

# DATA QUALITY POLICY



**STATISTICS BOTSWANA**

---

Statistics Botswana. Private Bag 0024 Gaborone Botswana

**Tel:** (+267) 367 1300. **Toll Free:** 0800 600 200 **Fax:** (+267) 395 2201. **Email:** [info@statsbots.org.bw](mailto:info@statsbots.org.bw) **Website:** [www.statsbots.org.bw](http://www.statsbots.org.bw)

---

## Table of Contents

1. PURPOSE OF THE POLICY.....	3
2. DEFINITION OF DATA QUALITY.....	3
3. SCOPE.....	4
4. POLICY STATEMENT.....	4
5. RESPONSIBILITY.....	4
6. QUALITY DIMENSIONS.....	4
7. STANDARDS AND GUIDELINES.....	7
8. SUPPPORTIVE DOCUMENTS.....	7

## 1. PURPOSE OF THE POLICY

This policy is meant to promote production of quality statistics within the National Statistical System (NSS) and provide a platform for the assessment of statistical outputs. The policy shall strengthen the production of statistics that are relevant, comprehensive, timely, trustworthy, accessible and focussed on meeting the needs of the users.

## 2. BACKGROUND

Statistics Botswana, like other statistical agencies, is mandated to be the pre-eminent national agency responsible for the development and management of official statistics. In addition, the organisation is mandated to coordinate the National Statistical System. Thus, Statistics Botswana has the responsibility to inform users and producers of statistics on the international best practices on data collection, processing, analysis and dissemination.

The Data quality policy is crucial in ensuring quality indicators needed to monitor and evaluate the national development plans, Vision 2036, regional, continental (e.g. Africa's Agenda 2063) and international development programmes (e.g. the Sustainable Development Goals – SDGs).

It is against the foregoing background, that Statistics Botswana has developed a policy that guides the users and producers on the quality of statistical products produced and disseminated within the National Statistical System, and authorises the framework on the processes to be followed in an effort to address different elements towards the production of official statistics.

## 3. LEGISLATIVE FRAMEWORKS AND PRINCIPLES

**3.1** The United Nations General Assembly adopted the fundamental principles of official statistics in January 2014, recognising at the highest political level the importance of quality official.

**3.2** The African Statistics Charter (2009) also underscore the importance of quality in one of its objectives, which is

*“to ensure improved quality and comparability of the statistics required to monitor the economic and social integration process in the continent”.*

**3.3** The Statistics Botswana Act of 2009 confers a legislative obligation on Statistics Botswana to adhere to the UN Fundamental Principles of Official Statistics. Section 29(2) of the act states;

“The principles of official statistics shall be in accordance with the standards and principles issued by the United Nations Statistical Commission, which include among others; data quality covering relevance, accuracy, reliability, coherence, comparability, timeliness and use of international standards.”

## 4. DEFINITION OF DATA QUALITY

According to the ISO 9000:2005 standard, quality is defined as the “degree to which a set of inherent characteristics fulfils requirements”. Statistics Botswana, like other Statistical Agencies defines data quality in terms of “fitness for use”. Therefore, under this definition, the quality of statistical information shall be determined by the extent to which they meet user needs.

## 5. SCOPE

This policy applies to all statistical data and analytical results produced and disseminated within the National Statistical System (NSS).

## 6. POLICY STATEMENT

This policy provides a standardised approach to ensuring and reporting on quality across the different statistical information, be it those produced by the National Statistics Organisation or different agencies within the NSS.

Data producers shall;

- 6.1 avail to users measures or indicators of data quality and descriptions of the underlying concepts, definitions, classifications (coding schemes) and methodologies;
- 6.2 Ensure that documentation on quality and methodology shall conform to such international standards and guidelines that shall over time be developed and issued under this Policy;
- 6.3 Ensure that statistical products are accompanied by or make explicit reference to documentation on quality and methodology;
- 6.4 Avail to users an assessment of the quality of statistics compiled using secondary data sources.

## 7. RESPONSIBILITY

The custodianship of this policy shall lie with the Statistician General. The policy shall be reviewed periodically as and when the need arises.

Monitoring of adherence to the policy is critical for improved statistical outputs; hence clear monitoring and evaluation mechanisms shall be in place. These shall be part of the NSS monitoring and evaluation processes.

## 8. QUALITY DIMENSIONS

Statistics Botswana with the mandate to coordinate and supervise the NSS, recognises the need to provide users and producers with guidelines towards data quality. These are detailed in the dimensions of quality as explained below;

Quality Dimensions	Definition and Key Components
<b>Prerequisites of quality</b>	<p>Refers to the institutional and organisational conditions that have an impact on data quality. It defines the minimum set of necessary conditions that have to be met in order to produce quality statistics. It therefore serves as the foundation on which all other dimensions of data quality should be premised. The minimum conditions are:</p> <ul style="list-style-type: none"> <li>• Legal and institutional environment (Stats Acts and other Acts including Memoranda of Understanding (MoUs) or Service Level Agreements (SLAs)</li> <li>• Confidentiality</li> <li>• Commensurability of resources</li> <li>• Quality as the cornerstone of statistical work</li> </ul>
<b>Relevance</b>	<p>Relevance of statistical information reflects the degree to which the statistical products meet the needs of users</p> <ul style="list-style-type: none"> <li>• Why do you need to conduct the survey or collect data?</li> <li>• Who are the users of the statistics?</li> <li>• What are their known needs?</li> <li>• How well does the output meet user needs?</li> <li>• Are user needs monitored and fed back into the design process?</li> </ul>
<b>Accuracy</b>	<p>The accuracy of statistical information is the degree to which the output correctly describes and or estimates the phenomena it was designed to measure. Accuracy refers to the closeness of the values provided to the (unknown) true values.</p> <ul style="list-style-type: none"> <li>• Assessment of sampling errors where sampling was used.</li> <li>• Assessment of coverage of data collection in comparison to the target population</li> <li>• Assessment of response rates with a view to determine usability of the data</li> <li>• Assessment of the impact of the imputation</li> <li>• Assessment of non-sampling errors and any other serious accuracy or consistency problems with the survey results or register based statistics.</li> <li>• Data collection, data capture, data coding and data processing errors.</li> <li>• Source data available provide an adequate basis to compile statistics (e.g. administrative records).</li> <li>• Source data reasonably approximate the definitions, scope, classifications, valuation, and time of recording required.</li> <li>• Source data are timely.</li> </ul>
<b>Credibility</b>	<p>The credibility of data products refers to confidence that users place in those products based simply on their image of the data producer, i.e, brand image</p> <ul style="list-style-type: none"> <li>• Professionalism and ethical standards which guide policies and practices.</li> <li>• Assurances that statistics are produced on an impartial basis.</li> <li>• Ethical standards are guided by policies and procedures.</li> </ul>
<b>Timeliness/ Punctuality</b>	<p>Timeliness of statistical information refers to the time lag between the reference point to which the information pertains and the date on which the information becomes available. Timeliness also addresses aspects of periodicity and punctuality of production activities within the statistical value chain.</p> <ul style="list-style-type: none"> <li>• Statistics production time</li> <li>• Timely receipt of administrative records.</li> <li>• Periodicity of statistical release.</li> <li>• Punctuality of statistical release.</li> <li>• Timely archiving of statistical products</li> </ul>

Quality Dimensions	Definition and Key Components
<b>Accessibility</b>	<p>The accessibility of statistical information and metadata refers to the ease with which it can be obtained from the agency. This includes the ease with which the existence of information can be ascertained, as well as the suitability of the form or medium through which the information can be accessed. The cost of the information may also be an aspect of accessibility for some users</p> <ul style="list-style-type: none"> <li>• Catalogue systems are available in the statistical agency</li> <li>• Delivery systems to access information</li> <li>• Information and metadata coverage is adequate</li> <li>• Measure of release calendar and delivery systems performance</li> <li>• Means of sharing data between stakeholders</li> <li>• Clearly identified location of information</li> </ul>
<b>Interpretability</b>	<p>Interpretability of statistical information refers to the ease with which users understand statistical information through the provision of metadata</p> <ul style="list-style-type: none"> <li>• Concepts and definitions, and classifications that underlie the data;</li> <li>• Metadata on the methodology used to collect process, analyse and compile the data;</li> <li>• Key findings , giving the summary of the results;</li> <li>• Presentation of statistics in a meaningful way.</li> </ul>
<b>Comparability and Coherence</b>	<p>Comparability of statistical information is the ability to compare statistics on the same characteristic between different points in time, geographical areas or statistical domains. The coherence of statistical information reflects the degree to which it can be successfully brought together with other similar statistical information from different sources within a broad analytic framework and over time. It is the extent to which differences between two sets of statistics are attributable to differences between the estimates and the true value of the statistics.</p> <ul style="list-style-type: none"> <li>• The use of common concepts and definitions within and between series.</li> <li>• The use of common variables and classifications within and between statistical series.</li> <li>• The use of common methodology and systems for data collection and processing within series.</li> <li>• The use of common methodology for various processing steps of a survey such as editing and imputations within series.</li> </ul>
<b>Methodological soundness</b>	<p>It refers to the application of international, regional and national standards, guidelines, and good practices to produce statistical outputs. Application of such standards fosters national and international comparability</p> <ul style="list-style-type: none"> <li>• International, regional and national standards on methods.</li> <li>• Data compilation methods employ acceptable procedures.</li> <li>• Statistical procedures employ sound statistical techniques.</li> <li>• Transparent revision policy and studies of revisions are done and made public.</li> </ul>

## 9. STANDARDS AND GUIDELINES



Data quality standards and assessment tools shall be addressed through Statistics Botswana Quality Assurance Framework. The framework serves as a guiding tool for all producers of statistics within the broader National Statistical System. In addition, the guidelines for measuring statistical quality also provides standards and procedures of how much documentation on data quality can be presented or readily accessed.

Furthermore, the Service Charter also outlines services standards and general turnaround time for various statistics products produced by Statistics Botswana.

## 10. SUPPORTIVE DOCUMENTS

For ease of reference, the following are important supportive documents (references):

- 10.1** Statistics Botswana Act 2009
- 10.2** Data Quality Assessment Framework (DQAF)
- 10.3** Service Charter (Statistics Botswana, 2016)
- 10.4** African Statistics Charter (2009)
- 10.5** United Nations Fundamental Principles of official statistics
- 10.6** International Standards Organisation (ISO)

	Official	Signature	Date
Approval	Chairperson		21/03/2020
Approval	Statistician General		17 March 2020