وزارة التخطيط التنموي والإحصاء

Ministry of Development Planning and Statistics

Workshop on Modernization of Official Statistics in Qatar

11 December 2017, Doha

Background Document

Modernization of Official Statistics in Support of Sustainable Development Goals in Qatar:

The Road Map

November 2017

Contents:

Part one: Road Map on statistics for sustainable Development goals in the State of Qatar[1]

Introduction:

This Road Map is a resource for guiding the work of the Ministry of Development Planning and Statistics (MDPS) on statistics for Sustainable Development Goals (SDGs). It outlines a strategy for MDPS and stakeholders to follow in implementing the UN recommendations on the Role of National Statistical Offices (NSOs) in Measuring and Monitoring the Sustainable Development Goals adopted by the UN Statistical Commission, Economic Commission for Europe, Conference for European Statisticians and various other UN bodies. The Road Map lays out the activities associated with producing statistics and indicators for SDGs; more particularly on the following areas:

A. Establishing national mechanisms for collaboration

This Road Map aims to guide the Ministry of Development Planning and Statistics work on statistics for SDGs. In this road map MDPS will play a key role in measuring the extent of the achievement of SDGs in Qatar. According to the sustainable Development Agenda 2030, the annual progress report on the SDGs prepared by the UN Secretary General (UNSG) in cooperation with the international statistical system will be based on global indicators and data produced by national statistical systems. The follow-up and review processes at all levels will be "rigorous " and evidence-based, informed by country-led evaluations and data which is high-quality, accessible, timely, reliable and disaggregated by income, sex, age, nationality, residence status, disability, geographic location and other characteristics relevant in the national contexts.

It is important to differentiate between the terms "reporting" on SDGs and "providing data and statistics for measuring progress" towards SDGs and targets.

---

[1] This document will be continually updated throughout the duration of the years 2107-2022, to incorporate new developments and lessons learned. I acknowledge that this document has benefited a lot from the work of UN ECE, UN Statistical Commission, Conference for European Statisticians and various UN bodies on SDGs and modernization of official Statistics, especially from the work of the High-Level Group on Modernization of official statistics (HLG-MOS). This document has been prepared by Dr. Ahmad Hussein, expert at the Ministry of Development Planning and Statistics for modernization of official statistics in support of the implementation of the SDGs Agenda 2030. The views expressed here are those of the author and do not necessarily represent or reflect the views of the Ministry of Development planning. The author *would* like to thank Mr. Steven Vale, UNECE Regional Advisor on modernization of Official Statistics for his helpful technical advice and comments.

"Reporting" on SDGs concerns tracking the progress towards SDGs and targets at policy level.

It requires an evaluation of adequate progress given policy priorities. The global reporting by the UN Secretary General to the High-level Political Forum (HLPF) on Sustainable Development and the voluntary country reviews (VNR) at HLPF are two such examples.

A good basis for identifying data providers in a country is an assessment of readiness to provide data on SDG indicators and identification of data gaps. The indicators team of the MDPS recommends that, carrying out these assessments, should be done in close collaboration with relevant data producers in the line ministries such as the Ministry of Health, Ministry of Education and Higher Education, Qatar Central Bank etc. An essential outcome of these analyses is the identification and assignment of responsibilities among line ministries and Institutions, private sector, and Non-Governmental Organizations

MDPS should consider designating a National body "for example, Qatar national SDGs indicators team" to coordinate the measurement system for SDGs to achieve consistency in the work of all stakeholders, information exchange and discussion and implementation of internationally accepted methodologies. The following terms of reference should be considered:

1. MDPS should inform all relevant line ministries, institutions, Businesses, academia, NGOs, and Non-profit organizations of the SDGs indicators and contribute to strengthening cooperation and efficiency to meet the challenges of SDGs. The designation of a focal point in each body will facilitate this process.
2. MDPS should consider ways to coordinate the national communication and as per provision of data and indicators on SDGs
3. MDPS should serve as a focal point at the national level to coordinate the provision of statistics for SDGs and provide technical support when necessary.
4. MDPs as the national coordinating body should prepare detailed national road maps or plans of action to implement international standards in providing data on statistical SDGs indicators
5. MDPS should organize meetings with main data users to improve understanding of their statistical needs.
6. MDPS should establish technical thematic working groups (for example, on social protection, healthy population, economic growth, technology and innovation, environment protection, etc.) to discuss issues related to measuring the SDGs in these areas.

B. *Assessing readiness to provide data on global SDG indicators*

- *Identifying data providers and data sources*

MDPS should play a major role in assessing the readiness of the concerned bodies in Qatar to provide data on SDGs for global, regional, and national reporting. MDPS can play a leading role in coordinating their national readiness assessments by facilitating communication with the line Ministries and institutions. The assessment should be disseminated for the use of various stakeholders. A successful readiness assessment also requires the existence of clear definitions and metadata for global indicators.

MDPS should identify potential data providers for statistical indicators within its national statistical system, data sources and data availability. In some cases, MDPS may choose to rely on non-official data sources, in case of any observed deficiencies regarding the quality, transparency, or timeliness of the reported data considerations.

MDPS could also identify potential data providers for non-statistical indicators (for example from various policy institutions and academia).

MDPS routinely provides national and sub-national statistics to UN agencies. These UN agencies then produce comparable, global statistics in specific regions according to their mandates. As interest in statistics has increased in magnitude and scope, the volume and complexity of these data flows have also increased.

- *Identifying and addressing data and methodology gaps and conceptual issues*

MDPS should identify common areas of interest where further work is needed. Good governance, technical guidance and quality control are necessary to ensure comparability of data and help to develop new statistics when necessary. MDPS meetings should remain the primary venues to share experiences and explore potential solutions within the country. In our assessment process the concept of "leaving no one behind" should be sufficiently addressed within the indicators framework by proposing relevant disaggregation; and assess the suitability of data for disaggregation purposes; and review best practices and country experiences on selected disaggregation issues

C. *Developing, national and sub-national indicators*

Transformation of SDGs and targets into action and measures at the national and sub-national levels and their integration with the National Development strategy 2017-2022 and other policy interventions will be a

crucial step for the successful implementation of SDGs. National indicators may be developed to complement global indicators to support measurement of national strategies. The decision whether to have national SDG indicators depend on national priorities in SDG implementation.

The global SDG indicator list is designed to measure progress with SDGs at the global level. National indicators are justified: (i) where there are specific national priorities not addressed by global indicators; (ii) when policy requires additional indicators to measure Qatar specific part of an SDG in more detail; or (iii) when global targets may not be ambitious enough (or too ambitious) . The demand for national indicators is expected to be raised by policy-makers, but selection and measurement should be developed in consultation with the national statistical system. Furthermore, Agenda 2030 emphasizes the need for using existing mechanisms and processes. Therefore, when establishing national SDGs indicators, it is advisable to build on existing policies and indicators in areas related to sustainable development. A good example is Eurostat's strategy of developing the EU SDG indicators set based on existing statistics and the EU's policy priorities, while also reflecting all 17 SDGs.[2]

The global SDG indicators list predominantly comprises objective indicators. At the national level, subjective indicators could be considered. Subjective indicators of wellbeing, for example has proved to be valid and can be reliably measured. There is a growing interest in understanding sustainable development by using both objective and subjective measures.

it is advisable to consider the following criteria for selecting national indicators are recommended:

1. maintain a balance between social, economic, and environmental indicators to remain faithful to the intent and ambition of Agenda 2030;
2. prioritize outcome indicators except where SDG targets specifically address inputs or outputs;
3. prioritize indicators that are produced by the official statistical system following established standards and agreed methodologies;
4. consider existing sustainable development indicators lists relevant to the case of national development in Qatar. Indicator sets should be related to policy areas (e.g. social protection, healthy population, quality education and well-being indicators);
5. select multi-purpose indicators whenever possible to minimize the number of indicators; and

[2] Ministry of Development Planning and Statistics. Working task teams on the development of national indicators. Document No. 2 Rev. 1

6. minimize reporting burden, considering that many global indicators may be produced by international organizations (especially qualitative indicators) and thus do not put a burden on national statistical systems.

D. Providing data on global SDG indicators

The aim of the global SDG indicators framework is to provide the basis for the UN Secretary General's report for the annual High-level Political Forum (HLPF). The SG report uses global and regional aggregates and, in principle, does not present national data. However, the globally harmonized national data (provided by UN agencies) and regional and global aggregates are available in the global SDG indicator database maintained by UNSD.

In addition to the SG report, HLPF considers voluntary national reviews by countries. These reviews should also make use of national data (the recommended template for the voluntary country reports includes a statistical annex).MDPS had already prepared and presented Qatar National voluntary review in August 2017 at the High level political Forum which was held in New York .The SDG indicators platform consists of three components: (i) a data collection or submission portal that allows different data providers to submit/post data; (ii) a production database and (iii) a dissemination portal where users can find tables, texts and publications.

The platform is wider than just a dissemination database as it may include a submission mechanism for data providers outside the Ministry and a production database. The implementation of a dissemination portal may also be part of a communication strategy. It is recommended that the SDG indicators databases and dissemination platforms used by the country meet the following specifications, which comply with the Fundamental Principles of Official Statistics and the sustainable Development Agenda 2030.

- *Comparability*
- *Transparency*
- *Timeliness*
- *Public accessibility*

The quality assurance process is a fundamental aspect of data flow models. In accordance with Agenda 2030, national statistical systems collect and provide data and metadata for the global review and follow-up of progress towards SDGs. International statistical systems compile these data and provide internationally comparable data in their respective domains. The agencies responsible for specific SDG indicators are called "custodian agencies". Regional organizations sometimes facilitate the transmission of data and metadata

from the national to the global level. IAEG-SDGs recommend that. The following data flow is one example of an approach that could be adopted for providing SDG data:

1. Data can be sent from MDPS to the international organizations (custodian agencies) either through the existing data submission channels or through the newly developed channels set up for SDG indicators. The regional organizations sometimes facilitate the transmission of data and metadata from the national to the global level (such a model is used successfully, for example, in the case of national accounts data submission) .
2. MDPS should display its data as per SDG indicators on National Reporting Platforms (NRPs), from where the International organizations/custodian agencies (as well as any other users) can extract the data from NRPs.
3. The custodian agencies compile the data and forward it to the global level (UNSD). MDPS Should have an opportunity to verify its (harmonized) data prior to the release by the custodian agency (for example, when the data are modelled or adjusted to ensure international comparability).
4. A central SDG database (maintained by UNSD) is compiled using data extracted from international organizations responsible for different subject matter areas (the database was released in summer 2016) and data are added as they become available.

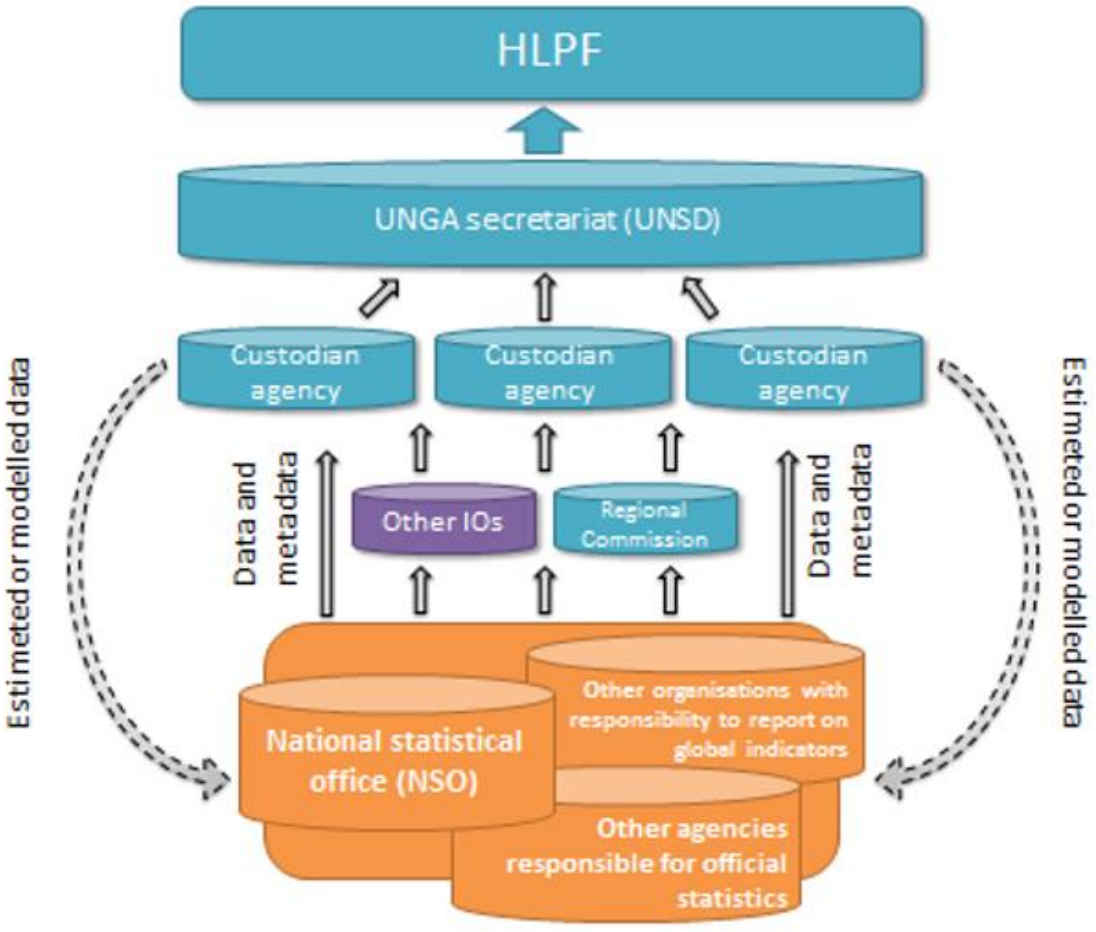


Chart on reporting mechanism for the SDGs indicators [3]

E. Building statistical capacity for the SDGs statistics

MDPS needs to improve its statistical capacities to be able to produce the required global list of SDG indicators. However, when discussing capacity building, the terminology and consideration of this topic are usually focused on providing statistical training and technical assistance from developed to less developed statistical systems. This approach does not work properly in the process of assessing and analyzing how to improve statistical capacities in Qatar. It would be better to have a common understanding of which are the capacities to be built. These go beyond just producing selected products or indicators, dealing with institutional, legal, financial, human resources and technical issues.

[3]United Nations. Economic Commission for Europe and Conference of European Statisticians. Guidelines for countries to facilitate decisions about reporting approach and the development of NRPs

The Expert Meeting on Statistics for SDGs (10-12 April 2017)[4] concluded that there is a need to clarify the conceptual issues and terminologies related to capacity building. It was proposed to set up a small task team to develop a concept note on what statistical capacity building means in the context of SD. The term "capacity building" can refer to activities at different levels.

First, there are activities inside the country. These include how we define the strategies for building capacities in the national statistical system and how MDPS creates partnerships with relevant stakeholders. This aspect is important for all stakeholders. Secondly, there are national activities, or an International organization to support MDPS in the production of new statistics, including organizing workshops and training (the case of SESRIC and ATRIS). These activities can be observed from both the donor perspective and from the point of view of the country that receives capacity building support; they can be called bilateral activities. Third, there are regional activities, including the sharing of experiences in general and discussing new approaches (such as use of new data sources); they can be called multilateral activities. A possible list of capacities could be discussed at a seminar "Institutional cooperation for capacity development":

a. technical human resources (the practical skills needed to produce, analyze and disseminate statistics);
b. technical infrastructure (the equipment needed to do the work: buildings, computers, networks, etc.);
c. organizational human resources (the skills needed to make the organization work efficiently together to fulfil the mandate);
d. organizational infrastructure (the systems needed to organize the work (financial flows, legal framework, employment contracts, project management tools, quality framework, etc.);
e. finances (public and other funds to cover the cost of running the organization and producing the statistics);
f. strategic choices (priority of which statistics to produce, user orientation, dissemination strategies, national statistics development strategies);and
g. networks: functional cooperation among NSS partners, government and other user groups, international organizations, other statistics producers, academics, etc.

F. Communication and dissemination of statistics for SDGs

Communication on the SDGs should target different audiences: data users (policy makers, civil societies, general public, media, academia, private companies, international organizations, specialized agencies, etc.)

[4] https://www.unece.org/index.php?id=45249

and data providers (within MDPS, within the statistical system, and outside the statistical system). Appropriate means of communication for different audiences should be identified.

The official statistical community needs to communicate the most important elements of its work related to statistics for SDGs. In this context, the Road Map is itself a communication tool that provides a summary of issues to be considered and steps to be taken in developing statistics for SDGs.

1. *Developing a communication strategy:*

The basis for a communication strategy is identification of what should be communicated, to whom, how and when. The strategy should consider communication of both indicators and data and communication of the issues surrounding data, such as the role of official statistics, statistical quality, and metadata, etc.

Communication regarding SDGs should be guided by certain principles: (a) openness, objectivity, and transparency; (b) coordination to avoid duplication; (c) standardization and consistency; (d) establishment of a culture of information sharing, exchange of experience and best practices; and (e) integrating communications at national level with global communication on SDGs. Communicating data and indicators deal with questions such as the technical platforms and means of communication, provision of metadata, indicator-based assessments, etc.

In addition to the issues that are common to the dissemination of official statistics in general, some issues are specific to communicating statistics on the SDGs:

- High interest and expectations of policy makers
- Areas that are methodologically new and/or that were previously considered to be outside official statistics
- Non-statistical indicators and data that are not available within the statistical system
- Competition with data providers from outside the statistical system
- Wide coverage and integrated nature of the statistics related to SDGs

2. *Identifying available and required resources:*

As part of the development of a communication strategy, the human, financial and technical resources for communications should be analyzed, considering the resources already available, the need for their development and the need for any additional resources. Communication of sustainable development indicators in a comprehensive manner will require significant planning and coordination. In countries

where the statistical office so far has not been involved in communicating issues related to sustainable development, building up the required capacities in the statistical office will require additional resources.

3. Communication with policy makers:

Throughout the process of establishing SDGs, there has been a new attention to data, statistics, and measurement by policy makers. This has brought statistics and policy closer together and attracts more policy attention to statistics.[5]

Action to be taken:

a) MDPS should develop a communication strategy for statistics on SDGs, as part of or as a complement to general communication strategies and define the groups that should be targeted by communication, both data providers (Ministries, academia, etc.) and data users (policy makers, civil society, private companies, etc.). Communication of statistics for SDGs should be ideally linked to a general communication strategy of Statistics in Qatar

b) MDPS should define how information will be communicated and assess available resources (financial, human, and technical).

c) MDPS should assess existing dissemination platform

d) MDPS should conduct a customer satisfaction survey.

[5] Ahmad Hussein. EFFECTIVE USE OF STATISTICS IN EVIDENCE-BASED POLICYMAKING: CONCEPTUAL FRAMEWORK (2013) ESCWA. Beirut

Part two: Modernization of official statistics in support of the SDGS and the National Development Strategy (2017-2022)

The global statistical community has recognized the need to modernize official statistics. SDGs further strengthen the case for this. No country is currently able to produce the statistics required for all the SDG indicators and, although funding may be available in some cases, the pressure to meet SDG indicators needs through efficiency improvements is growing. All statistical organizations, from the most to the least developed, face the same challenges. So, working together as a "Statistical Modernization Community" and avoiding duplication of effort has clear attractions. The greatest potential for savings from efficiency improvements comes from the standardization of production processes across different statistical domains.

The UNECE High-level Group for Modernization of Official Statistics (HLG-MOS) has developed various standards and models to facilitate this, including the Generic Statistical Business Process Model (GSBPM) and the Generic Statistical Information Model (GSIM). Applying these models greatly increases the potential benefits of using common software, both within and across statistical organizations. So, HLG-MOS has also created a plan for developing software designed for sharing, known as the Common Statistical Production Architecture. There has also been a call for increased use of data collected initially for non-statistical purposes (such as "big data" and administrative records) to improve the efficiency of statistical production. Calls for increased use of data from private organizations for the calculation of official statistics are also gaining considerable support. Different initiatives and groups are working on the modernization of official statistics. In addition to HLG-MOS, these include Eurostat (Vision 2020 and the "transformative agenda") and UNSD. The Cape Town Action Plan for Sustainable Development Data (CTGAP) calls for strengthening the national statistical systems. All future steps should be based on the experiences of these initiatives and groups.

1. Human resources, organizational frameworks, and evaluation

Human resources, organizational frameworks and cultural change are leading principles of modernization of national statistical organizations. We facilitate the sharing of good practices and exploration of emerging issues in human resources management and training (HRMT) and provide guidance for improving HMRT in statistical organizations. Work in this area covers topics such as [6]:

[6] https://www.unece.org/fileadmin/DAM/stats/documents/applyprinciples.e.pdf

- Implementing organizational change: change and risk management
- How to attract and retain qualified staff
- Training and learning: methods and efficiency
- Performance management
- Building competencies
- Staff motivation
- Guidelines for managers including best practices
- Evaluation including costs and benefits of modernization activities

2. Statistical production, methods, and information technology

Work with groups of experts to develop standards, guidelines, methods and tools to modernize and improve the efficiency of statistical production should be initiated and facilitate virtual and face-to-face communication to share experiences and ideas between national and international statistical organizations.

Work in this area covers topics such as:

- Business and IT changes that will impact statistical production
- Enterprise architecture and its role in the modernization of statistical production
- Innovation in technology and methods driving opportunities for modernization
- Best practices in statistical data editing, and the development of generic statistical data editing models
- Developing a modernized statistical model
- Applications of machine learning and artificial intelligence to official statistics
- Record linkage

3. Data collection and data sources

In this regard experts should be working on many different aspects of data collection, ranging from the positioning of collection activities within the structure of statistical body to the technologies and tools that facilitate efficient collection. Our focus shouldn't be only on the technical aspects of collection instruments and processes, but on the strategic level, bringing together data collection managers and cutting across statistical

domains. The ultimate goal of this work is to facilitate exchange of experience and best practices within and between statistical departments.

Work in this area covers topics such as:

- New data sources
- Mixed-mode and multi-source collection
- Risk management in using new tools and sources
- Improving the respondent experience
- Centralization of data collection
- Synergies with dissemination and communication teams in order to better address respondents
- Using Mobile devices
- International collaboration in data collection

4. Dissemination and communication

Presenting official statistics effectively is crucial to support informed decision-making at government, business, and private level.

Experts should be working in dissemination, communication and branding of official statistics and statistical information, to facilitate exchange of experience and promote good practices within the international statistical community. This work covers diversified issues as: dissemination and communication outcomes, tools, processes, and strategic approaches related to communicating with users of official statistical products and services.

Work in this area covers topics such as:

- Social media
- Apps, APIs, and open data
- Digital publishing
- Building and maintaining the authentication of official statistics
- Statistical literacy
- Communication with the media
- Management of dissemination/communication functions and linkage to data collection
- Strengthening International collaboration

Source: SDGs indicators platform in Finland[7]

5. Standards and metadata

Group of experts should work together to develop, improve, implement, and evaluate standards for statistical production. The use of standards ensures that common definitions and processes are used within and among statistical agencies, helping to remove the barriers to collaboration on technical projects, fostering the sharing of knowledge and experiences, and furnishing a basis for streamlined statistical production. The work in this area includes, in particular, standards for metadata, since efficient use and sharing of data rely on metadata to guarantee that everyone has the same understanding of the information and processes followed to produce official statistics.

Work in this area covers topics such as:

- Quality indicators
- Metadata glossary
- Standards for linked open data/metadata

[7] http://www.findikaattori.fi/en

The standards referred to hereafter are cross-cutting, supporting the modernization of all types of statistical production, and are endorsed by the HLG-MOS. For domain-specific standards, please see the Global Inventory of Statistical Standards.[8]

Virtual standards helpdesk.: A portal to the most important standards for modernizing statistical production.

1. ***GSBPM (Generic Statistical Business Process Model) :The Generic Statistical Business Process Model (GSBPM) :***

The GSBPM describes and defines the set of business processes needed to produce official statistics. It provides a standard framework and harmonized terminology to help statistical organizations to modernize their statistical production processes, as well as to share methods and components. The GSBPM can also be used for integrating data and metadata standards, as a template for process documentation, for harmonizing statistical computing infrastructures, and to provide a framework for process quality assessment and improvement. These and other purposes for which the GSBPM can be used are elaborated further in Section VI. This version of the GSBPM is fully aligned with version 1.1 of the Generic Statistical Information Model

http://www1.unece.org/stat/platform/display/metis/Generic+Statistical+Information+Model

2. ***GSIM (Generic Statistical Information Model) :***

The Generic Statistical Information Model (GSIM): This model is a companion to the GSBPM. While the GSBP describes the stages of the statistical production process, the GSIM describes the different objects (e.g., data, metadata, editing rules, and classifications) that flow between those stages.

3. ***The Common Statistical Production Architecture (CSPA):***

The CSPA provides a blueprint for designing and developing statistical production components in a way that makes them much easier to share within and between organizations.

http://www1.unece.org/stat/platform/display/CSPA/Common+Statistical+Production+Architecture+

4. ***GAMSO (Generic Activity Model for Statistical Organizations)[9] :***

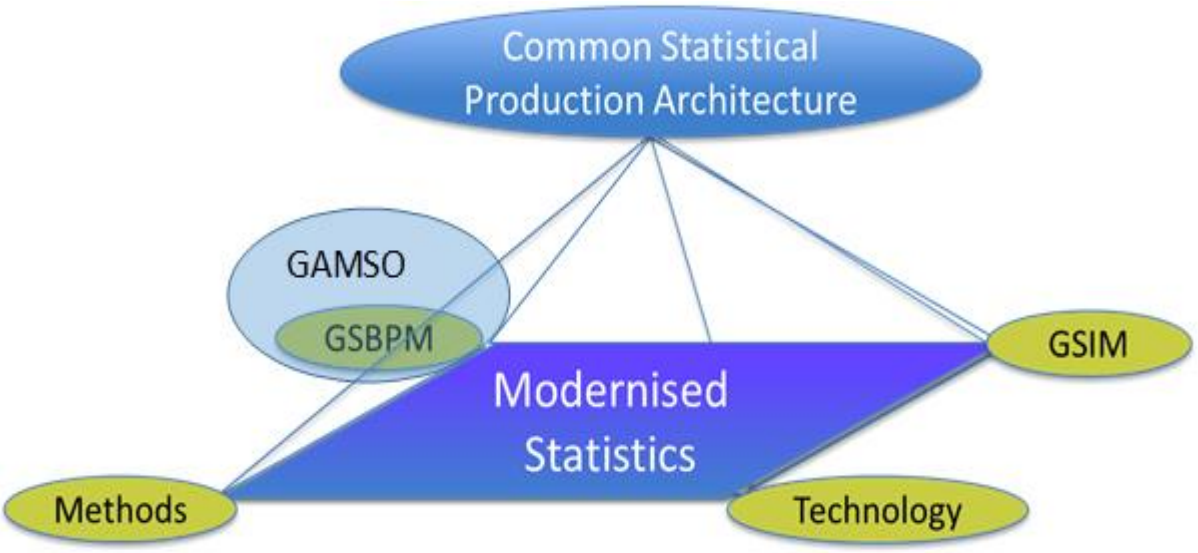
The Generic Activity Model for Statistical Organizations (GAMSO) Version 1.1 describes and defines the activities that take place within a typical statistical organization. It extends and complements the Generic

[8] ttps://statswiki.unece.org/display/VSH/Virtual+Standards+Helpdesk;jsessionid=774C46CDC19FDA97FE88A50C70FB608C

[9] Created by Fiona Willis-Núñez, last modified by Steven Vale on 09 Jul, 2017 Go to start of metadata

Statistical Business Process Model (GSBPM) by adding additional activities needed to support statistical production. When the GSBPM was developed, such activities were referred to as over-arching processes, and were listed, but not elaborated in any great detail. Over the years there have been several calls to expand the GSBPM to better cover these activities. The GAMSO was therefore developed to meet these needs.

The following diagram, which is adapted from one in the vision paper of the High-Level Group for the Modernisation of Official Statistics, shows the position of the GAMSO in relation to the other models and frameworks needed for statistical modernisation



5. Big data:

The HLG-MOS of the UNECE has commissioned a number of activities to better understand the importance and impact of big data. A major international collaboration project in 2014resulted in guidelines on privacy and partnership issues, a big data quality framework, and the documented outcomes of a series of experiments to test big data methods and tools.

To support these experiments, the 'sandbox'—a shared computing environment containing big data sets and software tools—has been created in partnership with the Irish Central Statistics Office and the Irish Centre for High-End Computing.

6. **A Framework for Data Integration** : There are many new opportunities created by data sources such as Big Data and Administrative data. These sources have the potential to provide more timely, more disaggregated statistics at higher frequencies than traditional survey and census data.

National Statistical Offices (NSOs) face declining response rates and declining accuracy of survey data while at the same time there are increasing data needs at both the national and international levels. Despite tightening budgets, there are strong calls to NSOs to produce more timely data that is additionally ever more disaggregated. This will accelerate further with the needs for monitoring the Global Goals for Sustainable Development, Climate Change Conference and other multilateral agreements.[10]

[10] https://statswiki.unece.org/display/DI/WPA%3A+a+framework+for+Data+Integration

The Generic Statistical Business Process Model (GSBPM)

Specify needs	design	build	collect	process	analyse	disseminate	evaluate
1.1 Identify needs	2.1 Design outputs	3.1 Build collection instrument	4.1 Create frame & select sample	5.1 Integrate data	6.1 Prepare data outputs	7.1 Update output systems	8.1 Gather evaluation inputs
1.2 Consult & confirm needs	2.2 Design variable descriptions	3.2 Build or enhance process components	4.2 Set up collection	5.2 Classify & code	6.2 Validate outputs	7.2 Produce dissemination products	8.2 Conduct evaluation
1.3 Establish output objectives	2.3 Design collection	3.3 Build or enhance dissemination components	4.3 Run collection	5.3 Review & validate	6.3 Interpret & explain outputs	7.3 Manage release of dissemination products	8.3 Agree an action plan
1.4 Identify concepts	2.4 Design frame & sample	3.4 Configure workflows	4.4 Finalise collection	5.4 Edit & impute	6.4 Apply disclosure control	7.4 Promote dissemination products	
1.5 Check data availability	2.5 Design processing & analysis	3.5 Test production system		5.5 Derive new variable & units	6.5 Finalise outputs	7.5 Manage user support	
1.6 Prepare business case	2.6 Design production systems & workflow	3.6 Test statistical business process		5.6 Calculate weights			
		3.7 Finalise production system		5.7 Calculate aggregates			
				5.8 Finalise data files			

Annex: [11]

These definitions come from the 2009 edition of the SDMX Metadata Common Vocabulary.

Statistical Metadata system (SMS). The SMS should be a tool enabling a statistical organization to effectively perform the following functions:

1. Planning, designing, implementing, and evaluating statistical production processes.
2. Managing, unifying, and standardizing workflows and processes.
3. Documenting data collection, storage, evaluation, and dissemination.
4. Managing methodological activities, standardizing, and documenting concept definitions and classifications.
5. Managing communication with end-users of statistical outputs and gathering of user feedback.
6. Improving the quality of statistical data and transparency of methodologies. Ensuring and evaluating the quality of statistical data is one of the most important activities. To this end, national and international statistical organizations have adopted a set of criteria (relevance and completeness, comparability and coherence of statistical concepts, accuracy of statistical estimations, timeliness, and punctuality of delivered statistical information, its accessibility and clarity). The SMS should offer a relevant set of metadata for these criteria.
7. Managing statistical data sources and cooperation with respondents.
8. Improving discovery and exchange of data between the statistical organization and its users.
9. Improving integration of statistical information systems with other national information systems. Growing demands to use administrative data for statistical purposes require better integration and sharing of metadata between statistical and administrative bodies, to ensure coherence and consistency of exchanged information.
10. Disseminating statistical information to end users. End users need reliable metadata for searching, navigation, and interpretation of data. Metadata should also be available to assist post-processing of statistical data.
11. Improving integration between national and international organizations. International organizations are increasingly requiring integration of their own metadata with metadata of national statistical organizations to make statistical information more comparable and compatible, and to monitor the use of agreed standards.

[11] https://unstats.un.org/unsd/dnss/docs-nqaf/04_sdmx_cog_annex_4_mcv_2009.pdf

12. Developing a knowledge base on the processes of statistical information systems, to share knowledge among staff and to minimize the risks related to knowledge loss when staff leave or change functions.
13. Improving administration of statistical information systems, including administration of responsibilities, compliance with legislation, performance, and user satisfaction.
14. Facilitating the evaluation of costs and revenues for the statistical organization.
15. Unifying statistical terminology as a vehicle for better communication and understanding among managers, designers, subject-matter statisticians, methodologists, respondents, and users of statistical information systems.

Sources:

1. Asia-pacific Conference: Taking collective action to accelerate transformation of official statistics for agenda 2030, 27-28 March 2017. Indicator framework for national (SDGs) implementation: a mainspring for the statistical developments.
2. Economic and Social Council (ESC)(2016). Advancing official statistics for the 2030 agenda for sustainable development: A collective vision and framework for action by the Asia-pacific statistical community. (E/ESCAP/CST 5/1).
3. Economic and Social Council (ESC) (2017) report of the inter-agenda and expert group on sustainable development goal indicators. Note by the secretary – general (E/CN.3/2017/2) New York.
4. Eurostat. (2007) Conference on modern statistic for modern society. Luxembourg
5. MDPS. (2017) Qatar, Voluntary National Review 2017. High Level Political Forum. https://sustainabledevelopment.un.org/content/documents/14882Qatar_English.pdf
6. MDPS (2016) Doha Declaration on Data Revolution in the Arab Region. Doha.https://unstats.un.org/unsd/statcom/48th-session/documents/RD-DOHA-Declaration-09112016-E.pdf
7. Steven Vale. UNECE big data activities.
8. Steven Vale. UNECE standards statistical production architecture.
9. United Nations. (2017) DESA. Cape Town Global Action Plan for Sustainable Development Data. https://unstats.un.org/sdgs/hlg/Cape-Town-Global-Action-Plan/
10. United Nations Statistical Commission (2017). Report of the UNECE High Level Group on Modernization of Official Statistics
11. UN Economic and Social Council. Statistical Commission of the United Nations. (2017). Report of the Inter-agency and Expert Group on Sustainable Development Goal Indicators. New York.
12. United Nations Economic Commission for Europe (UN ECE). (2017) Conference of European Statisticians' Road Map on Statistics for Sustainable Development Goals, First Edition. Steering Group on Statistics for SDGs. Geneva.
13. UNECE. (2016) Workshop on the modernization of official statistics. Geneva

المصادر العربية:

1. وزارة التخطيط التنموي والإحصاء. (2017) .استراتيجية التنمية الوطنية2017 -2022 قيد الطباعة
2. وزارة التخطيط التنموي والإحصاء. (2017). مهام مقترحة لمجموعات عمل تطوير مؤشرات التنمية الوطنية . الوثيقة رقم 2 المراجعة الأولى