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Amendment of the Guidelines for the Application of Environmental Indicators

Amendment of the Guidelines for the Application of Environmental Indicators

Prepared by the Task Force on Reporting Sustainable Development Goals indicators using national reporting platforms

Summary

The task force was established by the Conference of European Statisticians (CES) Bureau under the CES Steering Group on SDG Statistics in October 2016. Its mandate is based on the first edition of the CES Road Map on Statistics for SDGs.

The document presents information on establishing national mechanisms for providing data on the global Sustainable Development Goals (SDG) indicators. It aims to support countries planning the approaches for fulfilling the requirements of monitoring SDGs. The note considers factors important for decision making and describes the possible advantages and disadvantages of various approaches.

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I. Executive Summary

1. The data demand of the 2030 Agenda are vast. To meet these demands national statistical offices (NSOs) have been challenged to identify means of providing statistics that are efficient, transparent, and conform to national policies and contexts, while minimizing reporting burden.

2. This document provides information for consideration that may be useful for NSOs in choosing mechanisms for providing data on SDG indicators. Overall, the following key factors should be considered: 1) the established responsibility of the NSO for providing SDG indicators and for ensuring statistical quality, 2) assigned leadership for implementation of SDGs in the country, and 3) organization of statistical system and existing model of data dissemination. NSOs' experiences vary across these three factors; however, considering these issues may be helpful in initial planning

II. Data provisions for the Sustainable Development Goals

3. With the adoption of the General assembly resolution 70/1 *Transforming our world: the 2030 Agenda for Sustainable Development* (Agenda 2030), the governments of the countries of the United Nations embarked upon a plan to not only *take the bold and transformative steps which are urgently needed to shift the world on to a sustainable and resilient path*¹, but they also committed to assuming the primary responsibility for follow-up and review at the national, regional and global levels, in relation to the progress made in implementing the Sustainable Development Goals (SDGs) and targets over the coming 15 years. The resolution noted that the SDGs and targets will be followed up and reviewed using a set of global indicators, which will be complemented by indicators at the regional and national levels (para 75).

4. According to the 2030 Agenda, follow-up and review processes at all levels will be “rigorous and based on evidence, informed by country-led evaluations and data which is high-quality, accessible, timely, reliable and disaggregated by income, sex, age, race, ethnicity, migration status, disability and geographic location and other characteristics relevant in national contexts.”²

5. Additionally, the 2030 Agenda notes that regular voluntary reviews will be conducted in the High-level Political Forum (HLPF), the United Nations central platform for follow-up and review of the SDGs. The reviews will be State-led, involving ministerial and other relevant high-level participants (para 84) and build on regular and inclusive reviews of progress at the national and subnational levels which are country-led and country-driven (para 74).

6. Follow-up and review in the HLPF will also be informed by an annual progress report on the SDGs to be prepared by the Secretary-General in cooperation with the UN system, based on the global indicator framework and data produced by national statistical systems and information collected at the regional level³. Figure 1 outlines information flows for the reporting arrangements to the HLPF. The global indicators and accompanying available statistics will be contained in a database maintained by the United Nations Statistics Division (UNSD).

¹ General Assembly resolution 70/1. *Transforming our world: the 2030 Agenda for Sustainable Development* (Preamble)

² See paragraph 74(g) in http://www.un.org/en/ga/search/view_doc.asp?symbol=A/RES/70/1

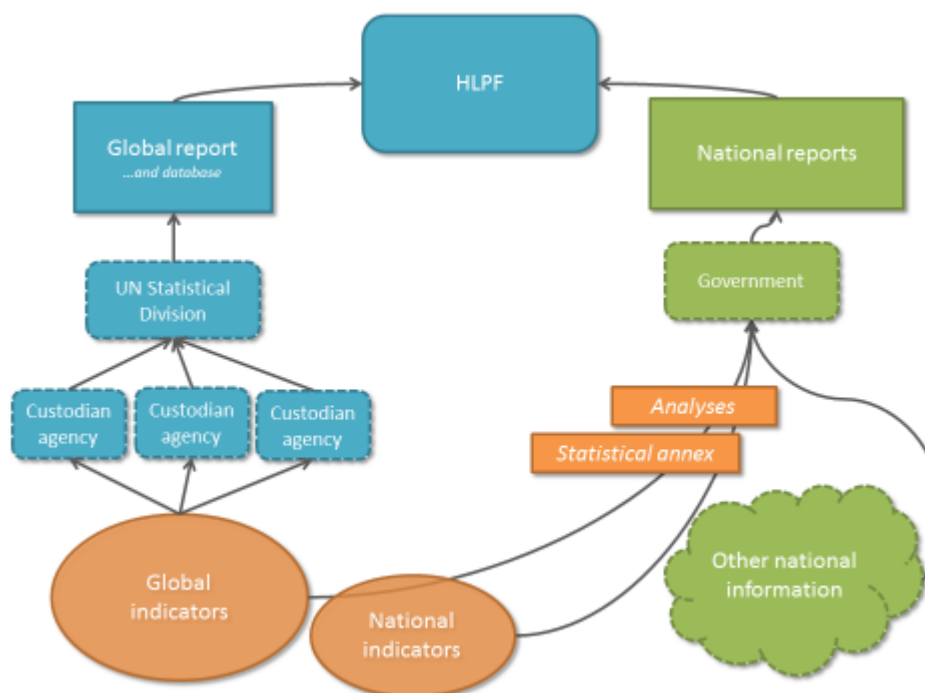
³ See paragraph 83 in http://www.un.org/en/ga/search/view_doc.asp?symbol=A/RES/70/1.

7. The 2030 Agenda states that the annual progress report shall be based on the global indicator framework and data produced by national statistical systems and information collected at the regional level. The UN Statistical Commission has also decided that the compilation of global indicators will be based to the greatest extent possible on comparable and standardized national official statistics provided by countries to the international statistical systems and that when other sources and methodologies are used, these will be reviewed and agreed by national statistical authorities and presented in a transparent manner.⁴

8. Given the enormous data and reporting requirements of Agenda 2030, countries are looking to find efficient and effective reporting mechanisms. This document aims to facilitate decisions about national organization and reporting approaches that countries will need to make to be able to contribute in the best way possible to the follow-up and review of the 2030 Agenda.

Figure 1

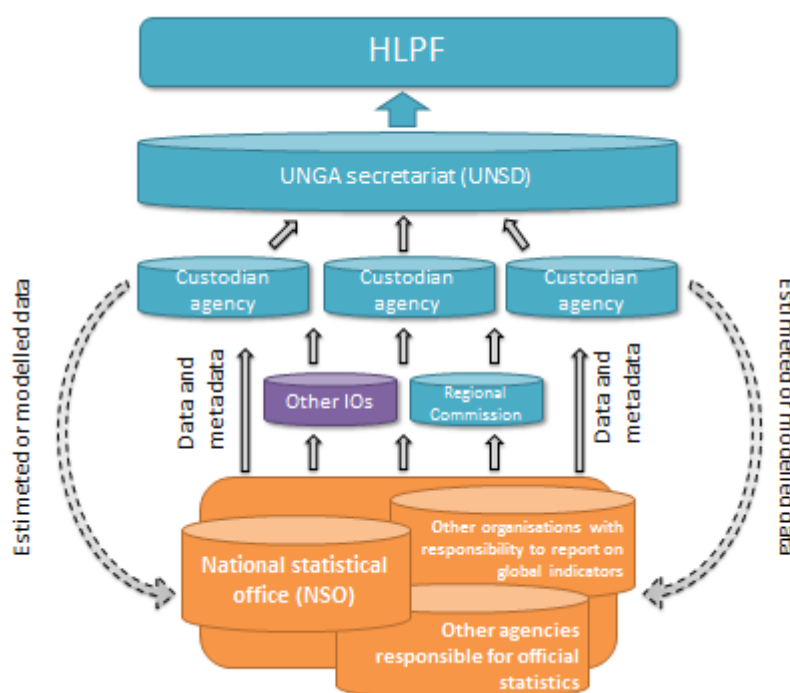
The major information flows needed to inform the two reporting processes that are set up for the follow-up and review of the Agenda 2030 for sustainable development



9. Figure 2 describes the major actors involved in the process leading to the provision of the global indicators into the global follow-up and review and includes basic flows of information needed. The basic outline of a reporting model presented in figure 2 will be elaborated on and described further in subsequent chapters of the report.

⁴ See Decision 47/101 (I) from the report of 47th UN Statistical Commission <http://unstats.un.org/unsd/statcom/47th-session/documents/Report-on-the-47th-session-of-the-statistical-commission-E.pdf>

Figure 2
The major actors involved in the global reporting of SDG indicators, including basic information flows.



10. The Task Force has prepared this note to assist countries in determining the most efficient and effective way (given their national statistical system and national context) of organising national reporting mechanisms to minimize reporting burden and avoid duplication of data flows. It should be noted that the follow-up and review of the implementation of the 2030 Agenda is a country-led process. As such, countries are examining the development of reporting mechanisms that ensure data coherence, transparency and accountability.

11. The note describes the actors involved in the production and provision of SDG indicators and the data types that may be used in the reporting of statistics for the global indicators to the UN system. Several reporting models are then described. Chapter V provides considerations in selecting national approaches to SDG indicator reporting. Emphasizes is put on the different national circumstances that will impact national decisions on reporting approaches.

III. Data flows: the actors

A. The role of national statistical systems

12. The role of national statistical systems is to provide robust, impartial data and metadata and to produce a comprehensive set of integrated statistics in accordance with the Fundamental Principles of Official Statistics. National statistical systems will be pivotal in reporting progress towards the SDGs, with the 2030 Agenda clearly recognising the importance of country-led evaluations and data to inform follow-up and review processes at

all levels. National statistical systems vary in structure but can include national statistical offices (NSOs) as well as other national data providers.

1. National Statistical Offices (NSOs)

13. The primary function of a National Statistical Office (NSO) is to collect, compile and release official statistics that are produced “subject to the principles of reliability, objectivity, relevance, statistical confidentiality, transparency, specificity and proportionality”⁵. The Conference of European Statisticians' (CES) *Roadmap on statistics for SDGs* recommends that NSOs serve as national focal points for the measurement of SDGs, collaborating closely with policy makers so that countries can meet the reporting requirements under the 2030 Agenda in accordance with national priorities.

14. A report⁶ prepared by Statistics Canada for the World Data Forum describes a continuum of roles that the NSO can take in the SDG data ecosystem. Where the NSO fits along this continuum will be determined by several factors, including government priorities and resources – both financial and human in terms of availability and capacity. These roles range from a “fully passive approach” where the NSO may supply some of the data and statistics for the measurement of SDGs, but they play no role at all in the provision of non-NSO data. At the other end of the continuum, the NSO may take on a “proactive-custodial” role. The report notes that, “under this approach the NSO takes on a full custodian role for the underlying data of SDG indicators. It provides quality assurance guides, tools and trainings. Moreover, it assesses all non-NSO data being used for national measurement with respect to SDG indicators.”

15. Some key elements of the role of NSOs in the SDG monitoring are summarised below.

- Preparing assessments of readiness to provide data on the SDG indicators. The exact nature of this role will vary depending on national circumstances. Some NSOs will coordinate the whole set of global indicators working closely with all national data producers and identifying possible data sources. Others will provide data only for indicators from official statistics. Countries could assess availability of data for global indicators through mapping data providers to statistical (and non-statistical⁷) indicators.
- Planning and proposing data flow models at the national level (whether centralised in one focal point or decentralised). Depending on the role given to NSOs, they could evaluate which data flow model best fits their national circumstances and which provides the most transparent and efficient transfer of data from the national to regional and global levels.
- Considering reporting approaches and data dissemination mechanisms for SDG indicators. Reporting statistics for SDGs is understood as providing data to a given organisation and can be implemented in many ways (for more details see *Description of National Reporting Platforms*). Regarding global SDG indicators, reporting means providing data to custodian agencies. To fulfil these requirements NSOs may consider setting up a NRP and consider what kind of NRP will meet their needs.

⁵ unstats.un.org/unsd/dnss/docViewer.aspx?docID=1804

⁶ The report is available upon request (contact: cara.williams@canada.ca)

⁷ Non-statistical data refers to data for which there is no statistical variability, such as yes/no indicators. See para. 3.4

16. The *CES Roadmap on Statistics for SDGs* sets out two schematic models on how countries can provide SDG statistics:

- A Centralised Model puts the NSO at the centre as a coordinator of all SDG data provision (i.e. statistical and non-statistical indicators are gathered by the NSO from all national data providers and are disseminated coherently from one place). This role may be linked closely to the maintenance of a NRP; the agency maintaining the platform would typically be the coordinator of all SDG data provision (for more detail see part IV.1).
- In a Decentralised Model NSOs would only take responsibility for the SDG indicators based on official statistics, while other organizations would take responsibility for those SDG indicators where they are the producers of the underlying data. Another option would be for the NSO to take responsibility for all statistical indicators, while someone else, e.g., a ministry, reports on non-statistical indicators (for more detail see part IV.2).

2. Other national data providers

17. Depending on the data flow model chosen, other national data providers may supply data via the NSO or directly to custodian agencies. All data providers will need to meet some minimum requirements for supplying data to support harmonization of national statistics into globally comparable statistics needed for SDG follow-up and review. These include:

- Close collaboration with the agency responsible for coordinating national reporting of the global indicators so as to ensure coherence between these data and official statistics.
- Source data from official statistics wherever possible.
- Assuming the appropriate role with regard to quality assurance and ensuring quality assurance where data are derived from non-official statistics.
- Provide a time series from at least 2015 onwards.
- Provide basic national metadata (e.g., definitions of indicators and data sources) in alignment with global metadata specifications⁸ provided by the Interagency and Expert group on SDG indicators (IAEG-SDGs).

B. The role of international organizations

18. In order to reduce burden on countries, the possibility of using existing structures and mechanisms should be investigated where appropriate; for a number of SDG indicators data are collected already by international agencies such as Eurostat, OECD, the World Health Organization or others. Discussions on integrated data flow mechanisms between all parties involved are needed.

1. United Nations Regional Commissions

19. The Regional Commissions are the regional outposts of the United Nations, stationed in five regions of the world (Geneva for Europe, Addis Ababa for Africa, Santiago for Latin America and the Caribbean, Bangkok for Asia and the Pacific, and Beirut for Western Asia). The Regional Commissions aim to ease the monitoring process in

⁸ <https://unstats.un.org/sdgs/metadata/>

their respective regions and to support the global SDGs monitoring. The regional mechanisms may facilitate, as appropriate, the data and metadata transmission process from the national to the global level. Their roles will vary, but may include:

- Assessing data and statistical gaps in measuring SDGs.
- Developing regional indicators to complement the global SDG indicators.
- Managing technical cooperation programs to strengthen capacity to provide data on SDG indicators.
- Facilitating peer learning through the sharing of national experiences and best practices for producing statistics for SDGs, and
- Developing methods, standards and guidance to enhance the quality, comparability and harmonisation of statistics and SDG monitoring.

2. Custodian agencies

20. Custodian agencies⁹ are the international institutions that have been assigned the responsibility of providing technical support in the reporting of SDG global indicators. Several of these organizations have existing mandates for data collection and technical support in other related statistical activities. The role of custodian agencies vis-à-vis the SDGs continues to develop, and may vary by agency. However, among their responsibilities may be:

- Collecting statistics and metadata in their domains from countries (or regional organizations as appropriate) through existing mandates and reporting mechanisms with the input and validation by countries.
- Ensuring data to be internationally comparable, calculating global and regional aggregates and making them available, along with the accompanying metadata. This may involve using estimates to fill data gaps when country data are missing, and making adjustments to make data comparable where country data have been collected using different methodologies or inconsistent sources in full consultation with countries and through fully transparent mechanisms.
- Methodological development of indicators, in particular for Tier III, coordinating indicator development with national statistical systems, other international agencies and stakeholders, and supporting increased adoption and compliance with internationally agreed standards.
- Strengthening national statistical capacity and improving reporting mechanisms.
- Contributing to annual SDG progress reports and review processes.

21. From the countries' view-point, it is essential that custodian agencies provide statistics, metadata, and the methods for harmonisation readily available to the NSOs, such that NSOs have clear information about national statistics used, how they were transformed into globally comparable statistics, and the global statistics and metadata that resulted. Further, it is essential that countries have adequate opportunity to validate the transformed statistics before they are published.

⁹ <https://unstats.un.org/unsd/statcom/doc14/BG-FOC-Coordination-UN%20system.pdf>

3. United Nations Statistics Division (UNSD)

22. UNSD publishes internationally comparable country data on each of the indicators available alongside regional and global aggregates in the SDG indicators global database. This allows data users, including the Member States, to easily access all data on SDGs in one single place, together with the respective metadata. UNSD receives these data through custodian agencies.

23. UNSD can also facilitate coordination and cooperation between national statistical systems and custodian agencies. For example, the project “country data lab” was undertaken where national data was compared against data harmonised at the global level to facilitate dialogue between countries and agencies¹⁰.

4. Other international organizations

24. Other international organizations are taking a keen interest in the 2030 Agenda. Depending on their mission and area of expertise, their roles may vary. They may choose to make data available to custodian agencies, and/or they may choose to establish their own indicator framework, according to their own mandates, to monitor progress towards SDGs. They can also support SDG reporting through indirect means, such as by facilitate collaboration, enhancing data interoperability, or by integrating data science perspectives into the reporting processes.

IV. Data flows: the data types

A. National official statistics

25. National official statistics include statistical activities carried out within a national statistical system (NSS)¹¹ and are compiled in accordance with the Fundamental Principles for Official Statistics, the European Statistics Code of Practice or a similar authoritative framework ensuring professional standards. National official statistics are considered a public good and typically provide information on the economic, demographic, social and environmental realms of a society.

B. Non-official statistics

26. Non-official statistics are statistics that are produced outside of the national statistical system. While data and statistics may originate outside of the NSS, they can potentially be transformed to become official statistics. This occurs when the NSOs validate the sources and processes the data to determine “fitness for use”. If a NSO determines these data meet the requirements, once processed, they can become a component of official statistics. There is a significant push for NSOs to use alternative data sources (e.g., big data) to augment available statistics for SDGs, and many NSOs are examining different types of non-official data sources to determine if they can be transformed into official statistics.

¹⁰ As mentioned in the Report of the IAEG-SDG to the 48th Session of the UN Statistical Commission (para 34) <https://unstats.un.org/unsd/statcom/48th-session/documents/2017-2-IAEG-SDGs-E.pdf>

¹¹ The national statistical system comprises the ensemble of statistical organizations and units within a country which collect, process and disseminate official statistics on behalf of the national government. The system usually operates under a statistical law.

27. Non-official data and statistics could potentially be used to complement official statistics for some parts of the follow-up and review of the Agenda, e.g., where the NSOs find gaps in the availability of official statistics; as “place-holders” while official statistics is being developed; or for targets where the objectivity of a government agency could potentially be called into question, such as some indicators under goal 16.

C. Geospatial data

28. Geospatial data are data that have locational information associated to them, such as geographic data in the form of coordinates, address, city, or postal code. Geospatial data can originate from GPS data, satellite imagery, geo-tagging or GIS. Geospatial data can be part of official statistics or non-official statistics depending upon its origin, production, and dissemination.

29. The use of geospatial information in statistics provides opportunities to more easily examine developments at regional and local level. For SDG indicators this is particularly important as it will facilitate adherence to the 2030 Agenda principle of “leaving no one behind”.

D. Non-statistical data

30. Non-statistical data refer to data where there is no statistical variability. In the 2030 Agenda environment, non-statistical data refer to a qualitative response (such as “yes/no”). For example, the existence of laws or regulations in a certain area can be considered a “non-statistical” indicator. Other non-statistical data would result from questions related to the existence of “established and operational policies and procedures.”

31. Because some of the indicators for the 2030 Agenda are non-statistical, NSOs will look to policy makers to compile and potentially provide responses to these indicators. How non-statistical indicators are reported will depend on the country’s preferences and decisions. While policy departments may compile the information on non-statistical indicators, they may provide these indicators to the NSOs for reporting if the NSO is the coordinator of SDG information. In other instances, policy departments may report directly to custodian agencies. How and if non-statistical data are validated will be decided based on national circumstances. However, it is recommended that citations to relevant background documents be included when reporting non-statistical data (e.g., national law or policy).

E. Metadata

32. Metadata can be defined as “data that define and describe other data”, whereas statistical metadata are “data about statistical data, and comprise data and other documentation that describe objects in a formalised way”¹². Some metadata, however, describe other resources that are relevant to the collection, processing and dissemination of data (for example, questionnaires and publications) rather than relating directly to data themselves, so a slightly wider definition of metadata may need to be considered. With this in mind, the SDMX Metadata Common Vocabulary definition of a Statistical Metadata System (SMS) can be used: “A data processing system that uses, stores and produces statistical metadata”. The term system refers to the people, processes and technology involved in managing statistical metadata. As there are many countries experienced both in

¹² These definitions come from the 2009 edition of the SDMX Metadata Common Vocabulary.

dissemination of metadata in their direct statistical meaning and in developing the

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 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 all of 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 in order to make statistical information more comparable and compatible, and to monitor the use of agreed standards.
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 between managers, designers, subject-matter statisticians, methodologists, respondents and users of statistical information systems.

Statistical Metadata System, their practices may be used by other countries.

V. Models for national reporting on global Sustainable Development Goals indicators

33. Actors in the national statistical system transmit data to a number of international organizations, at the global level as well as at the regional level. Much of the data used for compiling statistics for the global SDG indicators are already provided to the UN system from the countries. Different transmission models are used, ranging from spreadsheets sent to the countries by custodian agencies, to data pulled directly from national or regional websites by international organizations.

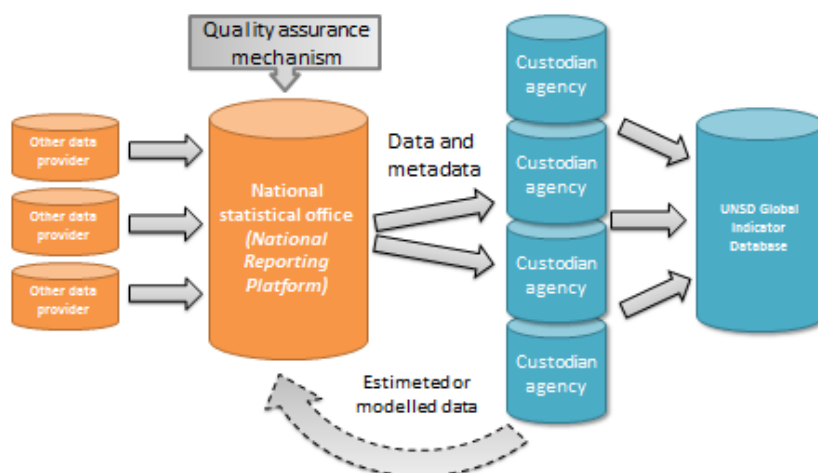
34. When data are needed from countries, the request is often sent to a focal point in the national agency responsible for the statistical area. It is often the case that the coordinating body, whether in a centralised or a decentralised system, is not aware of what is being collected by custodian agencies directly from the unit producing the statistics. There is a clear need for identifying the focal points within the statistical system/government.

Depending on the character of the national statistical system, countries will need to choose a model for how to approach the reporting of the global indicators from the national perspective. National policy plays a fundamental role, especially with respect to NSOs. Circumstances and policies within the countries' national statistical systems will determine which model fits best. One country may want to apply a model where all SDG data are channelled through a certain body (usually the NSO) before being sent to the custodian agencies. Such a model may benefit from using an NRP to facilitate collection and transmissions to the receiving agency. When responsibilities for official statistics (including for quality assurance) are dispersed throughout the system, special tools may not be required as some means of "soft coordination" will fit the system better. **A.**

Centralised reporting of statistics for global SDG indicators

36. Figure 3 shows a centralised model for reporting, including a NRP and quality assurance mechanism.

Figure 3
Centralised model. The NSO is a coordinator of all SDG statistical reporting. Statistical production and validation may be delegated to national statistical programmes.



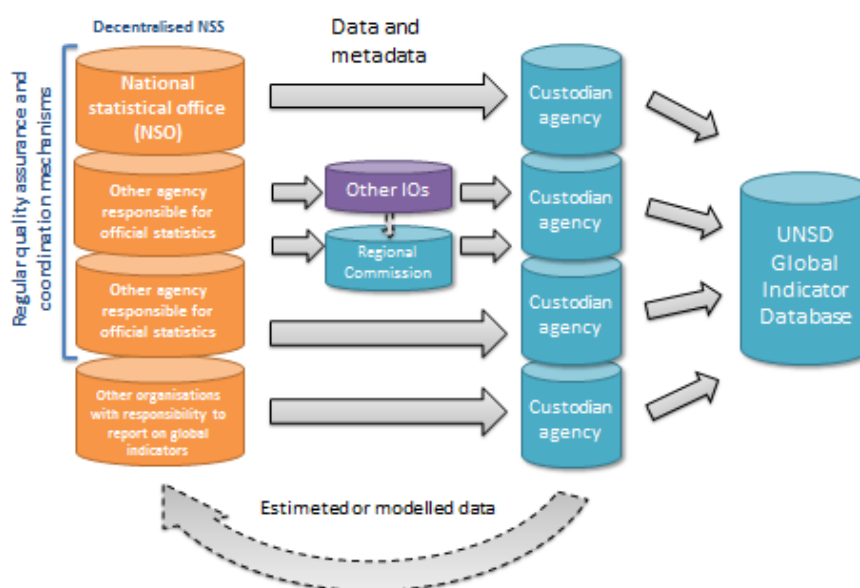
37. In a centralised model of providing SDG indicators, the NSO will typically collect and store all data to a centrally held database. It could also apply a mechanism for validating the data collected (which may include delegations to national statistical programs), and send or otherwise make available the indicators to the custodian agencies and other users. This model could be applied to all indicators, or be limited to statistical indicators only.

38. Closely associated with this model is the notion of accountability, quality assurance and coordinated accessibility, a one-stop-shop for SDG data. The most important precondition for the model to be efficient is that the NSO has a legally recognised mandate to coordinate and validate all official statistics in the country. The model will also require resources to build and maintain the procedures for collecting, validating and disseminating the global SDG indicators. If this is not already an integral part of the NSOs operations, it could prove costly.

B. Decentralised reporting of statistics for global SDG indicators

39. Figure 4 describes a model of decentralised responsibilities for SDG indicator reporting.

Figure 4
The NSO and other agencies in the country both report SDG statistics



40. Some countries may not be in favour of centralised collection and reporting of SDG indicators. They would prefer to maintain the responsibility for the production, development and dissemination of official statistics dispersed over many agencies or line ministries. In such cases it could be also more efficient to decentralise the responsibility for providing data on SDG indicators to the entities responsible for producing statistics for the particular indicator. A decentralised model could be associated with the notion of “soft coordination” where the coordination body may issue guidelines and provide trainings and forums for relevant agencies. For this model to be efficient, the coordination relies upon a trusted partnership between statistics producers and on a recognised mandate for the NSO for certain coordination responsibilities. This model could potentially suffer from lack of overview and accessibility; therefore a set-up like this should consider ways of making SDG data accessible easily and coherently, preferably in an open data format.

C. “In between” models

41. The models described above are two extremes. It is highly probable that most countries will choose a model somewhere in between. The quality assurance role of the centralised model could range from acting as a “post-office” and simply making data available on NRPs to undertaking various degrees of control, from basic validation to full quality control. The role that the NSO takes will typically depend on already existing national legislation and policy mechanisms.

42. In a decentralised model, NSOs can also apply different levels of coordination. The level of ambition may range from simply keeping track of who supplies statistics for which indicators to which custodian agencies, to coordinating all collection, transmission and quality assurance related to the SDG indicators. The role could potentially include, for example:

- serving as a platform/forum for discussion of issues on data collection and analysis between government agencies and international organizations on SDG indicators.
- keeping stakeholders abreast of and share knowledge on statistical activities in the field of data collection and analysis.
- organising and promoting coordination and joint advocacy activities around data collection with a specific focus on SDGs.
- ensuring coordination of information exchange on SDG indicators, and
- promoting substantive discussion on statistical capacity building and coordinating quality assurance activities within the national statistical system.

D. Information flows from custodian agencies to countries

43. Effective monitoring of SDGs requires high-quality and reliable data. Since country data are transformed by custodian agencies into aggregated indicators, communication between these stakeholders is needed to provide relevant statistics. Regardless of which model is chosen, it is imperative that the information flowing from the custodian agencies back to the national statistical systems (including in the form of estimated or modelled data for validation by the country) is supporting the country led follow-up and review of the 2030 Agenda. Coordination and quality assurance efforts need to be supported by transparent and effective information exchange between the national and global levels.¹³

44. The custodian agencies could support the process and facilitate coordination between the national and global levels by:

- providing a point of contact regarding SDG reporting, by indicator.
- providing technical guidelines regarding the expected transmission standards of data and metadata (such as SDMX for SDGs).
- providing data collection calendars with adequate time for country validation.
- providing metadata for global indicators (clear and transparent description of how indicators are calculated or/and estimated).
- providing information on the approach to noting statistics for proxy indicators provided by countries, and
- describing the statistical validation models for countries and how they can communicate approval/questions/concerns.

VI. Considerations when selecting a data reporting model

45. When considering reporting models, countries want to assess their needs, capabilities and limitations as well as the form of their statistical system. It is important to remember that SDG monitoring is a long-term process, so external and internal circumstances may change considerably over time. Some, but not necessarily all, circumstances that may affect the choice of reporting set-up are detailed below.

¹³ See OP 7 of draft resolution on the Work of the UN Statistical Commission pertaining to the 2030 Agenda for Sustainable Development that the Statistical Commission agreed to recommend for adoption by ECOSOC at its 48th session in March 2017. See also decision 1 of the report of the Statistical Commission from the same session.

A. Established responsibility for quality assurance

46. As noted in the Road Map on statistics for SDGs, ensuring appropriate mechanisms for data validation and quality control is essential. Most NSOs have developed quality assurance frameworks that guide the development and production of official statistics.¹⁴ Further, among most CES countries, NSO responsibility for quality in official statistics is well established in national legislation. These national frameworks and legislation are generally aligned with regional and global quality assurance frameworks—such as the Fundamental Principles of Official Statistics, the UNECE CES standards, and the OECD Good Statistical Practice guidelines and the Code of Practice for European statistics for the EU member states.

47. For many of the SDG indicators in the Global indicator framework, data will come from the NSO. For example, data for the indicators related to GDP growth, earnings and employment are likely produced in the NSO. Accordingly, these data have gone through the appropriate vetting and quality assurance standards.

48. Other data will be produced by other entities within the country's system of official statistics. For these data, quality assurance mechanisms are usually in place, whether through the producers own quality assurance mechanisms or by those provided by the NSO.

49. Yet, other data will be produced by others outside of the national system of official statistics. What role the NSO plays in the assurance of the quality of statistics from other sources will depend first and foremost on the NSOs role according to legal rights. For data from other sources, the agency responsible for the production of official statistics do not have the authority to apply quality assurance mechanisms directly (such as during the collection of the data). In these cases, it is essential that the responsible agency review and document the data quality and the methods used to produce the data. This effort, sometimes known as “curation”, is especially important when agencies intend to use lesser known data sources to produce official statistics.

50. It may be instructive for NSOs to consider “fitness for use” as a guide to determining acceptable quality assurance for national reporting for global SDG indicators and the construction of global statistics. A discussion with national policy makers regarding the intended use of SDG indicator statistics, and the stakes associated with them, could assist NSOs with determining the level of quality assurance that is necessary for reporting purposes. This may be especially helpful in managing expectations and use regarding some non-traditional areas for statistical measurement whose methodology is not as well developed as more traditional areas, while still encouraging participation in producing prototype estimates. Additionally, establishing fitness for use guidelines with policy makers would assist in prioritising statistical capacity building according to national needs.

51. As a policy matter, NSOs may choose to limit their responsibility for reported SDG statistics by reporting only the subset of statistical indicators emanating from the system of official statistics or also including non-statistical indicators as well as non-official statistics.

52. In such cases where a country has a legal and policy framework that spreads responsibility for official statistics across several national institutions, a facilitating, rather than reporting, role may be more appropriate for the NSO. For example, the NSO provides

¹⁴ See for example US Statistical Policy Directive 1: Responsibilities of Principal Federal Statistical Agencies and Designated Units; US Statistical Policy Directive 2: Standards and Guidelines for Federal Surveys; the US Paperwork Reduction Act; and the US Information Quality Act.

training, common guidelines and opportunities for exchange of experience within the statistical system. A more decentralised reporting model could be implemented.

B. The needs for measuring progress of SDGs

53. In some countries, the government has already implemented or plans to implement in a near future a national action plan related to SDGs. National action plans define countries' priorities regarding SDGs and can establish national indicators for their monitoring. Such a plan usually allocates tasks in implementing SDGs and indicates the unit responsible for the monitoring process.

54. When a NSO is tasked with measuring the progress towards SDGs (as a special assignment or through its general mandate), it will set up an appropriate monitoring system. An effective monitoring system should meet national and international requirements and will most probably include both reporting and dissemination mechanisms.

55. Many countries are, or plan to, develop indicators tailored to the national context. When national SDG indicators are established, the NSO is usually responsible for both national monitoring as well as reporting global SDG indicators to the global follow-up. The extent to which the global indicators will be used for national follow-up is an important aspect to consider when choosing the appropriate approach for SDGs monitoring.

56. Governments having (or planning to establish) national action plans could expect the NSS' to provide appropriate statistics systematically. This typically requires assurance of public access to indicators and related statistics. The important factor that needs to be taken into consideration is whether national monitoring system includes following up on the global indicators or national indicators or both. However, it could be a good idea to harmonise the processes surrounding the reporting and dissemination of indicators whether national or global. The use of a NRP could facilitate this harmonisation of processes.

C. Existing system for data dissemination

57. A statistical system can use the momentum of the high demand for SDG statistics, in efforts to develop dissemination practices to meet users' needs.

58. Some NSOs have invested heavily in uniform and standardised processes, tools and methods for collection, production and dissemination of statistics and may not want to develop specialised systems, platforms or processes for SDG indicators. When modern and integrated systems are in place, these could be leveraged to make SDG indicators and related statistics easily and coherently accessible to different types of users.

59. For NSOs already using established tools for data reporting (e.g. databases), the best solution could be to adapt it for the needs relating to communication of SDG statistics. The decision will depend on the policy and structure of data presentation. It should be considered whether the extended database would give transparent results and would be more effective than developing a new database. Costs may be technical or worktime. Value may be improved transparency and timeliness. They may be gained up front or borne over time.

60. Some NSOs do not have one universal national reporting mechanism. In such cases, NSOs may choose to invest in an online database for SDG indicators or they may choose to focus on reporting exclusively (and rely on spreadsheet submissions to the coordinating agencies). The choice is related to existing needs and NSO's mandate for SDGs monitoring (as described in part V.2).

D. Existence of centralised reporting mechanisms

61. Different scenarios for data reporting can be envisioned depending on the structure and organizational model of the statistical system in the country: centralised, decentralised or a combination of these.

62. In a decentralised statistical system, the coordination of statistics for the global indicators could prove to be very complex. In such cases, a centralised reporting model could facilitate coordination, quality assurance, reporting and dissemination of SDG indicators and related statistics. A NRP could facilitate gathering data from different units and ensuring data quality, especially when a NSO is the coordinator of national data flows (regardless if this role had been established specifically for the purpose of SDG indicators or developed for national statistics in general). It could also serve as a means of data dissemination and as a reporting tool.

63. On the other hand, if well-established and robust coordination mechanisms are already in place, a decentralised system may want to rely on these mechanisms rather than developing a model that is unknown and unfamiliar to partners.

64. It is also important to consider the NSOs role vis-à-vis possible national follow-up to SDGs, including also specific national indicators. If the NSO provides indicators for national follow-up, it could be beneficial to align the global reporting to the national reporting model used.

VII. Conclusions

65. A well-organised national mechanism of data providing which fits specific national circumstances is crucial for effective monitoring of SDGs. When discussing which model to adopt, a NSO should consider a number of factors, including:

- existing policy for ensuring statistical quality;
- NSOs' mandates relating to the monitoring of SDGs (the extent to which the NSO is responsible for providing data on SDG indicators for national and international purposes);
- practices and mechanisms for data dissemination;
- the set-up of statistical system and reporting mechanisms;
- other national practices and capabilities.

66. Whatever mechanisms are chosen, it is recommended that the NSO's role in SDGs monitoring is clearly defined along with other roles and responsibilities. A specified mandate for NSOs will help to assure division of responsibilities and avoid duplication of work.

67. If one body in the national statistical system is, according to legislation or other national decisions, responsible for the quality of all official statistics produced in the system, a centralised reporting model, including a centralised mechanism for quality checks, is the logical choice. This is particularly the case where centralized reporting structure is already in place.

68. A centralised model for providing data on the global SDG indicators could be facilitated by the use of a NRP. A platform could be developed exclusively for SDG monitoring or built on already available tools. A reporting platform could also support SDGs data dissemination, both in terms of reporting the indicators to the custodian agencies and for making the indicators and related statistics and metadata available to other users.

69. If, on the other hand, well-established and robust coordination mechanisms, including dispersed but coordinated responsibilities for quality assurance, are in place, a decentralised system may rely on these mechanisms and apply a decentralised approach to reporting on the global SDG indicators.

70. Whichever model is chosen for the reporting, it will work most effectively when all stakeholders cooperate closely and the tasks are clearly assigned. Existence of a coordinating body in a country (being a focal point at the same time) will enhance the process of SDGs monitoring. The coordinating body will facilitate the cooperation between stakeholders, including producers, reporting authorities and users of the indicator based follow-up of the 2030 Agenda.

71. Reporting indicators for national and global follow-up is closely connected to making coherent statistical information available for a range of users. This issue needs to be carefully considered when designing reporting mechanisms.

Annex

Abbreviations used in this document:

CES – Conference of European Statisticians

ECOSOC – United Nations Economic and Social Council

EU – European Union

GIS – Geographic Information System

GPS – Global Positioning System

HLPF – High-level Political Forum

IOs – International Organizations

NRP – National Reporting Platform

NSO – National Statistical Office

NSS – National Statistical System

OECD – Organization for Economic Co-operation and Development

SDG – Sustainable Development Goal

SDMX - Statistical Data and Metadata Exchange

SMS – Statistical Metadata System

UN – United Nations

UNGA – United Nations General Assembly

UNECE – United Nations Economic Commission for Europe

UNSD – United Nations Statistics Division