
KENYA STATISTICAL QUALITY ASSURANCE FRAMEWORK AND CGD QUALITY CRITERIA

By

Mr. James Ng'ang'a

**Head of Sampling, Methods and Standards
Kenya National Bureau of Statistics (KNBS)**

jkinyanjui@knbs.or.ke

December, 2022

Contents

- About KNBS
- The National Statistical System
- Kenya Statistical Quality Assurance Framework (KeSQAF)
- Quality Criteria for Citizen Generated Data (CGD)

About KNBS

- Kenya National Bureau of Statistics (KNBS) is a State Agency established by the Statistics Act, 2006
- KNBS is the principal agency of the Government for collecting, analyzing and disseminating statistical data in Kenya. It is also the custodian of official statistical information and coordinator of the National Statistical System (NSS).
- Location
 - Headquarter located in Nairobi
 - Field Offices in all the 47 counties

The National Statistical System

- The NSS comprises of Government Ministries, Departments, Agencies and devolved units (47 County Governments)
- Coordination of the NSS is guided by the Kenya Strategy for Development of Statistics (KSDS)
- One of the Strategic Focus area in the 2019/20 -2022/23 KSDS is improving data quality
- Data quality will be guided and assured through the Kenya Statistical Quality Assurance Framework (KeSQAF)

Kenya Statistical Quality Assurance Framework (KeSQAF)



Kenya Statistical Quality Assurance Framework (KeSQAF) is a tool for assuring, monitoring and assessing and the quality of data produced in the National Statistical System (NSS) and beyond

<https://www.knbs.or.ke/publications/>

Structure of the KeSQAF

- Based on the United Nations National Quality Assurance manual (UN NQAF).
- The KeSQAF is organized in four levels each with a number of principles and relevant requirements to be met
 - i. **Level A:** Managing the statistical system
 - ii. **Level B:** Managing Institutional Environment
 - iii. **Level C:** Managing Statistical Processes
 - iv. **Level D:** Managing Statistical Outputs
- The Quality Criteria for validating Citizen Generated Data is annexed.

Quality Assurance Principles

Level A: Managing the Statistical System

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

Level B: Managing the institutional Environment

- 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 commitment to quality
- Principle 9: Assuring adequacy of resources

Quality Assurance Principles

Level C: Managing the Statistical processes

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

Level D: Managing the Statistical Outputs

- 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

The CGD Quality Criteria

- There is great potential of the new and emerging sources of data within the data ecosystem.
- KNBS is considering these alternative sources of data in closing data gaps and official reporting especially on the Sustainable Development Goals(SDGs).
- The **KeSQAF** outlines the **Quality Criteria for validating Citizen Generated Data (CGD)** as an alternative source of data to fill existing data gaps
- The document is the product of extensive consultation and engagement with CSOs and forms the first key steps in using their data for official reporting, especially on the SDGs.

Overview of the CGD Quality Criteria

The criteria uses **8 quality dimensions** to assign scores to the data

- i. Need
- ii. Interpretability and clarity
- iii. Credibility
- iv. Relevance
- v. Timeliness
- vi. Accessibility
- vii. Methodological soundness
- viii. Accuracy

For each dimension, a **score** is given using the score allocation matrix as follows.

3-High

2-Medium

1-Low

0-Not acceptable

An average score is then assigned by summing up the total scores divided by the 8 quality dimensions.

CGD Quality Criteria

✓ For the CGD data to qualify as fit for official reporting, it must meet the following minimum threshold.

I. Must pass all the three quality gateway dimensions,

Quality Dimensions	Pass	Fail
Interpretability and Clarity	Dataset, metadata, codebook, survey instruments, ethical approvals (where necessary) and study report are all provided.	Dataset, metadata, codebook, survey instruments, ethical approvals (where necessary) and study report are not provided.
Credibility and Trust	A registered organisation working with the relevant authority (KNBS or government institution) OR an international organisation with Affiliation to a local organisation.	The organisation is not registered nor working with any relevant authority or institution.
Need	The data fills required data gaps and fits within the required geographical coverage as identified by KNBS.	The data does not fill required data gaps nor fits within the required geographical coverage as identified by KNBS.

CGD Quality Criteria

- I. Must not score a zero (0) for any of the quality dimensions and
The average score must be at least 1.5

Table 2: Score Allocation Matrix

Quality dimensions	3 – High	2 – Medium	1- Low	0 – Not acceptable
Relevance	Aggregate data can be used to directly measure or serve to monitor Global, Regional, National	Aggregate data can be used to partially measure or serve to monitor Global, Regional, National	Aggregate data can be used to indirectly (or as a proxy) measure or serve to monitor Global, Regional,	Aggregate data cannot be used to measure or serve to monitor Global, Regional,
Timeliness	Aggregate data are available within the year of the reference/ measurement period	Aggregate data are available more than a year but less than two years after the reference/ measurement period	Aggregate data are available between two to five years after the reference/ measurement period	Aggregate data are available more than five years after the reference/ measurement period
Accessibility	Aggregate data are freely shared with anyone in print and /or online publication and anonymized microdata are freely accessible through an online platform	Data are freely shared with anyone upon request or can be provided to the KNBS and the general public through a data-sharing agreement	Data are available on request but at a fee.	Data are for internal use only of the non-state actor.

CGD Quality Criteria Summary

Minimum Threshold

- a) Must pass all the quality gateway dimensions,
- b) they may not score 0 (not acceptable) for any of the listed dimensions,
- c) the average score must be at least **1.5 points** (= total points divided by the number of criteria applied).

Implementation of the Criteria

- Used the quality criteria to validate two CGD datasets in July 2022
- Review and validation of 10 CSO datasets using the CGD criteria was undertaken.
- Presentations of feedback on the review and validation process and areas for improvement were also made.
- After review datasets from two datasets met the minimum threshold and have been adopted for use in reporting on SDG Goal 4.

Thank you