

Statistical Commission

Fiftieth session

5 – 8 March 2019

Item 3(a) of the provisional agenda

**Items for discussion and decision: Data and Indicators
for the 2030 Agenda for Sustainable Development**

Background document

Available in English only

**Best Practices in Data Flows and Global Data Reporting for the Sustainable
Development Goals**

Prepared by the Inter-Agency and Expert Group on
Sustainable Development Goal Indicators (IAEG-SDGs)

I. Introduction

The Inter-Agency and Expert Group on Sustainable Development Goal Indicators (IAEG-SDGs) was tasked by the United Nations Statistical Commission (UNSC) in its 50th session to “work jointly with custodian agencies and establish a fruitful dialogue between all parties, to further refine the guidelines by taking into account concerns raised at the forty-ninth session of the commission and to prepare criteria for implementation of the guidelines that are based on best practices and on ways to limit the burden that the envisaged procedures may represent in terms of time and resources for both national and international statistical systems and that resolve outstanding issues (UNSC Decision 49/101(g))”.

The IAEG-SDGs, in its report to the 50th session of UNSC¹, submitted for the Commission’s consideration the criteria referenced in the aforementioned decision. These criteria were prepared in collaboration with custodian agencies and were intended to provide guidance to all parties on their roles and responsibilities in ensuring data reporting for the 2030 Agenda is as seamless as possible.

This background document serves as a companion document to both the *Criteria for the implementation of the guidelines on data flows and global data reporting for the Sustainable Development Goal* (included in Annex I of the Report of the IAEG-SDGs to the 50th session of UNSC) and the *Guidelines on Data Flows and Global Data Reporting for Sustainable Development Goals* (submitted as a background document to the 49th session of UNSC).²

This document makes use of a series of case studies on data flows and global data reporting that have been undertaken over the past two years. Three sets of case studies have served as inputs to this document: case studies conducted by the IAEG-SDGs in 2017³, case studies conducted by the United Nations Economic Commission for Europe (UNECE) in 2017 and 2018⁴, and case studies conducted by the United Nations Economic Commission for Africa (UNECA) in 2018⁵. The document first presents some overarching best practices on data flows and global data reporting, based on the findings from these case studies and then reviews several case studies that serve to illustrate how these best practices can be implemented in global data reporting.

Both the *Criteria for the implementation of the guidelines* and the *Guidelines on Data Flows and Global Data Reporting* provide important principles, criteria and some guidelines for data reporting on SDG indicators. This document also provides some

¹ <https://unstats.un.org/unsd/statcom/50th-session/documents/2019-2-IAEG-SDG-E.pdf>

² <https://unstats.un.org/unsd/statcom/49th-session/documents/BG-Item-3a-IAEG-SDGs-DataFlowsGuidelines-E.pdf>

³ https://unstats.un.org/sdgs/files/meetings/iaeg-sdgs-meeting-06/Data%20Flows%20Case%20Studies%20Compilation%209-11-17_for%20web.pdf

⁴ <https://statswiki.unece.org/display/SFSDG/Task+Team+on+Data+Flows+for+SDGs>

⁵ <https://unstats.un.org/sdgs/files/meetings/iaeg-sdgs-meeting-08/BEST%20PRACTICE%20FOR%20DATA%20FLOWS%20IN%20AFRICA%20-%20SEPTEMBER%202018.pdf>

concrete examples on how the guidelines and criteria are being implemented at present for the data flow between national statistical systems (NSSs) and custodian agencies.

It is important to note that there are different types of NSSs and their relationships with custodian agencies may differ from one country and custodian agency to the next. What works well in one country context may not be appropriate in another, and this document does not attempt to provide an exhaustive compilation of all data reporting channels that currently work well and could be used as examples for other countries. This document therefore is a living document and will be updated by the IAEG-SDGs as new examples of good data reporting practices are reported, especially as countries and custodian agencies gain more experience reporting data and statistics in new areas and from new data sources.

II. Best Practices in Global Data Reporting

The data requirements of the SDGs present unprecedented challenges for both NSSs and custodian agencies. While data collection activities and global data reporting across many thematic areas has already been taking place for many years, several new types of data, involving new data producers, will need to be integrated into the global reporting framework in order to ensure all parts of the agenda can be reviewed. Many of the already established data reporting mechanisms work quite well and can provide guidance on how custodian agencies and national data providers can work together to ensure data flow from countries to agencies for global follow-up and review. In other cases, new data reporting mechanisms between custodian agencies and NSSs need to be established to ensure more transparency and efficiency.

Based on the results from these case studies, some best practices in global data reporting are recommended in the paper. In some cases, these best practices are already widely implemented while in others, work may still need to be completed in order for these practices to be adopted by countries and custodian agencies.

Best Practices and Recommendations

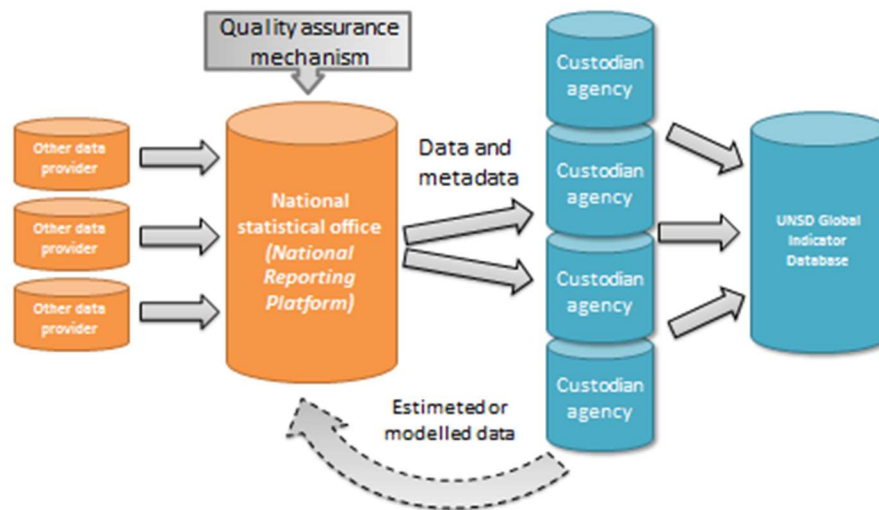
- 1. Identify National Statistical Office (NSO) and Custodian Agency Focal Points –* Communication is the key issue to understand data flows and to ensure that all parties are informed of the data being transmitted and of any harmonization that takes place to ensure international comparability. Many of the case studies identified communications gaps where both custodian agencies and national statistical offices had difficulties identifying the correct focal point for certain indicators. As a result of these findings, the IAEG-SDGs requested that the Secretariat develop a contact list of SDG focal points in NSOs and a contact list of focal points for each indicator in the custodian agencies. The NSO focal point list was shared with all custodian agencies in an attempt to improve communication and to ensure that NSOs and other relevant actors are kept informed of data requests. This allows NSOs to assist in making sure that data are transmitted to custodian agencies in a timely fashion. The agency focal

point list is publicly available on the website of the IAEG-SDGs so that countries can easily determine who they need to contact for each SDG indicator. Feedback on these two initiatives has been positive and has indicated that these contact lists have helped to facilitate better communication between custodian agencies and countries. Therefore, a continuous updating and improvement of the contact lists will improve communication even more.

2. *Share data collection calendar for SDG data requests* – The UN Statistical Commission at its 48th session in 2017 (decision 48/101 (k)), requested the international agencies to “share data collection calendars in order to ensure the full traceability of data used in international sources”. The IAEG-SDGs agreed that a data reporting calendar be developed for all SDG indicators and that this calendar be made available on the IAEG-SDG website.⁶ Moreover, many countries indicated in the case studies that not knowing when specific data requests would take place made it difficult to plan their own data collection and validation efforts. Feedback from countries has indicated that the calendar has been very useful for them in preparing their data submissions and planning purposes and has improved efficiency in the data reporting process for the SDGs. A continuous updating and improvement of the data collection calendar for all indicators will therefore improve efficiency even more.
3. *Provide clear and complete metadata by agencies to countries during data request and provide comprehensive metadata by countries to agencies when submitting their data* – Metadata define the indicators being requested and/or submitted. Without clear and complete metadata, it is not possible to fully understand the associated data. Progress has been made in the supply and dissemination of metadata for SDG indicators, as almost all Tier I and Tier II indicators have global metadata available in the metadata repository and an E-Handbook on Metadata was developed by UNSD and custodian agencies to assist countries in developing national metadata. Countries should submit this metadata along with their data as this will make the validation process easier. It will also make more transparent the process of harmonizing data for global monitoring and could help to resolve many of the issues surrounding differences between national and global data.
4. *Use National data platforms and databases that contain sufficiently detailed information, including metadata, to allow data and metadata to be pulled directly for global SDG monitoring* – Many countries have developed or are developing national data platforms (SDG specific and more general) in order to disseminate their data more effectively to users. These data platforms can serve as a useful tool for users, including the custodian agencies, to access the national data and when metadata are properly compiled and included, they can help in quality assurance. In order for users to be able to pull data directly from these platforms, these need to include all the information users generally request, including detailed metadata, such as definitions, data sources and collection method, method of computation, etc. Using national data platform helps improving accountability, quality assurance, coordination and

⁶ <https://unstats.un.org/sdgs/dataContacts/>

accessibility for SDG data. It also helps strengthen the central coordination role of NSO within NSS.



5. *Consult with countries on any harmonized, estimated, modelled or adjusted data through transparent mechanisms.* – In order for custodian agencies to ensure that data are internationally comparable, values are sometimes adjusted and no longer match the figure reported at the national level. In these cases, it is essential that a detailed explanation of the process and methodologies used to adjust the data be provided to the country and that the country has the opportunity to comment on this new value. The validation process can take different forms, depending on the country and agency’s mutual agreements. However, it is important that such a validation take place in a transparent and open manner as it helps to instill trust in the entire data reporting system and ensure that the figure can be recognized by the country and does not create issues of inconsistency with national data and/or controversy at the national level.

6. *Improve coordination within NSSs, among custodian agencies, and between NSSs and custodian agencies so that all involved parties are informed about data requests and are aware of who is providing the data and when and to whom the data is being provided* – NSOs should be the coordinator of the national statistical system. To facilitate the NSOs coordination role, agencies should inform NSOs of existing and well-managed data flows, linked with SDGs indicators and share with them this list of national contacts. Communication and coordination among international agencies has to be enhanced to avoid duplicate reports, ensure consistency of data and reduce response burden on countries. While it is important that focal point information is shared and kept up to date by both the custodian agency and national statistical office, it is imperative that the NSO also compile a list of focal points within their national statistical system to know which agencies and departments provide data to custodian agencies. This is to ensure that the appropriate data are being used when calculating the indicators (in some cases, different data sources exist on the same topics and in

these cases, it is especially important that the custodian agency and country are in agreement on the best data source to use).

III. Case Studies for Data Flows and Global Data Reporting

This section of the report provides concrete examples, using specific country and agency examples, of how the good reporting practices highlighted above are being implemented. The examples are based on a series of case studies on the different mechanisms by which data are reported from the national to the global level conducted over the past three years and are not meant to be exhaustive.

The examples included here are from three series of case studies conducted by the IAEG-SDG itself, by the United Nations Economic Commission for Europe, and by the United Nations Economic Commission for Africa, respectively. Each case study described below includes the name of the country and custodian agency and the specific indicator that the case study relates to. Because each country and agency's data collection and dissemination processes are unique, what works well for one country or agency may not necessarily be applicable for another. Data could come from the NSO in one country and from a line ministry in another country and some countries could have national reporting platforms while others do not. In addition, the reporting practices will differ depending on how centralized or decentralized a national statistical system is. The intention of these cases studies is to highlight how the best practices above are being implemented in a productive manner, not necessarily to provide a blueprint or step by step guide on how data reporting for a specific indicator should occur for other countries.

For more detailed information and the complete case studies of the indicators summarized here, please refer to the footnotes that include the source of each case study.

1. 8.6.1: Proportion of youth (aged 15-24) not in education, employment or training⁷ **Custodian Agency: International Labour Organization (ILO)** **Countries: Eurostat Member Countries**

Eurostat member countries have a unique situation for certain indicators in that they report to Eurostat and the custodian agencies compile information directly from Eurostat. For this indicator, Eurostat member countries submitted their national data to the regional organization (Eurostat), who compiled and published the country data in their database. These data are updated annually and produced by the national statistical office and based on the EU labor force survey. The pilot study found that national data are aligned with data contained in the global database.

This data flow provides a good example of the potential efficiency gains custodian agencies and countries can achieve when data can be directly pulled from an

⁷ Case study come from information included in the Results from the 2017 Data Flow Pilot Study prepared by the Task Team on Data Flows of the UNECE CSE Steering Group on Statistics for Sustainable Development

intermediate data compiler (in this case, Eurostat). Because Eurostat members provide their data directly to Eurostat and this information is available in Eurostat's database, ILO was able to collect data directly from Eurostat for multiple countries rather than needing to contact each country individually. This both increases the efficiency with which ILO can collect that data and reduces the reporting burden on countries. In addition, because the definitions of the indicator were aligned with those used by ILO, no adjustments or harmonization of the data were needed prior to publication, meaning the values provided by countries were the same as those published by ILO, reducing the need for validation of the adjusted/harmonized indicator values. One caveat to note is that while this type of data flow can be beneficial for both countries and the custodian agency, it requires an intermediate agency (generally a regional organization) to have an established mechanism for gathering data from countries.

2. 15.1.1: Forest area as a proportion of total land area⁸

Custodian Agency: Food and Agriculture Organization (FAO)

Country: France

In France, this information comes from outside the national statistical office and is provided by the National Geographical Information Office. The official contact person in this office informs the SDG Focal point in the national statistical system of data requests and keeps them informed of communication between FAO and their office. The reporting on this indicator has been part of the five-year reporting to FAO on forest areas for several decades and France had the information available and was able to respond to the data request in a timely manner. Communications between FAO and the national data provider went smoothly. FAO has also developed a Global Forest Resources Assessment online platform that will facilitate interaction and communication between FAO and the national focal points. This online platform will also include a functionality to compare reporting to FAO and SDGs with national reporting and other processes, such as the Climate Convention.

This data flow provides a good example of how data can flow from an entity outside the national statistical office to a custodian agency, while the SDG focal point in the NSO is kept informed throughout the entire process. In addition, the development of an online platform by FAO for the submission and validation of data could be very useful in reducing the reporting burden and increasing transparency and efficiency in communications and the validation of data.

3. 15.5.1: Red List Index⁹

Custodian Agency: International Union for the Conservation of Nature (IUCN)

Country: Brazil

Data for this indicator come from outside the national statistical office. Several environmental agencies in Brazil, including the Botanical Garden of Rio de Janeiro

⁸ Ibid

⁹ Case study from IAEG-SDG Data Flows Case Studies Compilation from November 2017

and the National Center on the Conservation of Flora, serve as the main data providers. IUCN has held five training workshops on the index in Brazil and is exploring ways to strengthen collaboration between itself and the national statistical office. IUCN has several mechanisms in place to collect data from Brazil, the first is using the national red list assessments from Brazil, the second is using a tool that allows automated upload of endemic species assessments to the global IUCN Red List, and the third is using direct extraction of data from national red lists into the global assessments. IUCN then validates the calculated values through the Integrated Biodiversity Assessment Tool and sends these values to the National Focal Points for the Convention on Biological Diversity. In addition, IUCN has begun directly reaching out to the agencies leading national red list processes and the Brazilian NSO for validation.

This case study provides another good example of data being reported from government entities outside the national statistical office to a custodian agency for global monitoring. While there is a long track record of reporting on this indicator, it can potentially serve as a good example for newer environmental indicators that will require new types of data produced by government agencies that are not traditionally considered part of the national statistical system. In addition, IUCN has a strong validation mechanism in place to ensure countries are in agreement and have a chance to comment on the values that will be published prior to their inclusion in the global database. This is important as it builds trust in the global figures and increases transparency for all involved.

4. 4.2.1: Proportion of children under 5 years of age who are developmentally on track in health, learning and psychosocial wellbeing, by sex¹⁰
Custodian Agency: United Nations International Children’s Emergency Fund (UNICEF)
Country: Viet Nam

This indicator is produced using data from household surveys with the national statistical office being the main data provider. The collection of data through household surveys is a well-established practice and countries have been sharing data with international agencies from these surveys for some time. Once Viet Nam collects the data, it is shared with the UNICEF country office. The country office then submits, through an online system, updated data for this and a number of other indicators directly to UNICEF headquarters. These values are then reviewed by sector specialists at UNICEF and feedback is provided to the country offices. Because these indicators are calculated at the national level in accordance with the global SDG indicator methodology, no recalculations are necessary. However, UNICEF still validates the final data and indicators prior to publication by sharing these results with the country offices who then inform their focal points at the NSO.

This case study highlights several important best practices that improve the data reporting efficiency and help to provide transparency. First, the use of the agency

¹⁰ Ibid

country offices to liaise with the national statistical office provides a direct contact between the NSO and UNICEF that can be useful in resolving any issues that arise and helped to facilitate good communication between the two organizations. UNICEF also works to ease the reporting burden on countries by requesting data for multiple indicators all at the same time, meaning countries only need to prepare one data submission rather than multiple submissions, which will save time and increase efficiency. UNICEF also validates all indicator values through its country office with Viet Nam prior to publishing these data in their databases and submitting them for inclusion in the SDG Global Indicator Database. This increases transparency and ensures that both the country and UNICEF are in agreement on the values prior to their publication.

5. 11.3.1: Ratio of land consumption rate to population growth rate¹¹
Custodian Agency: United Nations Human Settlement Programme (UN-Habitat)
Country: Colombia

All data for this indicator are provided by the Colombian National Statistical Office (DANE). UN-Habitat requests two different types of data: satellite imagery and population data. UN-Habitat sends a template form to DANE, who then inputs the data and returns it to UN-Habitat. UN-Habitat reviews this country data and matches the data to urban areas. While no direct adjustments to the national data are made, UN-Habitat will apply weights to create an estimated national figure. If there are discrepancies with the nationally produced figures, a joint correction will take place between DANE and UN-Habitat. This validation process is applied to both the GIS layers and the urban populations. Also, an additional validation of the national sample of cities is jointly undertaken between DANE and UN-Habitat.

This case study is another good example of how good communication and transparency can yield results in global reporting of data for SDGs. UN-Habitat validates all information they calculate with the NSO and have well established communications flows with DANE. This allows Colombia to ensure that that values included in the global databases align with the nationally produced figures and give the custodian agency the opportunity to explain and discrepancies and to reach a consensus on the values ultimately published.

IV. Conclusion

Global reporting on the SDGs relies predominately on data produced by NSSs and this makes the efficient reporting of this data from the national to the global level imperative to successful global monitoring of the SDGs. The examples reviewed above show that efficient and transparent mechanisms of reporting and consultation between the national and international statistical systems are possible and result in higher quality and timeliness of data for the review of the implementation of the 2030 agenda. The increased

¹¹ Ibid

collaboration between national statistical systems and international agencies will continue to greatly contribute to the overall improvement of the reporting system.

Annex I of this document contains links to the various compilations of case studies that served as inputs to this document. The case studies referenced in this document are only a small sample of the collection of case studies received. In addition, the IAEG-SDGs has created a webpage <https://unstats.un.org/sdgs/iaeg-sdgs/data-flows/> where additional information on data flows will be compiled and posted as it is received.

This best practices document will be updated as new best practices are identified and new case studies illustrating these best practices are submitted. If a country or custodian agency has an additional best practice or case study they think should be added to this compilation, it should kindly be submitted to the IAEG-SDG Secretariat by writing to sdgindicators@un.org.

V. Annex I: Links to Case Study Compilations referenced in this paper

1. “*Africa Region Comments on the Guidelines on Data Flows and Global Data Reporting for Sustainable Development Goals*”, prepared by the United Nations Economic Commission for Africa, 2018.
Link: <https://unstats.un.org/sdgs/files/meetings/iaeg-sdgs-meeting-08/BEST%20PRACTICE%20FOR%20DATA%20FLOWS%20IN%20AFRICA%20-%20SEPTEMBER%202018.pdf>
2. Documents prepared by the Task Team on Data Flows of the United Nations Economic Commission for Europe’s Conference of European Statisticians’ Steering Group on Statistics for the Sustainable Development Goals, 2017 and 2018.
Link: <https://statswiki.unece.org/display/SFSDG/Task+Team+on+Data+Flows+for+SDGs>
3. “*Data Flows from National to Regional/Global Level – Case Studies*”, prepared by the Inter-agency and Expert Group on Sustainable Development goal Indicators (IAEG-SDGs), 2017.
Link: https://unstats.un.org/sdgs/files/meetings/iaeg-sdgs-meeting-06/Data%20Flows%20Case%20Studies%20Compilation%209-11-17_for%20web.pdf