

# GUIDING PRINCIPLES OF DATA REPORTING AND DATA SHARING

## FOR THE GLOBAL MONITORING

### OF THE 2030 AGENDA FOR SUSTAINABLE DEVELOPMENT

VERSION 1

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#### Preamble

The forty-eighth session of the UN Statistical Commission “... requested the Inter-Agency and Expert Group on SDG indicators to develop guidelines of how custodian agencies and countries can work together to contribute to the data flows necessary to have harmonized statistics”.<sup>1</sup> This document is meant to serve as a contribution by the CCSA to the development of guiding principles of data reporting and data sharing for the global monitoring of progress toward the Sustainable Development Goals (SDGs). The document offers guidance to improve two-way data flows between national and international statistical agencies and to promote the sharing of data among international organizations and with the public.

It is widely accepted that international and supranational statistical agencies (ISSAs) have a crucial role to play in global SDG monitoring and indicator development. The latest report of the Inter-Agency and Expert Group on SDG Indicators (IAEG-SDGs), submitted to the 48<sup>th</sup> session of the UN Statistical Commission, delineates the multiple functions to be carried out by ISSAs for each of the SDG indicators under their responsibility as custodian agencies: “The main responsibilities of these international agencies are to collect data from countries under existing mandates and through reporting mechanisms, to compile internationally comparable data in the different statistical domains, to support increased adoption and compliance with internationally agreed standards and to strengthen national statistical capacity”.<sup>2</sup>

Some concerns have been expressed by some national statistical offices (NSOs)<sup>3</sup> about the discrepancies that may arise between international and national estimates of the same indicators, including the reputational risk for countries to have their data contradicted by those published by international organizations. These concerns must be addressed through efforts to define in a collaborative manner the global reporting mechanism for the review of progress towards the SDGs.

The collaboration between ISSAs and national statistical authorities is essential for ensuring an effective flow of internationally comparable data that meet the highest international standards, and such collaboration can be strengthened by an agreement on common principles and novel arrangements for managing the global reporting of SDG indicators. These principles and arrangements should be based on open communication and common trust, and build on the lessons learned from global reporting in the MDG era. The experience with the MDG indicators demonstrated that certain practices — improving

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<sup>1</sup> Economic and Social Council, Statistical Commission. Report on the forty-eighth session. Decisions brought to the attention of the Council, 48/101 (paragraph 1) (E/2017/24-E/CN.3/2017/35).

<sup>2</sup> Report of the Inter-agency and Expert Group on Sustainable Development Goal Indicators, presented to the forty-eighth session of the UN Statistical Commission, 15 December 2016, paragraph 25 (E/CN.3/2017/2).

<sup>3</sup> The term “national statistical office”, used throughout this document for convenience, is not meant to be prescriptive, since national practices vary. In the context here, it refers to the national statistical institution(s) authorized to report estimates of SDG indicators.

the reporting mechanisms from national to international statistical systems, strengthening the in-country coordination role of NSOs, providing tailored support to countries for capacity development and technical assistance, and ensuring a close collaboration between ISSAs and national statistical authorities — can improve the overall availability of data and the consistency between national and international data sets.<sup>4</sup>

In reaffirming the importance of adhering to the Fundamental Principles of Official Statistics in the development and reporting of SDG indicators, this document emphasizes the commitment by ISSAs to adhere to the same key principles applicable to national official statistics, aspiring to the highest standards of relevance, accuracy, reliability, transparency and accessibility. Additionally, ISSAs shall ensure cross-country comparability of their estimates and make efforts to minimize the response burden on countries, in line with UN Statistical Commission decisions 47/101 (paragraphs l and m). Crucially, ISSAs shall support national efforts in building and strengthening national statistical capacity in order to produce reliable and timely statistics and indicators for the monitoring of both national development policies and strategies and international commitments under the 2030 Agenda for Sustainable Development.<sup>5</sup>

Issues raised about the global reporting of SDG indicators are common to other social, economic or environmental indicators. While the considerations presented in this document focus on processes for the compilation of SDG indicators, the principles espoused may be relevant to other statistics produced at the international level. The focus in this document on the global indicator framework for the SDGs, developed by the IAEG-SDGs and recently adopted by the UN General Assembly<sup>6</sup>, derives from its high visibility and from the mandated requirement for follow-up and review of the Goals and targets at the global, regional and national levels that is contained in the 2030 Agenda for Sustainable Development<sup>7</sup>. In addition, global reporting for the 2030 Agenda provides a good opportunity to improve the coordination among the international statistical community, as pointed out by the IAEG-SDGs in its report to the forty-eighth session of the UN Statistical Commission.<sup>8</sup>

## **I. The distinct and complementary roles of national and international statistical agencies in global monitoring**

Both NSOs and ISSAs play a fundamental role in the global statistical system, informing the public debate and policy decisions at the national, regional, and international levels.

NSOs are the main source of data for informing policy analysis and decision-making at the country level. Within a country, the NSO is often mandated also to provide quality assurance for the data produced by other national data-producing entities, although practices vary considerably across countries.

ISSAs, on the other hand, compile regional and global estimates to inform governments and other stakeholders on key areas of global development, including those that require urgent attention. In general, these estimates are produced using national data, but the modalities of data production and

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<sup>4</sup> United Nations, March 2013, Lessons learned from MDG monitoring from a statistical perspective: Report of the Task Team on Lessons learned from MDG Monitoring of the IAEG-MDG.

<sup>5</sup> See [ECOSOC Resolution 2006/6, Strengthening statistical capacity](#).

<sup>6</sup> A/RES/71/313.

<sup>7</sup> Paragraph 75 of the UN General Assembly Resolution on the 2030 Agenda for Sustainable Development (document A/RES/70/1) states that “The Goals and targets will be followed up and reviewed using a set of global indicators. These will be complemented by indicators at the regional and national levels which will be developed by Member States [...]”.

<sup>8</sup> Paragraph 33 of E/CN.3/2017/2.

reporting vary across the ISSAs. In a few cases, ISSAs<sup>9</sup> (or government agencies<sup>10</sup>) support governments in implementing surveys through international survey programmes. Most ISSAs, however, do not collect data directly by surveying individual households, businesses and institutions within countries; rather, their work relies mostly on data from NSOs and other national authorities responsible for collecting the primary data. This information is often supplemented by information from other sources, especially large survey programmes. The ISSAs typically add value to national official data by verifying compliance with global statistical standards, harmonizing data where necessary using standard conversions and peer-reviewed methodologies, and filling data gaps. Ensuring that country-specific data are based on harmonized concepts/definitions/classifications — and, therefore, are internationally comparable — is essential for assessing global and regional progress toward specific SDG targets and for comparing levels of achievement and progress made across countries.

In some instances, ISSAs choose between different national official sources of data where the country has multiple estimates of the same indicator, or even use non-official data to construct international data series in fields that are not covered by existing official sources, or where a single source (e.g. satellite imagery on land cover) may provide more consistent and lower-cost data to measure a global or transnational phenomenon than what would result from the amalgamation of multiple national data sets. Alternative sources are used by ISSAs also to estimate country-specific values of SDG indicators when national official data do not exist, are incomplete, or do not comply with international standards, or to impute missing values within a national official time series or to extrapolate such time series.

Responsibility for collecting, validating, producing and disseminating statistics is inscribed in the mandates of many ISSAs<sup>11</sup>, and governed through arrangements that are often under the oversight of Member States. In addition, the statistical programmes of most of these agencies are adopted, funded and monitored by intergovernmental bodies composed of country representatives. Some of these bodies are comprised of NSOs (e.g., the UN Statistical Commission), but the majority are not, as national representatives in the governing bodies of ISSAs typically represent either the Ministry of Foreign Affairs or the national institution governing the policy issues intrinsic to the ISSA's specialized work.

Most ISSAs make use of various quality frameworks to guide their work on global statistics. These include the Fundamental Principles of Official Statistics, the Principles Governing International Statistical Activities (developed by the CCSA in 2005), and other quality assurance frameworks (QAF)<sup>12</sup>. In addition, the production of global data sets of country-specific and aggregated indicators, whether for SDG monitoring or for other purposes, provides an important mechanism of quality control, as the imperfections of data for a country often become visible through a side-by-side comparison to similar information for other countries.

When national data are produced using internationally agreed standards and reported using comparable measurement units, international data series for individual indicators can sometimes be simply a collation of national data, with minor adjustments to allow for full comparability. Sometimes, however, because of their commitment to produce data that are comparable across countries and can

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<sup>9</sup> For instance, the World Bank's Living Standards Measurement Study (LSMS) or UNICEF's Multiple Indicator Cluster Surveys (MICS).

<sup>10</sup> For example, the Demographic and Health Surveys sponsored by the U.S. Agency for International Development.

<sup>11</sup> The mandates of UN agencies and other members of the CCSA are reported at: <https://unstats.un.org/unsd/accsub-public/members.htm>.

For example, Article 1 of the FAO Constitution states: "The Organization shall collect, analyse, interpret and disseminate information relating to food, nutrition and agriculture" (<http://www.fao.org/3/a-mp046e.pdf>).

<sup>12</sup> For instance, a number of CCSA members have adopted specific QAFs, while the Committee of the Chief Statisticians of the UN system has recently endorsed a United Nations Statistics Quality Assurance Framework (UN-SQAF, see <https://unstats.un.org/unsd/statcom/48th-session/documents/BG-4j-QAF-E.pdf>).

therefore be aggregated to provide regional and global values, ISSAs produce estimates of country-specific indicators that differ from those published by national authorities. Both past experiences with the MDGs and formal assessments have indicated that these discrepancies occur for a variety of reasons. National estimates may not be available or may not be reported in a timely manner to ISSAs; they may be based on concepts, definitions, classifications or methods that are not compliant with internationally agreed standards; they may contain certain biases; and they may even be inconsistent with national data from other official sources. In some instances, perceived discrepancies arise when ISSAs and NSOs produce estimates of indicators during the same year but referring to different time periods.

In more complex situations, the simple approach of collating national data to produce global estimates is impractical and inconsistent with best practices. For example, population data are characterized by dependencies among multiple variables. Changes over time in the ensemble of population indicators for a country are constrained by precise mathematical relationships, and some changes are subject to constraints that depend on values for other countries as well (for example, total net migration for the world must equal zero). Ensuring that these relationships hold true is a cornerstone of quality assurance for such data. Maintaining comparability over space and time in global population data series requires the construction of internally consistent international data sets, even if the resulting estimates for individual countries differ in some cases from national data for reasons that may be unknown or difficult to document in a comprehensive manner.

With these various considerations in mind, the principles given below are intended to provide guidance to facilitate an effective and durable collaboration between NSOs and ISSAs, which will be useful for filling gaps in the available data and improving the quality of national data so that they adhere more closely to international statistical standards. It should be noted, however, that the implementation of the proposed guiding principles may have financial implications for entities involved in reporting on SDG indicators.

## **II. Proposed guiding principles for reporting global estimates of SDG indicators**

1. To ensure country ownership and to comply with the explicit mandate contained in the 2030 Agenda, estimates of SDG indicators produced by ISSAs shall be based primarily on national official data sources in all cases where national statistical authorities produce and publish national estimates, provided that these are consistent with the indicator definitions and in line with international statistical standards.
2. If ISSAs see a need to adjust<sup>13</sup> or estimate country-specific values of SDG indicators, they shall:
  - a. Document fully their estimation methods and data sources, in a manner that ensures the transparency of the methodology and the replicability of the estimates;
  - b. Engage in appropriate technical consultations with countries, with a view to validating and possibly improving the methodologies used to derive country-specific estimates;
  - c. Provide an opportunity for national statistical authorities to review country-specific estimates of SDG indicators prior to their release within a reasonable time frame.
  - d. In cases where country-specific data prepared by ISSAs are a source of concern to the country involved, discuss the situation with relevant national authorities in the framework of the Fundamental Principles of Official Statistics and the Principles Governing International Statistical Activities, keeping in mind both the importance of country ownership of national monitoring and the value of global monitoring based on comparable data derived using transparent methodologies. If the concern cannot be addressed, the ISSA should acknowledge the disagreement and provide relevant explanations when disseminating country-specific data.

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<sup>13</sup> This would not normally apply to standard practices of conversion to common measurement units or other simple methods of ensuring that data are internationally comparable.

3. Within existing mandates, ISSAs shall offer technical assistance to countries in areas where data are not available or not compliant with international standards, with the goal of enabling them to produce their own data in the long run.

### **III. Proposed guiding principles for sharing data related to SDG indicators**

1. ISSAs are committed to reducing national and international reporting burdens for SDG indicators by:

a. Using existing reporting mechanisms or national SDG indicator reporting platforms whenever possible to organize data flows from national to international agencies;

b. Promoting the use of appropriate data transmission standards and tools, such as Statistical Data and Metadata eXchange (SDMX) and web Application Program Interfaces (APIs), for the collection and exchange of SDG data;

c. Coordinating their data collection work and establishing effective and efficient data sharing arrangements among ISSAs to avoid duplication of efforts.

2. In order to enhance the coordinating role of the NSO within the national statistical system and ensure the quality of country-specific data, ISSAs will copy the NSO in their SDG data requests and provide the NSO with a list of all national data providers and the data collection calendar.

3. ISSAs will only address data requests to countries regarding a specific SDG indicator if they are the designated custodian agency. In cases where more than one ISSA is designated as custodian agency, data shall be collected through common means, such as joint questionnaires.

4. Data collected by the custodian agencies shall be released publically and shared, in a timely manner and at no cost, with the UN Statistics Division and other ISSAs that may be interested in the data for other reasons, such as for thematic reporting.

5. Estimates of SDG indicators published in databases maintained by ISSAs shall be properly documented and sourced, with the provision of clear and comprehensive metadata.