



**National
Administrative Data Management
Guideline**

Central Statistical Agency

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Edition:

This is the first edition of its kind in Ethiopia that is approved by the Central Statistics Agency of Ethiopia on October 16, 2018 with the *Version number: 01/2018*. The National Administrative Data Management Guidelines for Ethiopia should be customized by the collaborators and utilized by data producers and users.

Collaborators:

Ministry of Health, Ministry of Education, Ministry of Water, Irrigation & Electricity, Ministry of Agriculture & Livestock, and Planning & Development Commission.

Documentations:

The documentation here refers putting or storing the hard copies and/or electronic version of the guideline for use. It may vary amidst the organizations. Thus, it is stored or sited in the following organizational sites.

Organization	Section/ Locations
CSA	Section: National Statistical Data Quality and Standards Coordination Directorate Website: https://www.csa.gov.et/
MoH	Section: Health Management Information System Directorate Website: https://www.moh.gov.et/
MoE	Section: Education Management Information System and ICT Directorate Website: http://www.moe.gov.et/
MoWIE	Section: Geoinformation and Information Technology Directorate Website: https://www.mowie.gov.et/
MoAL	Section: Agricultural Management Information System Directorate Website: https://www.moa.gov.et/
NPC	Section: Plan Implementation Monitoring and Evaluation Directorate Website: https://www.npc.gov.et/

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National Administrative Data Management Guideline

By Ethiopian Central Statistical Agency
in Collaboration with UNICEF

Internal Team Members

Lead Coordinator: Fekade Asrat

Team Members: Esayas Muleta
Yezihealem Kassa
Damtew Berhanu
Zerihun Bekele
Mengistu Belay
Sisay Endal
Desalegn Getachew
Anteneh Habtie
Asnakech Habtamu
AbyotGetachew
Ephrem G/Medihin

External Team Members

Tedla Abebe (PDC)
Debebe Wordofa (MoE)
Tsegaye Debebe (MoWIE)
Gashaw Kassa (MoAL)
Solomon Abay (MoH)

Editor: DirribaTeshome (Senior Editor, The Ethiopian Herald)



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Acronyms

ASS	The African Statistics System
CSA	Central Statistical Agency
DQ	Data Quality
EDQAF	Ethiopian Data Quality Assessment Framework
ETHNSS	Ethiopian National Statistical System
GTP	Growth and Transformation Plan
HMIS	Health Management Information System
ICT	Information and Communication Technology
MDAs	Ministries, Departments and Agencies
MIS	Management Information System
MoAL	Ministry of Agriculture and Livestock
MoE	Ministry of Education
MoH	Ministry of Health
MoWIE	Ministry of Water, Irrigation and Electricity
NPC	National Planning Commission
NSDQSCD	National Data Quality and Standards Coordination Directorate
NSDS	National Strategy for the Development of Statistics
NSO	National Statistical Organization
NSS	National Statistical System
SA	Statistical Agencies
SAS	System Administration Statistics
SDG	Sustainable Development Goals
UNICEF	United Nations International Children's Emergency Fund

Terms and Their Definitions

Administrative Data:	Administrative data sources are often attained and used to manage the day-to-day operations within an organization or to deliver a service. Administrative data sources embrace methods to collect data primarily with statistical drives purposely.
Members of NSS:	In ETHNSS members comprise ministries, departments, agencies, financial institutions, public sector associations, civil society organizations, and research and training centers.
Metadata:	Metadata are comprehensive information on the definition, method of computation, comments and limitations, and sources of the data for each indicator or variable. The purpose of the use of standardized metadata is to promote the use of consistent definition, method of computation and data sources for each indicator across the ETHNSS. The need to use common dimensions to define an indicator or variable is to ultimately improve the quality of official statistics and therefore promoting comparability and transparency of statistical data.
Missing Data	The values not observed or measured and assigned for a given question
National Statistical System	National Statistical System is an integrated system that is supported by statistical data producers, suppliers and providers from a wide range of sources
Official Statistics:	The body of statistical information produced, validated, compiled and disseminated by Statistics Authorities (AUStat, May 2009) Official statistics are all statistics produced by government departments (NSDS-II, 2015).
Outlier:	An observation or subset of observations which appears to be inconsistent with the remainder of the dataset (Canada, October 2003)

1. Introduction

1.1. Background

The commitments to implement development programs and combat poverty should be based on clear evidences that require a robust statistical data system which provides reliable, comprehensive and harmonized statistical information. The statistical information is vital for decision-making by all components of the society, particularly policy makers as well as economic and social players. Therefore, it is essential for integration and sustainable development.

There should be a need to enhance coordination of statistical activities in a country. The quality of the official statistical information available to public administrations and other activity areas largely necessitates extending on effective collaboration between statistical data providers, producers and users (AUStat, May 2009).

Official statistics are all statistics produced by government departments. They provide opportunities to see or investigate the performances of government to assess the impact of public policies and actions. Official statistics can be collected through conducting surveys or can be derived from administrative records and registrations by government agencies in the process of their daily work (CSA, September 2011).

Statistical information is any organized quantitative and/or qualitative information obtained from statistical data that facilitate understanding of economic, political, demographic, social, environmental and cultural trends, and of gender and governance etc. related issues (AUStat, May 2009).

Administrative data are produced as a result of or in connection with the administrative procedures of organizations. Administrative data are important for the organizations to produce their own strategic plans and pursue activities, for making decisions by managers, monitor and regulating the performance of the organizations. In addition, the administrative data are significantly essential for monitoring and Growth and Transformation Plan (GTP) and Sustainable Development Goals (SDG).

Similarly, administrative data assist in designing and making policy and strategies. Moreover, administrative data can be used by the academia, researchers, national and international organizations in the production and utilizations of statistics. This use may be more specifically called statistical use.

Statistical data are potential sources of data for planning, monitoring and measuring the national and global development goals. For this reason, MDAs are highly expected to produce the required quality, timely and sufficient data. Therefore, the NSS has to be coordinated and harmonized for the production of quality statistics.

1.2. Principles of Official Statistics

Official statistics is an essential basis for development in the economic, demographic, social and environmental information. The trust of the public in official statistical information depends to the extent on the respect for the fundamental values and principles (UN, 2015).

The quality of statistics depends largely on the cooperation of citizens, enterprises, and other respondents in providing appropriate and reliable data needed. In addition, the quality of statistics also depends on compilations and cooperation between users and producers of statistics in order to meet desired needs.

The main objective of official statistics is to establish the system of producing statistics on the basis of international methodological principles and a uniform system of statistical information in order to provide mainly the government information necessary for decision making and public data users at large. Any versions of the National Strategy of the Development of Statistics (NSDS) and their auxiliary documents are prepared in the context of the general principles emanating from the national statistical demands.

1.3. Motivations

There are emerging high demands of quality statistics in the country, There are also initiations to develop management information systems to succeed in the direction of producing and using administrative data.

The less commitment given to the statistical activities at different hierarchy of MDAs will not drive smoothly and to produce quality statistics in the respective organizations and the whole country at large. In addition, the less coordination situations of the statistical activities among sectors will have an effect to not to drive forward in the production of quality statistics.

The application of appropriate statistical legislations has confirmatory motivation to strengthen statistical coordination. Moreover, the utilizations of proper and standard methodology in the entire processes of the production and utilizations of administrative data at each level of an organization reinforce the coordination of statistical activities in the country.

The formulations of the statistical legislations are not yet exercised in many members of the ETHNSS. The implementations of the statistical methods are less standardized and are applied in a fragmented manner.

Thus, in order to increase the efficiency of the production and utilization of statistical activities in ETHNSS, there should be harmonized and well-coordinated approaches of managing administrative data in the country. Therefore, the preparation of this national guideline for administrative data in collaboration of MDAs is believed to have a role to accelerate in strengthening the coordination of statistical activities in Ethiopia.

1.4. Purposes of the Guideline

This guideline describes the regularly repeated statistical operations relevant to the quality of statistics. The guideline is therefore the general principles to carry on task of the production of statistics through administrative data within various working hierarchical environments correctly and always in the same manner.

1.4.1. General Objective

The purpose of this guideline includes strengthening the integration of the NSS for the implementations of improved methods of the production of statistics in the country. Hence, this document aimed at supporting to ensure and maximize the quality, objectivity, usefulness, and integrity of statistics produced, used and disseminated by sectors in Ethiopia.

The general objective of this guideline is strengthening the coordination of the statistical activities of the collaborative sectors and the MDAs in order to progressively increase the performance in the management of administrative data.

1.4.2. Specific Objectives

The guideline:

- guides sectors to apply standardized practices in the processes of collecting, processing, analyzing, presenting, using and documenting administrative data;
- enables sectors to produce quality administrative data in their NSS;
- increases efficiency and effectiveness of the data users through enhancing the availability of well-arranged demanded data;
- Improves cooperation among MDAs with the national data quality framework.

1.5. Applicability

- 1.5.1. This guideline is directly applicable in the collaborative sectors/ ministries and their structures at all levels;
- 1.5.2. It can be also utilized by other similar organizations;
- 1.5.3. Application of this guideline is strictly based on official statistical methodology corresponding to principles of the contemporary statistical legislation of The Federal Democratic Republic of Ethiopia and the NSDS;
- 1.5.4. This guideline can be revised upon the appeals of the lead coordinator and collaborators based on the related improvements made in the national statistical system and the demands of advancements of its content;
- 1.5.5. The milestone of this guideline is the National Strategy of the Development of Statistics (NSDS). The guideline is therefore adjusted to reflect with the United Nations Principles of Official Statistics and the African Charter of Official Statistics;
- 1.5.6. Trainings for the experts of the collaborators MDAs participating in producing this guideline and experts in the entire NSS shall be provided to create the awareness and experiences of applying this guideline and producing / customizing their respective guidelines.

1.6. Roles and Responsibilities

1.6.1. Roles and Responsibilities of the CSA

The Ethiopian Central Statistical Agency has the following roles and responsibilities in the National Administrative Data Management Guideline.

- CSA is the lead coordinator among collaborators producing and applying this guideline;
- It provides direction on the implementations of the guideline;
- It supplies awareness creation trainings in collaboration with MDAs on the implementation of the guideline;
- It monitors MDAs for the implementation of the guideline.

1.6.2. Roles and Responsibility of the MDAs

MDAs have the following roles and responsibilities in the Administrative Data Management National Guideline.

- Collaborating organizations have to customize sector specific guidelines or complement their existing similar documents from this guideline;
- They should implement this guideline at all levels of their organizational sections and works;
- They should provide awareness creation trainings and experiences on applying this guideline to their experts.
- They have to provide any required information regarding the customization and implementation of the guideline during CSA monitoring and evaluation.

- 2.2.7. The unit has to identify more importantly the internal sections/ departments and even the external data users;
- 2.2.8. There must be a way of mechanisms set legally to work with other similar units or organizations and get/ provide technical supports, assistances and trainings from CSA, academies, professional associations, and etc.
- 2.2.9. The statistical and related activities should be distinctively financed or budgeted to execute the detailed action plans in MDAs;
- 2.2.10. The unit has to acquire its appropriate utilities, network, and infrastructure developments.

3. Data Production Processes

Data are resources that have to be produced, utilized, and stored properly. To retain trust in official statistics, organizations need to decide according to strictly professional considerations, including scientific principles and professional ethics, on the methods and procedures for the collection, processing, storage and presentation of statistical data (UN, 2015).

Data for statistical purposes may be drawn from statistical surveys or administrative records. MDAs as data producers should consider the existing magnitudes with regard to data quality, timeliness, costs and the burden on respondents. To facilitate a correct interpretation of the data, the organizations should present information according to scientific standards on the sources, methods and procedures of the statistics (UN, 2015).

3.1. Planning to Produce Administrative Data

Administrative data production plan should consider the recommendations listed below.

- 3.1.1. The statistical plan of MDAs should adhere to the statistical demands of organizational plans, national development plan (GTPs), African development agenda (Agenda 2063) and global development agenda (SDG);
- 3.1.2. The statistical capacity assessment has to be made to evaluate the sector and national indicators with their respective data sources are available in monitoring and evaluations strategies;
- 3.1.3. The plan of statistics has to refer the assessments made to check availability of indicators and/ or statistics/ data for monitoring and evaluations in sector and national plans;
- 3.1.4. MDAs should have their own sector specific statistical strategic plan which should align with the contemporary National Strategy for the Development of Statistics (NSDS);
- 3.1.5. Data producers has to plan (*see Appendix 5*) to satisfy the internal sector data demands, national development plan data demands, and the global data demands;
- 3.1.6. Data producers should plan to produce relevant disaggregated statistical data;
- 3.1.7. MDAs in their initiations of a new and/ or major revision of an existing data producing procedures must include written plan which sets objectives that satisfies the demands of the potential and even for other users;

- 3.1.8. The data producers have to plan how the data should be analyzed and presented in order to be used for internal consumption;
- 3.1.9. The data producers have to set clarities and relevance of the data in their plan in advance in order to be aware about the unique nature of their product to reduce unnecessary duplication with other data sources of information;
- 3.1.10. The plan to produce data producers should consider frequently data users need;
- 3.1.11. The process of the production statistics should be cost effective;
- 3.1.12. The plan of statistical activities should be associated with allocation of sufficient budget and human resources: the data production process, documentation and dissemination, and data quality activities should uniquely associated with allocation of resources (including time and budget allocation) and their respective sources;
- 3.1.13. The statistical plan of an organization shall be reviewed/updated according to the overall objectives of the national statistics plan;
- 3.1.14. There should be consultations with key data users when statistics are planned to be produced;
- 3.1.15. The data processing and transferring procedures must be evaluated, assessed by the concerned body in the national statistical system;
- 3.1.16. The plan for the production of statistics should consider the utilization of methodology producing internally coherent, consistent and comparable statistics and across similar data sources overtimes;
- 3.1.17. The plan of data production should include the implementation strategy of data production;
- 3.1.18. The plan for the data production should be approved by the higher officials in the organization;
- 3.1.19. The plan for data production should include the detailed lists of variables;
- 3.1.20. There must be formal and regular system for evaluation and revision of administrative data production plan in organization.

3.2. Administrative Data Production Methodology

The adoption and implementation of international standards, norms and concepts are essential for making comparisons, and thus constitute a prerequisite for the production of comparable statistics (UStat, May 2009).

The overall methodological framework of the statistical productions and utilizations should follow the nationally accepted principles and other international standards, guidelines, and good practices. Thus, the following themes support to strengthen the statistical processes in the country.

3.2.1. Production and Utilization of Standard Documents

Producing and using standard documents demand the following facts.

- 3.2.1.1. The standard statistical documents usually includes naming, coding, concepts, definitions and classifications of locations/ geographic units, industries and businesses, trade, business products, occupations and jobs;
- 3.2.1.2. The standard documents produced and/ or utilized by any data producers and users should be consistent to other similar documents produced and/ or used in the NSS;
- 3.2.1.3. MDAs as data producers have to correctly adopt and/or produce the standard documents;
- 3.2.1.4. The standard documents should adhere to the national and the global standards;
- 3.2.1.5. The standard documents have to be available for other data producers and data users;
- 3.2.1.6. The standard documents have to be regularly and continuously updated by reflecting the current national and the global contexts;
- 3.2.1.7. The standard documents produced and utilized should be consistent across MDAs and collaborators;
- 3.2.1.8. The standard documents should be the basis for the design and utilization of the data collection tool (questionnaire/format) and the method of data analysis and presentations.

3.2.2. Preparations and Utilizations of Registers of Units

The preparations and utilizations of Lists of units/register are recommended to consider the following particulars.

- 3.2.2.1. There must be formal and well-structured registering mechanisms;
- 3.2.2.2. The entities to be registered should be identified and well-defined;

- 3.2.2.3. The registers should have linkages with the national development plans;
- 3.2.2.4. Entities in registers should have unique identifiers or codes that allow cross-linkage within the specific sector and even in the entire NSS;
- 3.2.2.5. The registration process should be handled in a pre-defined and systematic way in the entire registering system;
- 3.2.2.6. Registers should be for all the exhaustive attributes and entities/ units;
- 3.2.2.7. The register should be updated regularly in the pre-stated and scheduled time intervals uniformly; the updates should be informed for users timely and uniformly;
- 3.2.2.8. The design of register should consider the internal data demands and the nature of other registers in the NSS;
- 3.2.2.9. The design of the register should consider the ability to be upgraded, revised or redesigned for additional demands with the approvals of all collaborators.

3.2.3. Designing and Utilizations of Tools

Designing and using standard data collection tools requires to be considered the following facts.

- 3.2.3.1. The data collection tools should be prepared to fulfill the data producing objectives which are established in advance;
- 3.2.3.2. The data collection tools should be prepared in a standardized format (*see sample indicated in Annex 6*);
- 3.2.3.3. The tools should include items for identified problems or demands of interpretability;
- 3.2.3.4. The items in data collection tools should be clearly set with clear skips if required;
- 3.2.3.5. The data collection tools should not be ambiguous and incomplete;
- 3.2.3.6. Designing data collection tool should consider maximizing the data quality, minimizing respondent burden, cost effectiveness and availability of time;
- 3.2.3.7. The data collection tools should consider maximize the response rates by encouraging the respondents to respond easily and comfortably;
- 3.2.3.8. The data collection tool/ forms should be designed in such a way to reduce non-responses;
- 3.2.3.9. The data collection tool should be designed to reduce measurement errors;
- 3.2.3.10. The data collection tool should be designed comfortably for further data processing activities (editing, entry, etc.);

3.2.3.11 Each established data collection and/or reporting tools/ forms should be acknowledged and accepted by officials at all levels.

3.2.4. Data Collection

Standard data collection involves the subsequent guidelines.

- 3.2.4.1. Data collection should be done using only the already established and approved tools;
- 3.2.4.2. Data collector/ capturing personnel should be right/ proper expert;
- 3.2.4.3. Data collector/ capturing personnel should get appropriate and continuous trainings;
- 3.2.4.4. The system for data collection should identify the respective administrative data sources;
- 3.2.4.5. There should be accountability for data collection processes;
- 3.2.4.6. The data collection (reporting and receiving) time/period must be properly/carefully set;
- 3.2.4.7. The data collection period should be feasible;
- 3.2.4.8. The data collection/ capturing mechanisms should be simple and convenient for implementations;
- 3.2.4.9. System of data quality and procedures and control systems should be established; the managers at each steps are thus be informed by the system that the statistical activities are going successfully.

3.2.5. Data Processing

Administrative data processing requires the consideration of the proceeding guidelines.

- 3.2.5.1. Following each data collection, there must be formal, scheduled and predefined data processing system;
- 3.2.5.2. The points where data captured, coded and edited, entered, verified and tabulated should be formally predefined;
- 3.2.5.3. There should be a systematic methods for detectable errors to be appropriately edited based on the available information correctly;
- 3.2.5.4. The expert or group of experts at each point or stage of data processing should be responsible and accountable;
- 3.2.5.5. Consistencies of statistics have to be done sufficiently and correctly before data to go to analysis;

- 3.2.8.10. There must be pre-agreed and specific period of time settled for the release of statistics; any changes to the dissemination period scheduled should be made known in advance with explained and a new release of periods;
- 3.2.8.11. Data sharing mechanisms should be easy and comfortable for users;
- 3.2.8.12. Preliminary administrative data disseminations in an organization shall be formal;

3.2.9. Using Administrative Data

The subsequent procedures are very essential in utilizing administrative data correctly.

- 3.2.9.1. Statistical data must be ethically and professionally used for intended purposes only;
- 3.2.9.2. There must be prior arrangements between data suppliers and users in terms of timing, format and contents;
- 3.2.9.3. Technical supports should be provided by suppliers for users to enable them to use data correctly;
- 3.2.9.4. The related metadata shall be referred during and/ or before using a specific statistics;
- 3.2.9.5. Data users should give right interpretations of the statistics what they are obtaining in order not misguide or mistaken users of their output;
- 3.2.9.6. Data producers shall identifying potential consumers or users in order to track the influence of their products;
- 3.2.9.7. Data users should apply appropriate method of data analysis, processing and presentations;
- 3.2.9.8. Statistical data must always be delivered to any consumers following or according to the delivery policies and principles;
- 3.2.9.9. Data must not pass or handover data to any else users; and all users must obtain data from the authorized data sources at all times;
- 3.2.9.10. The users of administrative data should include their data sources in their outputs;
- 3.2.9.11. The data users should have responsibility and accountability on the use of the data they are using.

3.2.10. Feedbacks

- 3.2.11.3. Swift ways obtaining feedbacks from the users shall be implemented and exercised;
- 3.2.11.4. Feedbacks, should be collected regularly with arrange of direct involvement to systematic periodic ways for measuring users' satisfaction on the provision of data for at least core priorities and indicators or variables;
- 3.2.11.5. There must be regular exercises of making reviews based on the feedback obtained by taking actions accordingly for the progressive development of data management systems in the organization.

1. Data Documentation

Documentation here refers to the systematic collection and storage of valuable materials including concepts, definitions, methodology, metadata, lists or outlines of activities used for production and utilizations of statistics in hardcopies, electronic or both forms in the following manners.

- 3.2.11.1. Thus, there must be systematic documentation of all related to planning, any steps or stages of production processes and utilization of administrative data;
- 3.2.11.2. The data presented or used should be constantly followed by documentations;
- 3.2.11.3. Data collection manuals, data analysis documents, publications and reports should be properly and systematically documented;
- 3.2.11.4. There must be standardized metadata documentation and dissemination mechanisms;
- 3.2.11.5. There must electronic and/ or paper based documentation and dissemination methods for any regular and/ or occasional statistical data / information/ reports;
- 3.2.11.6. MDAs shall use central data archive store for unit record data;

3.2.12. Data Security

Data needs to be protected from unauthorized disclosures as they are sensitive information. Therefore, they must be disseminated according to the following guidelines.

- 3.2.12.1. There must be regulations or data security policy in an organization first of all;
- 3.2.12.2. The data or information from persons, firms, establishments, organizations, and etc. should be protected from damages and/ or misuses of statistics;
- 3.2.12.3. Data processing, analyzing, reporting and documenting methods carried out should conform to the data protection regulations;

- 3.2.12.4. There must be safety procedures that ensure data security for anything goes wrong with any elements of the database system;
- 3.2.12.5. There must be data backup and recovery system to secure data from damage and lose;
- 3.2.12.6. Both physically and electronically access to databases should be restricted for any unauthorized;
- 3.2.12.7. There must be responsibilities and accountability for data protection and security systems.

3.3. Data Transferring Systems

The first type of data development is a procedure that includes collecting, processing, analyzing, reporting and disseminating data entirely for statistical purposes; the majority of the statistical activities in the CSA fall into this category. The second category of producing statistics is generating data as a by-product of an administrative requirement. Most of the processes conducted by the ETHNSS other than CSA fall into the second category.

In the second category of data producing processes here above mentioned, data are assembled, aggregated and passed on to successive higher levels (zone, region) within the organization responsible for the statistical process, until they reach the highest level, which is the national level (also called the federal or central level). Hence there must be some guideline to deliver, transfer and receiving statistical data in the process of data production systems.

3.3.1. Compiling Statistical Data

The successful compilations of statistical data are worthy to consider the following guidelines.

- 3.3.1.1. Statistical data should be compiled on predetermined objective bases and considerations;
- 3.3.1.2. Statistical data should be compiled on the basis of accepted standards with respect to scope, definitions, units and classifications used in similar producers and users;
- 3.3.1.3. Statistical compilations should be complete, avoiding redundancies, applying the appropriate and acceptable methods of compilations.

3.3.2. Reporting Data

The following are guidelines to be considered during data reporting.

- 3.3.2.1. Statistics should be reported according to the pre-agreed and prearranged reporting systems;
- 3.3.2.2. The entire document should be standardized, completed and should be prepared following the rules and principles of publications;
- 3.3.2.3. The reports of administrative data should be suitable for further analysis and utilizations of the report;
- 3.3.2.4. Statistical releases should be based on the statistical results available and should never contain any political or similar judgments;
- 3.3.2.5. The layouts of tables, graphs and charts used should be clear and easy to understand;
- 3.3.2.6. The table names, chart titles, axes labeling and footnotes should be clearly marked and properly utilized;
- 3.3.2.7. The units of measurements applied which figures are talking about should be clear;
- 3.3.2.8. The mathematical formulas applied and/ or the relationships should be consistent, acceptable and displayed/ publicized properly where and as it should be shown.

4. Data Quality Issues

There are many data quality principles applied with the procedure of checking statistical data quality. These principles are involved at all stages of the data management processes (collection, entry, analysis, presentation, use and documentation).

4.1. Data Quality Principles

The guidelines below are the basic principles those assist to enhance the quality of administrative statistical data.

- 4.1.1. The sector specific data quality framework should originate from the national and global data quality dimensions/ principles;
- 4.1.2. Quality guideline should be prepared, documented and staffs shall trained accordingly;
- 4.1.3. There should be a system of self-controlling regulatory mechanisms consisting and checking for the data quality principles;
- 4.1.4. The data quality should be designed according to the EDQAF which is sited at: <http://www.csa.gov.et/component/phocadownload/category/310?Itemid=310>;
- 4.1.5. The data quality should be regularly monitored according to the accepted quality components;
- 4.1.6. The quality of data should enable to address the degree to which the data are demanded for the users.

4.2. Quality Control Mechanisms

The principles listed as follows are essential mechanisms of controlling data quality

- 4.2.1. There must be quality management in the processes for data collection, processing, analyzing, presenting, disseminating and documenting administrative data to be followed to ensure sound application of methodology to lead to produce desired quality of statistics;
- 4.2.2. There must be internal system/ mechanism effective, efficient, formal and continuous data quality evaluation to check the data quality (e.g. consistency checks, data audit, etc.) for promoting the quality of data;
- 4.2.3. There must be responsibility, more appropriately the head of the statistical unit, for the quality of statistics produced by an organization;

- 4.2.4. There must be systems established to gain and share technical and methodological support from CSA and other MDAs;
- 4.2.5. Data quality assessments should be conducted in collaborations with CSA and thus measures have to be taken accordingly;
- 4.2.6. There should be systems of receiving feedback or measuring users' satisfaction of at least key data users: this can be exercised by using checklists for the issues related with quality, demand, frequency, relevance, period of data dissemination, responsibility and accountability of the delivering body, disaggregation, etc.
- 4.2.7. There must be acknowledgments/ recognitions given for experts/ groups of experts/ organizations for exercising better data quality systems;

5. Implementation Strategy of the Guideline

The custom of this national guideline and the sector specific guidelines have affirmative influences on the availability and the quality of statistics in the country. Thus, all the responsible bodies of the production of statistics especially the CSA has to influence in customizing and applying the statistical guidelines by MDAs. In addition, there should be continuous monitoring and evaluating the customization and implementations of guidelines.

The monitoring exercise has to integrate with at least creating and expanding the awareness of the customizing and implementing statistical guidelines at different levels of MDAs. The general methodology for the overall evaluation of the implementations of the statistical guideline by the collaborators or NSS should be arranged and executed accordingly.

5.1. Customizing the Guideline

- 5.1.1. MDAs should customize this national guideline of administrative data or include the inadequacies of their similar supplementary documents or an existing working guideline in comparison with this guideline;
- 5.1.2. The customized guideline should be reached and exercised accordingly to all respective sector administrative levels.

5.2. Awareness Creation on the Guideline

The following points should be considered for creating awareness of the guideline.

- 5.2.1. Awareness creation on the utilization of this guideline should be created for the concerned body and experts at different levels;
- 5.2.2. The sectors should prepare separate guideline for the management of their administrative data at different levels;
- 5.2.3. The awareness creation for the regional experts shall be offered by the line ministry in collaboration with central statistical agency;
- 5.2.4. The awareness creation on the sector specific guideline along with this national guideline for zonal, Woreda and facility level experts should be given by line ministries, however, the CSA can involve as required.

5.3. Monitoring the Guideline Implementations

The subsequent strategies are designed for monitoring the implementations of the guideline in the collaborative ministries and commission.

- 5.3.1. This national guideline should be customized by the MDAs;
- 5.3.2. The customization and utilization of the guideline should be monitored by the CSA annually in collaboration with the respective MDA;
- 5.3.3. The evaluation of the implementation of this guideline should be done by comparing or checking whether a particular guideline in a specific subtopic has been exercised by MDAs which is being evaluated;
- 5.3.4. The entire or part of the methodology on the monitoring and evaluation of this guideline shall be updated on the basis of the demands and situations of the current statistical activities in the country;
- 5.3.5. The schedule/ program for the monitoring of this guideline for specific sector will be suggested by the CSA;
- 5.3.6. The MDAs are responsible to provide the required information on the progresses of the customizations and utilizations of this guideline;
- 5.3.7. The CSA should notify/ provide the outcomes of the monitoring and evaluation on the status on customization and implementation of this guideline to the corresponding evaluated organization officially within a month;
- 5.3.8. Organizations should act on at least the recommendations in order to bring differences and improvements after the evaluations made by the CSA and/ or by them.

**Monitoring the National Administrative Data Management Guideline
Monitoring and Evaluation Format of Customizing and Implementing the Guideline**

A. Evaluator Agency

(1)	(2)	(3)	(4)	(5)
Name of Organization	Date of evaluation (DD/MM/YYYY)	Name of the expert	Responsibility	Signature
Central Statistical Agency	---/---/20---			

B. Evaluated Ministry, Department or Agency

(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Name of Organization	Year of Evaluation	Occurrences of evaluation	Date of evaluation	Name of the expert	Responsibility	Telephone No	Signature
	20---						

C. Evaluation Section

2. Organizational Statistical Policy

2.1. Statistical Legislations

LN	Guidelines	Customized (0=No, 1=Yes)	Implemented (0=No, 1=Yes)
1	2.1.1. The statistical legislations of each of MDAs should be a unit or an integral part of legislations of producing official statistics in the country;		
2	2.1.2. MDAs should have written legal basis aligned with the national statistical laws that endows legal power in producing, analyzing, utilizing and disseminating their administrative data;		
3	2.1.3. The statistical legislation of MDAs should at least include in specifying the extent to which the organization to produce statistics that can be used in the process of decision making;		
4	2.1.4. Statistical legislations of MDAs should provide the inter-sector statistical coordination in the NSS;		
5	2.1.5. The laws, rules, regulations and measures under which the statistical systems operate should be made public;		
6	2.1.6. The plan and exercise in the production of sector specific statistics should align with the current National Strategy for the Development of Statistics (NSDS);		
7	2.1.7. There should be initiation by sectors supported by CSA to prepare and utilize sector specific strategic plans for the development of statistics;		
8	2.1.8. The data must contain aggregate data without references to the units (persons, households or institutions) that provided the data;		

2.1. Statistical Legislations

LN	Guidelines	Customized (0=No, 1=Yes)	Implemented (0=No, 1=Yes)
9	2.1.9. The data and information generated by the organization that produced it;		
10	2.1.10. Data collected from individuals, household, firms, establishments, organizations for statistical compilation should kept strictly confidential and used exclusively for statistical purposes;		
11	2.1.11. There must be strict compliance for confidentiality guaranteed to all types of respondents (person, households, establishments, firms, center, and etc.);		

2.2. Statistical Unit

LN	Guidelines	Customized (0=No, 1=Yes)	Implemented (0=No, 1=Yes)
1	2.2.1. The statistical unit should exist uniquely in the structure of the organization properly in accordance to the nature of the organization for the purpose executing the statistical activities;		
2	2.2.2. The structural setup of a statistical unit in different organizations may vary from organization to organization;		
3	2.2.3. Statistical working groups/ sections/ staffs should be assigned/ recruited using professional criteria; these staffs have to get continuous and appropriate trainings;		
4	2.2.4. The statistical activities shall be executed within independent workplaces or offices supported with sufficient budget/ funding to support staff training, and improvements;		
5	2.2.5. The statistical unit of an organization has to be formed with appropriate size of senior groups (head, sub-group leads, etc.), data quality controls, senior experts or statisticians, IT experts, researchers, programmers, data coordinators, data clerks, etc.;		
6	2.2.6. There must be known and identified formal working procedures to run statistical activities in an organization;		
7	2.2.7. The unit has to identify more importantly the internal sections/ departments and even the external data users;		
8	2.2.8. There must be a way of mechanisms set legally to work with other similar units or organizations and get/ provide technical supports, assistances and trainings from CSA, academies, professional associations, and etc.		
9	2.2.9. The statistical and related activities should be distinctively financed or budgeted to execute the detailed action plans in MDAs;		
10	2.2.10. The unit has to acquire its appropriate utilities, network, infrastructure developments;		

3. The Data Production Process

3.1. Planning to Produce Statistical Data

LN	Guidelines	Customized (0=No, 1=Yes)	Implemented (0=No, 1=Yes)
1	3.1.1. The statistical plan of MDAs should adhere to the statistical demands of organizational plans, national development plan (GTPs), African development agenda (Agenda 2063) and global development agenda (SDG).		
2	3.1.2. The statistical capacity assessment has to be made to evaluate the sector and national indicators with their respective data sources are available in monitoring and evaluations strategies.		
3	3.1.3. The plan of statistics has to refer the assessments made to check availability of indicators and/or statistics' data for monitoring and evaluations in sector and national plans.		
4	3.1.4. MDAs should have their own sector specific statistical strategic plan which should align with the contemporary National Strategy for the Development of Statistics (NSDS).		
5	3.1.5. Data producers has to plan (see Appendix 5) to satisfy the internal sector data demands, national development plan data demands, and the global data demands.		
6	3.1.6. Data producers should plan to produce relevant disaggregated statistical data.		
7	3.1.7. MDAs in their initiations of a new and/or major revision of an existing data producing procedures must include written plan which sets objectives that satisfies the demands of the potential and even for other users.		
8	3.1.8. The data producers have to plan how the data should be analyzed and presented in their internal consumption.		
9	3.1.9. The data producers have to set clarities and relevance of the data in their plan in advance about the unique nature of their product to reduce unnecessary duplication with other sources of information.		
10	3.1.10. The plan to produce data producers should consider frequently data users need.		
11	3.1.11. The process of the production statistics should be cost effective.		
12	3.1.12. The plan of statistical activities should be associated with allocation of sufficient budget and human resources; the data production process, documentation and dissemination, and data quality activities should uniquely associated with allocation of resources (including time and budget allocation) and their respective sources.		
13	3.1.13. The statistical plan of an organization shall be reviewed/ updated according to the overall the national statistics plan.		
14	3.1.14. There should be consultations with key data users when statistics are planned to be produced.		
15	3.1.15. The data processing and transferring procedures must be evaluated, assessed by the concerned body of the national statistical system.		
16	3.1.16. The plan for the production of statistics should consider the utilization of methodology for producing internally coherent, consistent and comparable statistics and across similar other data sources over times.		
17	3.1.17. The plan of data production should include the implementation strategy of data production.		
18	3.1.18. The plan for the data production should be approved by the higher officials in the organization.		
19	3.1.19. The plan for data production should include the detailed lists of variables.		
20	3.1.20. There must be formal and regular system for evaluation and revision of administrative data production plan in organization.		

3.2. Methodology of the Production of Statistics

3.2.1. Production and Utilization of Standard Documents

LN	Guidelines	Customized (0=No, 1=Yes)	Implemented (0=No, 1=Yes)
1	2.2.1.1. The standard documents should include the locations/ geographic units, industries and businesses, trade, business products, occupations and jobs;		
2	2.2.1.2. The standard documents produced and/ or utilized by any data producers and users should be consistent to other similar documents produced and/ or used in the NSS;		
3	2.2.1.3. MDAs as data producers have to correctly adopt and/ or produce the standard documents;		
4	2.2.1.4. The standard documents should adhere to the national and the global standards;		
5	2.2.1.5. The standard documents have to be available for other data producers and data users;		
6	2.2.1.6. The standard documents have to be regularly and continuously updated by reflecting the current national and the global contexts;		
7	2.2.1.7. The standard documents produced and utilized should be consistent across MDAs and collaborators;		
8	2.2.1.8. The standard documents should be the basis for the design and utilization of the data collection tool (questionnaire/format) and the method of data analysis and presentations;		

3.2.2. Preparations and Utilizations of Lists of Units / Register of Entities

LN	Guidelines	Customized (0=No, 1=Yes)	Implemented (0=No, 1=Yes)
1	3.2.2.1. There must be formal and well-structured registering mechanisms;		
2	3.2.2.2. The entities to be registered should be identified and well-defined;		
3	3.2.2.3. The registers should have linkages with the national development plans;		
4	3.2.2.4. Entities in registers should have unique identifiers or codes that allow cross-linkages within the specific sector and even in the entire NSS;		
5	3.2.2.5. The registration process should be handled in a pre-defined and systematic way in the entire of the registering system;		
6	3.2.2.6. Registers should be for all the exhaustive entities/ units;		
7	3.2.2.7. The register should be updated regularly in the pre-stated and scheduled time interval uniformly; the updates should be informed for users timely and uniformly;		
8	3.2.2.8. The design of register should consider the internal data demands and the nature of other registers in the NSS;		
9	3.2.2.9. The design of the register should consider the ability to be upgraded, revised or redesigned for additional demands with the approvals of all collaborators;		

3.2.3. Designing and Utilizations of Tools (forms/questionnaire)		Customized (0=No, 1=Yes)	Implemented (0=No, 1=Yes)
LN	Guidelines		
1	3.2.3.1. The data collection tools should be prepared to fulfill the data producing objectives which are established in advance;		
2	3.2.3.2. The data collection tools should be prepared in a standardized format (see sample indicated in Annex 6);		
3	3.2.3.3. The tools should include items for identified problems or demands of interpretability;		
4	3.2.3.4. The items in data collection tools should be clearly set with clear, skips if required;		
5	3.2.3.5. The data collection tools should not be ambiguous and incomplete;		
6	3.2.3.6. Designing data collection tool should consider maximizing the data quality, minimizing respondent burden, cost effectiveness and availability of time;		
7	3.2.3.7. The data collection tool should consider maximize the response rates by encouraging the respondents to respond easily and comfortably;		
8	3.2.3.8. The data collection tool should be designed in such a way to reduce non-responses;		
9	3.2.3.9. The data collection tool should be designed to reduce measurement errors;		
10	3.2.3.10. The data collection tool should be designed comfortably for further data processing activities (editing, entry, etc.);		
11	3.2.3.11. Each established data collection and/or reporting tools/ forms should be acknowledged and accepted by officials at all levels;		

3.2.4. Data Capturing / Collection		Customized (0=No, 1=Yes)	Implemented (0=No, 1=Yes)
LN	Guidelines		
1	3.2.4.1. The data collection should be done using only the already established and approved tools;		
2	3.2.4.2. The data collector/ capturing personnel should be right/ proper expert;		
3	3.2.4.3. The data collector/ capturing personnel should get appropriate and continuous trainings;		
4	3.2.4.4. The system for data collection should identify the respective administrative data sources;		
5	3.2.4.5. There should be accountability for data collection processes;		
6	3.2.4.6. The data collection (reporting and receiving) time/period must be properly / carefully set;		
7	3.2.4.7. The data collection period should be feasible;		
8	3.2.4.8. The data collection/ capturing mechanisms should be simple and convenient for implementations;		
9	3.2.4.9. System of data quality and procedures and control systems should be established; the managers at each steps are thus be informed by the system;		

3.2.5. Data Processing		Customized (0=No, 1=Yes)	Implemented (0=No, 1=Yes)
LN	Guidelines		
1	3.2.5.1. Following each data collection, there must be formal, scheduled and predefined data processing system;		
2	3.2.5.2. The points where data captured, coded & edited, entered, verified and tabulated should be formally predefined;		
3	3.2.5.3. There should be a systematic methods for detectable errors to be appropriately edited based on the available		

LN	Guidelines	Customized (0=No, 1=Yes)	Implemented (0=No, 1=Yes)
	information correctly.		
4	3.2.5.4. The export of		
5	3.2.5.5. Consistency of statistics have to be done sufficiently and correctly before data to go to analysis;		
6	3.2.5.6. There must be data processing manuals and edit specification to perform tasks accordingly for each data processing steps;		
7	3.2.5.7. Standardized naming and codes shall be used to collect or/and convert statistical data from text to codes in order to make the users analysis data appropriately and immediately;		
8	3.2.5.8. There should be a system of taking backups in data processing;		

3.2.6. Data Analysis

LN	Guidelines	Customized (0=No, 1=Yes)	Implemented (0=No, 1=Yes)
1	3.2.6.1. Following the successful completion of the data processing, the data analysis should follow within the plan developed in prior;		
2	3.2.6.2. The plan of data analysis should ensure adequate resources and should be used appropriately in the process of administrative data analysis;		
3	3.2.6.3. There must be internationally accepted standards for statistical data analysis;		
4	3.2.6.4. Experts involved with data analysis in an organization should take responsibilities and accountabilities;		
5	3.2.6.5. There must be regulations for handling non-responses, missing data and outliers during data analysis;		
6	3.2.6.6. There must be rules of calculation and any other applications of mathematical relationships, denominators, numerators, etc. should be correct and recognized throughout the system;		
7	3.2.6.7. The method data analysis should be not complex, appropriate in terms of the demand for users;		
8	3.2.6.8. There must be rules in the utilizations of type of software for a specific administrative data analysis;		

3.2.7. Presentations

LN	Guidelines	Customized (0=No, 1=Yes)	Implemented (0=No, 1=Yes)
1	3.2.7.1. The method and the way of reporting statistics should be clear, not complex, and proper in terms of the data types;		
2	3.2.7.2. The methods of presenting statistics should consider the data users to let the users to understand easily;		
3	3.2.7.3. The method of presenting statistics should be complete in terms of transferring information by themselves;		
4	3.2.7.4. The presentation data should consider the content to be presented that ethically correct and accurate faire, right, legal;		
5	3.2.7.5. The way of presentation statistics should be attractive;		

3.2.8. Dissemination

LN	Guidelines	Customized (0=No, 1=Yes)	Implemented (0=No, 1=Yes)
1	3.2.8.1. There must be data dissemination policy: formal and pre-defined systematic ways data disseminations mechanisms for each MDAs;		
2	3.2.8.2. The data dissemination policy may include the data delivering method, the amount of time to take to deliver the demanded data, the payment strategies, etc.;		
3	3.2.8.3. Dissemination plans of statistical data should be planned according to the general dissemination plan to access data timely for all users and provide information to the public including related documents;		
4	3.2.8.4. The data disseminations mechanisms as per of each MDAs may vary with the type of data delivered and the reporting levels;		
5	3.2.8.5. In the fields of their responsibilities, MDAs should regularly produce and/ or disseminate statistics and reports through either in publications, mass media, electronic, etc;		
6	3.2.8.6. The releases of statistics should realize the allocations of sufficient time to meet major information needs of key users;		
7	3.2.8.7. The disseminations of statistics should include the information about the methodologies and other the main process applied;		
8	3.2.8.8. The disseminations of statistics should include locations where to obtain it;		
9	3.2.8.9. Dissemination of statistics should include information about directs or guidance for users that the data are fit for particular purposes which they are to be used;		
10	3.2.8.10. Statistical releases should include information about errors like sources of errors or mistakes, response errors and other non-sampling errors;		
11	3.2.8.11. There must be pre-agreed and specific period of time settled for the release of all statistics; any changes to the dissemination period scheduled should be made known in advance with explained and a new release of periods;		
12	3.2.8.12. Data sharing mechanisms should be easy and comfortable for users;		
13	3.2.8.13. Preliminary administrative data disseminations in an organization shall be formal;		

3.2.9. Using Administrative Data

LN	Guidelines	Customized (0=No, 1=Yes)	Implemented (0=No, 1=Yes)
1	3.2.9.1. Statistical data must be ethically and professionally used for intended purposes only;		
2	3.2.9.2. There must be prior arrangements between data suppliers in terms of timing, format and contents;		
3	3.2.9.3. Technical supports should be provided by suppliers for users to enable them to use data correctly;		
4	3.2.9.4. The related metadata shall be referred during and/ or before using a specific statistics;		
5	3.2.9.5. Data users should give right interpretations of the statistics what they are obtaining in order not misguide or mistaken users of their output;		

LN	Guidelines	Customized (0=No, 1=Yes)	Implemented (0=No, 1=Yes)
6	3.2.9.6. Data producers shall identifying potential consumers or users in order to track the influence of their products;		
7	3.2.9.7. Data users should apply appropriate method of data analysis, processing and presentations.		
8	3.2.9.8. Statistical data must follow statistical principles;		
9	3.2.9.9. Data must not pass or handover data to any else users; and all users must obtain data from the authorized data sources at all times;		
10	3.2.9.10. The users of administrative data should include their data sources in their outputs;		
11	3.2.9.11. The data users should have responsibility and accountability on the use of the data they are using;		

3.2.10. Feedbacks

LN	Guidelines	Customized (0=No, 1=Yes)	Implemented (0=No, 1=Yes)
1	3.2.10.1. Swift ways obtaining feedbacks from the users shall be implemented and exercised;		
2	3.2.10.2. Feedbacks should be collected regularly with a rang of direct involvement to systematic periodic ways for measuring users' satisfaction on the provision of data for at least core priorities and indicators or variables;		
3	3.2.10.3. There must be regular exercises of making reviews based on the feedback obtained by taking actions accordingly for the progressive development of data management systems in the organization;		

3.2.11. Documentation

LN	Guidelines	Customized (0=No, 1=Yes)	Implemented (0=No, 1=Yes)
1	3.2.11.1. Documentation here refers to the systematic collection and storage of valuable materials including concepts, definitions, methodology, metadata, lists or outlines of activities used for production and utilizations of statistics in hardcopies, electronic or both forms; Thus, there must be systematic documentation of all related to planning, any steps or stages of production processes and utilization of administrative data;		
2	3.2.11.2. The data presented or used should constantly be followed by documentations;		
3	3.2.11.3. Data collection manuals, data analysis documents, publications and reports should be properly and systematically documented;		
4	3.2.11.4. There must be standardized metadata documentation and dissemination mechanisms;		
5	3.2.11.5. There must electronic and/ or paper based documentation and dissemination methods for any regular and/ or occasional statistical data / information/ reports;		
6	3.2.11.6. MDAs shall use central data archive store for unit record data;		

3.2.12. Data Security

LN	Guidelines	Customized (0=No, 1=Yes)	Implemented (0=No, 1=Yes)
1	3.2.12.1. There must be regulations or data security policy to protect data or sensitive information from unauthorized disclosures;		
2	3.2.12.2. The data or information from persons, firms, establishments, organizations, and etc. should be protected from damages and/ or misuses of statistics;		
3	3.2.12.3. Data processing, analyzing, reporting and documenting methods carried out should conform to the data protection regulations;		
4	3.2.12.4. There must be safety procedures that ensures data secured for anything goes wrong with any elements of the database system;		
5	3.2.12.5. There must be data backup and recovery system to secure data from damage and lose;		
6	3.2.12.6. Both physically and electronically access to databases should be restricted for any unauthorized;		
7	3.2.12.7. There must be responsibilities and accountability for data protection and security systems;		

3.3. Data Transferring

3.3.1. Compiling Statistical Data

LN	Guidelines	Customized (0=No, 1=Yes)	Implemented (0=No, 1=Yes)
1	3.3.1.1. Statistical data should be compiled on predetermined objective basis and considerations;		
2	3.3.1.2. Statistics data should be compiled on the basis of accepted standards with respect to scope, definitions, units and classifications used in similar producers and users;		
3	3.3.1.3. Statistical compilations should be complete, avoiding redundancies, applying the appropriate and acceptable methods of compilations		

3.3.2. Reporting Data

LN	Guidelines	Customized (0=No, 1=Yes)	Implemented (0=No, 1=Yes)
1	3.3.2.1. Statistics should be reported according to the pre-agreed and prearranged reporting systems;		
2	3.3.2.2. The entire document should be standardized, completed and should be prepared following the rules and principles of publications;		

LN	Guidelines	Customized (0=No, 1=Yes)	Implemented (0=No, 1=Yes)
3	3.3.2.3. In statistical releases and reports should be suitable for further analysis and utilizations of the report;		
4	3.3.2.4. Statistical releases should be based on the statistical results available and should never contain similar judgments;		
5	3.3.2.5. The layouts of tables and graphs should be clear and easy to understand;		
6	3.3.2.6. The table names, chart titles, axes labeling and footnotes should be clearly marked and properly utilized;		
7	3.3.2.7. The units of measurements applied which figures are talking about should be clear;		
8	3.3.2.8. The mathematical formulas applied and/ or the relationships should be consistent, acceptable and displayed/ publicized properly where and as it should be shown;		

4. Data Quality (DQ) Issues

4.1. Data Quality Principles

LN	Guidelines	Customized (0=No, 1=Yes)	Implemented (0=No, 1=Yes)
1	4.1.1. The sector specific data quality framework should originate from the national and global data quality dimensions/ principles;		
2	4.1.2. Quality guideline should be prepared, documented and staffs shall trained accordingly;		
3	4.1.3. There should be a system of self-controlling regulatory mechanisms consisting and checking for the data quality principles;		
4	4.1.4. The data quality should be designed according to the EDQAF which is sited at: http://www.csa.gov.et/component/phocadownload/category/310?Itemid=310 ;		
5	4.1.5. The data quality should be regularly monitored according to the accepted quality components;		
6	4.1.6. The quality of data should enable to address the degree to which the data are demanded for the user's;		

4.2. Quality Control Mechanisms

LN	Guidelines	Customized (0=No, 1=Yes)	Implemented (0=No, 1=Yes)
1	4.2.1. There must be quality management in the processes for data collection, processing, analyzing, presenting, disseminating and documenting administrative data to be followed to ensure sound application of methodology to lead to produce desired quality of statistics;		
2	4.2.2. There must be internal system/ mechanism effective, efficient, formal and continuous data quality evaluation to check the data quality (e.g. consistency checks, data audit, etc.) for promoting the quality of data.		

LN	Guidelines	Customized (0=No, 1=Yes)	Implemented (0=No, 1=Yes)
3	4.2.3. There must be responsibility, more appropriately the head of the statistical unit, for the quality of statistics produced by an organization;		
4	4.2.4. There must be systems established to gain and share technical and methodological support from CSA and other MDAs;		
5	4.2.5. Data quality assessments should be conducted in collaborations with CSA and thus measures have to be taken accordingly;		
6	4.2.6. There should be systems of receiving feedback or measuring users' satisfaction of at least key data users: this can be exercised by using checklists for the issues related with quality, demand, frequency, relevance, period of data dissemination, responsibility and accountability of the delivering body, disaggregation, etc.		
7	4.2.7. There must be acknowledgments/ recognitions given for experts/ groups of experts/ organizations for exercising better data quality systems;		

5. Implementation Strategy of the Guideline

5.1. Customizing the Guideline

LN	Guidelines	Customized (0=No, 1=Yes)	Implemented (0=No, 1=Yes)
1	5.1.1. MDAs should customize this national guideline of administrative data or include the inadequacies of their similar supplementary documents or an existing working guideline in comparison with this guideline;		
2	5.1.2. The customized guideline should be reached and exercised accordingly to all respective sector administrative levels;		

5.2. Creating Awareness on the Guideline

LN	Guidelines	Customized (0=No, 1=Yes)	Implemented (0=No, 1=Yes)
1	5.2.1. Awareness creation on the utilization of this guideline should be created for the concerned body and experts at different levels;		
2	5.2.2. The sectors should prepare separate guideline for the management of their administrative data at different levels;		
3	5.2.3. The awareness creation for the regional experts shall be offered by the line ministry in collaboration with central statistical agency;		
4	5.2.4. The awareness creation on the sector specific guideline along with this national guideline for zonal, Woreda and facility level experts should be given by line ministries, however, the CSA can involve as required;		

Summary-I

2. Organizational Statistical Policy

LN	Subtopics	Counts	customized		Implemented		Remarks
			Counts	percent	Counts	percent	
1	Statistical Legislations	11					
2	Statistical Unit	10					
TOTAL		21					

3. The Data Production Process

3.1. Planning to Produce Statistical Data

LN	Subtopics	Total # Guidelines	customized		Implemented		Remarks
			Counts	percent	Counts	percent	
1	Planning to Produce Statistical Data	20					
TOTAL		20					

3.2. Methodology of the Production of Statistics

LN	Subtopics	Total # Guidelines	customized		Implemented		Remarks
			Counts	percent	Counts	percent	
1	Production and Utilization of Standard Documents	8					
2	Preparations and Utilizations of Lists of Units / Register of Entities	9					
3	Designing and Utilizations of Tools (forms/questionnaire)	11					
4	Data Capturing / Collection	9					
5	Data Processing	8					
6	Data Analysis	8					
7	Data Presentations	5					
8	Data Dissemination	13					
9	Using Administrative Data	11					
10	Feedbacks	3					
11	Documentation	6					
12	Data Security	7					
TOTAL		98					

3.3. Data Transferring

LN	Subtopics	Total # Guidelines	customized		Implemented		Remarks
			Counts	percent	Counts	percent	
1	Compiling Statistical Data	3					
2	Reporting Data	8					
TOTAL		11					

4. Data Quality (DQ) Issues

LN	Subtopics	Total # Guidelines	customized		Implemented		Remarks
			Counts	percent	Counts	percent	
1	Data Quality Principles	6					
2	Quality Control Mechanisms	7					
TOTAL		13					

5. Implementation Strategy of the Guideline

LN	Subtopics	Total # Guidelines	customized		Implemented		Remarks
			Counts	percent	Counts	percent	
1	Customizing the Guideline	2					
2	Expanding Awareness on the Guideline	4					
TOTAL		6					

Summary (Overall)-II

LN	Topics	Total # Guidelines	customized		Implemented		Remarks
			Counts	percent	Counts	percent	
1	Statistical Legislations	22					
2	The Data Production Process	129					
3	Data Quality (DQ) Issues	13					
4	Implementation Strategy of the Guideline	6					
TOTAL		170					

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- AUStat. (May 2009). African Charter of Statistics; African Union. *The African Statistical Journal, Volume 8*.
- Canada, S. (October 2003). Survey Methods and Practices.
- CSA. (September 2011). *Ethiopian Data Quality and Assessment Framework (EDQA)*. Addis Ababa.
- NSDS-II. (2015). National Strategy for the Development of Statistics-II (NSDS: 2015-2019/20).
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Appendix 1: The Principles of Official Statistics

Principle 1: Relevance, impartiality and equal access: Official statistics provide an indispensable element in the information system of a democratic society, serving the Government, the economy and the public with data about the economic, demographic, social and environmental situation. To this end, official statistics that meet the test of statistical utility are to be compiled and made available on an impartial basis by official statistical agencies in order to ensure citizens' entitlement to public information.

Principle 2: Professional standards and ethics: To retain trust in official statistics, the statistical agencies need to decide according to strictly professional considerations, including scientific principles and professional ethics, on the methods and procedures for the collection, processing, storage and presentation of statistical data.

Principle 3: Accountability and transparency: To facilitate a correct interpretation of the data, the statistical agencies are to present information according to scientific standards on the sources, methods and procedures of the statistics.

Principle 4: Prevention of misuse: The statistical agencies are entitled to comment on erroneous interpretation and misuse of statistics.

Principle 5: Sources of official statistics: Data for statistical purposes may be drawn from all types of sources, be they statistical surveys or administrative records. Statistical agencies are to choose the source with regard to quality, timeliness, costs and the burden on respondents.

Principle 6: Confidentiality: Individual data collected by statistical agencies for statistical compilation, whether they refer to natural or legal persons, are to be strictly confidential and used exclusively for statistical purposes.

Principle 7: Legislation: The laws, regulations and measures under which the statistical systems operate are to be made public.

Principle 8: National coordination: Coordination among statistical agencies within countries is essential to achieve consistency and efficiency in the statistical system.

Principle 9: Use of international standards

The use by statistical agencies in each country of international concepts, classifications and methods promotes the consistency and efficiency of statistical systems at all official levels.

Principle 10: International cooperation: Bilateral and multilateral cooperation in statistics contributes to the improvement of systems of official statistics in all countries.

Appendix 2: African Charter of Official Statistics

The African Statistics System (ASS) organizations, African statisticians and all those operating in the field of statistics at the national, regional and continental levels shall respect the principles enshrined in the resolution on the fundamental principles of official statistics adopted by the United Nations Commission for Statistics in April 1984. They shall also apply the best practices principles hereunder defined.

Principle 1: Professional independence

- **Scientific independence:** 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.
- **Impartiality:** Statistics authorities shall produce, analyze, disseminate, and comment on African statistics in line with the principle of scientific independence, and in an objective, professional and transparent manner.
- **Responsibility:** Statistics authorities and African statisticians shall employ unambiguous and consistent methods in the collection, processing, analysis and presentation of statistical data. Statistical authorities shall also have the right and duty to make observations on erroneous interpretation and improper use of the statistical information that they disseminate.
- **Transparency:** To facilitate proper interpretation of data, statistics authorities shall provide information on their 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.

Principle 2: Quality

- **Relevance:** African statistics shall meet the needs of users.
- **Sustainability:** 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.
- **Data sources:** Data used for statistical purposes may be collected from diverse sources such as censuses, statistics surveys and/or administrative records. The statistics organization shall choose their sources in consideration of the quality of data offered by such sources and their topicality, particularly the costs incurred by respondents and operators. The use by statistics authorities of administrative records for statistical purposes shall be guaranteed by domestic law, provided that confidentiality is preserved.
- **Accuracy and reliability:** African statistics shall be an accurate and reliable reflection of the reality.
- **Continuity:** Statistics authorities shall ensure continuity and comparability of statistical information over time.
- **Coherence and comparability:** 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.

- **Timeliness:** African statistics shall be disseminated in good time and, as far as possible, according to pre-determined calendar.
- **Topicality:** African statistics shall reflect current and topical events and trends.
- **Specificities:** Statistical data production and analytical methods shall take into account African peculiarities.
- **Awareness-building:** State parties shall sensitize the public, particularly statistical data providers, on the importance of statistics.

Principle 3: Mandate for data collection and resources

- **Mandate:** 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.
- **Resource Adequacy:** 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 States Parties shall have the primary responsibility to provide such resources.
- **Cost-effectiveness:** 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, avoids expensive direct statistical surveys.

Principle 4: Dissemination

- **Accessibility:** 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 made available to users on condition that the pertinent laws and procedures are respected and confidentiality is maintained.
- **Dialogue with users:** 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.
- **Clarity and understanding:** 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.
- **Simultaneity:** African Statistics shall be disseminated in a manner that 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.
- **Correction:** 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.

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

- **Confidentiality:** 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.
- **Giving assurances to Data providers:** 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.
- **Objective:** 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.
- **Rationality:** Statistics authorities shall not embark upon statistical surveys except when pertinent information is unavailable from administrative records or the quality of such information is inadequate in relation to the quality requirements of statistical information.

Principle 6: Coordination and Cooperation

- **Coordination:** Coordination and collaboration amongst Statistics authorities in a given country are essential in ensuring unity, 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.
- **Co-operation:** Bilateral and multilateral statistics cooperation shall be encouraged with a view to upgrading African statistics production systems.

Appendix 3: The Strategic Themes/Sub-Themes of NSDS-II

Strategic Theme 1: Responsive Legal Framework for Statistical Work of the NSS

Strategic Theme 2: Data Development

Sub-theme 2.1: Data Quality

Sub-theme 2.2: Data Presentation, Analysis, Dissemination and Use

2.2.1: Data Presentation and Analysis

2.2.2: Data Dissemination and Use

Sub-theme 2.3: Enhancing the Coverage and Capacity of Data Collection

Sub-theme 2.4: Supporting Methodological Improvement and Statistical modernization of surveys and Censuses

Sub-theme 2.5: Improvement of the Management Information System (MIS)/ System Administration Statistics (SAS)

Sub-theme 2.6: Gender Mainstreaming and Development of Statistics

Sub-theme 2.7: Environment and Related Statistics

Strategic Theme 3: NSS Coordination and Preparation of Sector Strategic Plan

Sub-theme 3.1: Improved Coordination of the NSS and other Coordination Issues

Sub-theme 3.2: Preparation of Sector Strategies for the Development of Statistics

Strategic Theme 4: Human and Institutional Development

Sub-theme 4.1: Human Resources Development and Management

Sub-theme 4.2: Enhancing Local and Lower Level Capacity Development

Sub-theme 4.3: Organizational/Institutional Development

Strategic Theme 5: Infrastructural Development

Sub-theme 5.1: Improving Physical Infrastructures

Sub-theme 5.2: Improving Statistical Infrastructures

Sub-theme 5.3: Improving ICT Infrastructures

Strategic Theme 6: Promoting Statistical Advocacy and Involvement of the Media NSS-NSDS II

Sub-theme 6.1: Creating Awareness in the Use of Statistics, Improving Statistical Launching and Data Accessibility

Sub-theme 6.2: Building capacity to improve advocacy and public relations

Strategic Theme 7: Statistical Financing Strategy

Appendix 4: The EDQAF Statistical Data Dimensions

A. EDQAF Output Aspect Quality Dimensions

1. Relevance

- The *relevance of statistical outputs* is the degree to which they meet current and potential user needs.
- A high degree of relevance implies all statistics that are needed are produced, no statistics that are not needed are produced, and concepts and classifications take account of user needs and international standards.

2. Accuracy

- The *accuracy of statistical outputs* is the degree to which they accurately and reliably portray reality, the degree to which the data actually measure the phenomena they are designed to measure.
- Accuracy is usually characterized in terms of errors in statistical outputs. For surveys errors are traditionally decomposed into sampling and non-sampling errors. Non-sampling errors apply to all forms of data collections and are usually further subdivided by source of error, such as non-response, coverage, and measurement errors.
- The *degree of consistency of estimates over time*, often referred to as reliability, is an aspect of accuracy.

3. Timeliness and Punctuality

- The *timeliness of statistical outputs* is the length of time between their availability to the phenomenon or events that they describe.
- The *punctuality of statistical outputs* is the time difference between the date the data are released and the target date on which they were scheduled for release, as announced in an official release calendar, laid down by regulations or previously agreed with users.

4. Accessibility and Interpretability

- The *accessibility of statistical outputs* is the ease with which users can obtain the data. It is determined by the physical conditions by means of which users obtain data: where to go, how to order, delivery time, pricing policy, marketing conditions, availability of micro or macro data, and delivery format (paper, files, CD-ROM, internet, etc.)
- The *interpretability of statistical outputs* is ease with which users can understand the outputs, assess their fitness for purpose, and make appropriate use of them. It reflects the extent to which outputs are presented in a clear and understandable form and is determined by the availability of metadata, supplementary information and support services. It includes informing users of significant changes in concepts or methods that affect outputs.

5. Coherence and Comparability

- The *coherence of two or more statistical outputs* refers to the degree to which the statistical processes by which they were generated used the same concepts, definitions, classifications and target populations and harmonized methods. Coherent statistical outputs have the potential to be validly combined and used jointly.
- *Comparability* is a special case of coherence where the statistical outputs contain the same data items and the aim of combining them is to make comparisons over time, or across regions, or across other domains.

B. EDQAF Process Aspect Quality Dimensions

6. Methodological Soundness

- Methodological soundness refers to the degree to which statistical outputs are produced by application of international and/or peer-agreed standards, guideline, and best practices.

7. Human Resource Management

- Human resource management refers to extent to which responsibilities for the statistical process are well defined and are assigned to be well trained and dedicated staff.

8. Standard Operating Procedures

- Standard operations refers to the extent that operational procedures are defined, standardized, documented, used, and give a clear indication of the data to be collected, the collection and processing activities to be undertaken, and the outputs to be produced.
- It includes ensuring data collection tools (questionnaires and checklists) exist and are uniformly standardized across all organizational levels through which the data pass.

9. Data Management and Security

- Data management refers to the extent to which data are managed from initial collection, through data entry, processing, aggregation, transmission to higher levels within the organization, and dissemination.
- It includes ensuring source documents are retained and available for subsequent checking or audit.
- It also includes the degree of computerization.
- Security refers to the provisions for security of transmission and storage, including encryption, back-up and disaster recovery.

10. Quality Assurance/Control

- Quality assurance/control refers to the extent to which quality is assured either by procedures embedded in the statistical processes or through quality gates at key points in these processes.
- It includes verification of input data, quality control of data entry procedures, identification and correction of errors and discrepancies, and feedback of identified quality problems to their source.

11. Reporting Burden

- Reporting burden refers to the extent to which the reporting burden on the individuals and from institutions that provide the raw input data is minimized and seen to be minimized.

C. EDQAF Institutional Environmental Aspect Quality Dimensions

12. Mandate, Resources, Performance and Quality Management

- Mandate refers to the extent to which collection, processing and dissemination of statistics by the organization are supported by legislation or regulation.
- Resources refers to extent to which resources devoted by the organization to collection, processing and dissemination of statistics is sufficient.
- Performance refers to the extent to which resources are effectively used.
- Quality management refers to the extent to which the organization promotes total quality management in the context of its data collection, processing and dissemination activities.

13. Integrity

- Integrity refers to the degree to which the values and practices of the producing organization as regards professionalism, impartiality, objectivity and transparency promote user confidence in the organization as a producer of good quality statistical outputs.
- Professional independence is major factor.

14. Provider Transparency, Privacy and Confidentiality

- Provider transparency refers to the extent to which the persons, businesses, or organizations providing their individual data are informed of the mandate under which the data are being collected and the purposes for which the data are being collected.
- Privacy means that data provided are used only for the stated purposes for which they are collected.
- Confidentiality means that individual data are not revealed

Appendix 5: Data Production Plan

1. Introduction
 - Background
 - Key Data Users
 - Objectives
 - ✦ General Objective
 - ✦ Specific Objectives
 - The Administrative Data Management System
 - ✦ The Working Structure
 - ◊ *Oregano-gram containing the dedicated section/ department dedicated for data production*
 - ◊ *Charts which can show the inter-relationships of providers and users of administrative data*
 - Human Resources
 - Duties and Responsibilities
 - ✦ Duties and Responsibilities of Data Management system in the Ministry
 - ✦ Duties and Responsibilities of Data Management system in the Region
 - ✦ Duties and Responsibilities of Data Management system in the Zones
 - ✦ Duties and Responsibilities of Data Management system in the Woreda
 - ✦ Duties and Responsibilities of Data Management system in the Facilities and Institutions
 - Data Production and Utilization Methodology
 - Production and utilization of Standard Documents
 - ✦ Naming, coding, concepts, definitions and classifications Construction and Utilization of Formats/ Templates
 - The Process of Data Collection, Analysis, Presentation, Documentation and Dissemination
 - The Lists of Variables Across Departments of the Organization
2. Data Quality Issues
3. The Administrative Data Demands
 - The Usefulness of the Sector Administrative Data
 - ✦ Organization Provisions
 - ✦ National Development Plan
 - ✦ Global Development Plan
 - Lists Indicators and Variables
 - ✦ Lists of Indicators With Their Respective Descriptions
 - ✦ Details of Variables with Respective Definitions and Other Descriptions
 - Inter-Sector Linkages of Administrative Data and Indicators
 - The Implementation Strategies of Data production, Analysis, Presentation, Documentation and Dissemination
4. Data Production Schedule or Calendar
5. Budget Plan

