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## Statistical Commission

### Fifty-fourth session

28 February–3 March 2023

Item 4 (c) of the provisional agenda\*

**Items for decision: data stewardship**

## Report of the Working Group on Data Stewardship

### Note by the Secretary-General

In accordance with Economic and Social Council decision 2022/324 and past practices, the Secretary-General has the honour to transmit the report of the Working Group on Data Stewardship. The report provides a summary of the recent activities of the Working Group related to its five workstreams and contains a draft consultation questionnaire to be circulated among national statistical offices to further understand attitudes on the scope and priorities of data stewardship, to assist with developing a working definition.

The Commission will also have before it a background document containing a more detailed update on the workstreams of the Working Group.

Action to be taken by the Commission is set out in paragraph 17 of the report.

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\* E/CN.3/2023/1.



# Report of the Working Group on Data Stewardship

## I. Introduction

1. In 2020, the Statistical Commission, in its decision 51/120, established the work on data stewardship within the High-level Group for Partnership, Coordination and Capacity-Building for Statistics for the 2030 Agenda for Sustainable Development and asked the High-level Group to report at the Commission's next session with a stocktaking exercise and specific recommendations on the way forward. As a result of the High-level Group's work, the Commission, in its decision 52/103, created the Working Group on Data Stewardship in 2021 to explore the development of guidance for national statistical offices on approaches to data stewardship.

2. The Working Group reported to the Commission for the first time in 2022. In its decision 53/104, the Commission supported the five workstreams begun by the Group, covering data governance (workstream 1), equity and inclusion (workstream 2), sharing and collaboration (workstream 3), links with the city data agenda (workstream 4) and the development of an overall conceptual framework (workstream 5); recommended the consideration of additional aspects, such as data capability, data quality assessment and increased attention to issues related to the protection of privacy of data; requested that outstanding work from the Working Group on Open Data be absorbed by the Group; recommended the development of a framework outlining the definition and application of the data stewardship concept, the advantages of assigning the role of data steward to the national statistical office, a glossary of terms related to the data stewardship concept and maturity models covering different national circumstances; and recommended that the Group maintain links with similar work being done within different regional bodies.

3. The Working Group is composed of representatives of national statistical offices and stakeholders from other data communities, including international and regional organizations and civil society organizations. The current Co-Chairs are Beatriz Piedad Urdinola Contreras, Director General of the National Administrative Department of Statistics of Colombia, and Dominik Rozkrut, President of Statistics Poland. The Statistics Division of the Department of Economic and Social Affairs of the Secretariat provides secretariat services for the Group. The Group met four times during 2022 in a series of virtual meetings, while the five individual workstream groups mostly met more often. For further information, the Working Group's terms of reference, membership and past public events and official documents can be found at [https://unstats.un.org/unsd/statcom/groups/Data\\_Stewardship](https://unstats.un.org/unsd/statcom/groups/Data_Stewardship).

## II. Updates from the workstreams

### A. Data governance workstream

4. The aim of this workstream, which is co-led by Statistics Poland and the World Privacy Forum, is to provide guidance to national statistical offices regarding data governance and legal frameworks to assist them in transforming and potentially expanding their role as data stewards. The workstream group is collecting data from Working Group members on existing and forthcoming data governance-related documents, at different levels. In 2022, the European Commission finished work on the Data Governance Act,<sup>1</sup> which is aimed at fostering the availability of data for use by increasing trust in data intermediaries and by strengthening data-sharing

<sup>1</sup> Regulation (EU) 2022/868 of the European Parliament and of the Council of 30 May 2022.

mechanisms across the European Union. Moreover, the group is working towards creating a glossary of data governance-related terms, as well as an inventory of national legislation describing issues linked with data privacy, data protection and data governance, with the aim of facilitating mutual understanding between cross-existing data governance models and government institutions with data governance responsibilities. The workstream group is collecting key data governance use cases from national statistical offices and analysing them to ascertain and catalogue good practices. The workstream is also focused on ensuring clearer communication among national statistical offices and establishing a web-based library to make it easier to navigate the complex world of data governance-related terms and concepts.

## **B. Equity and inclusion workstream**

5. The aim of this workstream, which is co-led by the National Administrative Department of Statistics of Colombia and the Global Partnership for Sustainable Development Data, is to provide guidance to national statistical offices to ensure that an equitable and inclusive approach to data use is adopted, with the aim of leaving no one behind as set out in the 2030 Agenda for Sustainable Development. During 2022, the workstream focused on deepening understanding of the principles and practices that national statistical offices have adopted to promote more equitable and inclusive data as part of their role as data stewards. The workstream started to explore the different policies and strategies adopted by national statistical offices across the globe to ensure inclusive and equitable data use and the inclusion of different communities throughout the data value chain.

6. The main deliverable of the workstream will be a briefing document that compiles case studies, highlighting the main ways that national statistical offices foster equity and inclusion through their data stewardship role. To fulfil this objective, the workstream co-leads elaborated a concept note that examined the relation between data stewardship and equity and inclusion to inspire members of the Working Group to share their experiences. Building on the elaboration and review of a case study featuring the experiences of Colombia and Canada in promoting equity and inclusion, the group will agree on general findings, advice and guidance to share with the wider working group.

## **C. Sharing and collaboration workstream**

7. The aim of this workstream, which is co-led by the National Administrative Department of Statistics of Colombia and the National Institute of Statistics and Census of Argentina, is to develop a better understanding of issues related to access, sharing and collaboration within the data ecosystem. Since national statistical offices exist with different starting points in the data ecosystem, the group looked at different scenarios in which access to data sources, mainly focused on public and private records, was an issue and how issues around sharing were addressed. In this sense, the workstream group sought to compile the different experiences and lessons learned by national statistical offices across the globe on this subject, keeping in mind that each case is different since every national statistical office acts within its own legal framework.

8. Moreover, throughout the year, it was highlighted how the lack of a strong legal mandate has not limited the willingness of national statistical offices to diversify their strategies to harness new data sources for official statistics. This includes establishing cooperation mechanisms through the adoption of a stewardship approach to gain some early wins. For this reason, the workstream group wants to create a “living document”

that is constantly shared with national statistical offices, and feedback is given to improve its usefulness. This includes the compilation of cases, challenges and experiences in the field of data-sharing and collaboration.

#### **D. Data stewardship and the city data agenda workstream**

9. This workstream, which is led by the Thematic Research Network on Data and Statistics of the Sustainable Development Solutions Network, links the Working Group and those engaged in the smart cities initiative, with the aim of fostering knowledge exchange, finding areas of mutual interest and suggesting solutions to improve and connect data stewardship at the national and city level. Data can be a powerful tool for helping city governments to improve the efficiency of their operations, save money, provide better services and enhance citizen engagement. However, fully leveraging the value of data to achieve these objectives requires city governments to improve their data stewardship and data analytics capabilities. As such, the experiences of national statistical offices are important for advancing data stewardship and supporting whole-of-government data strategies within cities.

10. Throughout 2022, the workstream group engaged in several activities. The well-attended webinar in March 2022 entitled “Enabling a data-driven culture between the national and city level” provided an inclusive platform to delve into the recommendations that the workstream group provided to the Commission during its previous session. Key takeaways from the webinar were as follows: more dialogue is needed between data communities at the national and city levels; there are laws and regulations that support data stewardship at the city level but more needs to be done to ensure that there are common standards across municipalities consistent with national ecosystem data governance; there is work at both the city and national statistical office levels to enhance citizen engagement in government activities.

11. As a follow-up to the webinar, the workstream has concentrated its efforts in two areas. The first area explores the potential for the Sustainable Development Goals to act as a use case for data innovations within cities. Consistent with the findings of the Organisation for Economic Co-operation and Development that at least 105 of the 169 Goal targets will not be reached without proper engagement and coordination with local and regional governments, more cities are benchmarking their efforts to achieve environmental sustainability and social equity through the Goals. With cities and subnational entities having conducted more than 50 voluntary local reviews in 2021 and 2022, the workstream is considering city use cases that could showcase innovations in data production, dissemination and use under the Sustainable Development Goal framework.

12. Second, chief data officers of cities have long recognized academic institutions as an important resource, and collaborations between university-based data laboratories and city data units are common, combining local knowledge with specialized technical skills to co-develop solutions. City data partnerships with private sector entities are also on the rise. The workstream group is identifying and reviewing case studies that could inform how these partnerships are established and what makes them effective. These lessons could inform national statistical office strategies aimed at developing sustainable and productive collaborations with academic institutions and the private sector to improve their access to non-traditional forms of data and incorporate new analytics into their service offerings.

## E. Overall conceptual framework on data stewardship workstream

13. The aim of this workstream, which is co-led by Statistics Poland and Open Data Watch, is to establish a common understanding of what the concept of data stewardship covers, recognizing that there are different interpretations of what constitutes data stewardship and differences in the terminology used across different data communities. The goal is to give guidance on the role of national statistical officers as data stewards. This workstream strives to reconcile regional definitions of data stewardship to develop a global conceptual framework and define a framework for describing data stewardship based on common terminology. This will ensure coherence across the other four workstreams of the Working Group as well as across the different regional data stewardship activities.

14. To build on the stocktaking exercise of existing definitions of data stewardship, workstream group members began to develop a list of terms related to data and statistics. This potential glossary was expansive and comprehensive to accommodate stakeholders with varying levels of data expertise. The goal of the glossary was also to create a common language and understanding of key concepts related to data stewardship to support the overall goal of this workstream. In parallel with these efforts, the workstream capitalized on the diversity of its membership to connect with relevant groups within the United Nations regional economic commissions in Europe and Latin America and the Caribbean. Through these efforts, the workstream received updates on the data stewardship paper developed by the Economic Commission for Europe and provided written comments on the draft paper. Similarly, the workstream also reviewed a survey developed by the Economic Commission for Latin America and Caribbean that consolidated inputs from national statistical offices in the region on their understanding of data stewardship. Based on these engagements, it was decided that, to avoid duplication of efforts, the workstream group would work with the Economic Commission for Europe to formulate a commonly agreed glossary of terms.

15. Considering the work already under way at the regional level, members of the workstream agreed to learn from the regional efforts, consolidate their findings and inputs and gather inputs from all regions to develop a framework on data stewardship. To this end, the workstream group members developed a potential framework and definition in a brief document with an accompanying questionnaire to be deployed globally with support from the secretariat of the working group (see annex I). This framework defines data stewardship as a cross-cutting activity that connects data governance to data management and maintains trust and accountability in data. The draft questionnaire was developed in consultation with other workstream leads and all members of the Working Group.

16. The workstream group saw the data steward as a “change leader” in charge of articulating specific goals and actions that increases trust in and the use of data and statistics and thus maximizes the positive impact of data and statistics. The accompanying questionnaire solicits feedback on this proposed definition to ensure that it is inclusive of different global perspectives and experiences. After finalizing these documents, the workstream will conduct a pilot exercise of the questionnaire before deploying it more broadly. Once the results are analysed, the workstream group will share a revised global framework for data stewardship and a checklist of activities that may be conducted by a data steward, in addition to a glossary of terms. This may require additional consultations with key stakeholders and the development of a compendium of case studies of how data stewardship is operationalized within varying data and government systems.

### **III. Action to be taken by the Statistical Commission**

**17. The Commission is invited:**

**(a) To take note of the present report on the work of the Working Group on Data Stewardship;**

**(b) To approve the reports on the progress of the five workstreams defined under the Working Group;**

**(c) To approve the draft consultation questionnaire to be circulated among national statistical offices to further understand attitudes on the scope and priorities of data stewardship contained in annex I to the present report;**

**(d) To approve the proposed workplan of the Working Group for 2023 contained in annex II to the present report.**

## Annex I

### Draft consultation questionnaire on the concept of data stewardship

The Working Group on Data Stewardship was established at the fifty-second session of the Statistical Commission to develop a common understanding of what the concept of data stewardship covers, considering that there are different interpretations of what constitutes data stewardship across different data communities and different uses of the terminology. This short questionnaire is intended to collect your organization's perspective on the definition and parameters of data stewardship in official statistics.

Your feedback will help to inform the development of a global definition of data stewardship and will ensure that any frameworks proposed by the Working Group will be inclusive, actionable and context-sensitive.

#### Proposed questions

Name:

Email:

Title:

Affiliation:

Country:

1. The national statistical office in your country is mandated to coordinate the production and integration of official statistics across the national statistical system.

- (a) Yes.
- (b) Yes, but only over parts of the national statistical system.
- (c) No.
- (d) I don't know.

2. The following functions are often perceived as related to data stewardship. Are there authorities/bodies in your country whose role is to (check all that apply):

(a) Continuously improve governance policies and management practices for data and statistics across the national statistical system? (If selected, write in examples of authorities/bodies that fulfil this role in your country.)

(b) Build and strengthen partnership and collaboration with members of the national statistical system and stakeholders from civil society?<sup>1</sup> (If selected, write in examples of authorities/bodies that fulfil this role in your country.)

(c) Support data-related work across government agencies and other national statistical system entities? (If selected, write in examples of authorities/bodies that fulfil this role in your country.)

(d) Promote and lead in the implementation within the national statistical system of technological and statistical standards and best practices across all stages of data production, dissemination and use? (If selected, write in examples of authorities/bodies that fulfil this role in your country.)

<sup>1</sup> For the purposes of this survey, civil society encompasses non-State actors relevant to sustainable development based on the definition of major groups provided in Agenda 21, i.e. farmers, women, the scientific and technological community, children and youth, Indigenous Peoples and their communities, workers and trade unions, business and industry, local authorities and non-governmental organizations (see, for example, <https://sustainabledevelopment.un.org/aboutmajorgroups.html>).

(e) Oversee the security of data systems and data exchange related to the collection, processing and dissemination of official statistics? (If selected, write in examples of authorities/bodies that fulfil this role in your country.)

(f) Ensure the privacy and confidentiality of sensitive and personally identifying information used in the production of official statistics? (If selected, write in examples of authorities/bodies that fulfil this role in your country.)

(g) Ensure the quality and interoperability of the data and metadata produced and disseminated by members of the national statistical system? (If selected, write in examples of authorities/bodies that fulfil this role in your country.)

(h) Ensure that data assets and statistics produced across the national statistical system are readily findable and accessible to different user groups (for example, through the maintenance of publicly available authoritative data catalogues)? (If selected, write in examples of authorities/bodies that fulfil this role in your country.)

(i) Promote and monitor the adoption of good practices for the use and reuse of data? (If selected, write in examples of authorities/bodies that fulfil this role in your country.)

(j) Foster user engagement and facilitate user-driven development of data and statistics products and services? (If selected, write in examples of authorities/bodies that fulfil this role in your country.)

(k) Other: ... (write in).

3. Do you think that a national data steward should oversee all data sources within the national statistical system in a country, including administrative data?

(a) Yes, because ... (write in).

(b) No, because ... (write in).

4. How have the following data stewardship responsibilities of the national statistical office changed in the past two years? Select one of the three options provided below:

Area or responsibility	1. Responsibilities have narrowed	2. Responsibilities remain relatively unchanged	3. Responsibilities have expanded	Comments
Data governance policies and management practices	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Partnership and collaboration with members of the national statistical system and other stakeholders	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Support for data-related work across government agencies and other national statistical system entities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Implementation of technological and statistical standards and best practices	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Oversee security of data systems and data exchange	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	



Area or responsibility	1. Responsibilities have narrowed	2. Responsibilities remain relatively unchanged	3. Responsibilities have expanded	Comments
Ensure privacy and confidentiality of sensitive and personally identifying information	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Ensure data quality and interoperability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Ensure data findability and accessibility	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Promote and monitor the adoption of good practices for use and reuse of data	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Foster user engagement and user-driven development of data products and services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

5. How would you define and measure successful implementation of data stewardship? (Select your top five.)

(a) Increased resources allocated to the production, dissemination and use of data across all sectors of society.

(b) Increased data-sharing and reuse between government entities and across the national statistical system.

(c) Increased trust in data and statistics produced by the national statistical system.

(d) Low incidence or impact of data privacy breaches and data security incidents within the national statistical system.

(e) Active engagement between data producers and data users.

(f) Increased citizen engagement in surveys and censuses.

(g) Increased availability and timeliness of time series data and statistics.

(h) More data-driven and statistics-driven policymaking.

(i) Increased data literacy in society.

(j) Increased use of statistics by journalists and other communications professionals.

(k) Other: ... (write-in).

6. In your normal course of business, what mechanisms do you rely on to share knowledge and experiences with municipal/city government data stewards (e.g. chief data officers, city registrars, heads of statistics departments)? This refers to relations with municipal-level officials, not with local or regional offices of the national statistical office.

(a) Organizational function/position that is responsible for liaisons with municipal-level officials.

(b) Formalized processes that support recurrent engagement between officials from national statistical offices and municipal-level officials.

(c) Occasional ad hoc meetings between national statistical office officials and their municipal-level counterparts.

(d) Rare or no engagement between national statistical offices and municipal-level officials.

7. Please provide any additional thoughts, especially regarding the existence of other entities with data stewardship responsibilities that may create opportunities or challenges for the national statistical office to serve as a data steward within the broader national statistical system.

## Annex II

### Workplan (January–December 2023)

#### I. Governance and legal frameworks workstream

1. Promote the role of official statistics in the national and supranational data governance systems, which can effectively contribute to the development of efficient and effective data ecosystems, particularly in the coordination of national information systems.
2. Encourage the possibility of developing ethical guidelines for data stewardship, particularly with respect to obtaining data from new data sources (including private and big data) and new models of dissemination vis à vis the data sources (origination), and of incorporating the idea of artificial intelligence and machine learning guidance in the data governance and data stewardship processes and roles to foster trust.
3. Support the development of the capacity of national statistical offices to fulfil the role of data stewards, taking advantage of statistical infrastructure, including nomenclatures, standards, classifications, information models and statistical frameworks, and recent achievements and increased experience in using new data sources and ecosystems.
4. Promote the development of cooperation with other relevant stakeholders of national and supranational data ecosystems by creating an observatory on data stewardship, inclusive of best practices in the realm of data governance and examples of data stewardship activities of national statistical offices.
5. Ensure that best practices are used concurrently with the framework of the Sustainable Development Goals to nurture progress.

*Deliverable:* summary document articulating the process and recommendations

#### II. Equity and inclusion workstream

6. Identify specific research questions to shed light on thematic and sectorial dimensions of the equity and inclusion agenda (related, for example, to Indigenous communities, gender and an intersectional approach) to support different case studies, allowing national statistical offices to understand how they can build their own approaches as data stewards, while achieving relevance by meeting users' expectations as cornerstones of statistical quality assurance.
7. Systematize learning from different national approaches that have been implemented to foster equity and inclusion, strengthen the role of national statistical offices as stewards and foster the empowerment of and collaboration with vulnerable communities through better governance schemes.
8. Develop guidance on how national statistical offices can promote equity and inclusion along the data value chain to strengthen their role as stewards, recognizing the realities under which this promotion must be undertaken and the specific expectations users have regarding the role of national statistical offices and their own role.

*Deliverable:* revised version of the briefing document.

### III. Sharing and collaboration workstream

9. Diagnose the different international scenarios in which sharing and collaboration are being discussed under the data stewardship concept.

10. Document the best practices of and lessons learned by national statistical offices and other stakeholders, while negotiating and achieving data-sharing agreements with public and private actors.

11. Provide guidance on the types of instruments that best suit the data-sharing and collaboration needs and identify research questions regarding the enabling factors for collaborative environments with multiple stakeholders under the data stewardship concept.

*Deliverables:*

- Inventory of resources, with the best practices currently carried out by members on the matter
- Guide and template(s) for the negotiation of data-sharing agreements with members of the data ecosystem, taking into consideration the nature of the stakeholders and the type of data shared
- Final document, including recommendations, research questions for the work ahead and refined outcomes of the other deliverables (inventory of resources and data-sharing agreement templates)

### IV. Data stewardship and the city data agenda workstream

12. Expand interviews and case studies.

13. Revise the conceptual framework as needed.

14. Make recommendations drawn from the experience of cities to support effective data stewardship at the national level.

*Deliverable:* expanded briefing document with selected case studies, one-on-one consultations and focus groups. The studies will cover a mix of high-performing and lower-performing countries

### V. Overall conceptual framework on data stewardship

15. Develop a robust and adaptable framework on data stewardship

16. Issue guidance on the role of national statistical offices as data stewards within government and data systems.

*Deliverables:*

- Formulation of a commonly agreed glossary of terms in cooperation with the Economic Commission for Europe task force on data stewardship
- Questionnaire for feedback on the proposed definition to ensure that it is inclusive of different global perspectives and experiences
- Framework of data stewardship. This may include a checklist to identify the needs and responsibilities that data stewards may fulfil within national statistical systems

## **VI. Meetings**

Eighth meeting: February 2023, in conjunction with the Statistical Commission (in-person)

Ninth meeting: May 2023 (virtual)

Tenth meeting: September 2023 (virtual)

Eleventh meeting: December 2023 (virtual)

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