Diagnostic Framework for National Accounts and Supporting Economic Statistics

Guidelines to complete the self assessment questionnaire [1]

Background

Following the adoption of the System of National Accounts 2008 (2008 SNA) as the international standard for compilation and dissemination of national accounts statistics, the United Nations Statistics Commission supported the 2008 SNA implementation strategy anchored on the principles of strategic planning; coordination, monitoring and reporting; and for improving statistical systems.

The Intersecretariat Working Group on National Accounts (ISWGNA) strategy for implementation of the 2008, endorsed by the Commission identifies three distinct stages in the implementation of the 2008 SNA irrespective of the level of statistical development of the country, namely:

(a) Stage I. Review of strategic framework and detailing of national and regional implementation programmes;

(b) Stage II. Adaptation of classification frameworks, business registers and frames, surveys, administrative data sources and information technology infrastructure; and

(c) Stage III. Application of adapted frameworks and source data, backcasting and changeover to 2008 SNA.

The strategy recognizes that the time of transition between stages should be determined by each country according to its predetermined scope of the required data set formulated in the implementation plan.

Purpose

With a view to help countries to assess the adequacy or otherwise of their national statistical production process to support implementation of the 2008 SNA, a Diagnostic Framework for National Accounts and Supporting Economic Statistics (DF-NA&ES) has been developed. This tool will help countries to make self assessment of statistical prerequisites outlined in stages I and II of the 2008 SNA implementation strategy. Based on this assessment countries need to develop the vision for improving the availability and quality of the basic economic statistics required for compilation of national accounts following 2008 SNA recommendations. The vision document developed by countries should be discussed preferably in a national seminar with all stakeholders, policy

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[1] This is draft and subject to further editing.

planners and other users including the academia and business community. Such a discussion is expected to help the national statistical office (NSO) to prioritize the problem areas and ultimately write a plan for the improvement of the supporting economic statistics with a view to compile national accounts within the framework of the 208 SNA.

Approach

This framework develops an information structure for planning, monitoring and evaluating the implementation of the SNA and builds on the joint efforts of the ISWGNA to establish an information structure for managing technical assistance operations. The present guidelines use the taxonomies based on Classification of International Statistical Activities (UNECE 26 September 2005 version, Annex 2 to document ECE/CES/BUR/2005/5) available at
 http://www.unece.org/stats/documents/ece/ces/bur/2005/5.e.pdf

The Classification of International Statistical Activities includes a listing of domains that provide a structured presentation of statistical activities. It classifies statistical activities aimed at collecting, producing and disseminating data, developing standards, harmonization and implementation approaches in official statistics. It organizes the broad types of statistical activities in five statistical domains. Domains 1-3 constitute subject area classifications dealing with the outputs of the statistical process. Domains 4 and 5 cover substantive issues that are more process and organization oriented and also deal with the managerial aspects of official statistics.

The three main areas that constitute statistical domains are domain 1 *Demographic and social statistics*; domain 2 *Economic statistics*; and domain 3 *Environment and multi-domain statistics*. Unlike the domains on social statistics, economic statistics or environment statistics (domains1-3), which focus on statistical outputs and their conceptual basis, Domain 4 *Methodology of data collection, processing, dissemination and analysis* covers activities that focus on the various processes that ultimately lead to statistical outputs. It covers data collection, processing and dissemination methodology that do not focus on a particular subject area, and activities that are used for producing official statistics in various subject areas at national level such as censuses, surveys, administrative registers. The activities under this domain are reflected and described among the components of the integrated statistical production process such as meta data and data reporting, business registers, censuses, surveys, administrative sources and dissemination.

Domain 5 *Strategic and managerial issues of official statistics* covers areas that are of managerial concern, dealing with the institutional and organizational side of national and international statistical agencies. It includes the management, coordination of the statistical system, including relationship with users, organization of the statistical office, promotion of official statistics, setting up national statistical programmes, human resources management and training and ICT management. The activities under this

domain are reflected and described among the components of the integrated statistical production process such as management culture and institutional arrangements.

A selected list of statistical domains originating from the document Classification of International Statistical Activities that deserve the most attention in the context of these guidelines is presented in the Annex. The hierarchical structure of this classification include, domain, data category and data indicators.

Diagnostic tool

The diagnostic tool covers broad indicators relating to economic statistics contained in domain 2, income and expenditure of households and labour statistics of domain 1 on all aspects of the statistical production process. The statistical activities in these domains have been cross classified across elements of domain 4 (*Methodology of data collection, processing, dissemination and analysis*) and domain 5 (*Strategic and managerial issues of official statistics*). There are a wide range of institutional, managerial, strategic and technical aspects each contributing to and increasing the consistency of economic statistics. These range from improving the management culture of the organisation to the statistical system, adapting the legal and institutional environment, the use of common concepts, the use of integration frameworks, harmonization, data exchanges and other statistical techniques for reconciling data sets for the compilation of coherent macroeconomic statistics, the use of business registers, the introduction of integrated survey and sampling design, the reliance on administrative data sources and common integrated dissemination procedures.

To facilitate sharing of information for countries improving their economic statistics system, the UNSD has created a knowledgebase as a repository of information on all aspects of economic statistics. The normative statistical standards relating to the economic statistics are housed in this knowledgebase available at http://unstats.un.org/unsd/EconStatKB/Knowledgebase.aspx

Questionnaire

The questionnaire consists of nine general blocks covering the statistical activities which are applicable to all statistical activities under domain 2 and selected activities of domains 1 and 2. These include (i) data integration, editing and data linking - 4.4, (ii) Dissemination and communication – 4.5, (iii) statistical confidentiality and disclosure protection – 4.6, (iv) data analysis – 4.7, (v) institutional framework and principles – 5.1, (vi) statistical programmes; coordination within national statistical systems – 5.2, (vii) quality framework and management of performance – 5.3, (viii) management and development of human resources – 5.4, and (ix) management and development of technological resources (including standards for exchange and data sharing- 5.5. Each indicator under these blocks has 2-6 questions to assess its adequacy or otherwise as it exists in the system.
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For the data category "economic accounts" the questionnaire contains 3 blocks covering metadata and data reporting (4.1), technical cooperation and capacity building, priorities and plans for improvements (5.7) and statistical registers (4.3.1) and censuses (4.3.2).

For the data category "institutional sector accounts" the questionnaire contains only 2 blocks covering metadata and data reporting (4.1), technical cooperation and capacity building, priorities and plans for improvements (5.7).

For the data category of sectoral statistics under domain 2.4 the questionnaire contains 3 block for each data category. These blocks are metadata and data reporting (4.1), Statistical registers (4.3.1) and censuses (4.3.2), and technical cooperation and capacity building, priorities and plans for improvements (5.7).

You are requested to tick the relevant box for each question if the answer is "yes" where relevant. Please complete all questions.

Questions contained in the questionnaire on issues in each of these blocks are described below:

Data integration, editing and data linking – (4.4)
Questions under this block are aimed to assess whether sound statistical practices are followed relating to data preparation before processing. These include use of data validation checks, procedures for imputation and adjustment for non-response, adjustment of data for missing observations in statistical collections, adjustment of under-coverage and/or population units out of scope, grossing-up of sample estimates (using multipliers derived from sample design) for coverage of the in scope statistical universe.

Dissemination and communication (4.5)
Questions under this block are aimed to assess practices followed relating to data dissemination and communication. Indicators included are advance release calendar, punctuality in adhering to the schedule announced in the advance release calendar, simultaneous access to all users and accessibility of general statistics other than routinely disseminated to users upon request.

Statistical confidentiality and disclosure protection (4.6)
This block includes question relating to the availability of a law or other formal provision that guarantees the confidentiality of the statistical information provided by the individual respondents.

Data analyses (4.7)
This block includes question relating to the validation of the main source used to compile statistics against other independent data sources, if available, availability of time series data and practices about the linking of rebased series with the earlier series.

Institutional frameworks and principles (5.1)
Questions under this block are aimed to assess the institutional frameworks and principles. Indicators include legal authority to collect the data required to complete statistics, existence of provision for penalties for non-compliance as an effective deterrent, monitoring of survey response, availability of computing resources and conducting customer satisfaction survey.

Statistical programmes; national coordination within statistical systems (5.2)
This block includes question relating to the coordination and data sharing arrangements among data producing agencies like central bank, tax authorities and other subject matter ministries.

Quality framework and measurement of performance (5.3)
Questions under this block are aimed to assess practices relating to quality management and revision practices.

Management and development of human resources (5.4)
High turnover of the trained statistical staff and inadequacy of training have been identifies among the major impediments for implementation of the SNA in the past. The management and development of human resources therefore need a high priority for improvement. Questions under this block relate to adequacy of human resources for performing statistical tasks, regular training of staff, their remuneration and job satisfaction.

Management and development of technological resources (including standards for electronic data exchange and data sharing) (5.5)
This block includes question relating to the ICT policy of the organisation and availability of the ICT resources available for performing the statistical tasks.

Meta Data and Data Reporting (4.1)
For the data indicator GDP by production, this block contains questions on SNA framework used to compile national accounts, version of the ISIC and CPC classifications used, periodicity and timeliness of the estimate, latest reference year, seasonal adjustment and the revision cycle of estimate.

For the other data indicators question relate to the periodicity and timeliness of the estimate, latest reference year, seasonal adjustment and the revision cycle of estimate. For crop production question is included to find out whether the crop production is estimated using the harvest approach or work-in-progress approach.

Statistical registers (4.3.1) and censuses (4.3.2)
This block contains questions on availability of statistical register and censuses. Though it is desirable to have an integrated register of all enterprise/establishments to serve as a sampling frame for drawing the sample for the purpose of conducting sample surveys, it is recognized that creation of such a register, its updating and maintenance is a resource intensive exercise. Therefore, questions relating to existence and maintenance of sectoral

business register are included in this block. This block also contains questions relating to conduct of census, the latest year of census and the availability of area frame for capturing the small and informal sector enterprises.

For the agricultural enterprises the register shall comprise list of holdings which shall be updated every crop season, for fisheries it will be the register of water bodies used for fish culture. In case of public administration the register shall contain the list of local bodies. For other activities register would comprise enterprises/establishments engaged in corresponding activities.

Survey (4.3.3 and 4.3.4) and administrative sources (4.3.5)
Questions included in this block relate to sources of data (surveys or administrative data) for compiling estimates, periodicity of the production survey, sources of input data, periodicity of the input survey and coverage of small and informal sector enterprises.

Technical cooperation and capacity building, priorities and plans for improvement (5.7)
Questions relating to technical cooperation and capacity building contained in this block name of the agency providing external technical assistance and the year in which it was received, priority for short and long-term external technical assistance if needed.

Analytical indicators
Based on the information received through the diagnostic tool questionnaire following analytical indicators may be derived to help assess the adequacy or otherwise of the national statistical system for supporting the good quality economic statistics for compilation of national accounts. The table below provides the best practices/international recommendations against which the results of the assessment should be compared.

Statistical activities	International recomme ndations/best practices
Data integration, editing and data linking – (4.4)	
Data validation checks	Data validation checks must be applied to data collected through statistical enquiries before the deriving results.
Imputation of missing observation and adjustment of non-response	Treatment of missing observation and non-response (both item and unit non-response) should be done based on sound statistical techniques.
Grossing up	Sample results should be grossed-up using raising factor (derived scientifically based on the sample design) for the coverage of the entire in-scope statistical universe.
Dissemination and Communication (4.5)	
Dissemination of statistical output	Statistical output should be disseminated through paper publication, in electronic format and also on the website of the NSO
Advance release calendar and punctuality in its adherence	The NSO should announce in advance (with due publicity) the schedule for releasing its statistical output and the announced schedule should be kept in normal circumstances
Accessibility and serviceability	All users should have simultaneous access to the disseminated information. Also, in addition to routinely disseminated statistics,

Statistical activities	International recommendations/best practices
	other general statistics should be made available to users upon request
Statistical confidentiality and disclosure protection (4.6)	
A legal or other formal provision protecting confidentiality of individual data	To espouse respondents' confidence for providing true information a legal or other formal provision should be in place protecting the confidentiality of the information provided by them. For statistical inquires, respondents have the right to be informed that information provided by them will be used for statistical purposes only.
Using special aggregation rules to prevent residual disclosure.	Special aggregation rules should be used to prevent residual disclosure when aggregations of survey data are disseminated.
Data analyses (4.7)	
Survey data should be checked against other independent data sources	Data compiled from the main source used to compile statistics should be checked against other independent data sources, if available.
Availability of time series	Rebased series should be linked to past series for having a longer time series data on macro-economic aggregates.
Institutional frameworks and principles (5.1)	
Law for collection of statistics	The data providing agency should have legal authority to collect the data required to complete the statistics. If reporting is mandatory, the legal provision should exist for imposing penalties for non-compliance as an effective deterrent.
Monitoring survey response	The responses to surveys should be periodically monitored for management of response burden.
Consumer satisfaction	Customer satisfaction survey on the use of economic statistics should be conducted regularly to maintain relevance of statistical outputs.
Computing facilities	Adequate computing resources are available for compiling statistics. Preferably each staff should have a computer connected to the network of the NSO.
Statistical programmes; national coordination within statistical systems (5.2)	
Data sharing and coordination within statistical systems	To promote greater use of administrative data and also data produced by other national agencies, institutional mechanism should be in place for effective coordination and data sharing. MOUs for smooth data sharing may be signed by the NSOs with at least the central bank, tax authorities and other subject matter ministries.
Quality framework and measurement of performance (5.3)	
Quality management review practices	The NSO should adopt the practice of quality management review practices and periodically revisit it to identify steps necessary to maintain quality requirements.
Transparent revision policy	NSO should have policy on revision cycle of estimates which is made known to public in advance. Reasons for revision should also made known to users of data.
Management and development of human resources (5.4)	

Statistical activities	International recommendations/best practices
Adequacy of staff resources	Adequate number of staff resources should be available for compiling statistics.
Training	Institutional arrangements in place for regular training of staff.
Staff satisfaction and performance	Periodic reviews of staff performance should be conducted. Salary levels should be adequate and competitive with public administration to retain the trained staff. Employee satisfaction surveys should be conducted regularly.
Management and development of technological resources (including standards for electronic data exchange and data sharing) (5.5)	
ICT policy for the organisation	The NSO should have an ICT policy. Software used for compiling and analyzing data should be effective and periodically updated. Visits to website should be periodically monitored.
Meta data and data reporting (4.1)	
SNA framework used	
Classifications used	The recent economic activity and Product classifications are ISIC Rev. 4 and CPC 2 respectively.
Periodicity	For structural statistics – annual For monitoring recent trends and turning points of the economy - annual and quarterly
Timeliness	Annual – 18 months after the close of the reference year Quarterly – 3 months after the close of the reference quarter Monthly – 45 days after close of the reference month
Seasonal adjustment	Short term indicators should be seasonally adjusted.
Statistical registers (4.3.1) and censuses (4.3.2)	
Current statistical registers	Ideally, there should be an integrated register of all enterprise/ establishments to serve as a sampling frame for drawing the sample for the purpose of conducting sample surveys. The NSO may have current sectoral business registers to begin with.
Surveys (4.3.3 and 4.3.4) and administrative sources (4.3.5)	
Surveys	Scientific sample surveys may be conducted regularly to collect current information.
Administrative sources	Progressive use of data from the administrative sources should be encouraged.
Small and informal sector enterprises	Sample surveys based on Area frame should be used for exhaustive coverage of small and informal sector enterprises.
Technical cooperation and capacity building, priorities and plans for improvement (5.7)	
Areas for external technical cooperation and its prioritisation	NSO should identify the areas for seeking external technical assistance and should prioritise.