

Workshop on the Implementation of a National Quality Assurance Framework for Official Statistics in countries of the Africa Region

Addis Ababa, Ethiopia, 6-9 December 2022

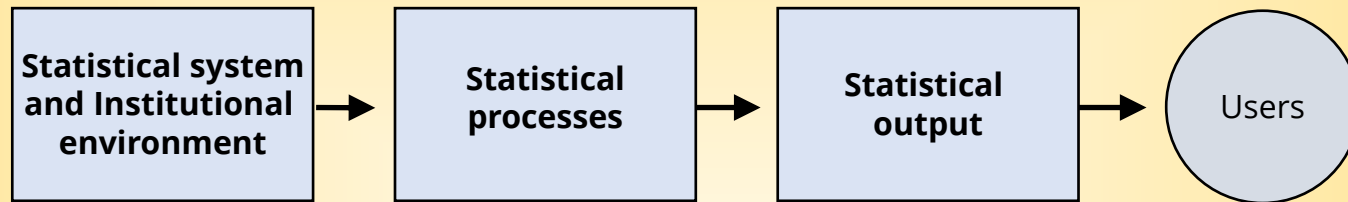
Session 1.4: UN NQAF Principles, requirements and elements to be assured

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UN NQAF structure – logic



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

10. Assuring methodological soundness
11. Assuring cost effectiveness
12. Assuring appropriate statistical procedures
13. Managing the response burden

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

There are 19 principles, 87 requirements and 356 elements to be assured (good practices)



UN NQAF structure – hierarchy of principles, requirements and elements to be assured

19 Principles (commitments that guide us in achieving our quality objectives)

A principle is implemented by complying with its requirements

87 Requirements (something that is needed to ensure implementation)

In general, compliance with a requirement depends on the compliance with the elements to be assured under this requirement

357 Elements to be assured

Possible activities, methods and tools to meet the requirement, reflecting a good practice. To be followed or assured as long as they are applicable.

UN NQAF structure – hierarchy: Example

Principle 1: Coordinating the national statistical system

Coordination of the work of the members of the NSS 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.

- The coordination role of the national statistical office (NSO) or other body is defined in a statistical law.
- The statistical law specifies the requirements for official statistics and the scope of the national statistical system (NSS).
- Members of the NSS are identified in a formal document.
- Responsibilities of NSS members for the development, production and dissemination of official statistics are clearly specified in the respective laws and regulations.

Self-assessments

- Comprehensive, systematic and regular reviews of an organisation's activities carried out by the organisation itself
- For official statistics, a self-assessment may cover the entire national system (NSS), only the national statistical office (NSO), a specific domain, data sources or statistics
- Purpose may vary, from learning to identifying improvement actions – normally not benchmarking

Self-assessment checklist



19 Principles
87 Requirements
**356 Elements to be
assured (good practices)**

- Self-assessment checklist based on the UN Quality Assurance Framework contained in the Manual.
- For conducting regular and rigorous quality assessments with the objective to identify improvement actions.
- Also be used to provide an initial assessment for learning purposes or to introduce staff to quality assurance.
- Can be used to draft quality assurance framework.

Self-assessment checklist instructions

- Scoring:
 - Full compliance 1
 - Partial compliance 0,5
 - No compliance 0
 - Not assessed Does not affect average score
- The purpose is improvements, hence specification of strengths, weaknesses and other comments are important
- Elements to be assessed are mainly meant for references, to facilitate scoring
- But it is possible to score the detailed elements as help
- The subjective element is acknowledged. But several independent scorings may be done
- The total score for the 4 levels may be calculated (equal weights)
- Self-assessment checklist has instructions

NQAF scoring system

<https://unstats.un.org/unsd/methodology/dataquality/tools/>

Assessment of compliance with the United Nations National Quality Assurance Framework (2019)						
<p>Instructions: Assess the degree of compliance for each of the requirement and describe strengths/weaknesses, include other comments. For each of the requirements you can refer to the detailed list of elements to be assured (please, use the link next to the requirement). All requirements are applicable. The only case where "not assessed" can be used, is if there is a not enough information. In this case a special note is displayed in the summary of the assessment saying that the assessment is not fully complete.</p>						
Degree of compliance:		Full compliance				
		Partial compliance				
		No compliance				
		Not assessed				
				Assessment		
Level	Principle	Requirement	Elements to be assured	Compliance	Specify strengths, weaknesses, other comments	
A	Managing the statistical system	1 Coordinating the national statistical system	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.	click		
			1,2 There are a body and mechanisms for the coordination of the national statistical system for activities at the local, national, regional and international level.	click		
			1,3 There is a mechanism for considering statistics produced outside the national statistical system, and if appropriate, for these statistics to become official.	click		
			1,4 There is a national plan or program for the development and production of official statistics.	click		

NQAF scoring system - Example

<https://unstats.un.org/unsd/methodology/dataquality/tools/>

Principle	Requirement	Elements to be assured	Compliance	Specify strengths, weaknesses, other comments
1 Coordinating the national statistical system	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.	click	Partial compliance	Law establishes responsibilities but not members
	1,2 There are a body and mechanisms for the coordination of the national statistical system for activities at the local, national, regional and international level.	click	Full compliance	NSO
	1,3 There is a mechanism for considering statistics produced outside the national statistical system, and if appropriate, for these statistics to become official.	click	Not assessed	
	1,4 There is a national plan or program for the development and production of official statistics.	click	No compliance	

Partial compliance = 0.5

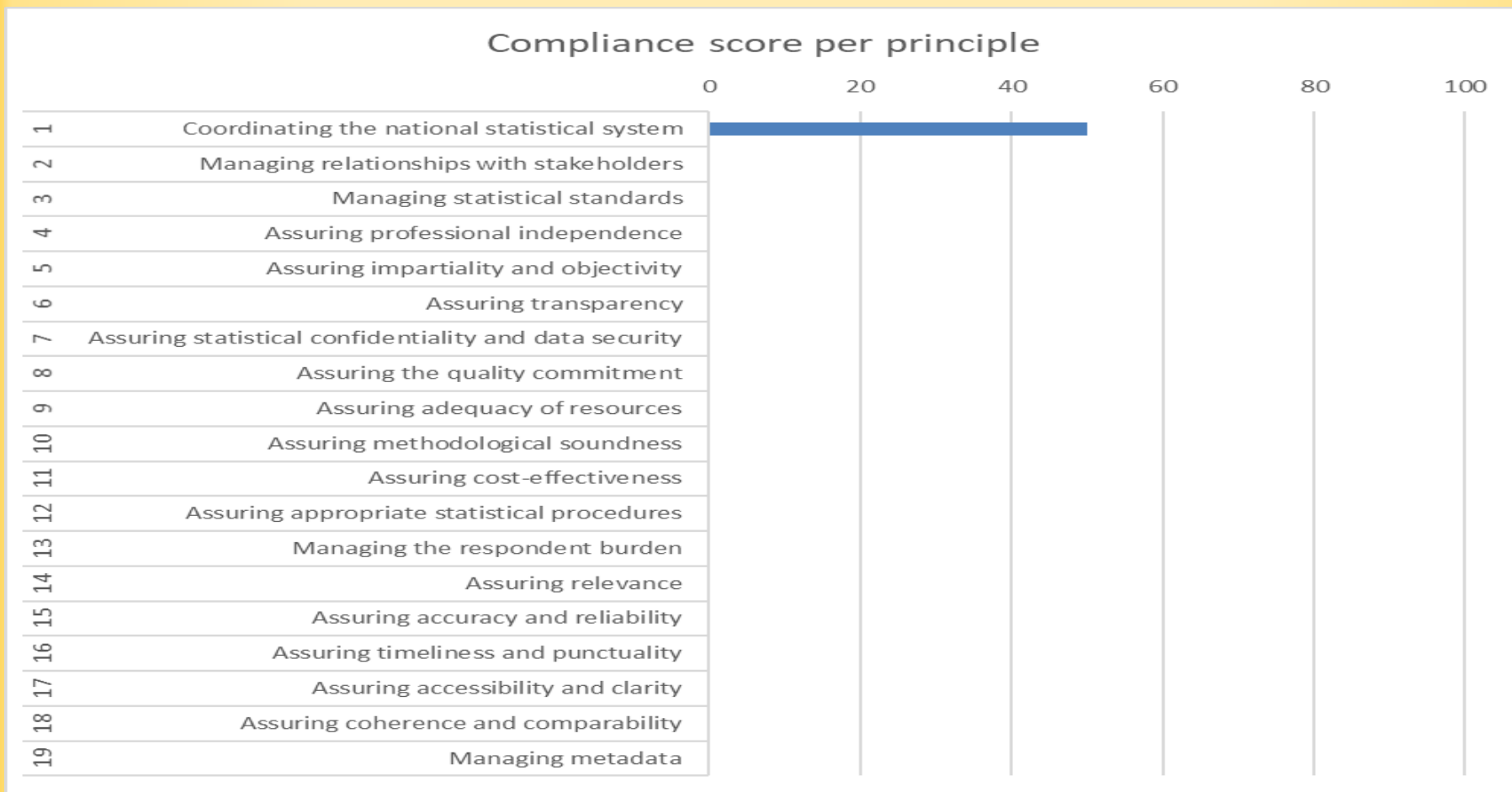
Full compliance = 1

Not assessed

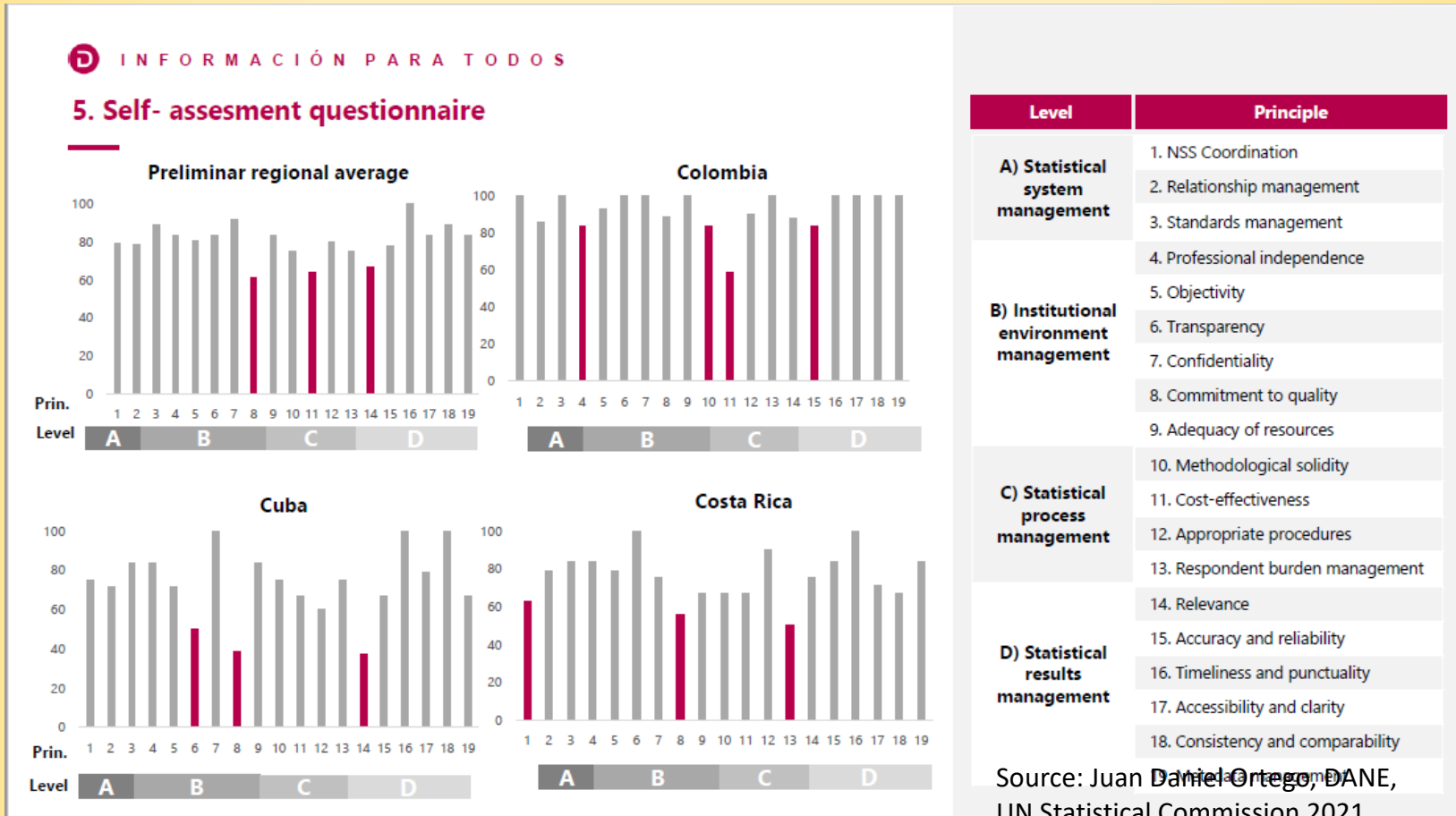
No compliance = 0

Total score for 1:
 $((0,5 + 1 + 0)/3) * 100 = 50$

Example: Assessment result



Example of self-assessments in a region



Elements to be assured support the NQAF scoring system

8	Assuring the quality commitment	8,1	There is a quality policy or a statement of the statistical agency's commitment to quality, which is publicly available.	click		
		8,2	The statistical agencies promote a culture of continuous improvement.	click		
		8,3	There is a specific body responsible for the quality management or the coordination of quality management within the statistical agency, and it receives necessary support to fulfil this role.	click		
		8,4	The national statistical system staff receives training on quality management.	click		
		8,5	Guidelines for implementing quality management are defined and made available to the public.	click		
		8,6	Indicators on statistical output quality are regularly measured, monitored, published and followed up to improve statistical products and processes.	click		
		8,7	Statistical products and processes undergo periodic reviews.	click		
		8,8	Risk analyses addressing the quality of important statistical products and processes are performed.	click		



8,6	Indicators on statistical output quality are regularly measured, monitored, published and followed up to improve statistical products and processes.	<p>Quality reports which are serving both producer and user perspectives are prepared, published as appropriate, and updated regularly.</p> <p>Quality indicators are defined, measured and monitored for following up and improvements. Examples of quality indicators: References in media, hits on website, results from user satisfaction surveys (relevance); Standard deviations and other measures of accuracy, response rates (accuracy); Number and size of revisions (reliability); The length of time between the end of a reference period and dissemination of the statistics. (timeliness); Rate of statistics published when announced (punctuality); Respondent burden.</p>
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Examples of Quality indicators.

Report from Statistics Norway to the Ministry of Finance

	2019	2020	Goal 2021
Errors corrected	59	-	-
Serious errors	0	0	0
Timeliness Weeks			
Monthly statistics	3,7	3,5	< 3,7
Quarterly statistics	7,6	7,3	< 7,6
Annual statistics	32,5	29,9	< 32,5
Punctuality Number of statistics published according to plan 3 months ahead. Percent	97	97	> 97
Response rate Percent. Mandatory surveys	96	94	> 96
Other surveys	58	56	> 58
Response burden businesses. Manyear	73	69	< 73

Elements to be assured support the NQAF scoring system

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8,7	Statistical products and processes undergo periodic reviews.	Periodic quality reviews of key products and processes to assess adherence to internal guidelines and international standards are performed.				
		Reviewing teams where both internal and external experts can participate are set up.				
		The statistical agency's internal reviewers are trained in auditing methods and tools.				
		Improvement actions arising from the result of quality reviews are defined and scheduled for implementation.				
		Top management is informed of the results of reviews to follow up improvement actions.				
		Benchmarking of key statistical processes with other statistical agencies are carried out to identify good practices.				
		Procedures are in place to monitor and manage the quality of different stages of the statistical production according to the Generic Statistical Business Process Model (GSBPM).				
		Trade-offs within quality are systematically examined (e.g. trade-offs between accuracy, timeliness and costs).				
		External experts (also from international organizations) conduct quality reviews, such as reviews of key statistical domains (for example International Monetary Fund's Reports on the Observance of Standards and Codes (ROSCs)) or other reviews such as peer reviews, external audits, and rolling reviews.				

Example: Internal quality reviews in Statistics Norway based on the European Statistics Code of Practice



Elements to be assured support the NQAF scoring system

1 1	Assuring cost-effectiveness	11,1	Costs of producing all individual statistics are measured and analyzed, and mechanisms are in place to assure cost-effectiveness of statistical activities or processes.	click		
		11,2	Procedures exist to assess and justify demands for new statistics against their cost.	click		
		11,3	Procedures exist to assess the continuing need for all statistics, to see if any can be discontinued to free up resources.	click		
		11,4	Modern information and communication technologies are applied to improve the performance of statistical processes.	click		
		11,5	Proactive efforts are made to improve the statistical potential of administrative data and other data sources.	click		
		11,6	The statistical agencies define, promote and implement integrated and standardized production systems.	click		



11,5	Proactive efforts are made to improve the statistical potential of administrative data and other data sources.	Statistical agencies provide input in the legislative process to obtain and maintain access to administrative and other data sources for statistical purposes, if needed.
		Appropriate arrangements (e.g. service level agreements or national legislation) with owners or holders of administrative data and other data collections are made and updated as needed, specifying the access to and flow of data and metadata, and other relevant aspects.
		An assessment of possible administrative data sources is carried out prior to launching any new survey.
		Data-linking and integration methods are pro-actively pursued while ensuring data security and privacy.
		Quality reports for administrative and other data used for official statistics are established by the responsible statistical agency in cooperation with the data owners or holders.

Example: Quality reports for administrative registers

- In Norway about 100 reports linked to agreements with 28 owners of registers
- Follow quality criteria:
 - Technical checks
 - Accuracy
 - Completeness
 - Time
 - Integrability

11.05.2016
Kvalitetsrapport for Det sentrale folkeregisteret (DSF)

Formål/bakgrunn
Folkeregisterets formål og rolle i samfunnet har utviklet seg over tid. Det foreligger ingen formålsbestemmelse verken i lov eller forskrift i dag. Folkeregisteret er regulert ved lov om folkeregistrering 16. januar 1970 nr. 1. Regelverket beskriver blant annet hvem som skal være ansvarlig for registeret, hvilke opplysningstyper som skal registreres og regulerer i noen grad hvordan enkelte opplysningstyper skal forstås, for eksempel hvor i landet en person er registrert.

Oppdatering
Nyregistrering (fødsler) kommer fra jordmor/lege eller fra mor når fødselen skjer i sykehus uten jordmor til stede. Den enkelte person eller dens foresatte/verge sender inn melding om flytting eller navendring til folkeregisteret. I tillegg har offentlige myndigheter plikt til å sende endringsmeldinger.

Samarbeid
Det er løpende samarbeid mellom SSB og Skattedirektoratet. Det er etablert et brukerforum for DSF og medvirker i moderniseringsprosjektet. Det er tatt initiativ til en tverretattlig arbeidsgruppe mellom SKD, Kartverket og SSB. Kartverket har av april brev til Kartverket og SSB med forslag om opprettelse av en arbeidsgruppe som skal den får nødvendig lederforankring i statene. Samarbeid om kvalitet i DSF er nødvendig å ha på plass for konvertering av nytt folkeregister.

1. Kontaktperson hos Skattedirektoratet: [navn]
Kontaktperson hos SSB: [navn]

2. Generelle kvalitetsindikatorer

Kvalitetsindikator	Beskrivelse og henviser til Kvalitetsindikatorer for inndata
Tekniske kontroller	SSB (ssb.no lenke) Ingen kjente problemer med: 1.1 Lesbarhet 1.2 Samsvar i fildeklarasjonen 1.3 Konverterbarhet
Nøyaktighet	Enhetene i registeret er person. Fødselsnummer/D-nummer er identifikasjonsnøkkel. Ingen kjente problemer med: 2.1 Identifiserbarhet 2.2 Inkonsistente enheter 2.3 Mistenkelige enheter (omtales under punkt 3) Variabler Problemområde: 2.4 Målefeil • Ugyldige/feil bolignummer forekommer. • Bruk av matrikeladresser (Gnr/Bnr) mens det finnes gate/veiadresse: 2 642 bosatte

