National Quality Assurance Frameworks

Regional Workshop on Measuring
the Informal Sector and the Non-Observed Economy

4-7 October 2015
Tehran, Islamic Republic of Iran

United Nations Statistics Division

National Quality Assurance Frameworks (NQAF)
- Outline -

I. What is quality?
II. Endorsement of NQAF
III. The NQAF template
IV. NQAF guidelines (section 3 examples)
V. NQAF references
VI. NQAF analytics
VII. Way forward

I. What is quality?

- Vague concept, with different meaning depending on the context
- ISO 9000 Quality Management System:
  - The degree to which a set of inherent characteristics fulfills requirements
- In the NSO context, QUALITY is defined as FITNESS FOR USE, in terms of user needs - - how well the agencies' products meet user needs, whether they are "fit for use" or fit for the purpose for which they are to be used
- The NSO's product is the INFORMATION it disseminates (facts to be used for decision-making by governments, businesses, institutions, the public); the focus here is on Information Quality

I. What is quality?

Not too long ago, quality in official statistics focused on a single dimension:

Quality = ACCURACY

but there are other dimensions to consider…

I. What is quality?

- Are data useful/of good quality if, they are:
  - –accurate, but too late to be useful?
  - –accurate, but are not easily accessible by potential users?
  - –accurate, but from unknown/unverifiable sources?
  - –accurate, but conflict with other data?
  - –accurate, but not provided on a regular basis?
  - –accurate, but not really show what is needed?

I. What is quality?

A

multi-faceted,

multi-dimensional

concept

II. Endorsement of NQAF

- 43rd session of the Statistical Commission fully endorsed the generic national quality assurance framework template and encouraged countries to use it
- The initiative for an NQAF originated from a Statistics Canada report at the 41st session of the Statistical Commission

III. The national quality assurance framework (NQAF) template

The framework template is: (page 4 of the Guidelines document)

- Arranged in five sections
  - (1) quality context
  - (2) quality concepts and frameworks
  - (3) quality assurance guidelines
  - (4) quality assessment and reporting
  - (5) quality & other management frameworks
- Has been based on the 3 proposals Statistics Canada had made in its report to the 41st session of Statistical Commission
  - The resulting NQAF template is a combination with some additions

"Fitness for use" / "Fitness for purpose"
Quality is all about providing goods & services that meet the needs of users

III. The national quality assurance framework (NQAF) template

United Nations Statistics Division

1. Quality context
- 1a. Circumstances and key issues driving the need for quality management
- 1b. Benefits and challenges
- 1c. Relationship to other statistical agency policies, strategies and frameworks and evolution over time

2. Quality concepts and frameworks
- 2a. Concepts and terminology
- 2b. Mapping to existing frameworks

3. Quality assurance guidelines

3a. Managing the statistical system
- [NQAF 1] Coordinating the national statistical system
- [NQAF 2] Managing relationships with data users and data providers
- [NQAF 3] Managing statistical standards

3b. Managing the institutional environment
- [NQAF 4] Assuring professional independence
- [NQAF 5] Assuring impartiality and objectivity
- [NQAF 6] Assuring transparency
- [NQAF 7] Assuring statistical confidentiality and security
- [NQAF 8] Assuring the quality commitment
- [NQAF 9] Assuring adequacy of resources

3c. Managing statistical processes
- [NQAF 10] Assuring methodological soundness
- [NQAF 11] Assuring cost-effectiveness
- [NQAF 12] Assuring soundness of implementation
- [NQAF 13] Managing the respondent burden

3d. Managing statistical outputs
- [NQAF14] Assuring relevance
- [NQAF15] Assuring accuracy and reliability
- [NQAF16] Assuring timeliness and punctuality
- [NQAF17] Assuring accessibility and clarity
- [NQAF18] Assuring coherence and comparability
- [NQAF19] Managing metadata

4. Quality assessment and reporting
- 4a. Measuring product and process quality - use of quality indicators, quality targets and process variables and descriptions
- 4b. Communicating about quality – quality reports
- 4c. Obtaining feedback from users
- 4d. Conducting assessments; labelling and certification
- 4e. Assuring continuous quality improvement

5. Quality and other management frameworks
- 5a. Performance management
- 5b. Resource management
- 5c. Ethical standards
- 5d. Continuous improvement
- 5e. Governance

III. The NQAF template - and mapping to existing frameworks

United Nations Statistics Division

- So as not to "re-invent the wheel", the template draws heavily upon the work of Eurostat, IMF and StatCan

The template is aligned with (mapped to) the other well-known quality frameworks

- European Statistics Code of Practice (CoP)
- International Monetary Fund's Data Quality Assessment Framework (DQAF)
- Statistics Canada's quality assurance framework
- (and the newer) Proposal for the Structure of a Regional Code of Good Statistical Practice for Latin America and the Caribbean

III. The NQAF template:

The NQAF template's section 3 has been based on Statistics Canada's 2010 Statistical Commission report's 3 proposals (cols 1-3)

United Nations Statistics Division

Quality Assurance Procedures

European Statistics Code of Practice (CoP)*	International Monetary Fund's Data Quality Assessment Framework (DQAF)*	Statistics Canada Quality Assurance Framework (StatCan)*	Latin America & the Caribbean Regional Code of Good Statistical Practice (LAC proposal)
Institutional environment CoP.1 Professional independence CoP.2 Mandate for data collection CoP.3 Adequacy of resources CoP.4 Commitment to quality CoP.5 Statistical confidentiality CoP.6 Impartiality and objectivity **Statistical processes** CoP.7 Sound methodology CoP.8 Appropriate statistical procedures CoP.9 Non-excessive burden on respondents CoP.10 Cost effectiveness **Statistical outputs** CoP.11 Relevance CoP.12 Accuracy and reliability CoP.13 Timeliness and punctuality CoP.14 Coherence and comparability CoP.15 Accessibility and clarity	**DQAF 0 Prerequisites of quality** DQAF 0.1 Legal and institutional environment DQAF 0.2 Resources DQAF 0.3 Relevance DQAF 0.4 Other quality management **DQAF 1 Assurances of integrity** DQAF 1.1 Professionalism DQAF 1.2 Transparency DQAF 1.3 Ethical standards **DQAF 2 Methodological soundness** DQAF 2.1 Concepts and definitions DQAF 2.2 Scope DQAF 2.3 Classification and sectorization DQAF 2.4 Basis for recording **DQAF 3 Accuracy and reliability** DQAF 3.1 Data sources DQAF 3.2 Assessment of Source Data DQAF 3.3 Statistical techniques DQAF 3.4 Assessment & validation of intermediate data & statistical outputs DQAF 3.5 Revision studies **DQAF 4 Serviceability** DQAF 4.1Periodicity and timeliness DQAF 4.2Consistency DQAF 4.3Revision policy and practice **DQAF 5 Accessibility** DQAF 5.1Data accessibility DQAF 5.2 Metadata accessibility DQAF 5.3 Assistance to users	CAN.1 Managing user and stakeholder relationships – user satisfaction surveys, feedback mechanisms, councils. CAN.2 Coordinating the national statistical system – protocols, standards. CAN.3 Managing RELEVANCE – program review, planning process, data analysis. CAN.4 Managing ACCURACY – design, accuracy assessment, quality control, revision policy. CAN.5 Managing TIMELINESS AND PUNCTUALITY – advanced release dates, preliminary/final releases. CAN.6 Managing ACCESSIBILITY – product definition, dissemination practices, search facilities. CAN.7 Managing INTERPRETABILITY/CLARITY – concepts, sources, methods, informing users of quality. CAN.8 Managing COHERENCE AND COMPARABILITY – standards, harmonized concepts and methods. CAN.9 Managing OUTPUT QUALITY TRADEOFFS – especially relevance, accuracy and timeliness. CAN.10 Managing PROVIDER RELATIONSHIPS – response burden measurement and reduction, response rate maintenance. CAN.11 Managing STATISTICAL INFRASTRUCTURE – standards, registers, policies CAN.12 Managing INSTITUTIONAL INFRASTRUCTURE -. confidentiality, security, transparency, professional independence, impartiality, objectivity CAN.13 Managing METADATA – relating to quality.	**A. Institutional environment and coordination:** LAC 1. Professional independence LAC 2. Coordination of the national statistical system LAC 3. Statistical mandate for data Collection LAC 4. Statistical confidentiality LAC 5. Adequacy of resources LAC 6. Quality commitment: LAC 7. Impartiality and objectivity LAC 8. International cooperation and participation **B. The statistical process** LAC 9. Sound methodology LAC 10. Appropriate statistical procedures LAC 11. Non-excessive burden on respondents LAC 12. Cost effectiveness **C. Statistical output** LAC 13. Relevance LAC 14. Accuracy and reliability LAC 15. Timeliness and punctuality LAC 16. Coherence and Comparability LAC 17. Accessibility and clarity

*Based on Annex 1 of Statistics Canada's Programme Review on National Quality Assurance Frameworks (E/CN.3/2010/2 - 10 December 2009)

III. The NQAF template - and mapping to existing frameworks

United Nations Statistics Division

Correspondence between the Generic National Quality Assurance Framework Template and the CoP, DQAF, LAC proposal and StatCan

http://unstats.un.org/unsd/dnss/docs-nqaf/MAPPING%20OF%20THE%20NQAF%20.xls

Generic National Quality Assurance Framework Template (NQAF)		European Statistics Code of Practice (CoP)	International Monetary Fund's Data Quality Assessment Framework (DQAF)	Latin America and the Caribbean Regional Code of Good Statistical Practice (LAC)	Statistics Canada Quality Assurance Framework (StatCan)
3a.	Managing the statistical system				
NQAF1.	Coordinating the national statistical system	CoP. 2.1 CoP. 2.2 CoP. 2.3 CoP. 3.3 CoP. 3.4	DQAF. 0.1.1 DQAF. 0.1.2	LAC. 2.1 LAC. 2.2 LAC. 2.3 LAC. 2.4 LAC. 3.1 LAC. 3.2 LAC. 3.3	CAN 2
NQAF2.	Managing relationships with data users and data providers	CoP. 2.3 CoP. 7.7 CoP. 9.1 CoP. 9.2 CoP. 9.3 CoP. 9.4 CoP. 9.5 CoP. 9.6 CoP. 11.1 CoP. 11.2 CoP. 11.3 CoP. 15.6 CoP. 15.7	DQAF. 5.3.1	LAC 2.4 LAC 3.3	CAN 1

Mapping to existing frameworks | NQAF and ESS CoP | NQAF and IMF | NQAF and LAC | NQAF and Canada | NQAF | ESCoP | IMF's DQAF | LAC | CANADA

III. The national quality assurance framework (NQAF) template

United Nations Statistics Division

- Voluntary, not mandatory
- Flexible to permit national circumstances to be taken into consideration; application of ALL components of the template not necessarily expected; not prescriptive
- A starting point on which to build/modify as necessary
- A useful organizing framework
- A framework created by the national agency for the national agency

IV. NQAF template GUIDELINES

United Nations Statistics Division

- Guidelines – a kind of checklist, focusing on section 3, the numbered "NQAF lines" (other sections intentionally briefer, more general)
- For each numbered NQAF line (1-19):
  - Description (what? "… agencies should minimize delays in making data available…")
  - Elements to be assured (which?) (roughly ordered by levels or stages)
  - Supporting mechanisms (how?)
  - Selected references (where?)

Some repetition across different NQAFs - underscores the multi-dimensional aspect of quality and allows users to use parts of the framework independently.(e.g. use of sample surveys instead of censuses, when possible & appropriate – in cost-effectiveness (11) and managing respondent burden (13))

- Helpful to:
  - Data providers in designing a statistical collection or product or reviewing existing ones
  - Data users in making informed decisions about the statistics produced

Are the data fit for the purpose they are intended to be used?

Quality assurance guidelines

3a. Managing the statistical system
[NQAF 1] Coordinating the national statistical system
[NQAF 2] Managing relationships with data users and data providers
[NQAF 3] Managing statistical standards
3b. Managing the institutional environment
[NQAF 4] Assuring professional independence
[NQAF 5] Assuring impartiality and objectivity
[NQAF 6] Assuring transparency
[NQAF 7] Assuring statistical confidentiality and security
[NQAF 8] Assuring the quality commitment
[NQAF 9] Assuring adequacy of resources
3c. Managing statistical processes
[NQAF 10] Assuring methodological soundness
[NQAF 11] Assuring cost-effectiveness
[NQAF 12] Assuring soundness of implementation
[NQAF 13] Managing the respondent burden
3d. Managing statistical outputs
[NQAF14] Assuring relevance
[NQAF15] Assuring accuracy and reliability
[NQAF16] Assuring timeliness and punctuality
[NQAF17] Assuring accessibility and clarity
[NQAF18] Assuring coherence and comparability
[NQAF19] Managing metadata

NQAF 3: Managing statistical standards

Description:

Standards:

•a comprehensive set of statistical concepts and definitions used to achieve uniform treatment of statistical issues - within a survey or across surveys, and across time and space

•assist in maximizing the effectiveness of statistical outputs and the efficiency of the production process in terms of inter-temporal, national and international comparability and coherence (i.e. the capacity for integration) of the statistics.

While comparability and coherence are important for any dataset, they are particularly important where data are obtained from multiple sources and have to be combined or where outputs are used in a wide variety of contexts. The use of standard collection units (families, households, businesses, etc.) helps the compilation, comparison and dissemination of statistics for these standardized units.

Statistical agencies should aim to use consistent names and definitions for populations, statistical units, concepts, variables, and classifications in their statistical programmes/domains.

NQAF 3: Managing statistical standards

United Nations Statistics Division

Elements to be assured:

- Agency works towards developing statistical standards
- **Collaboration:** with other agencies in developing, reviewing, promoting & implementing statistical standards
- **Person(s) responsible:** for leading development of standards & supporting programmes to develop new or updated ones; staff assigned responsibility has the appropriate level of authority
- **Monitoring:** extent that statistical standards are used by the programmes; senior management is given periodic reports
- **Informing staff and users:** about statistical standards & changes made to them
- **Collaboration:** data users & data providers & the agency's own statistical programmes are involved in creating, developing & approving statistical standards
- **Inclusion of (in standards):** a statement of conformity to corresponding international or national standards
- **Divergences:** from the corresponding international or national statistical standards are documented & explained
- **Detailed concordances** to corresponding int'l & national standards
- **Detailed concordances** to previous standards

Mechanisms / examples:

- Central organizational units or senior level groups responsible to lead & coordinate the development, implementation, maintenance & use of statistical standards
- Active participation with other national & international organizations in the development, review, promotion & implementation of statistical standards (e.g. employees attend workshops, conferences &seminars at the national and international levels) *(hyperlink to examples: UNSD and Mexico)*
- *Notice of introduction of a new aggregation structure for the classification of imports and exports of goods* *(hyperlink to example: Canada)*
- Active participation of both data users & providers in the development & approval of statistical standards
- Correspondence tables for classifications exist and are kept up-to-date & made available to the public with explanatory information *(hyperlink to example: UNSD)*

Agency level | Programme design | Implementation programme | Post-collection evaluation

NQAF 3: Managing statistical standards

United Nations Statistics Division

Elements to be assured:

- **Conceptual frameworks used:** e.g. SNA, that provide a basis for consolidating statistical information about certain sectors or geographical entities *(hyperlink to example: UNSD)*
- **Integrated statistics programmes** are developed that require statistical standards
- **Compliance** with required application: programmes are held accountable to apply the standards
- **Non-compliance** with required application: programmes have to obtain exemptions from standards if they do not apply them
- **Informing statistical programmes/domains:** plans (and deadlines) for the development & application of new statistical standards are communicated well in advance
- **Level of information:** to provide maximum flexibility in aggregation & to facilitate retrospective reclassification, statistical programmes collect & retain information at the fundamental or most detailed level of each standard classification, to the extent possible
- **Informing users and the public:** all potential data users & the public
- **Review and revision:** standards are regularly reviewed & revised, if necessary, to ensure their quality, notably their relevance, coherence & clarity

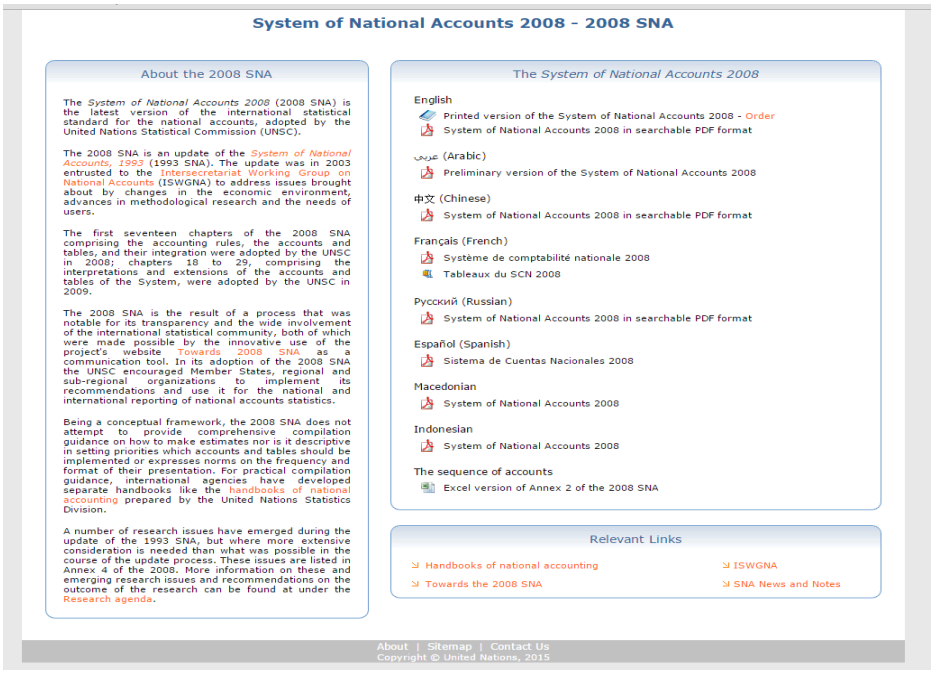
Mechanisms / examples:

- Statistical programmes based on conceptual frameworks or data integration frameworks that rely heavily on statistical standards *(hyperlink to example: Australia)*
- *Upcoming Reviews* *(hyperlink to example: Australia)*
- Documentation: on the statistical standards used is included in statistical products or explicitly referred to and is readily accessible *(hyperlink to example: Canada)*

Agency level | Programme design | Implementation programme | Post-collection evaluation

Examples: *System of National Accounts 2008 - 2008 SNA*

(http://unstats.un.org/unsd/nationalaccount/sna2008.asp)



System of National Accounts 2008 – 2008 SNA

About the 2008 SNA

The *System of National Accounts 2008* (2008 SNA) is the latest version of the international statistical standard for the national accounts, adopted by the United Nations Statistical Commission (UNSC).

The 2008 SNA is an update of the *System of National Accounts, 1993* (1993 SNA). The update was in 2003 entrusted to the Intersecretariat Working Group on National Accounts (ISWGNA) to address issues brought about by changes in the economic environment, advances in methodological research and the needs of users.

The first seventeen chapters of the 2008 SNA comprising the accounting rules, the accounts and tables, and their integration were adopted by the UNSC in 2008; chapters 18 to 29, comprising the interpretations and extensions of the accounts and tables of the System, were adopted by the UNSC in 2009.

The 2008 SNA is the result of a process that was notable for its transparency and the wide involvement of the international statistical community, both of which were made possible by the innovative use of the project's website Towards 2008 SNA as a communication tool. In its adoption of the 2008 SNA the UNSC encouraged Member States, regional and sub-regional organizations to implement its recommendations and use it for the national and international reporting of national accounts statistics.

Being a conceptual framework, the 2008 SNA does not attempt to provide comprehensive compilation guidance on how to make estimates nor is it descriptive in setting priorities which accounts and tables should be implemented or expresses norms on the frequency and format of their presentation. For practical compilation guidance, international agencies have developed separate handbooks like the handbooks of national accounting prepared by the United Nations Statistics Division.

A number of research issues have emerged during the update of the 1993 SNA, but where more extensive consideration is needed than what was possible in the course of the update process. These issues are listed in Annex 4 of the 2008. More information on these and emerging research issues and recommendations on the outcome of the research can be found at under the Research agenda.

The *System of National Accounts 2008*

English
Printed version of the System of National Accounts 2008 - Order
System of National Accounts 2008 in searchable PDF format

عربي (Arabic)
Preliminary version of the System of National Accounts 2008

中文 (Chinese)
System of National Accounts 2008 in searchable PDF format

Français (French)
Système de comptabilité nationale 2008
Tableaux du SCN 2008

Русский (Russian)
System of National Accounts 2008 in searchable PDF format

Español (Spanish)
Sistema de Cuentas Nacionales 2008

Macedonian
System of National Accounts 2008

Indonesian
System of National Accounts 2008

The sequence of accounts
Excel version of Annex 2 of the 2008 SNA

Relevant Links

Handbooks of national accounting
Towards the 2008 SNA
ISWGNA
SNA News and Notes

About | Sitemap | Contact Us
Copyright © United Nations, 2015

Examples: *UN Classifications Registry*

(http://unstats.un.org/unsd/cr/registry/default.asp?Lg=1)

Available correspondences

Click in the table to go to the complete correspondence table in the selected language.

Correspondence	Language		
BEC - SITC Rev.3	English		
BEC - HS 1996	English		
BEC - HS 2002	English		
BEC - HS 2007	English		
COICOP - CPC Ver.1.0	English		
CPC Ver.1.0 - CPC Ver.1.1	English	Français	Español
CPC Ver.1.0 - CPCprov	English		
CPC Ver.1.0 - ISIC Rev.3	English		
CPC Ver.1.0 - HS 1996	English		
CPC Ver.1.0 - COICOP	English		
CPC Ver.1.1 - CPC Ver.2	English		
CPC Ver.1.1 - CPC Ver.1.0	English	Français	Español
CPC Ver.1.1 - CPCprov	English	Français	Español
CPC Ver.1.1 - ISIC Rev.3.1	English		
CPC Ver.1.1 - HS 2002	English		
CPC Ver.1.1 - PRODCOM 2002	English		
CPC Ver.2 - CPC Ver.1.1	English		
CPC Ver.2 - ISIC Rev.4	English		
CPC Ver.2 - HS 2007	English		
CPC Ver.2 - SITC Rev.4	English		
CPCprov - CPC Ver.1.1	English	Français	Español
CPCprov - CPC Ver.1.0	English		
CPCprov - ISIC Rev.3	English		
CPCprov - HS 1988	English		

Correspondence between SITC Rev.3 and SITC Rev.4

The following table shows the links between the selected classifications. In case of a partial link, the detail column specifies the portion of the second classification. An icon in the last column signifies comments, such as changes after the original publication. Clicking on the codes of either classification links to the definition of that particular category.

SITC Rev.3	SITC Rev.4	Part	Detail
001.11	001.11		
001.19	001.19		
001.21	001.21		
001.22	001.22		
001.31	001.31		
001.39	001.39		
001.41	001.41		
001.49	001.49		
001.51	001.5	*	
001.52	001.5	*	
001.9	001.9		
011.11	011.11		
011.12	011.12		
011.21	011.21		
011.22	011.22		
012.11	012.11		
012.12	012.12		
012.13	012.13		
012.21	012.21		
012.22	012.22		
012.31	012.31		
012.32	012.32		
012.33	012.33		
012.34	012.34		
012.35	012.35	*	
012.36	012.35	*	

NQAF 8: Assuring the quality commitment

United Nations Statistics Division

Description:

Statistical agencies should be dedicated to assuring quality in their work, and systematically and regularly identify strengths and weaknesses to continuously improve process and product quality.

Processes, staff and facilities should be in place for ensuring that the data produced are commensurate with their quality objectives.

NQAF 8: Assuring the quality commitment

United Nations Statistics Division

Elements to be assured:	Mechanisms / examples:
Commitment to quality: policy or message is made public	❑ Quality policy, declaration or commitment statement ❑ Staff awareness "campaign" to emphasize commitment *(hyperlink to example: Lithuania)* ❑ Quality manager, committee, unit, coaches or advisers
Person(s) responsible	
Guidelines for implementing quality management w/in the statistical production process: describing a) entire process & documentation; b) methods for monitoring the quality of stages; c) identification of indicators (quality measures) for evaluating the quality of the main stages	❑ Guidelines, methodological manuals, etc.; GSBPM - for guidance on managing & monitoring the quality of all stages of the statistical process *(hyperlink to examples: Eurostat, GSBPM)*
Guidelines made available to external users (at least a summary)	❑ Use of TQM, ISO 9000, quality initiatives of the ESS, independent evaluations and/or IMF ROSC evaluations *(hyperlink to IMF)*
Externally-recognized processes or activities that focus on quality are followed	
Procedures put in place for **monitoring** and reporting on **product quality;** top management gets informed of the results in order to define improvement actions; **quality reviews** of key products regularly conducted	❑ Programmes set up for carrying out quality reports, self-assessments, audits, user satisfaction surveys - to monitor & report on quality over time
Documentation on quality is required & regularly updated	❑ Work plans, schedules & standard forms or templates - for facilitating the consistent updating of the documentation
Training & development programmes: agency's quality policy & how quality may be achieved	❑ Regularly held training courses designed to support quality policy

Agency level	Programme design	Programme implementation	Post-collection evaluation

NQAF 8: Assuring the quality commitment

United Nations Statistics Division

Elements to be assured:

Support: to subject matter units by specialized (methodological & IT) units to help implement improvements

Benchmarking: of key statistical processes with other agencies carried out to identify good practices

Quality assurance plan or similar mechanism for planning and monitoring the quality of different stages of the process; describes the working standards, formal obligations (laws & internal rules) & quality control actions to prevent/ monitor/evaluate errors & to control different points at each stage. Taken into account here are:

- users' needs and relevance of the statistical operation
- examination of possible trade-offs among quality dimensions *(hyperlink to above example: France)*

- assurance of the quality of data collection (incl. use of admin. data) & data editing

Metadata & quality indicators or measures: prepared & provided to users to help them assess the quality of the released data *(hyperlink to example: Eurostat ESMS)*

Evaluation: quality reviews are conducted

Users' reactions and feedback: collected; to be used as inputs to action plans

Mechanisms / examples:

- IT staff, methodologists and other specialists (e.g. in questionnaire design) participate in assisting subject matter units; appropriate software is provided
- Validation techniques are widely promoted and applied
- Expert groups are established & meetings held regularly
- Documentation on methods, concepts and definitions is made available for all major fields of statistics
- User satisfaction surveys carried out; reports on the results are made publicly available
- User-oriented quality reports are produced & made available to the public; producer-oriented reports are produced; can be used by agency to monitor quality over time
- External experts may conduct quality reviews of key statistical domains (e.g. IMF's ROSCs, peer reviews, external audits & rolling reviews)

Agency level	Programme design	Programme implementation	Post-collection evaluation

NQAF 8: Assuring the quality commitment

United Nations Statistics Division

Examples: *IMF's Reports on the Observance of Standards and Codes (ROSCs)*

(http://www.imf.org/external/NP/rosc/rosc.aspx)

Reports on the Observance of Standards and Codes (ROSCs)

ROSCs summarize the extent to which countries observe certain internationally recognized standards and codes. The IMF has recognized 12 areas and associated standards as useful for the operational work of the Fund and the World Bank. These comprise accounting; auditing; anti-money laundering and countering the financing of terrorism (AML/CFT); banking supervision; corporate governance; data dissemination; fiscal transparency; insolvency and creditor rights; insurance supervision; monetary and financial policy transparency; payments systems; and securities regulation; AML/CFT was added in November 2002. Reports summarizing countries' observance of these standards are prepared and published at the request of the member country. They are used to help sharpen the institutions' policy discussions with national authorities, and in the private sector (including by rating agencies) for risk assessment. Short updates are produced regularly and new reports are produced every few years.

[By Country/Area] | [By Date] | [By Topic]

A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | Z |

Albania	
Anti-Money Laundering and Combating the Financing of Terrorism (AML/CFT) (PDF File :466 KB)	19 July, 2011
Banking Supervision (PDF File :501 KB) **Note :**Published as part of a Financial System Stability Assessment	9 August, 2005
Data Dissemination (PDF File :1.21 MB)	31 October, 2006
Data Dissemination	30 May, 2000
Fiscal Transparency (PDF File :272 KB)	8 July, 2003
Payments Systems (PDF File :501 KB) **Note :**Published as part of a Financial System Stability Assessment	9 August, 2005

NQAF 11: Assuring cost-effectiveness

United Nations Statistics Division

Description:

Statistical agencies should assure that resources are effectively used. They should be able to explain to what extent the set objectives were attained and that the results were achieved at a reasonable cost consistent with the principal purposes for which the statistics will be used.

NQAF 11: Assuring cost-effectiveness

United Nations Statistics Division

Elements to be assured:	Mechanisms / examples:
Standardization: standardized solutions that increase effectiveness & efficiency	❑ Standardization programmes and procedures are defined and implemented in key areas according to the business process model
Monitoring: of the agency's use of resources, both by internal and independent external measures *(hyperlink to example: France)*	❑ Indicators of human and financial resources - monitored centrally and regularly reported
Costs: of producing the statistics, at each stage of statistics production, are regularly reviewed and documented to assess their effectiveness	❑ Accounting systems allow allocation of resources to statistical operations ❑ Human resources (allocation, performance and staff training needs) are evaluated annually
Cost–benefit analyses: carried out to determine the appropriate **trade-offs** in terms of data quality	❑ Staff opinion surveys - conducted regularly ❑ IT infrastructure - reviewed regularly ❑ Ex-ante cost calculation procedures are available for statistical operations
Administrative data: proactive efforts made to improve the statistical potential of administrative data and to limit recourse to direct surveys	❑ Appropriate arrangements (e.g. SLAs agreements or national legislation) are signed with owners of administrative data collections and regularly updated ❑ An assessment of possible administrative data sources is carried out prior to launching any new survey ❑ Data linking and integration methods are proactively pursued subject to data security considerations
Administrative data: - instead of sample surveys – are used when it is appropriate and possible	
Respondent burden: is managed	❑ Quality indicators are developed and compiled to improve the use of administrative data for statistical purposes ❑ Procedures are in place to measure and manage the respondent burden
New data collection: when contemplated - review whether current data sources can be utilized instead	

Agency level | Programme design | Programme implementation | Post-collection evaluation

NQAF 11: Assuring cost-effectiveness

United Nations Statistics Division

Elements to be assured:

	Mechanisms / examples:
Review ongoing programmes: to consider whether a particular programme is still operating in the most cost-effective way to meet its stated requirements	❑Centralized IT and methodological units provide possibilities for the pooling of resources and investments and the identification of innovation/modernization potential ❑An appropriate IT architecture and strategy exists and is regularly updated ❑Policies, procedures and tools exist to promote automatic techniques for data capture, data coding and validation ❑The use of automated processing techniques is regularly reviewed
IT: review whether its productivity potential being optimized for data collection, processing and dissemination	
Reporting burden minimization: keeping in mind the principal purposes for which the statistics will be used	❑Procedures are in place to measure and manage the respondent burden
Automation: of routine clerical operations (e.g. data capture, coding, validation) where possible	
Cost-effectiveness assessment: undertaken for every statistical survey	
User feedback: to verify whether outputs produced continue to meet the needs of the key users so as to justify the collection of the data	❑User satisfaction surveys

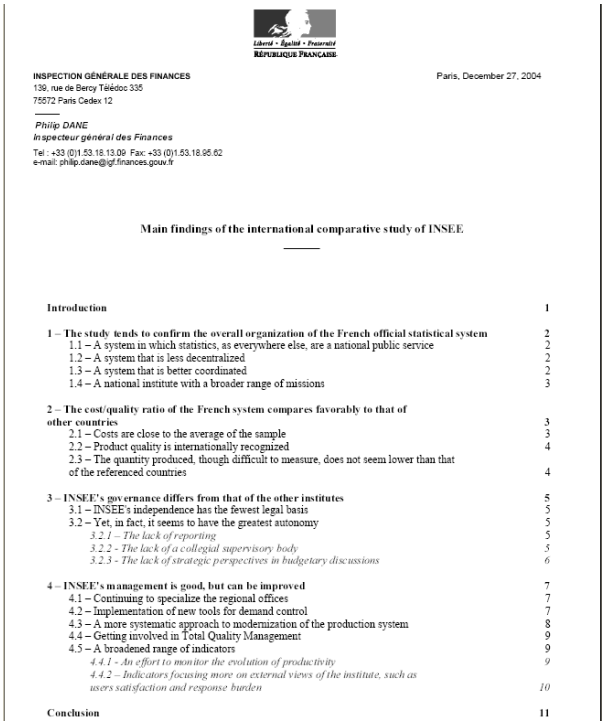
Agency level	Programme design	Programme implementation	Post-collection evaluation

NQAF 11: Assuring cost-effectiveness

United Nations Statistics Division

Examples: *INSEE is audited by the French Court of Auditors and the General Finance Inspectorate: on this subject, see the "INSEE International Comparative Analysis" Report*

(http://www.insee.fr/en/insee-statistique-publique/qualite/report_igf.pdf)



Liberté • Égalité • Fraternité
RÉPUBLIQUE FRANÇAISE

INSPECTION GÉNÉRALE DES FINANCES
139, rue de Bercy Téédoc 335
75572 Paris Cedex 12

Paris, December 27, 2004

Philip DANE
Inspecteur général des Finances

Tel : +33 (0)1.53.18.13.09 Fax: +33 (0)1.53.18.95.62
e-mail: philip.dane@igf.finances.gouv.fr

Main findings of the international comparative study of INSEE

Introduction 1

1 – The study tends to confirm the overall organization of the French official statistical system 2
1.1 – A system in which statistics, as everywhere else, are a national public service 2
1.2 – A system that is less decentralized 2
1.3 – A system that is better coordinated 2
1.4 – A national institute with a broader range of missions 3

2 – The cost/quality ratio of the French system compares favorably to that of other countries 3
2.1 – Costs are close to the average of the sample 3
2.2 – Product quality is internationally recognized 4
2.3 – The quantity produced, though difficult to measure, does not seem lower than that of the referenced countries 4

3 – INSEE's governance differs from that of the other institutes 5
3.1 – INSEE's independence has the fewest legal basis 5
3.2 – Yet, in fact, it seems to have the greatest autonomy 5
3.2.1 – The lack of reporting 5
3.2.2 - The lack of a collegial supervisory body 5
3.2.3 - The lack of strategic perspectives in budgetary discussions 6

4 – INSEE's management is good, but can be improved 7
4.1 – Continuing to specialize the regional offices 7
4.2 – Implementation of new tools for demand control 7
4.3 – A more systematic approach to modernization of the production system 8
4.4 – Getting involved in Total Quality Management 9
4.5 – A broadened range of indicators 9
4.4.1 - An effort to monitor the evolution of productivity 9
4.4.2 – Indicators focusing more on external views of the institute, such as users satisfaction and response burden 10

Conclusion 11

NQAF 16: Assuring timeliness and punctuality

United Nations Statistics Division

Description:

Statistical agencies should minimize the delays in making data available.

Timeliness refers to how fast - after the reference date or the end of the reference period - the data are released or made available, whether for dissemination or for further processing.

Punctuality refers to whether data are delivered on the dates promised, advertised or announced (for example, in an official release calendar).

NQAF 16: Assuring timeliness and punctuality

United Nations Statistics Division

Elements to be assured:	Mechanisms / examples:
Release policy: to describe release procedures and define timeliness targets	❑ A publicly available written release or dissemination policy , distinguishing between different kinds of statistical outputs (press releases, statistics-specific reports or tables, general publications, etc.) *(hyperlink to example: Chile)*
Dissemination standards or other relevant **timeliness targets:** for released data to comply with *[Action plans: developed and followed if the timeliness targets are not met]*	❑ International/national standards, e.g. IMF data dissemination standards *(hyperlink to example: IMF)*
Release calendar: published to announce in advance the dates that (major) statistics are to be released *[User notifications: about any divergences from the advance release calendar; to announce the new release time and explain the reasons for the delays]*	❑ A law or other formal provisions exist that requires the setting of a release calendar ❑ The public is informed about the statistics being released via release calendars; calendars also include information on how the data can be accessed (e.g. through the Internet, in publications, etc.) *(hyperlink to example: Italy)*
Monitoring and evaluation procedures: for regularly tracking and evaluating the **punctuality** of each release as per the release calendar	❑ Quality indicators on timeliness and punctuality are regularly calculated, monitored and disseminated.
User requirements: to be taken into account when the **periodicity** of the statistics is being decided	❑ Procedures for consulting with users about periodicity are in place.
Released data: to be made available to all users at the same time *[If not, and privileged pre-release access is given, it is limited, controlled and publicized]*	

Agency level	Programme design	Programme implementation	Post-collection evaluation

NQAF 16: Assuring timeliness and punctuality

United Nations Statistics Division

Elements to be assured:

- **Trade-offs' consideration:** between timeliness and other dimensions of quality (e.g. accuracy, cost and respondent burden)
- **Preliminary data release:** consideration is given to its possibility and usefulness, while at the same time taking into account the data's accuracy
- **Contingency planning:** for handling emerging problems that could delay the release of data
- **Schedules and timing:** attainable schedules for the production processes are defined
- **Schedules and timing:** for specifying and making known to staff and users the maximum acceptable amount of time that can elapse - between the end of the reference period and the availability of the data
- **Agreements with data providers:** on the planned delivery dates
- **Procedures in place:** to ensure the effective and timely flow of data from providers
- **Following-up with data providers:** to ensure timely receipt of data
- **Preliminary data:** when released, are clearly identified as such; users are provided with appropriate information to be able to assess the quality of the preliminary data
- **Revision policy**: to describe the revisions for those key outputs that are subject to scheduled revisions
- **Quality indicators:** on timeliness and punctuality are regularly calculated, monitored, published and followed up

Mechanisms / examples:

- Guidelines are available on how to deal with delays when using administrative data for statistical purposes.
- Respondents are made aware and reminded of the deadlines set for reporting.
- A published revision policy exists *(hyperlink to example: Portugal)*
- Quality indicators on timeliness and punctuality are regularly calculated, monitored and disseminated *(hyperlink to example: Eurostat)*

Agency level	Programme design	Programme implementation	Post-collection evaluation

NQAF 16: Assuring timeliness and punctuality

United Nations Statistics Division

Examples: *IMF's Dissemination Standards Bulletin Board*

V. NQAF references

United Nations Statistics Division

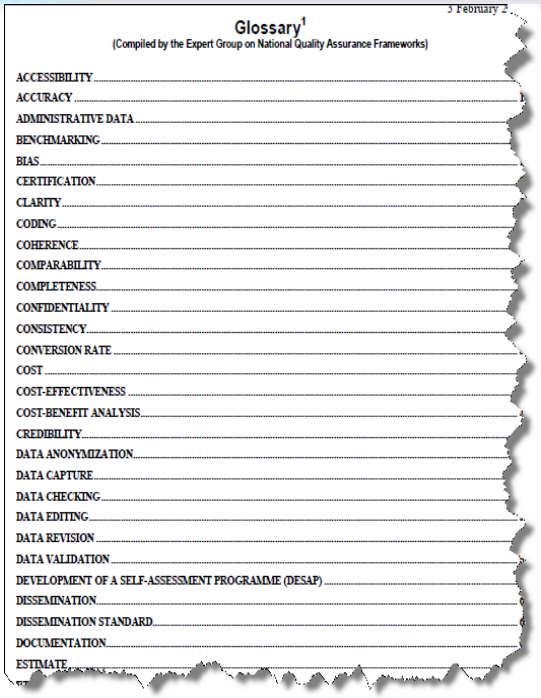
- Website - http://unstats.un.org/unsd/dnss/QualityNQAF/nqaf.aspx
- Glossary - http://unstats.un.org/unsd/dnss/docs-nqaf/NQAF%20GLOSSARY.pdf

V. NQAF references - website

United Nations Statistics Division

V. NQAF references - glossary

United Nations Statistics Division

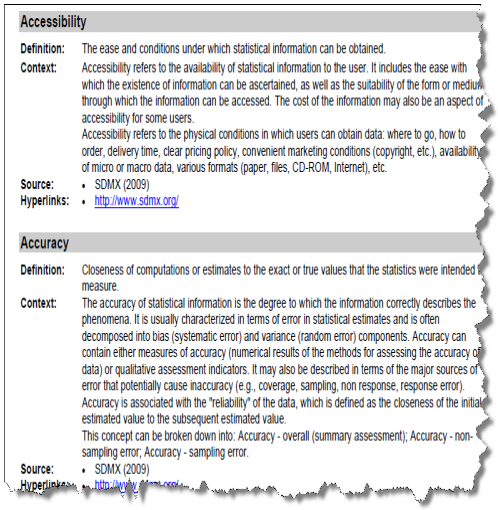


3 February 2

Glossary[1]

(Compiled by the Expert Group on National Quality Assurance Frameworks)

ACCESSIBILITY
ACCURACY
ADMINISTRATIVE DATA
BENCHMARKING
BIAS
CERTIFICATION
CLARITY
CODING
COHERENCE
COMPARABILITY
COMPLETENESS
CONFIDENTIALITY
CONSISTENCY
CONVERSION RATE
COST
COST-EFFECTIVENESS
COST-BENEFIT ANALYSIS
CREDIBILITY
DATA ANONYMIZATION
DATA CAPTURE
DATA CHECKING
DATA EDITING
DATA REVISION
DATA VALIDATION
DEVELOPMENT OF A SELF-ASSESSMENT PROGRAMME (DESAP)
DISSEMINATION
DISSEMINATION STANDARD
DOCUMENTATION
ESTIMATE



Accessibility

Definition: The ease and conditions under which statistical information can be obtained.

Context: Accessibility refers to the availability of statistical information to the user. It includes the ease with which the existence of information can be ascertained, as well as the suitability of the form or medium through which the information can be accessed. The cost of the information may also be an aspect of accessibility for some users.
Accessibility refers to the physical conditions in which users can obtain data: where to go, how to order, delivery time, clear pricing policy, convenient marketing conditions (copyright, etc.), availability of micro or macro data, various formats (paper, files, CD-ROM, Internet), etc.

Source: • SDMX (2009)

Hyperlinks: • http://www.sdmx.org/

Accuracy

Definition: Closeness of computations or estimates to the exact or true values that the statistics were intended to measure.

Context: The accuracy of statistical information is the degree to which the information correctly describes the phenomena. It is usually characterized in terms of error in statistical estimates and is often decomposed into bias (systematic error) and variance (random error) components. Accuracy can contain either measures of accuracy (numerical results of the methods for assessing the accuracy of data) or qualitative assessment indicators. It may also be described in terms of the major sources of error that potentially cause inaccuracy (e.g., coverage, sampling, non response, response error).
Accuracy is associated with the "reliability" of the data, which is defined as the closeness of the initial estimated value to the subsequent estimated value.
This concept can be broken down into: Accuracy - overall (summary assessment); Accuracy - non-sampling error; Accuracy - sampling error.

Source: • SDMX (2009)

Hyperlinks: • http://www.sdmx.org/

VI. NQAF analytics

United Nations Statistics Division

- Latest tool to be developed is a **checklist** in Excel
- Complements the supporting mechanisms in the guideline document
- Reduces some (intentional) duplication in the guideline document
- Around 250 questions
  - Yes – No – Partially – N/A
- Integrated analytics/visualization tools

VI. NQAF analytics - checklist

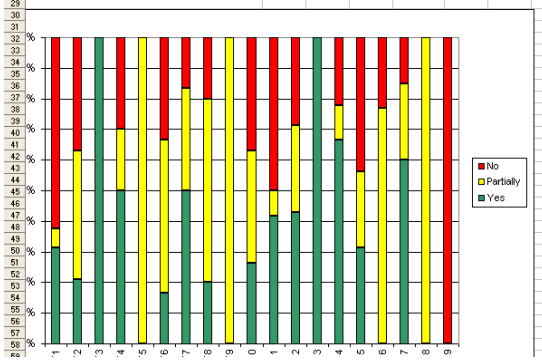
United Nations Statistics Division

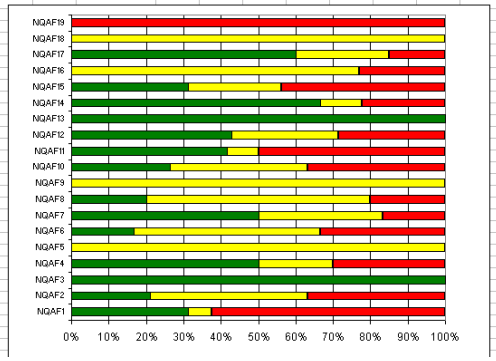
NQAF 15: ASSURING ACCURACY AND RELIABILITY	15.2	Source data, intermediate results and statistical outputs are regularly assessed and validated.	Yes	No	Partially	NA		
	15.2a	Systems for assessing and validating **source data** are developed and managed.	Yes	No	Partially	NA		
	15.2b	Systems for assessing and validating **intermediate** results are developed and managed.	Yes	No	Partially	NA		
	15.2c	Systems for assessing and validating **statistical outputs** are developed and managed.	Yes	No	Partially	NA		
	15.2d	Procedures and guidelines for data quality **assessment** are in place and address accuracy issues.	Yes	No	Partially	NA		
	15.2e	Source data and statistical outputs are compared with other sources of information in order to ensure validity.	Yes	No	Partially	NA		
	15.3	Sampling and non-sampling **errors** are measured, evaluated and systematically documented.	Yes	No	Partially	NA		
	15.3a	Procedures and guidelines are available on how to measure and reduce **errors**.	Yes	No	Partially	NA		
	15.3b	Statistical discrepancies in intermediate results are assessed and investigated.	Yes	No	Partially	NA		
	15.3c	A quality assurance plan is in place that describes the quality control actions to prevent, monitor and evaluate the **errors**.	Yes	No	Partially	NA		
	15.3d	The sampling and non-sampling errors are analysed over time and improvement actions are taken as a result.	Yes	No	Partially	NA		
	15.3e	Periodic **quality reporting on accuracy**, serving both producer and user perspectives, is in place.	Yes	No	Partially	NA		
	15.3f	Methods and tools for preventing and reducing sampling and non-sampling **errors** are in place.	Yes	No	Partially	NA		
	15.4g	A **revision** policy, which is made known publicly, is in place and states the principles and procedures, the timing of revisions, their reasons, and the nature of the **revisions**.	Yes	No	Partially	NA		
	15.4h	The **revision** policy follows standard and transparent procedures.	Yes	No	Partially	NA		
	15.4i	Information on the size and direction of **revisions** for key indicators is provided and made known publicly.	Yes	No	Partially	NA		
	15.4j	An analysis of **revisions** is performed and used to improve the statistical process.	Yes	No	Partially	NA		
		IF APPLICABLE to your programme/agency/country, Add other elements that are related to or important for assuring accuracy and reliability						
		Included in other NQAFs, also related to or important for assuring accuracy and reliability are: *10.8 The methodologies of surveys and the use of administrative data are evaluated periodically to guarantee high quality statistical outputs.* *6.6 Advance notice of major revisions and changes in methodology, source data, and statistical techniques is given and explained to users.* *5.7 Errors that are detected are corrected as soon as possible and users are informed about those errors that affected the released data.* *16.10 Preliminary data, when released, are clearly identified as such, and users are provided with appropriate information to be able to assess the quality of the preliminary data.*						
NQAF 16	16.1	A release policy is defined and published; it distinguishes between different kinds of statistical outputs (press releases, statistics specific reports or tables, general publications, etc.) and their corresponding release procedures.	Yes	No	Partially	NA		
	16.2	The timeliness of the agency's statistics comply with IMF data dissemination	Yes	No	Partially	NA		

VI. NQAF analytics - checklist

United Nations Statistics Division

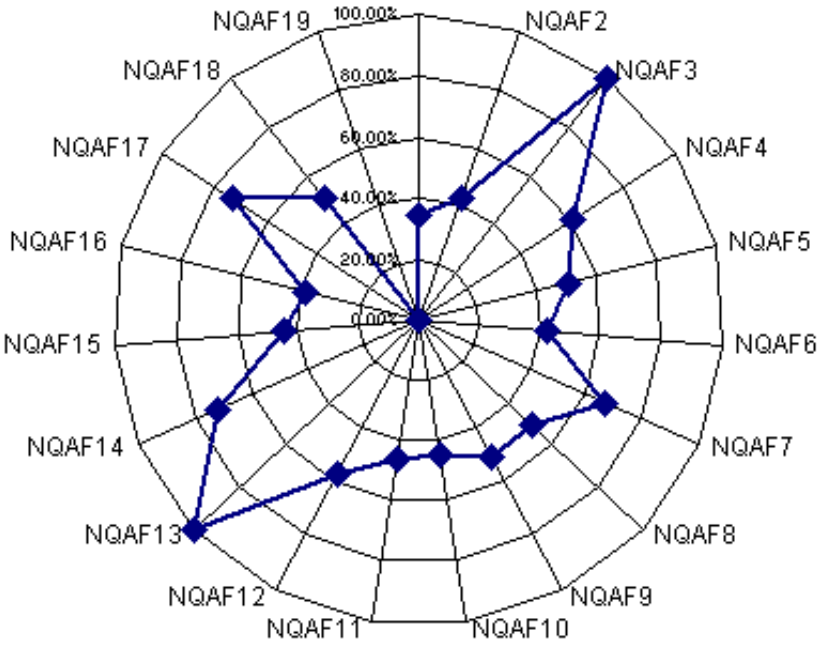
Coordinating the national statistical system	5	10	1	0	16	31.25%	62.50%	6.25%	34.38%
Managing relationships with data users and data providers	4	7	8	0	19	21.05%	36.84%	42.11%	42.11%
Managing statistical standards	19	0	0	0	19	100.00%	0.00%	0.00%	100.00%
Managing the institutional environment	**16**	**11**	**35**	**0**	**62**	**25.81%**	**17.74%**	**56.45%**	**54.03%**
Assuring professional independence	5	3	2	0	10	50.00%	30.00%	20.00%	60.00%
Assuring impartiality and objectivity	0	0	7	0	7	0.00%	0.00%	100.00%	50.00%
Assuring transparency	1	2	3	0	6	16.67%	33.33%	50.00%	41.67%
Assuring statistical confidentiality and security	6	2	4	0	12	50.00%	16.67%	33.33%	66.67%
Assuring the quality commitment	4	4	12	0	20	20.00%	20.00%	60.00%	50.00%
Assuring adequacy of resources	0	0	7	0	7	0.00%	0.00%	100.00%	50.00%
Managing statistical processes	**26**	**17**	**12**	**0**	**55**	**47.27%**	**30.91%**	**21.82%**	**58.18%**
Assuring methodological soundness	5	7	7	0	**19**	26.32%	36.84%	36.84%	44.74%
Assuring cost-effectiveness	5	6	1	0	**12**	41.67%	50.00%	8.33%	45.83%
Assuring soundness of implementation	6	4	4	0	**14**	42.86%	28.57%	28.57%	57.14%
Managing the respondent burden	10	0	0	0	**10**	100.00%	0.00%	0.00%	100.00%
Managing statistical outputs	**23**	**21**	**33**	**2**	**79**	**29.87%**	**27.27%**	**42.86%**	**51.30%**
Assuring relevance	6	2	1	0	**9**	66.67%	22.22%	11.11%	72.22%
Assuring accuracy and reliability	5	7	4	2	**18**	31.25%	43.75%	25.00%	43.75%
Assuring timeliness and punctuality	0	3	10	0	**13**	0.00%	23.08%	76.92%	38.46%
Assuring accessibility and clarity	12	3	5	0	**20**	60.00%	15.00%	25.00%	72.50%
Assuring coherence and comparability	0	0	13	0	**13**	0.00%	0.00%	100.00%	50.00%
Managing metadata	0	6	0	0	**6**	0.00%	100.00%	0.00%	0.00%





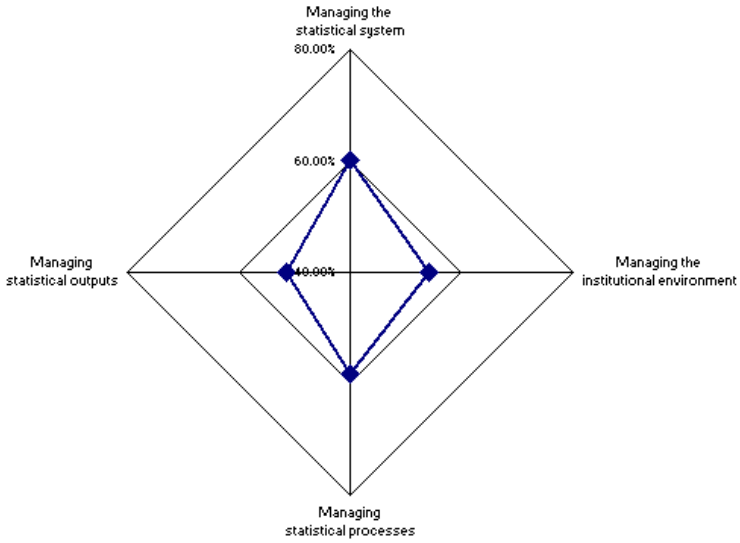
VI. NQAF analytics - checklist

United Nations Statistics Division



VI. NQAF analytics - checklist

United Nations Statistics Division



VII. Way forward

United Nations Statistics Division

- Country piloting / country implementation
- Harmonization of existing frameworks?
- Coordination among international organizations
- A quality assurance framework for international organizations (the twin) ?

United Nations Statistics Division

THANK YOU for your attention