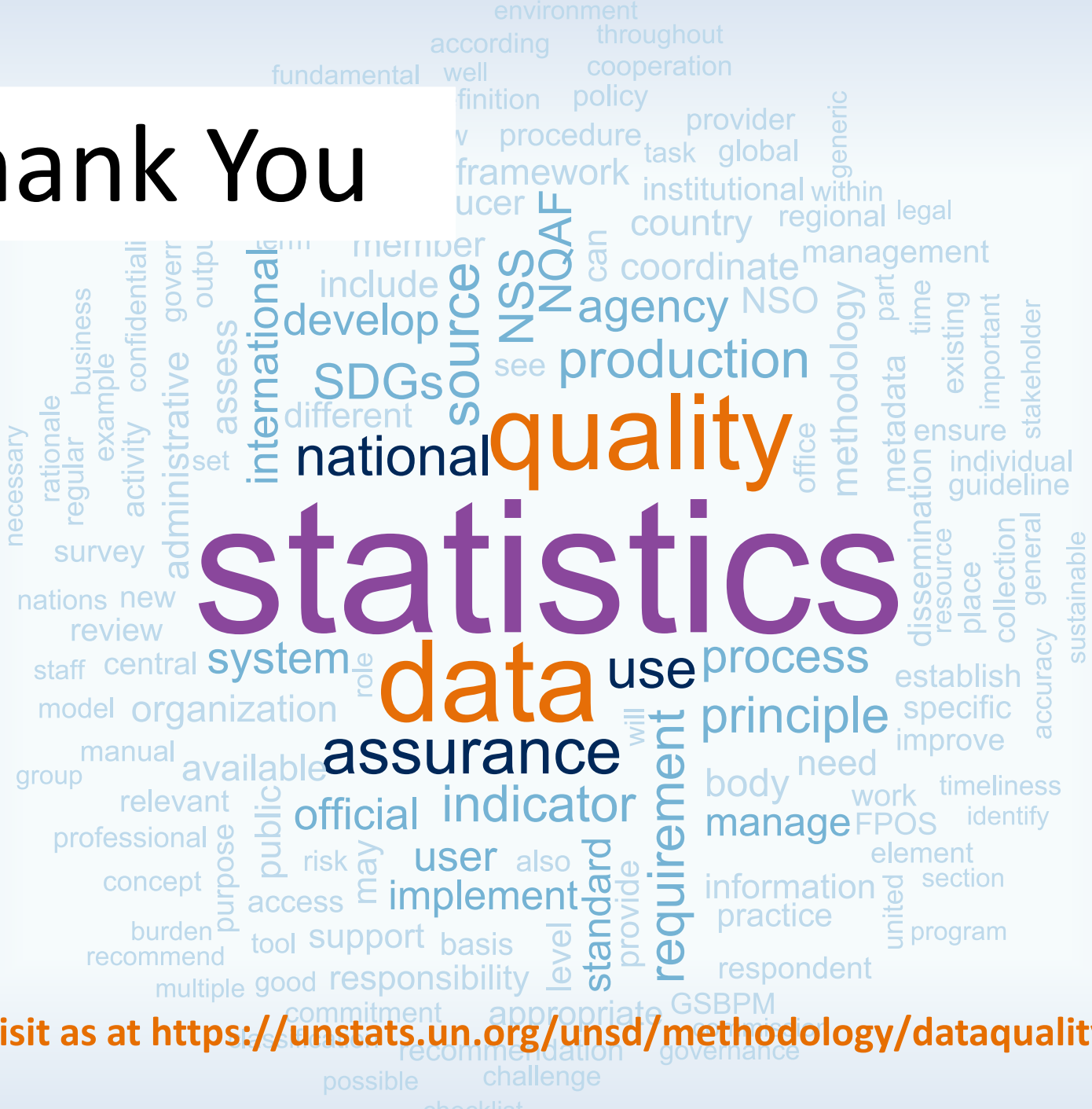
Principle 1: Coordinating the national statistical system

Coordination of the work of the members of the NSS is essential for improving and maintaining the quality of official statistics. Principle 1 is mainly supported by FPOS 8.

Requirement 1.1: A statistical law establishes the responsibilities of the members of the national statistical system including

- The coordination role of the national statistical office (NSO) or other body is defined in a statistical law.
- The statistical law specifies the requirements for official statistics and the scope of the national statistical system (NSS).
- Members of the NSS are identified in a formal document.
- Responsibilities of NSS members for the development, production and dissemination of official statistics are clearly specified in the respective laws and regulations.

Thank You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