



Implementation of a National Quality Assurance Framework throughout the NSS-**Ethiopia**

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Outlines of Presentation

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Background

- The CSA was established by Proclamation No. 442/2005 that was passed on 20 April 2005
- CSA has the following mandate as specified by the law:
 1. to collect, process, analyze and disseminate the necessary socio-economic and demographic statistical data through censuses, sample surveys, continuous registration and administrative recording systems; and
 2. to provide technical guidance and assistance to government agencies and institutions in their endeavor to establish administrative recording, registration and reporting systems; and build the capacity required for providing directives and consultations in database creation and development of administrative records and registration systems.

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- Based on its second mandate, CSA is the Agency responsible for **coordinating**, **monitoring** and **supervising** the activities of the **NSS** in Ethiopia, and ensuring that international and national standards are adhered to.
- In Ethiopia, the National Statistical System has been understood as including all sectors, that is, **Ministries**, **Agencies** and **Departments** of the Government, that are involved in generating statistics directly through surveys or through administrative records.

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- Research institutes and professional associations are also part of the NSS. Members are involved in using such statistics and/or supplying raw data that produces such statistics
- We can categorize them as **producers, users, suppliers and Statistical Training Institutions/Centers**
- National Strategy for the Development of Statistics is a comprehensive framework towards the development of the National Statistical System (NSS) of the country.

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- **NSDS** design follows on from the Medium Term Statistical Programme (MTSP) for the Central Statistical Agency (CSA) that ended in 2008, but it differs in scope.
- The NSDS covers statistical development in the entire statistical system, not just that of the CSA.
- The NSDS I covered the period (2009/10 to 2014/15).
- NSDS II covers the period (2015/16 - 2019/20)

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- The NSDS I is definitive as regards improvements in the NSS for the period to 2015.
- Establishment of an NSS methodological and support unit in the CSA for quality assessment and NSS capacity building.. It is referred to as the National Statistics Data Quality and Standards Coordination Directorate (NSDQSCD).
- Statistical Standard Documents are Prepared and Implemented within NSS (Concepts and Definition, Naming and Coding, Industrial Classification and Occupation Classification)
- It is also the engine of EDQAF development and implementation.
- Introduction of memoranda of understanding (MoU) between the CSA and its NSS partners.

E-DQAF Program Design

Objectives and Outputs

- The target outcome of E-DQAF may be succinctly expressed as:
- More satisfied users, using better statistics to make more informed decisions.

Overall Objective

- To introduce a comprehensive quality assessment program that summarizes the quality of NSS data outputs for the benefit of both data producers and users, and that identifies quality problems and potential quality improvements and brings them to the attention of producers and senior managers for action.

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The specific objectives of E-DQAF are:

- To assess, on a rotating basis, the quality of all NSS data outputs and of the systems that produce them.
- To identify quality problems and to highlight the major ones;
- To propose quality improvements;
- To ensure that quality problems and potential improvements are brought to the attention of senior management;

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- To review the extent to which quality problems have been addressed (during the next assessment round);
- To provide producers and users with a quality summaries, including quality scores by dimension;
- To provide quality scores enabling labeling of official statistics.
- Over the first few years of the assessment program the first four items have higher priority. As the assessment program matures, the remaining items will be accorded equal priority.

General Quality Concepts

- A quality model indicates what quality means, how quality is defined. Within national statistical organizations, quality may be considered in terms of three aspects:
 - ❑ *quality of statistical output data;*
 - ❑ *quality of the statistical production process that produces the outputs; and,*
 - ❑ *quality of the institutional environment within which the statistical production takes place.*
- Within each of these aspects, quality is defined in terms of a number of dimensions (also called criteria or components).

E-DQAF Quality Model

Sources of model

- In formulating the E-DQAF quality model, account was taken of the models used by international and national statistical organizations and by the international M&E community.
- The E-DQAF model has five output data quality dimensions.
- For the most part they reflect the dimensions initially proposed by Statistics Canada and subsequently adopted, with minor modifications, by in the European Statistical System.

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- E-DQAF output quality dimensions are: **Relevance, Accuracy, Timeliness and Punctuality, Accessibility and Interpretability, Coherence and Comparability**
- The model has six process quality dimensions that reflect on methodology, standard operating procedures, data and metadata management, human resource management, and reporting burden.
- They include the IMF DQAF and South African Quality Assurance Framework (SASQAF)

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- E-DQAF process quality dimensions are: Methodological Soundness, Human Resource Management, Standard Operating Procedures, Data Management and Security, Quality Assurance/Control and Reporting Burden
- The institutional quality dimensions are largely based on the European Statistical Code of Practice, supplemented by the integrity dimension from the IMF DQAF and SASQAF.
- E-DQAF Institutionnel Environnement Quality Dimensions are: Mandate, Resources, Performance and Quality Management; Integrity and Provider Transparency, Privacy and Confidentiality

E-DQAF Assessment Phases

Phase 1: Initiation and Preliminary Investigation

This phase involves:

- setting up the assessment schedule and working relationships with data producer and key users;
- conducting an initial review of metadata and other documentation and having preliminary discussions with the data producer;
- obtaining a sufficiently informed perception of data process quality to determine whether Phase 2 is required; and
- establishing the logistics of the assessment.

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Phase 2: Systems Assessment

- This phase involves on site assessment at samples of wereda, zones, and regions through which the data pass.

It has two components:

- assessment of data collection, capture, processing and transmission procedures, based on discussions with production staff, and review of metadata and other documentation, at each level;
- verification of (samples of) the data received and transmitted at each level.

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Phase 3: Overall National Assessment

This phase involves assessment of output, institutional and (selected) process quality dimensions based on:

- detailed discussion with production staff at national office;
- review of metadata and other documentation at national level;
- review of results of Phase 2 assessment (if conducted).

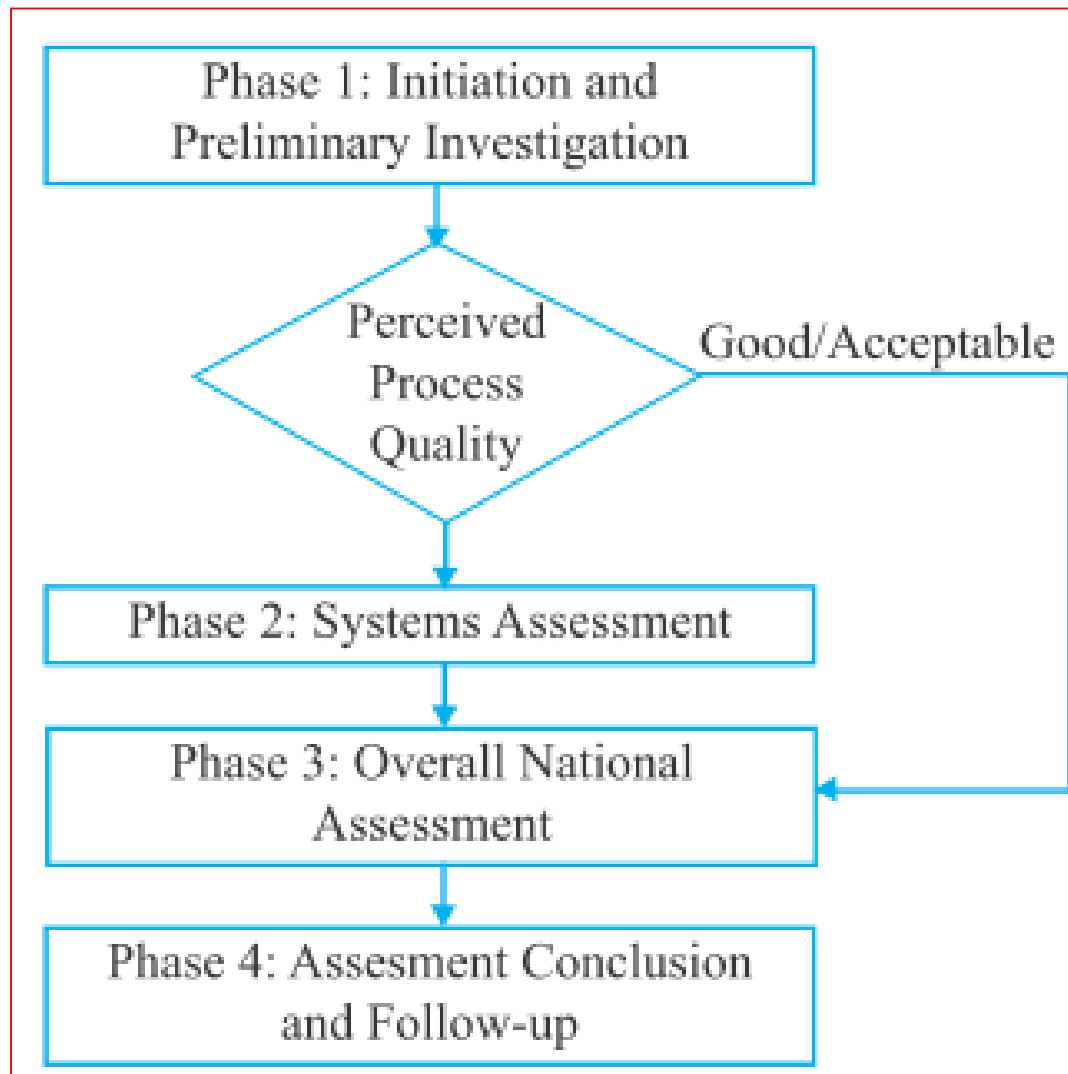
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Phase 4: Reporting and Conclusion

This phase involves:

- preparation of assessment results, comprising descriptions of major quality problems and potential quality improvements and quality summaries;
- distribution and discussion of these results with the data producer, senior managers having oversight of the data production process, and key data users; and
- formally wrapping up the assessment process and provisionally scheduling the next assessment

Sequence of Phases



Design and Use of Assessment Tools

- Each assessment phase is supported by one or more tools in the form of standard questionnaires, checklists, or instructions for conduct of interviews or discussion groups.

Summary Scores

- Each quality dimension covered by the questionnaire is assessed through one or more of quality elements.
- For each quality element there are a number of quality indicators, each of which is expressed in the form of a question.
- For each question there are four possible benchmark response categories, labeled 4, 3, 2, 1, where 4 reflects the highest quality response and 1 the lowest quality.

Summary Scores by Quality Dimension

Quality as reflected in questionnaire responses is summarized by computing the score for each quality dimension as the average of the scores obtained for all the elements associated with that dimension.

The value of such a dimensional score is interpreted in terms of the following four levels

- Level 4: Good – the data/process/institution satisfies(s) all the quality requirements.
- Level 3: Acceptable - the data/process/institution satisfies(s) many of the quality requirements.
- Level 2: Questionable – the data/process/institution satisfies(s) few of the quality requirements.
- Level 1: Poor - the data/process/institution satisfies(s) none of the quality requirements, or cannot be assessed.

CSA Quality Deceleration

- In its role as NSS coordinator, the CSA had also developed a quality declaration for use by the other NSS members.
- The quality declaration for NSS will be greatly simplified relative to that of the CSA and will focus exclusively on the statistical data production activities of the organization and the environment within which they take place.
- The quality declaration will reflect the expectation that the statistics producing units within the NSS member will adopt the E-DQAF quality model, and will put in place assurance procedures and quality improvements that will enable the E-DQAF Program to achieve its objectives.

Implementation of E-DQAF

- Whilst there is no specific reference to quality assessment in the Proclamation, it is evident that the Proclamation provides a mandate for the development and implementation of the E-DQAF.
- Thus, for the time being, the E-DQAF is being conducted under current legislation.
- It will be supported by memoranda of understanding (MOUs) established on a bilateral basis with each organization producing statistical output.
- The datasets in scope for the E-DQAF are national level datasets that are produced by government agencies or institutions and that are used, or could be used, to produce government statistics.

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- Regional, zonal, and wereda datasets are not in scope for E-DQAF assessment except in so far as they contribute to national datasets. However, regional, zonal or wereda organizations are free to adopt and implement the E-DQAF for self assessment.
- Identification of the set of datasets in scope has begun and will continue as E-DQAF is implemented.
- It will be achieved by examining the data holdings of each government ministry, department or agency and identifying existing or potential statistical output datasets.

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Sectors	Dataset Assessed	Assessment Phases Conducted
Road	Basic road data	Phase I and II-failed
Education	EMIS	Full Assessment
Health	HMIS	Full Assessment
Water	WMIS	Phase I and II
Agriculture & Natural Resource	Basic agricultural and natural resource data	Phase I and II
Trade & Industry	Market price data	Phase I and II

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- **EDQAF trainings that have been conducted So far:**
 - National level NSS members Data Production Staffs
 - Regional Sector Bureau Data Production Staffs
 - Zonal and Wereda Level Sector Bureau Data Production Staffs

Strengths

- Existence of the Framework E-DQAF
- Assessments have been conducted for some sectors following phased approach
- Initiation by government to support quality assessments by CSA
- Data quality trainings have been offered for experts at lower level administrative units throughout all regions in the country

Weaknesses

- Only few NSS members assessed
- Limited staff capacity within CSA
- Limited staff capacity within NSS to use E-DQAF for self assessments
- Statistical Units are not available in most NSS members
- Resource limitation
- Lack of follow up after quality assessments
- Failure to continuously updates of E-DQAF
- Failure to maintain periodicity (rotating)
- Gaps on statistical legislation (lack of willingness by some sectors to accept and implement assessment results)

Thank You

