



SUSTAINABLE DEVELOPMENT GOALS

Workshop of Quality on Statistics for SDG Indicators

13 – 15 May 2019, Chiba, Japan

conducted jointly by the Statistical Institute for Asia and the Pacific, Economic and Social Commission for Asia and the Pacific, United Nations Statistics Division, Department of Economic and Social Affairs, United Nations, IMF's Statistics Department and Director General for Policy Planning on Statistical Standards, Ministry of Internal Affairs and Communications, Government of Japan

Session 2: UN NQAF Manual Introduction – part 1

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UN NQAF Manual - Development and adoption

- The United Nations Statistical Commission at its 50th session in March 2019 adopted the United Nations National Quality Assurance Frameworks Manual for Official Statistics (UN NQAF Manual) and the recommendations contained therein (decision 50/106).
- The Statistical Commission welcomed the Manual as an important contribution in guiding countries in the implementation of a national quality assurance framework, including for new data sources, new data providers, and for data and statistics of the Sustainable Development Goal indicators.
- The Manual was developed by the Expert Group on National Quality Assurance Frameworks (EG-NQAF) which has been re-established by the Statistical Commission at its 48th session in March 2017.
- The UN NQAF Manual builds on and replaces the generic United Nations National Quality Assurance Framework template and guidelines (UN NQAF template and guidelines) adopted in 2012.



UN NQAF Manual - Development and adoption

Expert Group on National Quality Assurance Frameworks

The following 17 countries and eight international and regional organizations joined the re-established Expert Group on National Assurance Quality Frameworks:

- Canada (previous co-Chair), Chile, China, Colombia, Egypt, Indonesia, Iran, Italy (co-Chair), Jamaica, Japan, Mexico, Niger, Norway, Philippines (co-Chair), South Africa, Ukraine, Viet Nam,
- the Food and Agriculture Organization of the United Nations (FAO), the International Monetary Fund (IMF), the Organisation for Economic Co-operation and Development (OECD), the World Bank, the Economic Commission for Africa (ECA), the Economic Commission for Europe (ECE), the Economic Commission for Latin America and the Caribbean (ECLAC) and the Economic and Social Commission for Asia and the Pacific (ESCAP).
- Recent joined: Botswana, Cameroon, Russian Federation, United Kingdom, Statistical Office of the European Community (Eurostat)

UN NQAF Manual - Development and adoption

Expert Group on National Quality Assurance Frameworks

- EG-NQAF conducted a survey of national practices which informed its work.
- In November 2018, the draft of the UN NQAF Manual was sent for worldwide consultation and review to all Member States: More than 60 countries and three international/regional organizations provided their feedback and feedback and comments were incorporated as much as possible.
- UN NQAF Manual expected to become available (in English) in 2/2019
- EG-NQAF will develop and provide additional materials and tools to support the implementation of a national quality assurance framework in countries, including best practices.
- Many countries have already updated the information about their national practices on the UNSD website at <https://unstats.un.org/unsd/methodology/dataquality/quality-references/>.

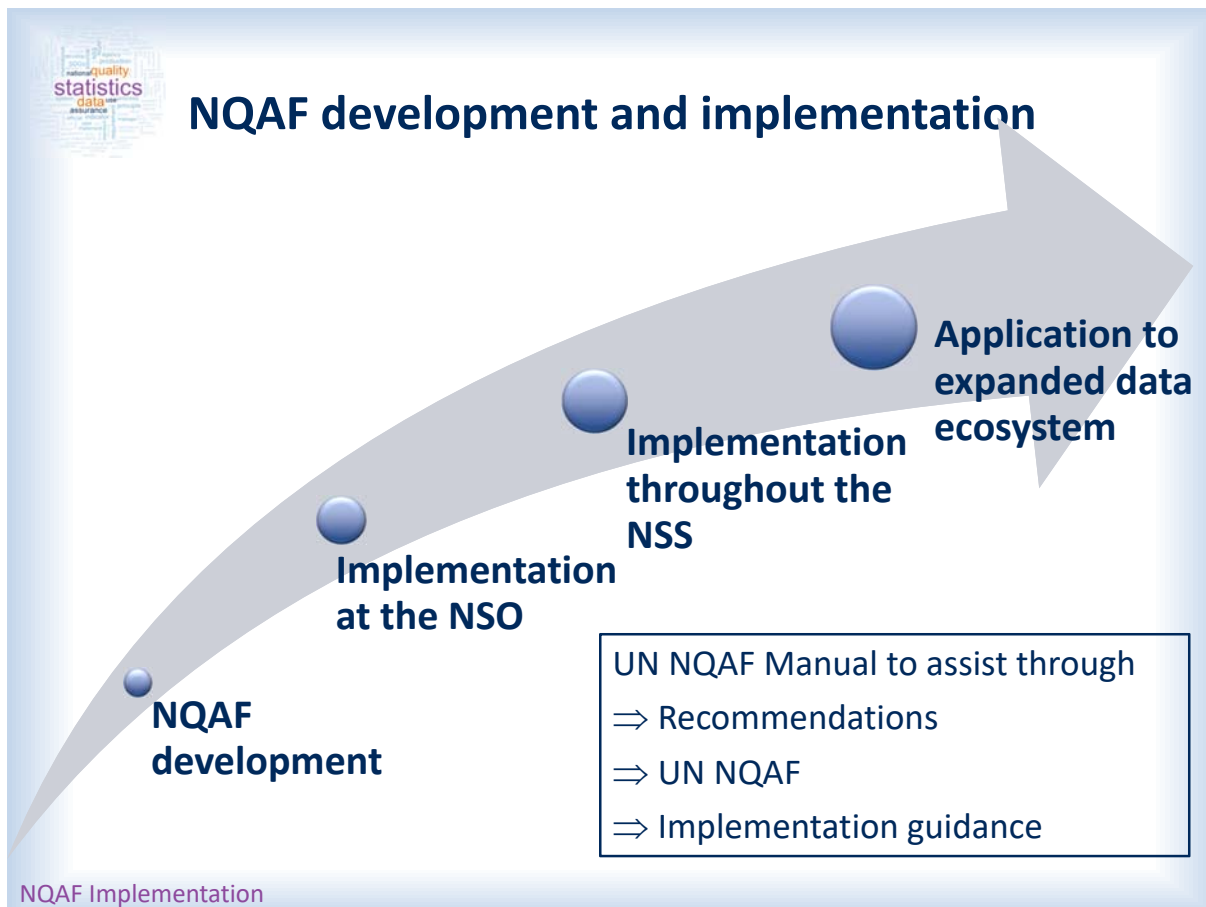
UN NQAF Manual - Objective

- ❑ The manual provides guidance for developing and implementing a national quality assurance framework (NQAF)
- ❑ Aims at assuring the quality of official statistics throughout the entire national statistical system (NSS)
- ❑ Provides guidance for the engagement with statistics producers and data providers that are outside of the NSS that cooperate with NSS members in the production of official statistics
 - Hereby, UN NQAF Manual is responding to the new data ecosystem with new data sources, data providers and statistics producers aiming at safeguarding the role of official statistics as trusted source of information in a changing environment.
 - For example, in the future, national statistical offices (NSOs) may see their role as producer of official statistics diminished while adopting a new role as curator of data and statistics produced by others.

Note: The Manual does not aim to replace any of the existing statistical quality assurance frameworks and guidelines for official statistics. Countries and individual producers of official statistics that are already fully engaged in quality assurance and are following one of the existing quality frameworks may view this Manual only as an additional reference point that supports what they are already doing, and a source of information on the application of quality assurance in different situations.

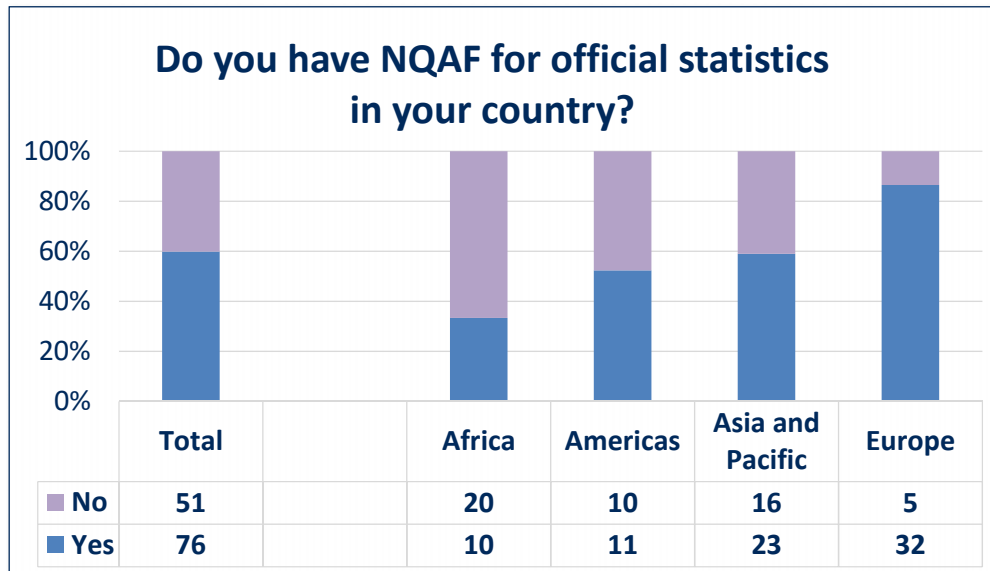
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NQAF implementation rate and coverage

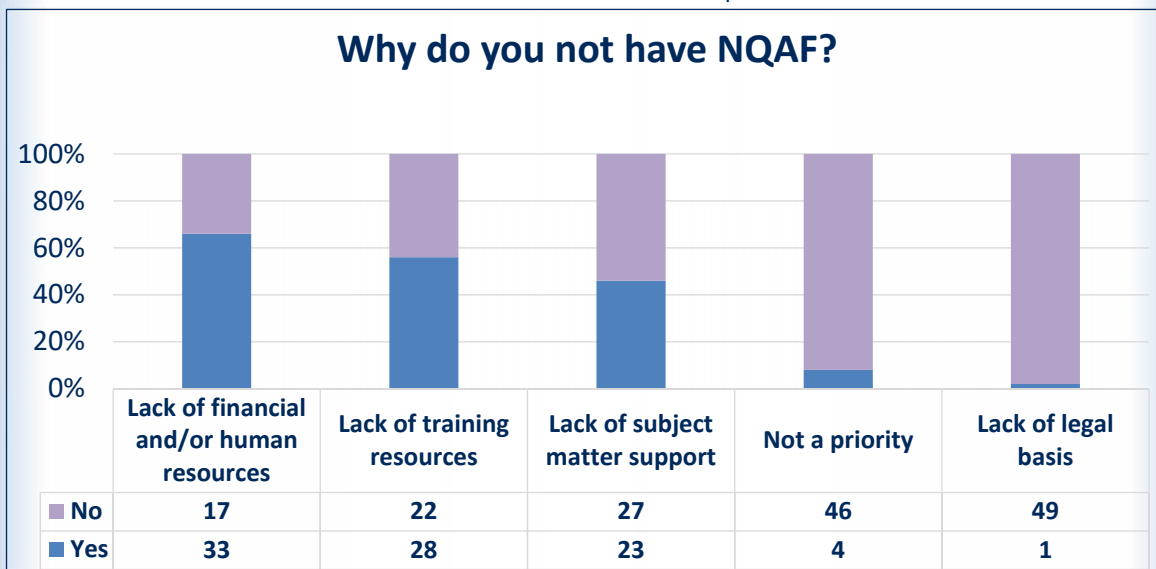
based on 127 responses to the NQAF implementation survey
received between Dec 2017 and April 2018



Of those responded, 55% cover entire NSS

Reasons for not having NQAF and plans to develop and implement one

based on 127 responses to the NQAF implementation survey
received between Dec 2017 and April 2018



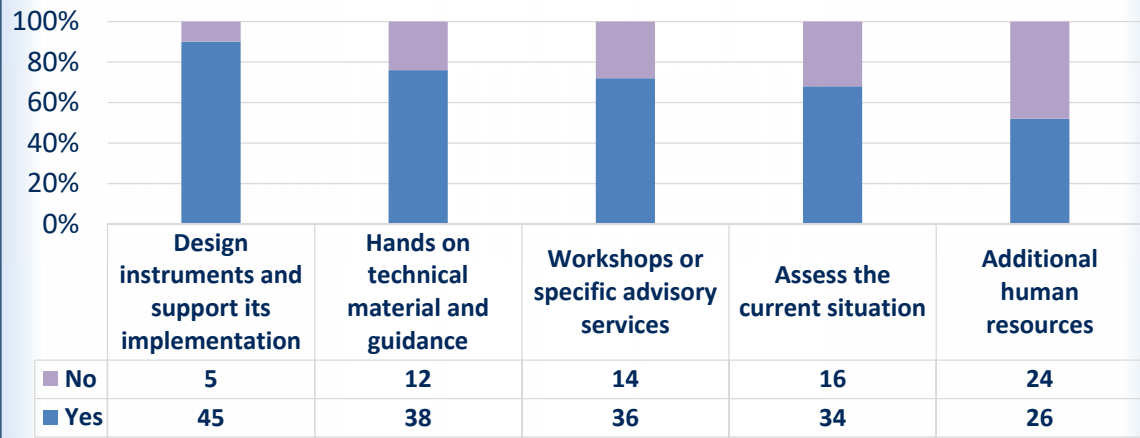
Of those responded, 95% plan to develop and implement NQAF



Assistance needed to develop and implement NQAF

based on 127 responses to the NQAF implementation survey received between Dec 2017 and April 2018

What assistance does your country need to develop and implement NQAF?



NQAF Implementation



Initial proposal for the implementation plan for the Expert Group for the period of 2019-2023

- Completion, dissemination and promotion of the UN NQAF Manual
- Including additional country experiences and good practices on the UNSD website
- Establishment of an expert forum / a community of practice / a network of experts
- Development of supplementary materials to support NQAF implementation (case studies, best practices, a road map, etc.)
- Sharing training materials and further guidance and tools, such as for the self-assessment of statistical agencies
- Coordination and cooperation in technical assistance and training efforts

NQAF Implementation

UN NQAF Manual - Structure

Part	Chapter	Title
Introduction	Chapter 1	Contents and use of this Manual
Recommendations	Chapter 2	Recommendations on quality assurance for official statistics
UN NQAF	Chapter 3	The UN National Quality Assurance Framework: principles and requirements
Implementation	Chapter 4	Assessment tools and risk management
	Chapter 5	Development and implementation of a national quality assurance framework
	Chapter 6	Implementation of quality assurance within the national statistical system
	Chapter 7	Quality assurance for statistics compiled from different data sources
	Chapter 8	Quality assurance for SDG indicator data and statistics
References	Chapter 9	Quality assurance in the global statistical system
UN NQAF Annex	Annex A	Detailed list of elements to be assured

Uses the UN NQAF Manual

Task	Manual part
Achieving an adequate mandate	Chapter 2
Developing NQAF	Chapter 5
Adopting or adapting framework for country needs	Chapter 3 and Annex A
Finding proper tools and instruments for NQAF implementation	Chapter 4
NQAF Implementation at the NSO	Chapter 5
NQAF implementation throughout the NSS	Chapter 6
Assuring quality for statistics from different data sources	Chapter 7
Addressing quality assurance for SDG indicators	Chapter 8
Finding references on quality assurance in the global statistical system (including the need for international comparability, especially for SDG indicators)	Chapter 9

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References	Chapter 9	Quality assurance in the global statistical system
UN NQAF Annex	Annex A	Detailed Checklist of elements to be assured



UN NQAF Manual – How to use it

All chapters of the Manual can be read independently, hereby offering different entry points

- ❑ **Chapter 2:** This chapter is important to readers that are interested in recommendations for quality assurance for their organization.
 - ❑ The recommendations are meant to support the NSO in achieving an adequate mandate and institutionalization of statistical work and quality assurance in their country throughout the NSS.
 - ❑ Even in well-established statistical systems there may be serious gaps when it comes to the quality of official statistics. One such example is the lack of access to data from administrative or private sources.
- ❑ **Chapter 3 and Annex A:** Provides readers with UN NQAF, a comprehensive framework for statistical quality assurance, which they can adopt or adapt for their own organization or compare with their own existing framework.
 - ❑ UN NQAF descriptive and only constitutes guidance in the sense that it provides the components and a general structure within which individual country-specific NQAFs can be developed. - No attempt is being made to prescribe to countries what specific quality assurance framework should be followed as countries should make their choice according to national circumstances.
 - ❑ UN NQAF builds on UN NQAF template and guidelines of 2012 and follows its structure.

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UN NQAF Manual – How to use it

All chapters of the Manual can be read independently, hereby offering different entry points

- ❑ **Chapter 4 to 8 on implementation:** Readers may want to “jump” to the chapter that is of most interest to them. Chapter 4 to 8 provide guidance for the implementation of NQAF and can be read independently from each other and other parts of the Manual.
- ❑ **Chapter 4** lists the various tools and instruments for quality assessment and has a small section on risk management.
- ❑ **Chapter 5** is concerned with the development and implementation of NQAF at the NSO and other statistical agencies.
- ❑ **Chapter 6** builds on Chapter 5 and discusses the role of NSS-wide bodies for the implementation of NQAF throughout the NSS.
- ❑ **Chapter 7** approaches quality assurance from the perspective of the data source that is being used which is very relevant for the discussion of quality assurance of data from new data sources.
- ❑ **Chapter 8** provides an introduction to statistical quality assurance for statisticians involved in the compilation of SDG indicators.

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UN NQAF Manual – How to use it

All chapters of the Manual can be read independently, hereby offering different entry points

- ❑ **Chapter 9:** Provides reference materials for statisticians that are interested in the link between quality assurance at the national and global level.
 - ❑ It discusses the collaboration within the global statistical system in assuring data quality at the global level, taking into consideration the need for international comparability of data, especially in the context of the compilation of the indicators for monitoring progress towards national, regional and global goals and targets of the 2030 Agenda for Sustainable Development.
 - ❑ Specifically, it identifies obligations of international organizations and the obligations of countries for providing internationally comparable data
- ❑ **Chapter I:** The introductions
 - ❑ Informs about objective, structure, users and uses.
 - ❑ Provides an introduction to quality management
 - ❑ Provides a glossary of important terms used in this manual



Chapter 2. Recommendations on quality assurance for official statistics – Scope:

- ❑ The recommendations apply to the National Statistical System (NSS) comprised of the NSO and other producers of official statistics (other statistical agencies).
- ❑ However, under specific circumstances, as established by countries, the recommendations are proposed to be used by other statistics producers and providers of data that do not produce official statistics and that are not part (or frequently not considered part) of the NSS, such as:
 - a. international and supranational agencies and entities;
 - b. enterprises that produce data on a regional or global scale such as Gallup (Gallup World Poll) or enterprises that provide transboundary geospatial information obtained for example through earth observation;
 - c. private or public-private professional organizations or business associations or non-governmental entities;
 - d. enterprises that compile data from information generated and provided on the internet;
 - e. scientific studies and measurements that aspire to provide statistical data;
 - f. all types of citizen generated data and statistics.
- ❑ Specific circumstances could be, for example,
 - ❑ when statistics of such producers is published with the support of a member of the NSS
 - ❑ when it is used for government decision making
 - ❑ when members of the NSS outsource or sub-contract parts of the statistical production process to public or private entities that are not part of the NSS, such as, for example, universities and research centers.



Chapter 2: UN Overarching Core Recommendations on quality assurance for official statistics

- #1 Integrate Fundamental Principles of Official Statistics in the legal and institutional frameworks
- #2 Include the requirement for quality assurance in the statistical legislation
- #3 Establish national quality assurance framework (NQAF); all national statistical system (NSS) members to commit to quality assurance
- #4 Base or align your NQAF with international or regional quality frameworks
- #5 Implement NQAF at the NSO, throughout the NSS and to data and statistics produced outside the NSS as appropriate

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Chapter 2. Recommendations on quality assurance for official statistics –Five core recommendations

Derived from GA resolutions and the Fundamental Principles of Official Statistics (FPOS)

- #1 **It is recommended** that in order to be effective, the fundamental values and principles that govern development, production and dissemination of official statistics have to be guaranteed by legal and institutional frameworks and be respected at all political levels and by all stakeholders in national statistical systems.
- #2 **It is recommended** that countries include the requirements of quality assurance in their national statistical legislation and other legislation mandating production of statistics for official use (derived from Principle 1 of FPOS).
- #3 **It is recommended** that countries establish a national quality assurance framework for official statistics and that all members of the national statistical system are committed to continually assess, improve and report on the quality of official statistics, as well as on the quality of data and statistics used in the production of official statistics as required.* (derived from Principle 1 of FPOS).

* This commitment of members of the NSS should also, as deemed appropriate and required, extend to data and statistics that is disseminated jointly with other statistics producers that are not members of the NSS.

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Chapter 2. Recommendations on quality assurance for official statistics –Five core recommendations

Derived from GA resolutions and the Fundamental Principles of Official Statistics (FPOS)

#4 It is recommended that the national quality assurance framework for official statistics is being developed in consideration or in alignment with the UN National Quality Assurance Framework or similar existing quality assurance frameworks (derived from Principle 1 and Principle 2 of FPOS).

#5 It is recommended that the national quality assurance framework is implemented at the national statistical office and throughout the entire national statistical system. Furthermore, **it is recommended** that the national quality assurance framework is applied to all data and statistics produced outside of the national statistical system that is disseminated with the help and support of a member of the national statistical system or that is used for government decision making, as deemed appropriate and required (derived from Principle 1 of FPOS).



Chapter 2. Recommendations on quality assurance for official statistics – Recommendations that aim at the implementation of specific FPOS

- The following recommendations #6 to #14 provide an interpretation of the Fundamental Principles of Official Statistics (FPOS) to facilitate their implementation and to stress their importance in the context of statistical quality assurance. They are directly derived from one or two FPOS or a repetition of one of its principles.
- The United Nations National Quality Assurance Framework (UN NQAF) of Chapter 3 is **descriptive**. However, FPOS and the associated recommendations of this chapter support specific principles and give them an **obligatory character**.



Chapter 2. Recommendations on quality assurance for official Statistics – Recommendations that aim at the implementation of specific FPOS

#6 According to FPOS 1 and FPOS 2, **it is recommended** that statistics at all levels, including the local level, are being planned, designed, developed, produced and disseminated on an impartial basis, and according to strictly professional considerations.

#7 According to FPOS 3, **it is recommended** that statistics and data are to be presented in a way that facilitates their correct interpretation, which implies that appropriate metadata such as on data sources, methods and procedures used are made available in conjunction with the released data or statistics.

#8 According to FPOS 4, **it is recommended** that all members of the national statistical system comment on erroneous interpretation and misuse of official statistics in their respective subject-matter domain(s) of statistical production and dissemination, as required.

#9 According to FPOS 1 and FPOS 5, **it is recommended** that countries include in their statistical laws (a) the mandate of producers of official statistics to collect needed information to compile statistics directly from respondents if it is not already available in the national statistical system and cannot be obtained from existing data and (b) the entitlement to select data sources based on professional considerations, including “new” sources such as “big data”.

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Chapter 2. Recommendations on quality assurance for official Statistics – Recommendations that aim at the implementation of specific FPOS

#10 According to FPOS 6, **it is recommended** that 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.

#11 According to FPOS 7, **it is recommended** that the laws, regulations and measures under which the national statistical systems operate are to be made public.

#12 According to FPOS 8, **it is recommended** that the work of the national statistical system is properly coordinated to achieve consistency and efficiency, and that, therefore, the statistical law of the country (a) clearly identifies the roles and responsibilities of the individual members within the national statistical system and (b) establishes a body which is responsible for managing and coordinating the system-wide activities, including promotion of the national quality assurance framework.

#13 According to FPOS 9, **it is recommended** that the national statistical office and all other members of the national statistical system, including members at the local level, use international statistical concepts, classifications and methods and, hereby, ensure the consistency of official statistics and efficiency of statistical systems at all levels.

#14 According to FPOS 10, **it is recommended** that countries participate in bilateral and multilateral cooperation in statistics to improve official statistics in all countries.

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Chapter 3: UN NQAF Principles

Level A: Managing the national statistical system (NSS)

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

Level C: Managing statistical processes

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

Level B: Managing the institutional environment

- 4: Assuring professional independence
- 5: Assuring impartiality and objectivity
- 6: Assuring transparency
- 7: Assuring statistical confidentiality and data security
- 8: Assuring the quality commitment
- 9: Assuring adequacy of resources

Level D: Managing statistical outputs

- 14: Assuring relevance
- 15: Assuring accuracy and reliability
- 16: Assuring timeliness and punctuality
- 17: Assuring accessibility and clarity
- 18: Assuring coherence and comparability
- 19: Managing metadata

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Chapter 3: UN NQAF Principles, Requirements and Elements to be assured

Chapter 3: UN NQAF Principles and Requirements

Principle 1: Coordinating the national statistical system

Coordination of the work of the members of the national statistical system is essential for improving and maintaining the quality of official statistics. Principle 1 is mainly supported by FPOS 8.

Requirement 1.1: A statistical law establishes the responsibilities of the members of the national statistical system including its coordination. Its members are identified in a legal or formal provision.

Requirement 1.2: There are a body and mechanisms for statistical system for activities at the international level.

Requirement 1.3: There is a mechanism for considering national statistical system, and if appropriate, official.

Requirement 1.4: There is a national plan or program for the official statistics.

Annex A: Detailed checklist of elements to be assured (more detailed list of good practices, activities, methods and tools that can provide guidance)

Detailed checklist for Principle 1: Coordinating the national statistical system

Requirement 1.1: A statistical law establishes the responsibilities of the members of the national statistical system including its coordination. Its members are identified in a legal or formal provision.

- The coordination role of the national statistical office or other body is defined in a statistical law.
- The criteria for official statistics and membership in the NSS are specified in a statistical law.
- Members of the national statistical system are identified in additional regulations or provisions.
- Responsibilities for NSS members comprise quality assurance and the specification of their contribution to official statistics.

