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**Statistics Division
Economic Affairs Department**

**A Draft Statistical Quality Assurance
Framework for the African Statistics System**

May 2015

Acronyms

ABS	Australian Bureau of Statistics
ACS	African Charter on Statistics
AEC	African Economic Community
AIA	African Integration Agenda
ASS	African Statistics System
AU	African Union
AUC	African Union Commission
CoDG	Committee of Directors-General
DFID	Department for International Development (UK)
EUROSTAT	Statistical Office of the European Commission
GSBPM	Generic Statistical Business Process Model
DQAF	Data Quality Assessment Framework
ICT	Information and communications technology
IMF	International Monetary Fund
ISO	International Organisation for Standardisation
METIS	Statistical Metadata
NQAF	National Quality Assurance Framework
NSDS	National Strategy for the Development of Statistics
NSO	National Statistical Offices
NSS	National Statistics System
OAU	Organisation of African Unity
OECD	Organisation for Economic Cooperation and Development
ONS	Office for National Statistics (UK)
SASQAF	South African Statistical Quality Assessment Framework
SHaSA	Strategy for the Harmonisation of Statistics in Africa
STATAFRIC	African Union Institute for Statistics
SVC	Statistical Value Chain
UN	United Nations
UNECE	United Nations Economic Community for Europe

1 Introduction

The main outcome of the establishment of the African Union Institute for Statistics (STATAFRIC) is accurate reporting on the state of the African Integration Agenda (AIA) in terms of the economy of the continent and life circumstances of the continent's inhabitants. The main objective of STATAFRIC is to facilitate production and use of good quality statistics to inform development initiatives in the political, economic, and social and cultural areas constituting the African Integration Agenda (AIA). The outcome of the AIA will be the African Economic Community (AEC). The statistics will play their traditional role of establishing programme and intervention baselines, setting performance targets, identifying indicators for monitoring progress (or lack thereof) made by programmes and/or projects, and assessing impact and outcomes. It is well established that African statistics are beset with constraints on availability, quality and capacity¹. This report is focused on the quality issue: to develop a framework for assuring the quality of the statistics produced by the African Statistics System (ASS) used to inform the AIA. Resolution to the quality issue is an imperative for the African Statistics System it has to achieve one of its objectives expressed in SHaSA as Strategic Theme 1: *to produce quality statistics for Africa*.

In order to attain buy-in from the 54 member states and other stakeholders, a collaborative effort and wide participation will be required to finalise the framework. Wide participation will also provide an opportunity to include issues that may be unique to individual member states or regional blocks that might be omitted in the proposed framework. Therefore this report ought to be treated as a working document for some entity such as the Committee of Directors-General (CoDG) to take forward and finalise; an alternative approach can be defined by the Department of Economic Affairs at AUC. Once the generic framework is finalised, the process of adaption by member states should then commence.

2 Background

With the attainment of political independence, at an individual level, every African country has formulated development policies, implemented development programmes and projects, and undertaken interventions where programmes have been seen to falter in order to promote socioeconomic development. At the same time energies have been expended on regional and continental integration. Since the formation of the Organisation of African Unity (OAU) 51 years ago, African countries have strived to integrate their economies as well as their diverse social and cultural entities within a single overarching political framework. However, while these efforts can be said to have reached various levels of success, Africa is still the least developed continent.

One of the main reasons for Africa's slow pace of development are a lack of the culture of managing for results characterised by hazy accountability and limited transparency in development programme definition, planning, implementation and management. The lack of accountability and transparency is due to the low profile of statistics throughout practically all African countries. The problem is the dearth of reliable statistical information with sufficient coverage and quality to guide planning and decision-making, and to measure the performance of development programmes.

Practically all African countries have weak statistics systems which are mostly fragmented resulting in the low profile of statistics in the public service environment. One immediate reason for the weak systems is ineffective legislation which, in most cases, is about the national statistics office (NSO) rather than the national statistics system (NSS). Where legislation includes the NSS it grants the NSO, which is the usual coordinating authority, oversight responsibility but no power to coordinate production and dissemination of statistics. As a result, the coordinating authority has no control over how other agencies in the NSS produce and disseminate statistics. Another reason, not publicised but presumably constrained by political correctness, is the discomfort caused to political principles when statistics tell an unfavourable story. This is more or so the case when the coordinating authority reports to a minister or other cabinet functionary.

¹ African Union Commission, African Development Bank and United Nations Economic Commission for Africa, 2010. See reference

The low profile of statistics in the public service environment maintains itself in some form of steady state through exclusion from the national plan and low prioritisation in state funding. Statistics budgets are perennially insufficient, being traditionally underfunded by the government and relying on donor funding. Statistical links with the national plan are usually tenuous and unidirectional from the NSO to the plan. The NSDS is not organically developed but donor driven, and may be aligned but not integrated with the national plan. Participation in the NSDS by agencies other than the NSO is limited to the preparatory and design phases as there is limited participation during the implementation phase. As already indicated, substantive programme funding is donor-driven. Even then allocation of donor funding among competing needs is not balanced. Only 2 percent of donor funding is allocated to statistics on the basis of donor preferences. Of the 2 percent, most goes to health issues and household surveys. As a result, very little funding is available to do the bulk of statistical work.² In addition, national budgets are mostly decentralised, with only NSO budgets being regarded as budgets for statistics.

The low profile of statistics in the public service environment has resulted in the following facts:

- patchy production resulting in insufficient stock of statistics (information gap);
- poor or unknown quality of available and yet-to-be produced data due to lack or non-application of internationally acceptable quality frameworks (quality gap);
- insufficient human resources & infrastructure (capacity gap);
- limited role of statistics in national development agendas (low profile);
- externally driven demand for statistics;
- nationally underfunded statistical production;
- high levels of dependency on donor funding;
- under- & over-reporting of phenomena (e.g. education statistics); and
- issues of legitimacy, reliability and trust.

The current international debate on the quality of African Statistics leaves one relatively confused. The state of African statistics is seen as poor and misleading³ to some; it is tragic to others⁴; and it is transitional to yet others⁵. Each of the three positions contain certain truths but not the whole truth. What is important is that they are expressions of mistrust in and illegitimacy of African statistics. What needs to be done is to move African statistics to a position of trust and legitimacy.

Notwithstanding the unsatisfactory current state of African statistics, there are initiatives in or being put into place to improve the quality and stock of the statistics. The African Charter on Statistics (provision of an overarching framework for quality development), SHaSA (defining the African statistics programme), NSDS (for comprehensive planning for national statistics), ICT programme (to improve national accounts), capacity building by Pan-African organisations, African Data Consensus (for demand-driven and open data, harnessing data to impact on development decision-making and on building a culture of usage, to grant independence to NSOs), etc.

The thrust of the debate on African statistics is about quality, which makes the development and implementation of a quality assurance framework an imperative for improvement of statistics of the African Statistics System.

Meaning of statistical quality

Based on ISO 9000 **quality** may be defined as the extent or degree to which materials, products, processes and services meet pre-specified standards (requirements, specifications, guidelines or characteristics) defined to serve a pre-defined purpose. Alternatively quality refers to the extent or degree to which materials, products, processes and services are fit for their purpose. Thus

“The **quality of an object** can be determined by comparing a set of inherent characteristics against a set of requirements. If those characteristics meet all requirements, high or excellent quality is achieved but if those

² Trayler-Smith, A., 2015 reporting on Amanda Glassman; see reference

³ Jerven, M., 2013; see references

⁴ Devarajan, S., 2013; see reference

⁵ Kiregyera, B., see reference

characteristics do not meet all requirements, a low or poor level of quality is achieved. So the quality of an object depends on a set of characteristics and a set of requirements and how well the former complies with the latter.” (ISO 9000)

With regard to official statistics, statistical quality refers to four interrelated perspectives all of which should be taken into account when producing statistics. These are:

- organisational context;
- characteristics of the statistical product;
- user’s perception of the statistical product; and
- the statistical production process.

Organisational context

The organisational context provides an enabling environment for the production and use of official statistics. Within the African Statistics System the enabling environment is at the AU member state level. It is generally the case that within member states official statistics have a low profile in terms of use and supply by the state. At the moment the context within which statistics are produced and consumed needs a lot of improvement. As already indicated, it is characterised by insufficient data whose quality is either poor or unknown relative to international standards.

Demand for official statistics is best met when all the agencies that produce statistics for the state are organised into a *system* such that their work is *coordinated* from a central point to *standardise* production processes, and *rationalise* products and their use. The trend within the African Statistics System to establish NSSs comprising mainly of statistics-producing state agencies should ideally meet the need for statistics systems. Coordination of the NSS, setting up of standards, and rationalisation of production are expected to be led by the national statistics office (NSO).

The NSS is expected to be coordinated by the national statistics office (NSO) which, in most member states is the only agency statutorily mandated to produce official statistics. While the majority of users look up to the NSO to meet their demand for statistics, the NSO is insufficiently capacitated to meet the demand either in terms of quantity or in terms of quality. In any case the NSO on its own is unlikely ever to be in a position to meet the overwhelming demand for official statistics as it is neither likely nor desirable to have the required human and infrastructural capacity to produce either the quantity or variety of good quality statistics needed by the state and other users. The overwhelming gap in the supply of official statistics has to be filled by a *national effort* - by other organs of state according to their mandates. Yet efforts by other agencies in the NSS to provide statistics are much weaker, many of them being unaware of the potential of their administrative systems to provide the statistics they require to fulfil their mandates. They look to the NSO, private sector vendors, private sector contractors and international organisations to meet their requirements for statistics.

Thus NSSs are either weak or exist only in name mainly because of the weak coordination mechanisms at the disposal of the NSO. Key coordinating instruments for the NSS include, among others,

- statistical legislation (both primary and subordinate);
- a head of the government statistical system;
- quality management frameworks, including common (shared) standards and quality assurance and assessment frameworks
- statistical planning (NSDS);
- statistical clearing house;
- a professionalised body of official statisticians;
- statistics fora;
- code of ethics;
- technical support (capacity building);
- training; and
- a management system for statistical information (harmonised databases)

However, for over a decade there are indications that there has been an increase in demand for statistics followed by increasing advocacy to raise the profile of statistics. International and Pan-African Organisations have been at the forefront of the advocacy drive by promoting various initiatives notably establishment and strengthening of the various coordinating mechanisms. Among the coordinating instruments emphasis has been given to the National Strategy for the Development of Statistics (NSDS), quality frameworks (e.g. the Charter) and statistical capacity building programmes.

This report is developing a quality assessment framework which constitutes a part of the one constituent of the quality management framework, one of the NSS coordinating instruments.

Characteristics of the statistical product

Characteristics of the quality of a statistical product are called *quality components*, *quality criteria*, or *quality dimensions*. While in advanced economies quality frameworks (incorporating quality dimensions) have become an integral part of the culture of statistical quality assurance, such frameworks have as yet to be adopted by the majority of developing economies including the so-called middle income countries. African countries such as Ethiopia, Rwanda, Seychelles, and South Africa, among others, are gradually adapting international frameworks to assure the quality of their official statistics. The adaptations are founded on IMF's DQAF and its various derivatives especially Statistics Canada's Quality Assurance Framework and the Quality Assurance Framework of the European Statistical System. However, evidence of the extent of their implementation in the assessment for quality of statistical products is not readily available. What has previously happened in some cases is the engagement of consultants to assess products using DQAF.

User's perception of the statistical product

It is important that data quality dimensions also cover users' actual *perceptions* of the quality of a statistical product. This explains why the internationally adopted definition of statistical quality, originating from Statistics Canada, is defined as "fitness for use"⁶ or its variant "fitness for purpose"⁷ as is the case with the Office for National Statistics (ONS) in the UK and the Australian Bureau of Statistics (ABS)⁸ (2009). The definition is from the point of view of the user. Thus in terms of statistical outputs quality refers to the degree to which the data meet user needs.

Legitimacy of statistical information depends both on the quality of the underlying statistics and the *trust* users have in the statistics. Both the quality of statistics and the trust that users have in them are a direct reflection on the agency that produces them. The reputation of the agency determines the level of trust of the statistics it produces. Practically all statistical quality frameworks and codes of practice, especially the UN's Fundamental Principles of Official Statistics and the NQAF, highlight the importance of institutional factors as the basic foundation for statistical quality. Accordingly commitment of the leadership of a statistical agency to pursuing quality and to creating a culture in which quality is recognised as a cornerstone of statistical work is a must.

Quality of data can rarely be explicitly 'measured'. While quality components remain the same, in many cases users will almost always perceive product quality differently from a statistics-producing organ of state (statistical authority). The difference is one of emphasis on components. In general users tend to emphasise two as indicators of a given set of statistical data. These are *data comparability and coherence* and *timeliness* (including frequency) of data production. Furthermore, some of the quality components are difficult to assess by the user. For example, user may give less priority to accuracy than to timeliness; may not be sufficiently literate to assess the quality of certain components, such as accuracy, without expert support; or may not be informed of the components at all. This is a *communication* issue for the producer of statistics to take cognizance of. There is a challenge here: statistics producers appear to be more producer-oriented than user-oriented relative to the ease of access by statistically unsophisticated users. This is often reflected in the difficulty the majority of statisticians encounter, of

⁶ Statistics Canada, 2002

⁷ Office of National Statistics, 2007

⁸ Australian Bureau of Statistics (ABS)⁸ (2009)

communicating what they produce to users. Statistics producers need to deal with both the real and the perceived quality of their products, which is not standard practice at the moment.

Statistical production process

The production process is a fundamental determinant of product quality. Different process designs prioritise different product quality components, for example the trade-off between accuracy and budget or accuracy and timeliness. This means that no process design will maximise all product quality components at any given time. While there is no standard definition for the production process as is the case with product quality, the statistical value chain (SVC) provides an effective framework for the process. The internationally agreed generically standardised SVC is part of a broader *statistical business process model* finalized by a Joint UNECE/Eurostat/OECD Work Session on Statistical Metadata (METIS) in 2009⁹. Typical process variables include resources used (inclusive of time), response burden or rates, error rates such as those in data capture and editing, etc.

3 Quality assurance framework

The quality assurance framework for the African Statistics System defines the standards and indicators against which African statistics have to be assessed. The standards and procedures are closely aligned to the Principles of the African Charter on Statistics which incorporates the UN's Fundamental Principles of Official Statistics, IMF's Data Quality Assessment Framework (DQAF), Quality Assurance Framework of the European Statistical System, Statistics Canada's Quality Assurance Framework, Australian Bureau of Statistics (ABS) Data Quality Framework, Statistics Finland's Quality Guidelines for Official Statistics, and Statistics South Africa's Statistical Quality Assessment Framework (SASQAF), among others. Accordingly, it meets the desired international quality standards.

The framework is very closely aligned with the African Charter on Statistics (ACS) as it is the instrument to implement the Charter. The Charter's six principles constitute quality dimensions as indicated below:

1. Professional independence;
2. Quality;
3. Mandate for data collection and resources;
4. Dissemination
5. Protection of individual data, information sources and respondents
6. Coordination and Cooperation

As given in the Charter, each one of the principles are sub-divided into sub-principles. Elements whose quality are to be assured have been identified for each sub-principle. Indicators have also been identified for each element to provide evidence that the quality of the element has or has not been assured. In the majority of cases there is more than one indicator to an element¹⁰. In the Annex the framework has been matched against the UN's Guidelines for the Template for a Generic National Quality Assurance Framework (NQAF). While there is limited one-on-one correspondence between the elements of the two frameworks, the contents of the proposed framework is covered by the content in the template.

⁹ Joint UNECE/Eurostat/OECD Work Session on Statistical Metadata (METIS). *Generic Statistical Business Process Model*, Version 4.0, April 2009. Brussels: UNECE Secretariat, April 2009. Available at <http://www1.unece.org/stat/platform/download/attachments/8683538/GSBPM+Final.pdf?version=1> PDF version; <http://www1.unece.org/stat/platform/download/attachments/8683538/GSBPM+v4.0.doc?version=1> Word version; and <http://www1.unece.org/stat/platform/download/attachments/8683538/GSBPM.ppt?version=1> PowerPoint Presentation at ISI in Durban, August 2009. 18 February 2012

¹⁰ Statistics South Africa, 2012: see references

Table 1: A Generic Statistical Assurance Framework for the African Statistics System

Principle 1: Professional independence		
Description: Professional Independence means statistics authorities operate without any undue influence from interest groups to ensure credible statistics		
Sub-principle	Elements to be assured	Indicators
1.1: Scientific independence Description: Statistics authorities must be able to carry out their activities according to the principle of scientific independence, particularly vis-à-vis the political authorities or any interest group; this means that the methods, concepts and nomenclatures used in statistical operation shall be selected only by the statistics authorities without any interference whatsoever and in accordance with the rules of ethics and good practice	1.1.1a Independence of production and dissemination of statistics from interference and/or influence by any individual, interest group or political authority is specified in law 1.1.1b Conflict of the statistics law with any other law in terms of rules, regulations, official policies, and procedures must be resolved in favour of the statistics law	1.1.1.1a Legislation is in place that unambiguously guarantees development, production, dissemination and use of statistics without interference from political authorities or any other interest group. The legislation must also define the roles and responsibilities of other statistical agencies in the national statistics system. 1.1.1.1b Mechanisms are in place for resolving conflicts between the statistical law with any other piece of legislation
	1.1.2 Mechanisms (policies, procedures, protocols, subordinate legislation) are in place and are publicly known to ensure the statistics authority's exclusive and full control over the production and dissemination of statistics with regard to decisions on statistical methods, standards and procedures, content and timing of statistical releases	1.1.2.1 There is in place a publicly known or well publicised statistical value chain for both surveys and registers independently defined by the statistics authority without interference from any individual, interest group or political authority
	1.1.3 Mechanisms exist for the statistics authority to ensure that professional ethics and good practice are adhered to during production and dissemination of statistics	1.1.3.1 A code of ethics or good practice to be adhered to during the production and dissemination of statistics is in place
	1.1.4 Statistical releases are clearly distinguished and issued separately from political/policy statements	1.1.4.1 A logo or trademark for statistical releases is in place and publicly announced
1.2 Impartiality Description: Statistics authorities shall produce, analyse, disseminate, and comment on African statistics in line with the principle of	1.2.1 The principle of impartiality in dissemination of statistics is specified in statistical legislation	1.2.1.1 A clause in the statistics law providing for impartiality during release of statistics
	1.2.2 Statistical production, analysis and dissemination are undertaken without bias towards any individual, interest group or political authority	1.2.2.1 A policy document is available for public information outlining the procedures the statistics authority follows in its production, analysis and dissemination of statistics; and outlining the standard content of publications and

Principle 1: Professional independence		
Description: Professional Independence means statistics authorities operate without any undue influence from interest groups to ensure credible statistics		
Sub-principle	Elements to be assured	Indicators
scientific independence, and in an objective, professional, transparent, neutral and unbiased manner in which all users get equal treatment		inclusion of metadata with the statistical releases
	1.2.3 Statistical information is normally released impartially. Pre-sight of statistical information under embargo is announced publicly	1.2.3 A protocol on the release procedure ensuring impartiality to all stakeholders is in place and published
	1.2.4 The statistics authority comments publicly on any statistics and/or statistical issues; such comments may include criticism on any aspect of the statistical value chain and interpretation and misuse of official or national statistics	1.2.4.1 A policy is in place that unambiguously states the right of the statistics authority to comment publicly on any aspect of statistics (criticisms, misinterpretations and misuses) released in the public domain
1.3 Responsibility Description: Statistics authorities and African statisticians shall employ unambiguous and relevant methods in the collection, processing, analysis and presentation of statistical data. Statistics authorities shall also have the right and duty to make observations on erroneous interpretation and improper use of the statistical information that they disseminate	1.3.1 Internationally established and/or peer-agreed relevant methods are used in the collection, processing, analysis and presentation of statistical data	1.31.1 Manual of statistical methodology aligned to international best practice is in place
	1.3.2 The statistics authority unfailingly corrects any misinterpretation or any proper use of the statistics it is responsible for	1.3.2.1 A programme is in place to convert statistics into statistical information for users and the public at large to minimise the possibility of misinterpretation 1.3.2.2 A users' training programme is in place to ensure correct interpretation of the statistics produced by the statistics authority; and to explain what statistical estimation entails
	1.3.3 Every statistical release is accompanied with metadata in a transparent manner	1.3.3.1 Metadata are described and together with quality indicators or measures are prepared and provided to users to help them assess the quality of the released data
1.4 Transparency Description: To facilitate proper interpretation of data, statistics authorities shall provide information on their	1.4.1 All phases of the statistical production cycle are documented and the cycle is easily available to the public	1.4.1.1 Publish standardised manuals of the methodology used in the collection, processing, analysis and presentation of every statistical series
	1.4.2 Procedures are in place to ensure standard concepts, definitions and classifications are consistently applied	1.4.2.1 Publish a manual of concepts and definitions of the statistical value chain of both surveys and registers for easy

Principle 1: Professional independence		
Description: Professional Independence means statistics authorities operate without any undue influence from interest groups to ensure credible statistics		
Sub-principle	Elements to be assured	Indicators
sources, methods and procedures that have been used in line with scientific standards. The domestic law governing operation of the statistical systems must be made available to the public		access by the public 1.4.2.2 Publish classification systems used with various surveys and registers 1.4.2.3 Publish a guide on the interpretation of the data used and estimates of each statistical series
	1.4.3 Access to statistical legislation is continuously promoted	1.4.3.1 Publish a simplified version of the statistics law for easy access by the public

Principle 2: Quality		
Description: Quality in Statistics means "fitness for purpose" to ensure usability of statistics		
Sub-principle	Elements to be assured	Indicators
2.1 Relevance Description: African statistics shall meet the needs of users	2.1.1 External and internal users of statistics are identified and listed	2.1.1.1 Compile a database of external and internal users
	2.1.2 A process exists to identify user needs	2.1.2.1 Develop an instrument to assess user needs (e.g., a questionnaire) 2.1.2.2 Execute a user needs survey at specified intervals (e.g., annually)
	2.1.3 A process to measure user satisfaction exists	2.1.3.1 Develop an instrument to assess user satisfaction (e.g., a questionnaire) 2.1.3.2 Execute a user satisfaction survey at specified intervals (e.g., annually) 2.1.3.3 Include priorities based on user needs in statistical work

Principle 2: Quality		
Description: <i>Quality in Statistics means “fitness for purpose” to ensure usability of statistics</i>		
Sub-principle	Elements to be assured	Indicators
		programme
2.2 Sustainability Description: African statistics shall be conserved in as detailed as possible a form to ensure their use by future generations, while preserving the principles of confidentiality and protection of respondents	2.2.1 Resources are available to sustain production of statistics in the long term	2.2.1.1 The national budgetary process must ensure coverage of existing statistical series and emerging issues based on national priorities
	2.2.2 Appropriate technology is used to archive microdata for time series analysis	2.2.2.1 Put in place information technology infrastructure for the archiving and retrieval of data
	2.2.3 Measures are in place to ensure the confidentiality of microdata	2.2.3.1 Measures are place to ensure the confidentiality of microdata
2.3 Data sources Description: Data used for statistical purposes may be collected from diverse sources such as censuses, statistical surveys and/or administrative records. The statistics organisations shall choose their sources in consideration of the quality of data offered by such sources and their topicality, particularly the costs incurred by the respondents and sponsors. The use by statistics authorities of administrative records for statistical purposes shall be guaranteed by domestic law, provided that	2.3.1 Data sources – censuses, sample surveys, registers - are specified in law in keeping with the confidentiality requirement	2.3.1.1 Statistical legislation – both primary and subordinate – must define a process for identifying and guaranteeing sources of statistics as censuses, sample surveys or registers
	2.3.2 A data quality tool is in place to assess the quality of potential data sources and to guide their selection for use	2.3.2.1 A data quality assessment tool exists to assess the quality of both existing and potential statistical data sources
	2.3.3 A system of reviewing statistical production for contemporariness is in place	2.3.3.1 A process exists for reviewing the currency or contemporariness of existing statistical series
	2.3.4 A measure of the respondent burden is in place and is used to reduce the burden in successive surveys	2.3.4.1 Methods and practices exist to measure and reduce the burden to respondents associated with all data collection ventures ¹¹ 2.3.4.2 Targets are in place to reduce respondent burden and they are established for each type of data collection venture
	2.3.5 A process is in place for assessing the efficiency of resources, particularly funding, with	2.3.5.1 Assess the efficiency of resources, particularly funding, in relation

¹¹ Such methods and practices may include fully-fledged surveys or surveys on pilots specifically designed to measure respondent burden using a combination for example of instrument length, participant attitudes on usefulness and privacy-invading nature of instrument items, survey media used, etc.

Principle 2: Quality		
Description: <i>Quality in Statistics means “fitness for purpose” to ensure usability of statistics</i>		
Sub-principle	Elements to be assured	Indicators
confidentiality is preserved	regard to topicality, respondent burden, and sponsors	to allocation to the currency of priorities, respondent burden, and sponsors
	2.3.6 A process is in place for data sharing among statistics authorities	2.3.6.1 Put in place a process for data sharing among statistics authorities
2.4 Accuracy and reliability Description: African statistics shall be an accurate ¹² and reliable ¹³ reflection of reality	2.4.1 Standards and any other measures of assessment of accuracy are identified and applied to the statistical estimation process 2.4.2 Standards and any other measures of assessment of reliability are identified and applied to the statistical estimation process	2.4.1.1 Include standards and any new measures of accuracy of statistical estimates in the statistical quality assessment tool 2.4.1.1a For sample surveys the following are estimated and published: <ul style="list-style-type: none"> • sampling errors¹⁴; and • non-sampling errors¹⁵ 2.4.1.1b For registers/frames the following are estimated and published: <ul style="list-style-type: none"> • measures of under-reporting • duplication (of records) rate • measure of comprehensiveness (missing data) • coding error rate • editing rate • editing failure rate • imputation rate of under-reporting

¹² The accuracy of a statistical estimate refers to how close or how far the estimate is from the true value of the phenomena it is designed to measure

¹³ The reliability of a statistical estimate refers to the consistency of either a process or of an estimate over time and/or geographic space; that is, the closeness of an initial process result and/or estimate to subsequent process results and/or estimates. (For example re-test reliability is used to establish the reliability of fieldwork in a survey by comparing a re-test sample with the main sample)

¹⁴ Measures of sampling errors include: standard error; coefficient of variation (CV); confidence interval (CI); mean square error (MSE); and design effect (DEFF)

¹⁵ Measures of non-sampling errors that should be considered include: under-coverage; up-to-date correspondence between administrative units and statistical units; duplication rate; proportion of units out of scope on the sampling frame relative to the total units in the frame; proportion of misclassified units relative to the total units in the frame; effects of data collection instruments on the estimates; effects of mode(s) (methods) of data collection; effects of the interviewers; effects of respondents; rate of proxy response; data entry error rate; coding error rate; average editing rate; editing success rate; editing failure rate; item non-response rate; unit non-response rate; imputation rate for item non-response; imputation rate for unit non-response; record matching

Principle 2: Quality

Description: *Quality in Statistics means “fitness for purpose” to ensure usability of statistics*

Sub-principle	Elements to be assured	Indicators
		<ul style="list-style-type: none"> • imputation rate of missing values • frequency of register/frame maintenance • measure of impact of frame maintenance <p>2.4.2.1 Reliability</p> <ul style="list-style-type: none"> • Users are informed of the process used in the construction of the sampling frame and the state of its currency. Deficiencies in the frame should be revealed • Information is available on maintenance of the sampling frame including updating of births and deaths in the population • Information for the user on the sample design including sample size and which sampling methods were used • Processes engaged to reduce measurement error (e.g. questionnaire development, survey pilot, etc.) are comprehensively documented • Report on respondent feedback on difficulty (or otherwise) on responding to survey items and the solutions undertaken to the difficulty raised • Assessment of the bias in the information sought caused by items that are perceived as sensitive to the respondent • A description of the method used and the reason(s) why it was used are available to users • Method(s) of estimating variances are made available especially in cases where standard formulae are not readily applicable as is the case with complex or multistage sampling designs, mixed survey and register data designs and register data samples
	<p>2.4.3 Quality measures are in place to monitor the statistical process, including product quality</p>	<p>2.4.3.1 A statistical value chain calibrated to appropriate levels is available</p> <p>2.4.3.2 Quality measures are in place to monitor statistical activity at each phase of the statistical value chain</p> <p>2.4.3.3 A documented and published quality management process is in place</p> <p>2.4.3.4 A report of the assessment and validation of source data is available</p>
	<p>2.4.4 Quality guidelines are in place</p>	<p>2.4.4.1 A quality assurance framework and its implementation guidelines</p>

Principle 2: Quality		
Description: <i>Quality in Statistics means "fitness for purpose" to ensure usability of statistics</i>		
Sub-principle	Elements to be assured	Indicators
		are in place
2.5 Continuity Description: Statistical authorities shall ensure continuity and comparability of statistical information over time	2.5.1 Standardised concepts and definitions, classifications, methodology and frames are in place to facilitate comparisons over time	2.5.1.1 A compendium of standardised concepts and definitions is published 2.5.1.2 A catalogue of agreed classifications, adapted to African realities, is published 2.5.1.3 A manual of common methodologies for specific statistical domains is published 2.5.1.4 A frame (such as a master sample) common and accessible to all agencies in the NSS is available 2.5.1.5 A plan to maintain (update) frames exists 2.5.1.6 Procedures are in place to monitor the application of standardised concepts, definitions and classifications in the NSS
2.6 Coherence and comparability Definition: African statistics shall be internally coherent over time and allow for comparison between regions and countries. To this end, these statistics shall make combined use of related data derived from different sources. It shall employ internationally recognized and accepted concepts, classifications, terminologies and methods	2.6.1 Internationally recognised standards – concepts, definitions, classifications, methodology – have been adapted for data collection	2.6.1.1 (Refer to indicators 2.5.1.1 to 2.5.1.6)
	2.6.2 A practice is in place to use common standards and frames – and to ensure consistency among datasets	2.6.2.1 A data harmonisation process through a coordination framework with measures to monitor compliance in implementing common standards and frames is in place and is enshrined in law 2.6.2.2 Methodological procedures and protocols are in place and enshrined in law to ensure consistency among datasets in the NSS
	2.6.3 A process is in place to ensure statistics are internally coherent and consistent	2.6.3.1 Common statistics reporting units are defined and published substantively and geographically including updates in the NSS 2.6.3.2 Protocols exist and are guaranteed in law to use common concepts and harmonised methods for specified statistical outputs 2.6.3.3 Coherence and consistency between data produced at different frequencies, same socioeconomic domain, and sources and outputs are included in the quality assessment tool
	2.6.4 A process is in place to ensure statistics are	2.6.4.1 Protocols exist and are guaranteed in law to use common

Principle 2: Quality		
Description: <i>Quality in Statistics means "fitness for purpose" to ensure usability of statistics</i>		
Sub-principle	Elements to be assured	Indicators
	comparable across series or datasets	concepts and harmonised methods for specified statistical outputs 2.6.3.2 Data comparability over time, across varying administrative geographies, sector and sub-population level is included in the quality assessment tool
	2.6.5 A process is in place to ensure statistics are coherent over a reasonable period of time	2.6.5.1 A minimum period for meaningful time series analysis is agreed and implemented
	2.6.6 A programme is in place to ensure cross-national comparability of data within the provisions of the African Statistical System	2.6.6.1 Prepare statistics on a sector basis to facilitate international comparisons 2.6.6.2 Establish processes within the SHaSA framework to ensure statistics are coherent and comparable, including across national boundaries
2.7 Timeliness Description: African statistics shall be disseminated in good time and, as far as possible, according to a pre-determined calendar	2.7.1 Release dates, times and procedures are announced before statistics are released	2.7.1.1 A pre-publication release calendar that includes release of preliminary results of any data collection is centrally published
	2.7.2 Any divergence from the dissemination time schedule is publicised in good time, is explained, and is rescheduled	2.7.2.1 Any divergence from the pre-publication calendar including the new schedule is centrally published in advance and, where possible, with sufficient lead time to inform clients
	2.7.3 Preliminary results may be released when it is deemed necessary to do so	2.7.3.1 Statistical production is aligned to the national policy cycle
	2.7.4 Timeliness meets international dissemination standards	2.7.4.1 International dissemination standards are adopted and published for the entire NSS
2.8 Topicality Description: African statistics shall reflect current and topical events	2.8.1 Statistics reflect current or contemporary events	2.8.1.1 The work programme of the statistical authority incorporate the needs of policy makers and users
	2.8.2 Statistics are produced during the period they are needed and can be actually used	2.8.2.1 A strategy is in place to monitor the turn-around time of statistical results with the aim to reduce the period between the end of data

Principle 2: Quality		
Description: Quality in Statistics means "fitness for purpose" to ensure usability of statistics		
Sub-principle	Elements to be assured	Indicators
and trends		collection and release of results 2.8.2.2 See indicator 2.7.3.1
	2.8.3 A measure of topicality is in place and is applied to statistical production	2.8.3 A measure of topicality is in place and is regularly applied to statistical production
	2.8.4 A process is in place for periodic reviews of existing statistical series for contemporariness	2.8.4 A process (such as user fora, advisory or scientific committees) is in place for reviewing statistical production for contemporariness
	2.8.5 A process is in place for continuously assessing the policy and user environments for developments that may require new statistical series	2.8.5 A process (such as a policy unit, a webpage for client feedback) is in place for constantly monitoring changes or developments in policy and user environments to identify gaps for new statistical series
2.9 Specificities Description: Statistical data production and analytical methods shall take into account African peculiarities	2.9.1 A database of statistics produced matched against specific user needs exists	2.9.1.1 A compendium of indicators/indices is developed to pin down specifically what users want and accordingly define the domain and scope of statistical production
	2.9.2 Statistical methods adapted to peculiar African problems (such as enumeration in shack settlements and the informal sector) have been developed	2.9.2.1 A research and training programme is in place to adapt and/or develop a methodology to deal with problems peculiar to African situations
2.10 Awareness building Description: State Parties shall sensitize the public, particularly statistical data providers, on the importance of statistics	2.10.1 An advocacy programme is in place to raise the profile of statistics among politicians	2.10.1.1 A programme is in place to handpick key political personalities to champion the use of statistics in managing for outcomes
		2.10.1.2 A programme is in place to advocate for managing for results among politicians with emphasis on measuring outcomes and performance; and informing planning and decision-making
	2.10.2 A training programme is in place for advocacy and awareness building	2.10.2.1 A statistical market segmentation list of stakeholders exists to facilitate communication 2.10.2.2 A training programme is in place for advocacy and awareness

Principle 2: Quality		
Description: <i>Quality in Statistics means “fitness for purpose” to ensure usability of statistics</i>		
Sub-principle	Elements to be assured	Indicators
		building aiming at the identified segments of the statistical market
	2.10.3 A programme is in place to train media in the accurate interpretation of statistical output	2.10.3.1 A programme is in place to train the media on the accurate interpretation of statistics
	2.10.4 A programme is in place to promote statistical literacy (culture) in the general population	2.10.4.1 A programme is in place through media to promote statistical literacy in the general population 2.10.4.2 Develop and implement a training programme to build capacity in statistical skills at secondary and tertiary institutions
	2.10.5 A programme is in place to promote a culture of using statistics for evidence based decisions	2.10.5.1 A programme is in place to advocate for using statistics for evidence based decision-making 2.10.5.2 Statistical requirements in the national development plan are incorporated into the statistical authority’s work programme
2.11 Statistical process Description: Appropriate statistical procedures covering the entire statistical value chain must be implemented beginning with the need for data collection from either a survey or a register and ending with a review of the statistical production process	2.11.1 A statistical value chain for surveys and registers has been defined, implemented and published for public access	2.11.1 Define, publish and implement a statistical value chain for both surveys and registers ¹⁶
	2.11.2 A process is in place for prioritizing the need for statistical information	2.11.2.1 A work programme that prioritises statistical needs in the national development plan is in place
	2.11.3 A process is established for designing the statistical production activities	2.11.3.1 A process is in place for designing for statistical production
	2.11.4 A process is in place for preparatory (building) stage for fieldwork or data collection, metadata, and documentation	2.11.4.1 A process is in place that defines the building stage (preparations) for fieldwork or data collection

¹⁶ Or can adapt Joint UNECE/Eurostat/OECD’s Generic Statistical Business Process Model (GSBPM). Check reference

Principle 2: Quality

Description: *Quality in Statistics means “fitness for purpose” to ensure usability of statistics*

Sub-principle	Elements to be assured	Indicators
	2.11.5 A process is in place for fieldwork or data collection, metadata, and documentation	2.11.5.1 A process is in place for conducting fieldwork or data collection
	2.11.6 Infrastructure and processes for data processing are documented and in place	2.11.6.1 A process is in place for data processing
	2.11.7 Processes for data analysis are in place	2.11.7.1 A process is in place for data analysis
	2.11.8 Dissemination and publication principles and procedures are documented and in place	2.11.8.1 A process is in place for data dissemination or data access
	2.11.9 Infrastructure and processes for archiving data are documented and in place	2.11.9.1 A plan exists for data archiving and retrieval
	2.11.10 A process for evaluating the data collection project is in place	2.11.10.1 A process is in place for evaluating statistical production project
	2.11.11 A process is in place to test questionnaires prior to data collection	2.11.11.1 A process is in place for testing questionnaires prior to data collection
	2.11.12 Survey designs, sample selection methodology, and sample weighting methodology are regularly reviewed, revised or updated	2.11.12.1 A process exists for regular reviews, revisions, or updates of sample survey designs, sample selection methodology, and sample weighting methodology
	2.11.13 A process and documents are in place to regularly review, maintain and revise the domain of registers	2.11.13.1 A process exists to review, maintain and revise the domain of registers on a regular basis
	2.11.14 A process is in place to routinely monitor and revise field operations and data processing (data entry, coding and editing)	2.11.14.1 A process is in place to routinely monitor and revise field operations, and data processing (data entry, coding and editing)
	2.11.15 A transparent process is in place for revisions	2.11.15.1 A schedule and a process is in place for revisions

Principle 3: Mandate for data collection and resources		
Description: <i>Mandate for data collection means the legal responsibility to collect data for statistical purposes. Resources means adequate, predictable and sustainable funding to be provided by National Governments</i>		
Sub-principle	Elements to be assured	Indicators
3.1 Mandate Description: Statistics authorities shall be endowed with a clear legal mandate empowering them to collect data for production of African statistics. At the request of statistics authorities, public administrations, business establishments, households and the general public may be compelled by domestic law to allow access to the data in their possession or provide data for the purpose of compilation of African statistics	3.1.1 The legal mandate to a statistics authority to collect data is specified in the statistical legislation	3.1.1.1 A statistics law is in place and provides NSS bodies with the authority to collect data
	3.1.2 The authority to access data or to receive data from public administrations, the public sector, households and the public at large is specified in the statistics law	3.1.2.1 There is included in the statistics law authority for the statistics authority to collect or access data from public administrations, the private sector, households and the public at large
	3.1.3 The obligation of respondents to provide information is specified in the statistics law	3.1.3.1 There is included in the statistics law the obligation of respondents to provide information
3.2 Resource adequacy Description: As far as possible, the resources available to statistics authorities shall be adequate and stable to enable them to meet statistics needs at national, regional and continental levels. Governments of State Parties shall have the primary responsibility to provide such	3.2.1 Staff, financial, and statistical infrastructure are available within the official government budgeting framework	3.2.1.1 A budget for statistics exists within the government's expenditure framework with sufficient funds for statistical skills, infrastructure and operations for meeting the needs of users
	3.2.2 The scope, detail, and cost of statistics are commensurate with needs	3.2.1.2 The costing of statistical production in the work programme is based on user needs
	3.2.3 Specific training programmes are in place to build basic and advanced statistical skills	3.2.1.3 A comprehensive statistics training programme is in place to build basic and advanced statistical skills

Principle 3: Mandate for data collection and resources

Description: *Mandate for data collection means the legal responsibility to collect data for statistical purposes. Resources means adequate, predictable and sustainable funding to be provided by National Governments*

Sub-principle	Elements to be assured	Indicators
resources		
<p>3.3 Cost effectiveness</p> <p>Description: Statistics authorities shall use the resources so provided effectively and efficiently. This presupposes, in particular, that operations shall as far as possible, be programmed in an optimal manner. Every effort shall be made to achieve improved production and use of the statistics derived from administrative records, to reduce the costs incurred by respondents and, as far as possible, avoid expensive direct statistical surveys</p>	<p>3.3.1 A process is in place to cost statistical operations, human resources, and statistical infrastructure across all state agencies</p>	<p>3.3.1.1 A system is in place for costing statistical production across all state agencies</p>
	<p>3.3.2 Strategic and operational plans exist to effectively guide resource allocation</p>	<p>3.3.2.1 Strategic, action and operational plans are in place for the production of statistics</p> <p>3.3.2.2 A model is in place to guide optimal allocation of resources among all state agencies that produce statistics</p>
	<p>3.3.3 A strategy is in place to optimise resource allocation and to minimise the reporting burden by rationalising surveys through coordination</p>	<p>3.3.3.1 A coordination programme exists to optimise resource allocation and minimise respondent burden by rationalising surveys</p>
	<p>3.3.4 Data collection instruments are designed such that they are respondent-friendly, effectively collect information, and are efficient</p>	<p>3.3.4.1 Well designed and tested respondent-friendly data collection instruments are in place</p>
	<p>3.3.5 A quality management system is implemented to improve data quality and timeliness</p>	<p>3.3.5.1 Implement a quality management system to improve both data quality and timeliness</p>
	<p>3.3.6 A policy for preference for and increased use of registers as sources of data and a decreased reliance on surveys is implemented</p>	<p>3.3.6.1 There is in place a policy biased towards the use of administrative records as a source of statistics</p>
	<p>3.3.7 The use of administrative records for statistical purposes is specified in statistical legislation</p>	<p>3.3.7.1 Use of administrative records for statistical purposes is included in the statistics law</p>
	<p>3.3.8 A review programme for topicality to determine discontinuation and/or inclusion of</p>	<p>3.3.8.1 A programme is implemented to monitor the currency of existing programmes to determine their continuation or discontinuation</p>

Principle 3: Mandate for data collection and resources		
Description: <i>Mandate for data collection means the legal responsibility to collect data for statistical purposes. Resources means adequate, predictable and sustainable funding to be provided by National Governments</i>		
Sub-principle	Elements to be assured	Indicators
	new series is in place	and/or inclusion of new series
	3.3.9 Internal and external measures are in place to monitor the statistics authority's use of resources	3.3.9.1 Internal and external systems are set up to monitor use of resources
	3.3.10 Routine clerical operations (e.g., data capture, coding and validation) are automated to the extent possible	3.3.10.1 An ICT system is in place for automating as much as possible routine clerical systems
	3.3.11 Optimisation of the use of ICT whenever possible for data collection, processing and dissemination	3.3.11.1 ICT systems are in place for data collection, processing and dissemination

Principle 4: Dissemination		
Description: <i>Dissemination means statistics are accessible, clear and usable without constraint</i>		
Sub-principle	Elements to be assured	Indicators
4.1 Accessibility Description: African statistics shall not be made inaccessible in any way whatsoever. This concomitant right of access for all users without restriction shall be guaranteed by domestic law. Micro-data may be	4.1.1 A policy document exists that comprehensively spell out statistical dissemination principles and practice, including microdata subject to specified conditions	4.1.1.1 A document on statistical dissemination policy and practice is published for the benefit of users and the public at large 4.1.1.2 Conditions for access to microdata are published
	4.1.2 Right of equal and free access to data by the public is included in the statistics legislation	4.1.2.1 A clause on right of equal and free access by the public is incorporated in the statistics legislation
	4.1.3 A list and synopsis of available statistics is	4.1.3.1 A list including synopses of statistics that are available in the

Principle 4: Dissemination		
Description: <i>Dissemination means statistics are accessible, clear and usable without constraint</i>		
Sub-principle	Elements to be assured	Indicators
made available to users on condition that the pertinent laws and procedures are respected and confidentiality is maintained	published and updated as required	country is published
	4.1.4 A system for managing user requests is in place	4.1.4.1 A system in place to receive, process, archive and monitor user requests
	4.1.5 Statistics are available and accessible according to market segmentation needs using hardcopy and/or modern ICT	4.1.5.1 A list of classified users on the basis of market segmentation according to the appropriateness of the medium used to access statistics (e.g., electronic or hardcopy) is in place 4.1.5.2 There is in place a list of groups of users according to the medium of data access suitable for them (e.g., by website, hardcopy, etc.) 4.1.5.3 An internal protocol is in place identifying the appropriate medium to be used for disseminating data to specified groups of users identified during the market segmentation exercise
	4.1.6 Statistical releases and statements made in the media are objective and non-partisan	4.1.6.1 A policy and protocols are in place for guiding the statistics authority to make objective, non-partisan statements in the media
4.2 Dialogue with users Description: Mechanisms for consultation with all African statistics users without discrimination shall be put in place with a view to ensuring that the statistical information offered are commensurate with their needs	4.2.1 Users are grouped according to their needs	4.2.1.1 A list of users according to the statistical market segmentation is in place
	4.2.2 A process for user consultation is in place	4.2.2.1 A user consultation process on various statistical matters is established 4.2.2.2 User fora are established according to user groups 4.2.2.3 A process is in place to establish user needs including feedback on the suitability of statistical products 4.2.2.4 User needs impact on priorities, design of survey and statistical products are documented 4.2.2.5 Statistical priorities based on user needs are documented and

Principle 4: Dissemination		
Description: <i>Dissemination means statistics are accessible, clear and usable without constraint</i>		
Sub-principle	Elements to be assured	Indicators
		included in the statistical work programme
	4.2.3 User satisfaction surveys are undertaken periodically	4.2.3.1 A programme of user satisfaction survey at least every two years is in place
4.3 Clarity and understanding Description: Statistics shall be presented in a clear and comprehensible form. They shall be disseminated in a practical and appropriate manner, be available and accessible to all and accompanied by the requisite metadata and analytical commentaries	4.3.1 Statistics are presented in a form that is easily understood and interpreted	4.3.1.1 A standardised statistical release template, including provisions for metadata and analytical commentaries is in place
	4.3.2 Statistics are packaged in different format appropriate for different groups of users	4.3.2.1 A process is in place for consulting different groups of users to determine applicable formats required for disseminating results
		4.3.2.2 A system is in place for developing different statistical products per series according to user groups
	4.3.3 Custom-designed analyses are provided where appropriate	4.3.3.1 A protocol is in place for the provision of custom-designed analytical support to meet special requests
	4.3.4 Metadata and analytical commentaries are made available and accessible to all users with the statistical release	4.3.4.1 A tool is in place to facilitate capturing metadata
	4.3.5 Users are informed on the methodology of statistical processes and the quality of statistical outputs	4.3.5.1 Information is published on the methodology of the statistical process and quality of the statistical output
4.3.5.2 A data validation process is established		
	4.3.5.3 A training programme for data validation is in place	
4.3.6 Users are educated in the use of statistics	4.3.6.1 A training programme exists for users on usage and interpretation of statistics	
4.4 Simultaneity Description: African Statistics shall be disseminated in a manner that	4.4.1 The principle of simultaneity of dissemination of statistics is specified in statistical legislation to ensure impartiality	4.4.1.1 A clause on simultaneity of release of statistical products is incorporated in statistical legislation

Principle 4: Dissemination		
Description: <i>Dissemination means statistics are accessible, clear and usable without constraint</i>		
Sub-principle	Elements to be assured	Indicators
ensures that all users are able to use them simultaneously. Where certain authorities receive advance information under embargo, to allow them time to respond to possible questions, public announcement shall be made indicating the nature of such information, the identity of the recipients and the set timeframe before its public dissemination	4.4.2 Statistical information is normally released to everyone at the same time. Pre-sight of statistical information under embargo is announced publicly	4.4.2.1 Conditions under which pre-sight is granted to users under embargo and publicly announced are defined and published
	4.4.3 Statistical release dates and times are announced	4.4.3.1 A statistical release calendar is published annually 4.4.3.2 Any deviations from the release calendar are announced and explained to users 4.4.3.3 Divergences from pre-announced times are published in advance, and new release times are announced with explanations of the reasons for the delays
4.5 Correction Description: Statistics authorities shall correct publications containing significant errors using standard statistical practices or, for very serious cases, suspend dissemination of such statistics. In that event, the users shall be informed in clear terms of the reasons for such corrections or suspension	4.5.1 A policy document exists that details the circumstances under which corrections to publications are made	4.5.1.1 Publish a corrections policy in anticipation of an error in the statistics produced by the statistics authority
	4.5.2 A process is in place for corrections to publications	4.5.2.1 A corrections policy is published in anticipation of an error in the statistics produced by the statistics authority
	4.5.3 Corrections to publications are announced publicly	4.5.3.1 A policy is in place to define and publicly announce the type of revision (e.g. preliminary, forecast) 4.5.3.2 A policy is in place to publish the corrections or announce withdrawals of publications
	4.5.4 A published policy is in place for revisions to statistical series arising from small changes in methodology and new data sources	4.5.4.1 A policy is in place on a process for making corrections to publications including withdrawal of publications
	4.5.5 A revision in methodology is announced publicly	4.5.5.1 A revisions policy in anticipation of any changes in data including methodology is in place
	4.5.6 A revised methodology is published.	4.5.6.1 A policy is in place to publicly announce and publish the new

Principle 4: Dissemination		
Description: <i>Dissemination means statistics are accessible, clear and usable without constraint</i>		
Sub-principle	Elements to be assured	Indicators
		<p>methodology</p> <p>4.5.6.2 Explanations about the timing, reasons for and nature of revisions are made available</p> <p>4.5.6.3 A published policy is in place that describes the revisions for key outputs that are subject to scheduled revisions</p>

Principle 5: Protection of individual data, information sources and respondents		
Description: <i>Protection of individual data, information sources and respondents means privacy and confidentiality are guaranteed</i>		
Sub-principle	Elements to be assured	Indicators
<p>5.1 Confidentiality</p> <p>Description: National statistics authorities, African statisticians and all those operating in the field of statistics in Africa shall absolutely guarantee the protection of the private life and business secrets of data providers (households, companies, public institutions and other respondents), the confidentiality of the information so provided and the use of such information for strictly statistical purposes</p>	<p>5.1.1 Protection of the confidentiality of data collected for official statistical purposes is guaranteed in statistical legislation. The legislation should include penalties for any willful breaches of confidentiality</p>	<p>5.1.1.1 A confidentiality clause is included in the statistical law; the clause must include penalties for any willful breaches of confidentiality</p>
	<p>5.1.2 A legal provision that binds staff to commit to confidentiality is in place</p>	<p>5.1.2.1 A requirement is provided in the statistics law for staff to take a confidentiality oath or sign legal confidentiality commitments</p> <p>5.1.2.2 Guidelines and instructions are in place for staff on the protection of statistical confidentiality in the production and dissemination processes</p>
	<p>5.1.3 A policy document is available mapping out arrangements for maintaining confidentiality of data and for disseminating or providing access to data</p>	<p>5.1.3.1 A policy document is published mapping out arrangements for maintaining the confidentiality of data and for disseminating or providing access to data</p>

Principle 5: Protection of individual data, information sources and respondents		
Description: Protection of individual data, information sources and respondents means privacy and confidentiality are guaranteed		
Sub-principle	Elements to be assured	Indicators
5.2 Giving assurances to data providers Description: Persons or entities interviewed during statistical surveys shall be informed of the objective of such interviews and of the measures put in place to protect the data provided	5.2.1 A system is in place for respondents to be informed of the main intended uses and access limitations applying to the information they provide to statistical inquiries	5.2.1.1 A system to inform respondents of the main intended uses and access limitations applying to the information they provide is in place and published
	5.2.2 Provisions are in place to protect the security and integrity of statistical databases	5.2.2.1 Strict measures are in place to protect the security and integrity of statistical data bases
5.3 Objective Description: Data concerning individuals or entities collected for statistical purposes shall in no circumstance be used for judicial proceedings or punitive measures or for the purpose of taking administrative decisions against such individuals or entities	5.3.1 A legislative guarantee is in place for (individual) respondent data not being used for judicial and punitive purposes or for the purpose of taking administrative decisions against individuals or entities except under the Statistics Act	5.3.1.1 A clause is included in the statistics law to ensure protection of non-use of statistical data for judicial and punitive purposes and taking administrative decisions against individuals or entities 5.3.1.2 Codes of practice and standards are in place to ensure that statistical data about individual respondents remain confidential, and are only released to users in line with statistical legislation and data dissemination policies
	5.3.2 A programme is in place for creating awareness in the legal system, among statisticians, political entities, and data custodians that statistical data are not to be used for legal proceedings or punitive measures or for the purpose of taking administrative decisions against individuals or entities	5.3.2.1 A programme is implemented to create awareness among statisticians, political entities, the general public and data custodians not to use respondent data for legal or punitive purposes or for the purpose of taking administrative decisions against individuals or entities
5.4 Rationality Description: Statistics authorities shall not embark upon statistical surveys except where pertinent information is unavailable from administrative records or the quality of such information is inadequate in relation to	5.4.1 A policy prioritising administrative records over surveys subject to data quality considerations is in place	5.4.1.1 A policy is in place prioritising use and improvement of administrative records over surveys subject to data availability and quality considerations
	5.4.2 The principle of rationalisation of production of statistics is specified in statistical legislation to eliminate overlapping and duplication subject to	5.4.2.1 A rationality clause is included in statistical legislation 5.4.2.2 A statistical clearing house or a process is in place

Principle 5: Protection of individual data, information sources and respondents

Description: *Protection of individual data, information sources and respondents means privacy and confidentiality are guaranteed*

Sub-principle	Elements to be assured	Indicators
the quality requirements of statistical information	data quality considerations	for identifying and resolving cases of duplication of efforts in the production of statistics
	5.4.3 An inventory of statistical information for the country is available	5.4.3.1 (Indicator 4.1.3.1)
	5.4.4 A mechanism for approval of statistical plans to produce official statistics is in place	5.4.4.1 A statistics clearing house is included in the statistics law and is in place to execute a statistical approval process for statistical production for the NSS

Principle 6: Coordination and Cooperation

Definition: *Coordination and cooperation means Statistics authorities work together and share expertise to ensure synergy, unicity, quality and comparability of statistics in the national and African statistics systems*

Sub-principle	Elements to be assured	Indicators
<p>6.1 Coordination</p> <p>Description: Coordination and collaboration amongst Statistics authorities in a given country are essential in ensuring quality and harmonious statistical information. Similarly, coordination and dialogue amongst all Members of the African Statistical System are vital for harmonization, production and use of African statistics.</p>	<p>6.1.1 The principle of statistics coordination and collaboration amongst statistics authorities is specified in statistical legislation</p>	<p>6.1.1 Statistical coordination, collaboration among statistics authorities, and designation of statistics as official are included in statistical legislation</p>
	<p>6.1.2 A mechanism for approval of statistics plans is in place</p>	<p>6.1.2.1 A National Strategy for Development of Statistics (NSDS) is in place</p> <p>6.1.2.2 A statistics clearing house or a mechanism is in place to approve the plans (See indicator 5.4.4.1)</p>
	<p>6.1.3 Statistical work programmes are published annually, and periodic reports describe the progress made</p>	<p>6.1.3.1 A statistical planning, reporting and approval process is established for approval</p> <p>6.1.3.2 Action and annual statistical work programmes are compiled from the NSDS</p>
	<p>6.1.4 Statistical production processes for surveys, censuses and administrative records are based on common statistical standards</p>	<p>6.1.4.1 There is in place a framework for statistical production from surveys, censuses and administrative records</p> <p>6.1.4.2 A consultation process is in place for implementing new questionnaires used in modifying registers by organs of state and for introducing new statistical classifications</p>
	<p>6.1.5 Designation of statistics as official statistics (good quality) is specified in statistical legislation</p>	<p>6.1.5.1 There is a clause in the statistics law requiring all statistics for a public good to be designated as official statistics (good quality)</p>
	<p>6.1.6 A process for designating statistics as official statistics (good quality) is published to inform producers and users and the public at large</p>	<p>6.1.6.A process is in place for designating statistics as official statistics directed at informing all producers and users of statistics and the public at large</p>
	<p>6.1.7 Statistics are designated as official statistics</p>	<p>6.1.7.1 There is in place a statistical quality assessment framework and protocol for the designation of statistics as</p>

Principle 6: Coordination and Cooperation

Definition: *Coordination and cooperation means Statistics authorities work together and share expertise to ensure synergy, unicity, quality and comparability of statistics in the national and African statistics systems*

Sub-principle	Elements to be assured	Indicators
	(good quality)	official 6.1.7.2 Conduct independent quality assessments/audits
	6.1.8 A governance structure for statistical coordination among organs of state is in place	6.1.8.1 Governance structures are in place for different levels of government administration as well as other stakeholders including cooperation with other AU member states 6.1.8.2 The role of the national statistical office as the coordinator of the national statistical system is established in the statistics law
	6.1.9 The production and use of official statistics is used for “managing for results” and “transformation”	6.1.9.1 A programme is implemented for advocating for managing for results in government
	6.1.10 Statistics authorities subscribe to the Principles of the African Charter on Statistics	6.1.10.1 A signed and ratified African Charter on Statistics is adopted as the foundation for statistical quality assurance by the statistics authority
	6.1.11 Statistics authorities align statistical practice to the African Statistical System, as prioritised SHaSA	6.1.11.1 Country strategic plans and the NSDS are aligned to the African Statistics System and SHaSA 6.1.11.2 Self-assessment is done on implementation of the Principles of the African Charter on Statistics 6.1.11.3 A process for participating in the peer review process is in place
	6.1.12 Statistics is included in the National Development Plan/National Planning framework as a system of evidence	6.1.12.1 The National Development Plan/National Planning framework includes statistics as a system of evidence
	6.1.13 A function is established in the statistics	6.1.12.2 A statistical function/unit responsible for the NSS is

Principle 6: Coordination and Cooperation

Definition: *Coordination and cooperation means Statistics authorities work together and share expertise to ensure synergy, unicity, quality and comparability of statistics in the national and African statistics systems*

Sub-principle	Elements to be assured	Indicators
	authority for statistical coordination of the NSS	established in the NSO
	6.1.14 A function is in place at Africa regional and continental levels for statistical coordination and harmonisation	6.1.14.1 A statistical function/unit responsible for coordination and harmonisation at African regional and continental levels is established in the NSO
<p>6.2 Co-operation</p> <p>Description: Bilateral and multilateral statistics cooperation shall be encouraged with a view to upgrading African statistics production systems</p>	6.2.1 A schedule exists of activities such as meetings, events, conferences, workshops, training, etc. for active participation in the African Statistics System at regional, continental and global level	6.2.1.1 A programme for the statistics authority's active participation in African Statistics System at regional, continental and global level is in place
	6.2.2 A programme exists to upgrade African statistics production systems at regional, continental and global levels	6.2.2.1 A statistical production harmonisation programme is in place to upgrade African statistics production systems at regional, continental and global levels
	6.2.3 A national mechanism to coordinate and monitor aid-assistance is in place	<p>6.2.3.1 NSDS is in place as a framework for handling aid-assistance requirements for development of statistics in the NSS</p> <p>6.2.3.2 NSDS is set up as a mechanism to coordinate and monitor aid assistance for statistical production in the NSS</p>
	6.2.4 An aid-assistance reporting system is in place	6.2.4.1 Monitoring and reporting (of inputs, outputs and outcomes) system of the implementation phase of the NSDS is in place to monitor and report on aid-assistance
	6.2.5 A cooperation model consistent with aid effectiveness is in place	6.2.5.1 A centralised Statistics Fund is established for the NSS

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5 Annex

Matching the Generic Quality Assurance Framework for the African Statistics System against the UN's Generic National Quality Framework Template (NAQF)

Key items in the Generic Quality Assessment Framework for the African Statistics System	UN's Generic National Quality Assurance Framework Template (NQAF)
Principle 1: Scientific independence	
1.1 Scientific independence	<p>NQAF 4 Assuring professional independence (independence of production and dissemination of statistics is specified in law; conflict of the statistics law with any other law must be resolved in favour of the statistics law; professional ethics and good practice are adhered to during production and dissemination of statistics)</p> <p>NQAF 5 Assuring impartiality and objectivity (independence of production and dissemination of statistics is specified in law; professional ethics and good practice; statistical releases are clearly distinguished and issued separately from political/policy statements)</p>
1.2 Impartiality	<p>NQAF 5 Assuring impartiality and objectivity (principle of impartiality is specified in statistical legislation; statistical production, analysis and dissemination without bias)</p> <p>NQAF 6 Assuring transparency (statistical information is normally released impartially. Pre-sight is announced publicly)</p>
1.3 Responsibility	<p>NQAF 5 Assuring impartiality and objectivity (international methods)</p> <p>NQAF 6 Assuring transparency (release of metadata)</p> <p>NQAF 8 Assuring the quality commitment (release of metadata)</p> <p>NQAF 14 Assuring relevance (release of metadata)</p> <p>NQAF 15 Assuring accuracy and reliability (Internationally established and/or peer-agreed relevant methods are used)</p> <p>NQAF 17 Assuring accessibility and clarity (release of metadata)</p> <p>NQAF 4 Assuring professional independence (correcting misinterpretation)</p>
1.4 Transparency	<p>NQAF 6 Assuring transparency (production cycle documented)</p> <p>NQAF 17 Assuring accessibility and clarity (production cycle documented)</p> <p>NQAF 10 Assuring methodological soundness (concepts, definitions and classifications constantly applied)</p> <p>NQAF 13 Managing the respondent burden (concepts, definitions and classifications constantly applied)</p>
Principle 2: Quality	
2.1 Relevance	NQAF 14 Assuring relevance

Key items in the Generic Quality Assessment Framework for the African Statistics System	UN's Generic National Quality Assurance Framework Template (NQAF)
2.2 Sustainability	<p>NQAF 17 Assuring accessibility and clarity (archive)</p> <p>NQAF 18 Assuring coherence and comparability (time series)</p>
2.3 Data sources	NQAF15 Assuring accuracy and reliability (data sources)
2.4 Accuracy and reliability	NQAF15 Assuring accuracy and reliability
2.5 Continuity	NQAF 10 Assuring methodological soundness (concepts and definitions standards)
2.6 Coherence and comparability	NQAF 18 Assuring coherence and comparability
2.7 Timeliness	<p>NQAF 5 Assuring impartiality and objectivity (release dates, times and procedures)</p> <p>NQAF 14 Assuring relevance (reflection of current or contemporary events)</p> <p>NQAF 16 Assuring timeliness and punctuality (release dates, times and procedures)</p>
2.8 Topicality	<p>NQAF 14 Assuring relevance (reference period)</p> <p>NQAF 16 Assuring timeliness and punctuality (reference period)</p> <p>NQAF 14 Assuring relevance (periodic reviews of existing statistical series)</p> <p>NQAF 8 Assuring the quality commitment (continuous assessment of policy and user environments)</p>
2.9 Specificities	<p>NQAF 17 Assuring accessibility and clarity (A database of statistics produced matched against specific user needs exists)</p> <p>1. Quality context; 1a Circumstances and key issues driving the need for quality management (paragraph 1:” adaptations according to ... specific national circumstances” for “Statistical methods adapted to peculiar African problems”)</p>
2.10 Awareness building	<p>NQAF 13 Managing the respondent burden (advocacy and awareness building)</p> <p>NQAF 2 Managing relationships with data users and data providers (training media in the accurate interpretation of statistical output)</p> <p>NQAF 14 Assuring relevance (culture of using statistics for evidence based decisions, evaluation)</p>
2.11 Statistical process	<p>NQAF 8 Assuring the quality commitment (statistical value chain for surveys and registers, prioritising need for statistical information, designing the statistical production activities, for preparatory (building) stage for fieldwork or data collection, process is in place for fieldwork or data collection, data processing, data analysis, dissemination, archiving, evaluation)</p> <p>NQAF 11 Assuring cost-effectiveness (statistical value chain for surveys and registers)</p> <p>NQAF 2 Managing relationships with data users and data providers (process for designing the statistical production activities)</p> <p>NQAF 10 Assuring methodological soundness (designing the statistical production</p>

Key items in the Generic Quality Assessment Framework for the African Statistics System	UN's Generic National Quality Assurance Framework Template (NQAF)
	<p>activities, evaluation, testing questionnaires)</p> <p>NQAF 12 Assuring soundness of implementation (statistical value chain for surveys and registers, process for fieldwork or data collection, data processing, archiving, evaluation, testing questionnaires)</p> <p>NQAF 9 Assuring adequacy of resources (data analysis, dissemination)</p> <p>NQAF 19 Managing metadata (dissemination, archiving)</p> <p>NQAF 1 Coordinating the national statistical system (dissemination, evaluation)</p> <p>NQAF 4 Assuring professional independence (dissemination)</p> <p>NQAF 5 Assuring impartiality and objectivity (dissemination)</p> <p>NQAF 6 Assuring transparency (dissemination, transparent process for revisions)</p> <p>NQAF 17 Assuring accessibility and clarity (dissemination policy, archiving)</p> <p>NQAF 16 Assuring timeliness and punctuality (dissemination, evaluation)</p> <p>NQAF 11 Assuring cost-effectiveness (evaluation)</p> <p>NQAF 13 Managing the respondent burden (testing questionnaires, reviewing survey methodology)</p> <p>NQAF 14 Assuring relevance (evaluation, reviewing survey methodology)</p> <p>NQAF15 Assuring accuracy and reliability (evaluation, transparent process for revisions)</p>
Principle 3: Mandate for data collection and resources	
3.1 Mandate	<p>NQAF 2 Managing relationships with data users and data providers (legal mandate, authority to access data, obligation to provide data, resource adequacy)</p> <p>NQAF 13 Managing the respondent burden (obligation to provide data)</p> <p>NQAF 16 Assuring timeliness and punctuality (obligation to provide data)</p>
3.2 Resource adequacy	<p>NQAF 9 Assuring adequacy of resources (resource adequacy; staff, financial, and statistical infrastructure resources are budgeted for; process is in place to cost statistical operations, human resources, and statistical infrastructure)</p> <p>NQAF 10 Assuring methodological soundness (plans to guide resource allocation; optimise resource allocation)</p> <p>NQAF 11 Assuring cost-effectiveness (resource adequacy)</p>
3.3 Cost effectiveness	<p>NQAF 11 Assuring cost-effectiveness (preference for and increased use of registers as sources of data and a decreased reliance on surveys; preferred use of administrative records; respondent burden management; process to cost statistical operations, human resources, and statistical infrastructure; programme for topicality to</p>

Key items in the Generic Quality Assessment Framework for the African Statistics System	UN's Generic National Quality Assurance Framework Template (NQAF)
	determine discontinuation and/or inclusion of new series; external measures to monitor statistics authority's use of resources; automation of routine clerical operations; optimised use of ITC)
Principle 4: Dissemination	
4.1 Accessibility	<p>NQAF 4 Assuring professional independence (equal and free access to data by the public statistics legislation)</p> <p>NQAF 5 Assuring impartiality and objectivity (policy document on statistical dissemination principles and practice; Statistical releases and statements made in the media are objective and non-partisan)</p> <p>NQAF 17 Assuring accessibility and clarity (system for managing user requests; list of available statistics is published and updated)</p>
4.2 Dialogue with users	<p>NQAF 2 Managing relationships with data users and data providers (list of users according to market segmentation; process for user consultation)</p> <p>NQAF 8 Assuring the quality commitment (satisfaction surveys are undertaken periodically)</p> <p>NQAF 12 Assuring soundness of implementation (process for user consultation)</p>
4.3 Clarity and understanding	<p>NQAF 2 Managing relationships with data users and data providers (users informed on methodology of statistical processes and quality of statistical outputs)</p> <p>NQAF 5 Assuring impartiality and objectivity (analytical commentaries are made available and accessible to all users with the statistical release; provision of methodology)</p> <p>NQAF 6 Assuring transparency (metadata made available to the public)</p> <p>NQAF 7 Assuring statistical confidentiality and security (metadata made available to the public)</p> <p>NQAF 8 Assuring the quality commitment (metadata made available to the public; provision of information on quality of statistical outputs)</p> <p>NQAF 14 Assuring relevance (statistics are packaged in different formats appropriate for different groups of users; metadata made available to users; users informed of quality of statistical outputs)</p> <p>NQAF 16 Assuring timeliness and punctuality (users informed on quality of statistical outputs)</p> <p>NQAF 17 Assuring accessibility and clarity (statistics are presented in a form easily understood and interpreted; dissemination formats for different groups of users; custom-designed provided on request; metadata made available to users; users informed on methodology of statistical releases; users informed about quality of statistical outputs)</p> <p>NQAF 18 Assuring coherence and comparability (users informed on methodology of statistical products)</p>

Key items in the Generic Quality Assessment Framework for the African Statistics System	UN's Generic National Quality Assurance Framework Template (NQAF)
4.4 Simultaneity	<p>NQAF 5 Assuring impartiality and objectivity (principle of simultaneity of dissemination of statistics; pre-sight of statistical information under embargo is announced publicly; release dates and times are announced; deviations from the release calendar announced and justified to users; a revision in methodology is announced publicly)</p> <p>NQAF 6 Assuring transparency (release calendar and changes announced to the public)</p> <p>NQAF15 Assuring accuracy and reliability (a revision in methodology is announced publicly)</p> <p>NQAF 16 Assuring timeliness and punctuality (release dates and times are announced; deviations from the release calendar announced; principle of simultaneity of dissemination of statistics; revisions in methodology are announced; revised methodology is published)</p>
Principle 5: Protection of individual data, information sources and respondents	
5.1 Confidentiality	<p>NQAF 2 Managing relationships with data users and data providers (processes in place to assure statistical confidentiality of individuals, businesses or other entities in administrative records)</p> <p>NQAF 6 Assuring transparency (legislation protecting the confidentiality of individual responses)</p> <p>NQAF 7 Assuring statistical confidentiality and security (legal arrangements in place to protect data confidentiality including penalties for wilful breaches of the law; policy document available mapping out arrangements for maintaining confidentiality of data)</p> <p>NQAF 12 Assuring soundness of implementation (a legal provision binding staff to commit to confidentiality is in place)</p>
5.2 Giving assurances to data providers	<p>NQAF 6 Assuring transparency (respondents understand the legal basis for a survey and the confidentiality provisions for the data that are collected)</p> <p>NQAF 7 Assuring statistical confidentiality and security (provisions are in place to protect the security and integrity of statistical databases; a legal provision binding staff to commit to confidentiality)</p> <p>NQAF 13 Managing the respondent burden (a system in place for respondents to be informed of the main intended uses and access limitations applying to the information they provide)</p>
5.3 Objective	<p>NQAF 7 Assuring statistical confidentiality and security (a legislative guarantee is in place for (individual) respondent data not being used for judicial and punitive purposes or for the purpose of taking administrative decisions against individuals or entities except under the statistics law)</p>
5.4 Rationality	<p>NQAF 1 Coordinating the national statistical system (principle of rationalisation of production of statistics is specified in statistical legislation to eliminate overlapping and duplication subject to data quality considerations)</p>

Key items in the Generic Quality Assessment Framework for the African Statistics System	UN's Generic National Quality Assurance Framework Template (NQAF)
	<p>NQAF 11 Assuring cost-effectiveness (policy prioritising administrative records over surveys subject to data quality considerations)</p> <p>NQAF 12 Assuring soundness of implementation (policy prioritising administrative records over surveys subject to data quality considerations)</p> <p>NQAF 13 Managing the respondent burden (policy prioritising administrative records over surveys subject to data quality considerations)</p> <p>NQAF 17 Assuring accessibility and clarity (An inventory (catalogue) of statistical information for the country is available)</p>
Principle 6: Coordination and Cooperation	
6.1 Coordination	<p>NQAF 1 Coordinating the national statistical system (a governance structure for statistical coordination among organs of state is in place; principle of statistics coordination and collaboration amongst statistics authorities is specified in statistical legislation)</p> <p>NQAF 4 Assuring professional independence (statistical work programmes are published annually, and periodic reports describe the progress made)</p> <p>NQAF 10 Assuring methodological soundness (statistical production processes for surveys, censuses and administrative records are based on common statistical standards)</p> <p>NQAF 13 Managing the respondent burden (statistical production processes for surveys, censuses and administrative records are based on common statistical standards)</p> <p>NQAF 14 Assuring relevance (a function is in place at Africa regional and continental levels for statistical coordination and harmonisation)</p> <p>NQAF 18 Assuring coherence and comparability (statistical production processes for surveys, censuses and administrative records are based on common statistical standards)</p>
6.2 Co-operation	<p>NQAF 14 Assuring relevance (a schedule exists of activities ... for active participation in the African Statistics System at regional, continental and global level; programme is in place to upgrade African statistics production systems at regional, continental and global levels)</p> <p>NQAF 2 Managing relationships with data users and data providers (a cooperation model consistent with aid effectiveness is in place)</p>