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Summary of deliberations

International data governance: pathways to progress

I. Introduction

1. The present paper provides a narrative, rationale and vision for global data governance with a view to consolidating a common understanding of the topic and supporting the United Nations system as it helps Member States to lay the foundation for a global data governance framework, built on a mapping of data governance frameworks[1] and other international data governance initiatives.[2] It was prepared by the High-level Committee on Programmes working group on international data governance,[3] in line with the concept note approved by the Committee at its forty-third session. The paper serves to build on the Committee's strategic narrative adopted at its forty-second session, including the pillar on new global public goods, in which the Committee requested a scanning of processes related to international data governance. The working group has also built on papers presented to the Committee at its forty-fourth session on potential contributions to intergovernmental processes, including General Assembly processes related to the development of the global digital compact and preparations for the Summit of the Future. The present paper may serve to inform other intergovernmental initiatives.[4]

2. The paper is aimed at strengthening policy coherence for international data governance that protects the privacy of persons and human rights and leverages

[1] See annex 1, available at https://unsceb.org/international-data-governance-pathways-progress.
[2] See annex 2, available at https://unsceb.org/international-data-governance-pathways-progress.
[3] The entities that participated in the working group include members of the Committee of the Chief Statisticians of the United Nations System and entities nominated by their High-level Committee on Programmes representatives, including the International Fund for Agricultural Development, International Labour Organization, International Telecommunication Union, United Nations Conference on Trade and Development (UNCTAD), United Nations Development Programme, United Nations Office for Disaster Risk Reduction, Office of the United Nations High Commissioner for Refugees, World Meteorological Organization, World Bank, United Nations Children's Fund, United Nations University, United Nations Environment Programme and Office of the Envoy of the Secretary-General on Technology.
[4] See annex 5, available at https://unsceb.org/international-data-governance-pathways-progress.

opportunities for data to be used for the global public good.[5] Throughout the development of the present paper, the working group conducted consultations with stakeholders[6] through a combination of online and face-to-face meetings. The analysis contained in the paper and annexes thereto may be useful for the United Nations system to engage with Member States towards a framework for international data governance that is responsible and accountable and promotes data for the global public good.

II. Making the case for international data governance

3. The use of data is paramount to informing individual decisions and addressing major global challenges. Data are the lifeblood of the digital economy, as they feed algorithms and artificial intelligence, drive international services trade, inform logistics and shape markets, communications and politics. Humanity, through its systems and machines, collects, processes, shares and uses staggering volumes of digital data that may be personal or non-personal or public or private.[7] Data, however, do not just yield economic benefits, they can also have individual and societal benefits and impacts when used responsibly.

4. Data, when represented as statistics and information, also facilitate innumerable social interactions and deliver the evidence needed to formulate and assess regional, national and international policies and programmes, such as the 2030 Agenda for Sustainable Development and the Sustainable Development Goals. They can be merged with other data to obtain new data and new data products, generating informed policies, economic value and social benefits. Being able to access, process, use and reuse data is essential for dealing with global challenges, such as managing and protecting the environment, intervening in the event of a pandemic or responding to a disaster or crisis. Data are also at the centre of innovation in all economic sectors and are increasingly used by firms and businesses as inputs in their production processes.

5. It is important that the benefits of data are openly and equitably distributed to serve all. It is also important that the human rights and privacy of all individuals are respected.[8] Many data are proprietary and are only accessible to a few. Many of these data governance issues cannot be fully resolved at the national level and require international cooperation through a globally coordinated approach. A list of international initiatives in this area can be found on the relevant CEB web page.[9]

6. In recent years, there have been several calls from across the private and public spectrum for both global digital and data governance frameworks.[10] To this end, Member States have developed regulatory frameworks related to data, most notably in relation to privacy, data protection and open data, and an increasing number of

[5] Digital Public Goods Alliance and others, “Community of practice report: exploring data as and in service of the public good” (2023). Available at https://digitalpublicgoods.net/PublicGoodDataReport.pdf.

[6] The stakeholders included GovLab, the Datasphere Initiative and Transform Health.

[7] See annex 4, available at https://unsceb.org/international-data-governance-pathways-progress.

[8] For more details on safeguarding against the misuse of data while enabling the use and reuse thereof, see annex 4, available at https://unsceb.org/international-data-governance-pathways-progress.

[9] See annex 2, available at https://unsceb.org/international-data-governance-pathways-progress.

[10] Steve MacFeely, “In search of the data revolution: has the official statistics paradigm shifted?”, *Statistical Journal of the International Association of Official Statistics*, vol. 36, No. 4 (November 2020), pp. 1075–1094; and Steve MacFeely and others, “Towards an international data governance framework”, *Statistical Journal of the International Association of Official Statistics*, vol. 38. No. 4 (September 2022), pp. 703–710.

localization measures.[11] However, with a few exceptions, these are national level regulatory frameworks. In response to this phenomenon, there have been calls for global digital and data governance frameworks, as shown by the efforts to develop a global digital compact. These calls have been focused on the growing need for a greater technical and legal interoperability of frameworks, which enables the flow of data while asserting rights and local values. Examples of proposals and multilateral initiatives include those developed by the Group of Seven, Group of 20[12] and the European Union (see annex 5).[13] Several United Nations entities and international organizations have also highlighted the need for greater coordination in international data governance (see annex 2).[14] However, these initiatives have common and distinct characteristics (see annex 1). Bringing consistency to the data policy landscape is an enormous task that will require collaboration between all States.

7. Advancing the promotion and protection of data requires rules and standards[15] that safeguard while enabling the use of data that have social value or constitute a shared or common resource. These rules and standards must ensure equity of access, protection and security, without undermining innovation and the possible economic benefit that data may generate, and clearly define which data flows are permitted, under what circumstances, and what behaviour is encouraged or discouraged.

8. At the global level, national institutions, such as national statistical offices, are bound by various multilateral agreements to share statistics with the United Nations. Similarly, there are several humanitarian data initiatives, such as the International Aid Transparency Initiative or the World Health Organization Hub for Pandemic and Epidemic Intelligence, which point to the importance of global data-sharing and interoperability. At the global level, however, there are complexities and limitations inherent in data governance that require flexibility and creativity from the multilateral system. While the United Nations has been providing national and global statistics for the public good since the Statistics Commission was established in 1947, the nature of data has changed immensely since then.

9. The United Nations has the opportunity to show global leadership, decommission data as a weapon, embed common values and human rights in the way that data are used and repurposed and reinvigorate the international political infrastructure by proposing a global data governance architecture. The purpose of the present paper is to provide a common United Nations system vision of global data governance to support the Secretary-General and the United Nations in taking a

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[11] Organisation for Economic Co-operation and Development (OECD), "A preliminary mapping of data localisation measures", OECD Policy Paper, No. 262 (June 2022).

[12] Several policy briefs regarding data have been published on the G20 Insights Platform, including "Regulating cross-border data flows in the development context", "Cross-border data flow: a trilemma of mobility, monetization, and privacy", "Shared understanding and beyond: toward a framework for data protection and cross-border data flows" and "Standards for the digital economy: creating an architecture for data collection, access and analytics". See www.g20-insights.org/policy_briefs/.

[13] European Commission, "Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: a European strategy for data" and Official Journal of the European Union, "Regulation (EU) 2022/868 of the European Parliament and of the Council of 30 May 2022 on European data governance and amending Regulation (EU) 2018/1724 (Data Governance Act)". The European Union has also proposed a regulation of the European Parliament and of the Council on harmonized rules on fair access to and use of data (known as the data act). See https://digital-strategy.ec.europa.eu/en/policies/data-act.

[14] World Bank, World Development Report 2021: Data for Better Lives (Washington, D.C., 2021) and UNCTAD, Digital Economy Report 2021: Cross-border Data Flows and Development – For Whom the Data Flow (United Nations publication, 2021).

[15] Jill Lepore, *If Then: How One Data Company Invented the Future* (John Murray Publishers, London, 2020).

leadership position to inspire, advocate and implement new mechanisms for global data governance. The body of the paper and the extensive material presented in the annexes are intended to support United Nations entities, Member States and all relevant stakeholders, serving as a starting point for discussions, deliberations and specific multilateral action that can advance a global agenda on data governance.

III. Roadblocks to international data governance

10. Diverse and fragmented regulatory frameworks (e.g. relating to privacy, data protection, localization, trade, digital policy and intellectual property),[16] private ownership, conflicting incentives and data-driven technological acceleration are only some of the challenges to the global agenda on data governance. Data governance has evolved in a fragmented and uncoordinated manner, resulting in different approaches to governing data, with some regions focusing on protecting individual data and others on maximizing the profit from data or using data to control societies in the name of national security.[17] Of the different approaches adopted around the world, there is, at one extreme, the free flow of data, which advocates data as a critical enabler of digital transformation, innovation, economic growth and social benefits and, at the other extreme, data sovereignty,[18] which raises concerns related to privacy, taxation, competition, security and even democratic processes. Between these extremes is the proposal by Japan for data flow with trust[19] and advocacy of digital self-determination by Switzerland.[20]

11. Fragmentation has produced asymmetric concentrations of data[21] and capacities to use data, together with uneven levels of data protection and accessibility across sectors, communities and countries. Paradoxically, the ubiquity of data does not mean that they are available or easily accessible to all and data concentration introduces obvious risks of abuse, manipulation[22] and inequalities.[23] There has also been a spike in data localization measures since 2017[24] as a result of increased competitiveness, the lack of trust between actors and institutions and the speed at which data have overtaken society. These issues illustrate the difficulty in dealing with the challenges raised by the massive amounts of data that now underpin almost all human activities across geographical areas. The risk is not only that the benefits of data may be limited to a

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[16] Center for International Governance Innovation, “As digital trade expands, data governance fragments: our current regulatory frameworks are inadequate”, 9 February 2023.

[17] UNCTAD, Digital Economy Report 2021.

[18] Internet and Jurisdiction Policy Network, We Need to Talk About Data: Framing the Debate Around Free Flow of Data and Data Sovereignty (2021).

[19] World Economic Forum, “Every country has its own digital laws. How can we get data flowing freely between them?”, 20 May 2022.

[20] See www.admin.ch/gov/en/start/documentation/media-releases.msg-id-87780.html.

[21] Stefaan G. Verhulst, “The ethical imperative to identify and address data and intelligence asymmetries”, *AI & Society: Journal of knowledge, culture and communication* (March 2022). Available at https://doi.org/10.1007/s00146-022-01410-5.

[22] Yuval N. Harari, *21 Lessons for the 21st Century* (London, Jonathan Cape, 2018); Viktor Mayer-Schönberger and Thomas Ramge, *Reinventing Capitalism in the Age of Big Data* (New York, Basic Books, 2018); and Robert B. Reich, *Saving Capitalism: For the Many, Not the Few* (London, Icon Books Ltd., 2016).

[23] See www.undatarevolution.org/wp-content/uploads/2014/11/A-World-That-Counts.pdf.

[24] The number of countries restricting cross-border data flows and overall data flows increased from 35 to 62 and from 67 to 144, respectively. In the same period, 38 other data localization policies were proposed or considered in countries worldwide. Nigel Cory and Luke Dascoli, “How barriers to cross-border data flows are spreading globally, what they cost, and how to address them”, Information Technology and Innovation Foundation, 19 July 2021. Available at https://itif.org/publications/2021/07/19/how-barriers-cross-border-data-flows-are-spreading-globally-what-they-cost/.

few, but also that the barriers to unlocking data may limit innovation and inhibit global initiatives to tackle global problems, ranging from pandemics to climate change.

12. In addition to the diversity of existing regulatory frameworks, much of the data used for the public good are owned by the private sector. Private initiatives providing data for the public good face several challenges, which could be addressed by a common framework that regulates and provides incentives and practical mechanisms[25] for the collection, access and use of data. A significant portion of private data is personally identifiable and sensitive. Data are collected or harvested by private companies for private use, for example for advertising, and may contain data that breach individuals' right to privacy, leading to possible harms.

13. At the same time, data generated or reused by the private sector can be of great value to the public.[26] For example, data obtained from mobile phone companies can provide a unique source of information on people's mobility, which can be used to design more effective transportation networks. Currently, the ways in which private sector data are processed and shared are by and large determined by private companies, regardless of any potential public interest. While private companies own a large amount of data that could be used for the public good, they do not necessarily have an incentive or the capacity, and depending on the jurisdiction, the requirement to protect data.

14. Finally, advances in data-driven technologies, such as artificial intelligence, have increased the use of unregulated data globally. As these technologies are further developed, concerns over data, regardless of whether the data are used in or created by these technologies, only become greater. The present paper, therefore, complements and contributes to global efforts on digital policy, such as efforts to regulate artificial intelligence and promote cybersecurity.

Cost of inaction

15. For economies around the world, the cost of ungoverned data and data flows is a loss of trade, a loss of innovation and a loss of economic and human potential. For societies, the absence of governance facilitates greater inequalities and the continued undermining of long-standing social contracts and human rights, leaving peoples and communities misinformed, divided, destabilized and vulnerable. For governments and international organizations, ungoverned data undermine the provision of public services, environmental protection, humanitarian action and disaster management and responses. For sustainable development, the absence of data governance may cement or exacerbate existing North-South divides, undermining decades of development. Without data governance and without a new social contract[27] for the digital era, data could be used to track, target and harm anyone. The future of individual privacy and human rights is at stake. In an era of governance by numbers and of quantification, it is important that peoples and communities retain control of their data, benefit from their data and are protected from the harmful misuse of data.

IV. Vision for accountable, agile and fair international data governance

16. With a view to promoting and protecting data, the aim is to define a multi-stakeholder approach to data governance, which responsibly unlocks the full value of

[25] These mechanisms support predictability and certainty, such as data-sharing agreements and model clauses.

[26] Stefaan G. Verhulst "Sharing private data for public good", Project Syndicate, 27 August 2019.

[27] World Bank, *World Development Report 2021*.

data for all, while ensuring accountability and agility. It will only be possible to unlock the value of data for all under frameworks that ensure responsibility and accountability, through mechanisms that are participatory, transparent, multi-stakeholder and agile. These steps are essential to foster equity, drive well-being and protect against data misuse and data concentration that benefits only a few. A data governance framework should support and strengthen individuals and communities so that they have control over and benefit from their own data. To that end, such a framework must serve to clarify and strengthen legal protections against the misuse or abuse of data and to engage communities in the joint creation of data stewardship and accountability mechanisms. A data governance framework should encompass data responsibility frameworks[28] and data accountability frameworks.

Framework for responsibility

17. While there is not a uniform understanding of the term "responsibility" when applied to the governance and management of data, certain actors have put forward the notion of "data responsibility frameworks" to support the collection, use and reuse of data. It is critical that there is data responsibility across complex data value chains, imbuing values that support equity from data ingestion to curation and analysis. While once powerful, historical principles for a responsible approach to data[29] eroded with the arrival of Web 2.0 and explosion of mobile Internet. The current digital transformation and artificial intelligence, such as Chat Generative Pre-trained Transformer,[30] pose new challenges on a daily basis. Examples of more modern frameworks include the Inter-Agency Standing Committee operational guidance on data responsibility in humanitarian action published in 2023.[31] Furthering this effort and perhaps supporting the application of a responsibility framework beyond humanitarian relief, the Office for the Coordination of Humanitarian Affairs, GovLab and the Center for Innovation joined forces to propose an expanded framework based on six elements: technology, legal, governance, process, people and network. These elements are then shaped by an ethics dimension. The authors believe that this framework will help organizations to maximize the value of data in their work while minimizing the risk.[32]

Framework for accountability

18. Continuous assessment is necessary to ensure a responsibility framework is well developed and applied. Without accountability, however, value-sharing cannot be confirmed and data may be used outside governance frameworks and the context in ways that negatively affect well-being. Continuous assessment also allows the impact and unintended consequences to be identified, ensuring different actors follow the framework agreed upon. Continuous assessment also allows for the application of enforcement, penalty and other mechanisms. A robust accountability framework will enable transparent recognition and tracking of commitments to a certain data initiative, facilitating feedback and learning. A clear accountability framework also

[28] See https://datacollaboratives.org/framework.html.

[29] For example, the Fair Information Practice Principles, designed in the 1970s, served as the foundation for much of historical discussion, but are of limited use in the modern digital world.

[30] Cade Metz, "The new chatbots could change the world. Can you trust them?", The New York Times, 10 December 2022. Available at www.nytimes.com/2022/12/10/technology/ai-chat-bot-chatgpt.html.

[31] Inter-Agency Standing Committee, "Operational guidance on data responsibility in humanitarian action", 28 April 2023.

[32] Joanna van der Merwe, "Data responsibility: an approach to protecting the people behind the data", Data & Policy Blog, 7 February 2020.

supports legal and operational compliance. Accountability frameworks are not a novel idea in multilateralism. International conventions, such as the Convention on International Trade in Endangered Species of Wild Fauna and Flora, define an accountability system for monitoring implementation of the convention by countries, which face sanctions for non-compliance. There are also inspiring examples of accountability frameworks, such as the "Sustainable energy for all accountability framework".[33] In addition, with most countries around the world adopting privacy and data protection norms, a series of accountability frameworks have been proposed with regard to privacy. An example of an accountability framework that is focused on privacy is the United Kingdom of Great Britain and Northern Ireland Information Communications Officer Accountability Framework.[34]

19. The development and application of these frameworks are the duty of all and data stewards[35] play an essential role in both. The approaches and concepts under a data responsibility and accountability framework can provide for more participatory processes, ensure greater equity and inclusion, and embed new practices and procedures in the way organizations across sectors collect, store and use data.

Collective approaches

20. New models for collective data governance are needed to promote a fairer distribution of the potential data-derived value among peoples, within and between countries. New institutional models for data are being developed and institutionalized through enabling policies. Around the world, individuals are coming together to form collectives in response to the private sector's perceived failure to protect individual privacy rights and protect data from breaches, while profiting but not sharing the value.[36] Examples include the use of trusts for data, data collectives, data cooperatives, data partnerships[37] and, under the European data strategy, data spaces. The core idea of such approaches is that collective members define a common pool of data that can be collectively valued and governed on the basis of their best common interest. Both individuals and organizations can benefit from these arrangements of collective governance and power. However, data collaboratives come with challenges, such as legal barriers, silos, the proprietary nature of data, fears of misuse as well as privacy, ethical and fairness issues. These challenges may require new governance structures, processes and practices to ensure the proper working of collaborations, in addition to the institution-level frameworks suggested above.[38] Despite these challenges, it is clear that collective approaches are essential if the value and benefits of data are to be unlocked for all and contribute positively to disaster and crisis preparedness and prevention.

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[33] See https://sustainabledevelopment.un.org/content/documents/1644se4all.pdf.

[34] See https://ico.org.uk/for-organisations/accountability-framework/.

[35] Stefaan Verhulst and others, "Wanted: data stewards – (re-)defining the roles and responsibilities of data stewards for an age of data collaboration", Data & Policy Blog, 2 March 2020.

[36] This perception also spurred movements such as My Data. See www.mydata.org/about/.

[37] See https://datapartnership.org/.

[38] Erna Ruijer, "Designing and implementing data collaboratives: a governance perspective", *Government Information Quarterly*, vol. 38, No. 4 (October 2021). Available at https://doi.org/10.1016/j.giq.2021.101612.

United Nations data: an example of data collaboratives and a global public good

There are many steps involved in the verification and harmonization of United Nations data, the objective of which is to provide reliable and globally comparable data that are relevant for sustainable development and other areas of global multilateral action. These data are typically contributed by the national statistical systems of Member States in order to produce knowledge for the global public good. In such cases, the United Nations plays the role of an honest broker, to ensure that United Nations statistics are globally comparable, impartial, accurate, transparent, timely and openly accessible. United Nations data and statistics are not only for the public good, they are global public goods. They serve to build on a common global commitment to produce data and not only to make them available for public use. In this sense they are "owned" by the global community and not by a particular Member State or the United Nations.

United Nations data will only be global public good data if there is an unconditional commitment by all Member States to contribute to a global data system that aspires to the highest data quality standards and is free from political interference. This commitment must be matched by a symmetric commitment by the United Nations to harmonize national data on the exclusive basis of achieving the highest quality standards, which could be defined, for example, by the United Nations Statistical Quality Assurance Framework.[a] The "Principles governing international statistics",[b] which have been endorsed by 34 international organizations, reflect the commitment of the United Nations and the wider international multilateral system, but there is currently no explicit commitment by Member States to these principles. The Fundamental Principles of Official Statistics, approved by the General Assembly in its resolution 68/281, originally applied only to the national context.[c] Member States have not explicitly committed to apply the international principles when providing data to the United Nations, nor have all Member States participated in the global harmonization of data and statistics, which means that United Nations data may not always meet the high standards required to inform global policy decisions.

[a] See https://unstats.un.org/unsd/unsystem/documents/UNSQAF-2018.pdf.
[b] See https://unstats.un.org/unsd/ccsa/principles_stat_activities/.
[c] Pursuant to Economic and Social Council resolution 2/2022, the Fundamental Principles of Official Statistics are also considered to apply to international organizations.

21. Overall, within the framework of producing and releasing data for the public good, and in some cases as a public good, adhering to international standards and adopting good practices will help to build trust in order to maximize the benefits and minimize the harms.

22. The current lack of mechanisms to bridge existing silos constitutes an institutional vacuum. Global, cross-sector dialogue involving all categories of stakeholders is needed as a prerequisite for fostering the transdisciplinary collaboration data governance requires.

Agility, fairness and inclusion

23. More generally, policymaking regarding data requires innovative design[39] approaches, outside traditional multi-stakeholder forums, which incorporate agile methods pioneered for software development (through iterative and modular steps),[40] but also systems engineering or biology (activation and repression feedback loops). A multi-stakeholder approach has also been adopted for United Nations governance mechanisms, with conventions, for example, that have both government and non-government parties.

24. The institutional aspects of a systems approach to data governance should also address the rapidly growing field of technologically enabled and decentralized bottom-up innovations. Initiatives such as data trusts, fiduciaries, collaboratives, partnerships or decentralized autonomous organizations not only aim to propose solutions to some data-related challenges, but also to raise essential and novel issues regarding their own governance mechanisms. Ensuring interoperability between a large number of such initiatives may ultimately require the development of dedicated protocols, like those that enabled the interoperable Internet and World Wide Web, respectively.

25. Most importantly, this vision for accountable, agile and fair international data governance calls for a fairer distribution of the created value among peoples and communities, within and between countries; it entails, particularly for the most powerful actors, a duty to coordinate and cooperate, which does not replace but complements their individual rights to self-determination and agency. A systems approach to data governance, however, should not only rely on the assumption that attitudes will change, but on the institutional frameworks that can enable this.

26. Global cross-sector dialogue involving all categories of stakeholders is therefore a priority prerequisite for the transdisciplinary collaboration that is necessary for data governance. On that basis, major actors could experiment with dynamic arrangements (e.g. transnational sandboxes). They could also eventually formalize high-level mutual commitments (e.g. in the spirit of a framework convention) that would serve as a foundation for organizing their independent yet coordinated action for the global public interest.

V. Pathways towards international data governance

27. Moving forward, a comprehensive global data governance framework that can effectively address the challenges of the twenty-first century, in line with shared values, is critical. In order to achieve this goal, concerted efforts by the international community, multilateral entities, the private sector and grass-roots initiatives will need to agree on a set of common principles; establish clear processes for making decisions; and establish mechanisms for implementing these decisions. These aspects are discussed in greater detail below:

(a) **Principles**. These should be grounded in globally accepted frameworks, such as a human rights framework, and serve as guidance for designing and developing a global data governance framework. They should provide practical and ethical guidelines for decision makers and serve as a means for evaluating the effectiveness of the framework. Furthermore, it is essential to establish common principles to ensure

[39] Yakov Feygin and Nils Gilman, “The designer economy”, Noema Magazine, 19 January 2023. Available at www.noemamag.com/the-designer-economy/.

[40] However, it should be noted that the agile method also has its challenges and generally works better when prioritizing short-term easy tasks over long-term planned tasks. See www.researchgate.net/profile/Gloria-Miller-2/publication/335475075_Agile_problems_challenges_failures/links/5d683a6d299bf1d599449143/Agile-problems-challenges-failures.pdf.

that the way data are governed between Member States is consistent. Annex 4 provides an analysis of the principles in existing frameworks, where three key themes, namely value, trust and equity, emerge as central to existing initiatives;

(b) **Processes**. It is essential to approach governance as a dynamic process that encompasses different stages, in the same way as agenda-setting and policy formulation. Specific roles and responsibilities, together with accountability mechanisms, are required at different stages of the governance life cycle. Ultimately, these processes require the strong political will of all data agents and the necessary resources. Mobilizing domestic resources and international financial support to enable these processes and implementation mechanisms, described in the paragraph below, is a precondition for any new global data government process.

(c) **Mechanisms and enabling conditions**. In terms of implementation, it will be necessary to leverage these processes to develop a set of governance mechanisms through which the principles and objectives can be implemented globally and effectively. Defining specific mechanisms, along with established processes, is crucial in ensuring global data governance. Enabling conditions can help to build trust, secure adequate financing, create incentives, strengthen human capital and create a culture of valuing and prioritizing data use.[41]

Options for intergovernmental progress

28. The topic of data and data governance is not new to the United Nations and international bodies and Member States have been discussing, in different forums, issues related to data principles and data governance for decades. For example, the Statistical Commission has been discussing the principles of ethics in relation to official statistics since the 1990s and, more recently, the General Conference of the United Nations Educational, Scientific and Cultural Organization adopted the Recommendation on the Ethics of Artificial Intelligence. Some intergovernmental processes currently have topics related to data governance on their agenda (see annex 2 and annex 5 for a list of those initiatives). Most recently, the Commission on the Status of Women emphasized that "serious harm and discrimination against women and girls triggered by the use of new and emerging digital technologies call for regulations that take into account the voices and experiences of women and girls to … enhance transparency on how to use and protect data and address the potential human rights violations and abuses caused by the use of their products and services".[42]

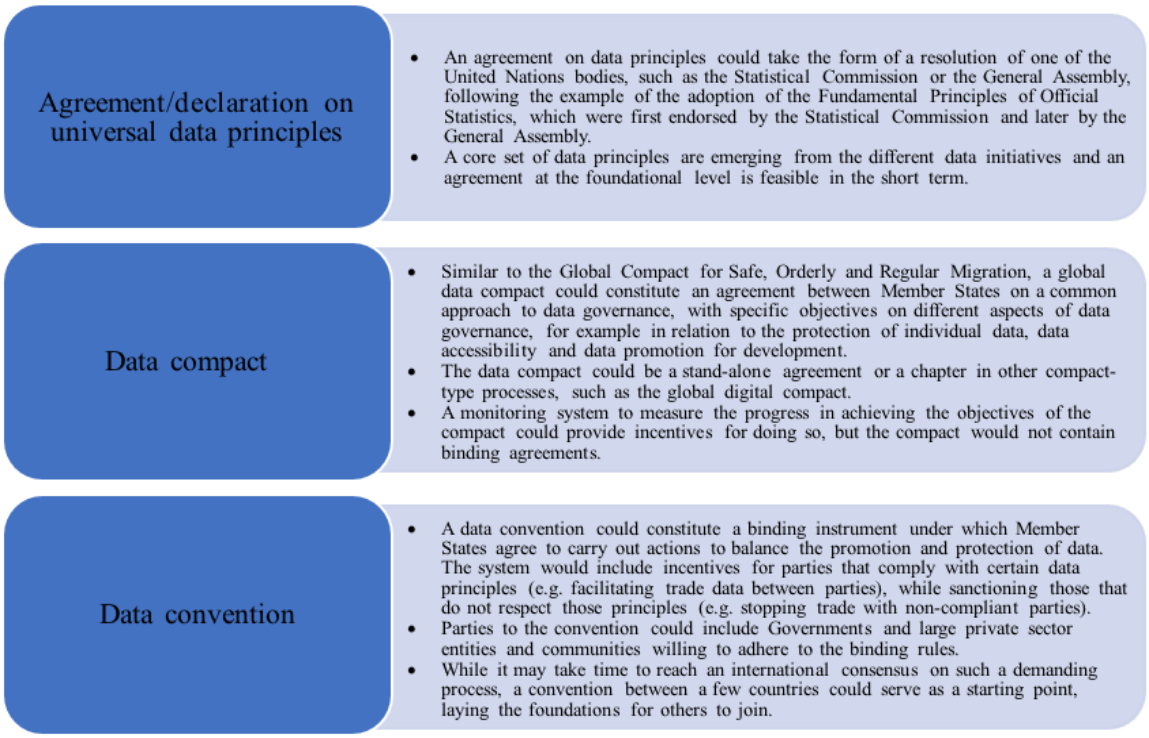
29. Despite these initiatives, however, there is not an overall international agreement that covers all the aspects and impacts of data governance. International mechanisms could take different forms. Non-binding declarations and agreements are less ambitious instruments that could allow for building consensus and establishing common principles, while binding conventions with norms that sanction the misuse of data could provide more robust and enforceable protection. There are already examples of international conventions developed by Member States that balance the notion of protection and promotion.[43] However, global engagement on the subject is still in its infancy and a step-by-step approach may be more likely to advance international engagement among Member States. The figure below provides an outline of the progressive stages that the international community could follow to advance a multilateral approach to data governance.

[41] World Bank, World Development Report 2021.

[42] E/2023/27, chap. I.A.

[43] For example, the Convention on International Trade in Endangered Species of Wild Fauna and Flora is a binding instrument that defines norms to regulate the trade of endangered species while at the same time protecting them, by ensuring that trade does not exceed certain quotas, depending on the level of risk of extinction of the species.

Figure I
Three incremental steps for building a multilateral approach to data governance



30. Intergovernmental progress should leverage and be anchored in existing international frameworks, such as human rights and data principles that have been already agreed upon by Member States, including the Fundamental Principles of Official Statistics.

31. The current development of the global digital compact and the Summit of the Future represents a great opportunity that Member States could grasp to advance the agenda for global data governance. To support the agenda, open data infrastructure is necessary.[44]

32. Operationalizing and implementing a global data governance framework requires a multistage process; it will be important to define the roles, responsibilities and procedures across these stages. It will also be important to advance process innovation when implementing these stages to develop a framework that can address twenty-first century challenges in new and more effective ways. The stages that need to be operationalized are described in annex 6.

33. In order to advance global data governance, legitimately and effectively, through the mechanisms described above, Member States of the United Nations, the private sector and civil society must work together. Multi-stakeholder engagement is critical for the success of global data governance, as it can mobilize broad support for difficult policy reforms and interventions. Multi-stakeholder engagement is needed to bring together not only intergovernmental efforts that involve Member States, but also those initiatives that have started at the local level with different governmental and non-governmental stakeholders and can be elevated to the global level. The private sector, data networks and communities have a critical role to play. No global data governance mechanism can be effective if they do not have a meaningful role.

[44] See https://stats.unctad.org/Dgff2016/prosperity/goal9/index.html.

Dilemmas of global data governance: a bottom-up or a top-down approach and a Member States-led or a multi-stakeholder-led approach

34. The traditional Member States-centric approach to defining global agreements and commitments remains at the core of United Nations initiatives. There are two main challenges of this approach in the context of data governance. The first relates to the existing polarization of data governance approaches, making it difficult to see how a consensus could be achieved, particularly in the current multilateral environment where Member States do not seem to have an appetite for ambitious consensus.

35. The second challenge relates to the multi-stakeholder nature of data holdings and governance, where non-government agents are currently pushing the frontiers of data governance more than State actors. The private sector has a large concentration of data and probably more decision-making leverage over how to collect, process and use certain data than most Governments. In the light of their concerns over the volume of data held by the private sector, civil society actors have been promoting a data agenda that places responsibility, accountability, equity and transparency at the centre. There are examples of global mechanisms relating to the environment (e.g. the International Union for Conservation of Nature and Natural Resources) and information technology (e.g. the World Summit on the Information Society Forum) that could serve as inspiration for multi-stakeholder mechanisms for data governance. Leveraging existing global processes and instances, such as the World Economic Forum, the World Government Summit or the Internet Governance Forum, which already convene large and important segments of the private sector, could also serve as effective multi-stakeholder networks for global data governance.

36. The starting point for an international data governance mechanism could be: (a) a global Member States-led process; (b) civil society initiatives that promote a responsible approach to data; or (c) a group of like-minded countries which other Member States can join.

37. Such types of initiatives may not be mutually exclusive and could eventually all support the development of a common global vision.

38. Within the context of multi-stakeholder networks for global data governance, the private sector plays an essential role as it possesses large amounts of data and leads innovations related to data, often in a closed, private manner. Private holders of data that are of global public interest have a special responsibility and should be held accountable for the data they provide. Engaging the private sector in global data governance is important not only because of the benefits it might create, for example as a result of leveraging private sector data to address the coronavirus disease (COVID-19) pandemic, but also because of the potential negative impacts as a result of not sharing relevant data, such as data on fossil-fuel carbon emissions, preventing earlier climate action.

39. Within the private sector, there are initiatives that could advance the agenda for global data governance, such as facilitating internal good data governance practices, including whistle-blower mechanisms, best practices on internal data governance models and data auditing processes, adopting a scorecard approach, implemented by a credible and independent third-party body to conduct assessments, verification processes and reporting on the impacts of data practices in the private sector, and facilitating transparent data reporting, including through environmental, social and governance and net-zero standards.

40. It is also important that harmful data concentrations and data practices are prevented through government regulatory and antitrust/competition frameworks. Such frameworks need to be developed and established at the global level to address the cross-border nature of data flows.

41. Civil society, existing networks and data communities have also a crucial role to play. They can support better data representativeness, data literacy and the use of

data for the public good. Partnering with civil society organizations and expert networks can support Governments in setting up data responsibility and accountability frameworks. Civil society organizations also can help to enable better transparency and inclusive participation in data governance processes.

Promoting coherence in the United Nations system for international data governance

42. The United Nations system is an important convenor of discussions that are aimed at bringing Member States and other stakeholders together and grounding international human rights, including international law, such as the Convention on the Rights of the Child, and development frameworks, such as the Sustainable Development Goals, in international data governance. The United Nations system can support Member States, other international organizations, the private sector, civil society, the academic community and other stakeholders, across all stages of the process, in operationalizing and implementing a global data governance framework (see annex 6).

43. The United Nations system can play a critical role in advancing the global data governance agenda in two ways: by supporting Member States as they engage through intergovernmental processes that can advance a responsible agenda on data governance and by improving its own internal data governance.

Figure II
Actions for the United Nations system to promote global data governance to support Member States in defining global mechanisms and to improve internal United Nations data

44. The holistic vision and scanning of data governance initiatives presented in the present paper already represent tools that can be offered to Member States to support their reflection on if and how they want to advance the agenda on data governance. The United Nations system needs, however, to play a more proactive leadership role to advocate with authority for a governance approach that fits the vision contained in the present paper. It is vital that the governance approaches and mechanisms, which are suitable for the twenty-first century, can govern a distributed data ecosystem.

45. The United Nations can also do more internally. The United Nations is well positioned to assume the role of data custodian for some global public good data, for example data collectively shared by Member States to support the attainment of global goals, such as the Sustainable Development Goals. The United Nations could eventually act as one of the repositories of privately generated data that are of global public relevance, for example data collected by private entities primarily for the purposes of conducting business, in cases where such data have the potential to foster the attainment of global goals or to serve a key role in crisis preparedness and humanitarian responses. Data governance mechanisms for private intent data are only in the exploratory stages,[45] leaving untapped potential in such data especially when they are combined with public intent data. Annex 3 provides more details on the role of United Nations data.

46. For the United Nations to assume this key role in global data governance, it is imperative that it leads by example when it comes to the responsible, efficient and effective use of data within and across all United Nations entities, efforts and initiatives. The System-wide Road Map for Innovating United Nations Data and Statistics and *Data Strategy of the Secretary-General for Action by Everyone, Everywhere with Insight, Impact and Integrity* were important first steps towards this goal and their implementation should be strengthened and potentially extended to include concepts such as data stewardship.

47. In addition to consolidating the role of the United Nations, it is important to strengthen collaboration and engagement with other multilateral organizations, to bring innovation into data governance approaches by facilitating international cooperation[46] on standards, global public goods and financing mechanisms[47] to turn frameworks into practical implementations.

Next steps for the United Nations system

48. In addition to implementing existing frameworks, such as the System-wide Road Map for Innovating United Nations Data and Statistics and the *Data Strategy of the Secretary-General for Action by Everyone, Everywhere with Insight, Impact and Integrity*, there are also opportunities to further support Member States efforts in

[45] There are some good practice data partnerships addressing specific data-sharing issues related to private intent data. For example, the Development Data Partnership is a successful consortium approach that is focused on improving access to private intent data for social, economic and sustainable development. At present, the consortium includes the World Bank, International Monetary Fund, Inter-American Development Bank, OECD, United Nations Development Programme and the Rockefeller Foundation, in partnership with 30 private companies to enable access to private sector data and analytics.

[46] See https://wdr2021.worldbank.org/spotlights/the-role-of-international-organizations-in-improving-public-intent-data.

[47] Specialized data financing initiatives, such as the Complex Risk Analytics Fund and Global Data Facility of the World Bank, can help reinforce the importance of international data governance. See, e.g. https://datawithpurpose.org/.

progressing towards an accountable, agile and fair international data governance framework.

49. The present paper outlines the issues and challenges that need to be addressed and articulates the rationale for an international data governance framework. This is part of the "issue framing" and "agenda-setting" stage, as outlined in the stages for operationalizing a global data governance framework, and where the United Nations system can contribute.[48] Building on the narrative contained in the present paper and the scanning of existing frameworks and processes,[49] the United Nations system could support Member States in formulating a policy, through collaborative and participatory processes, towards a vision of international data governance outlined in the present paper, including through current intergovernmental processes.

[48] See annex 6, available at available at https://unsceb.org/international-data-governance-pathways-progress.

[49] See annexes 1, 2, 4 and 5, available at https://unsceb.org/international-data-governance-pathways-progress.