Global Partnership for Sustainable Development Data

Data Roadmaps for Sustainable Development

Assessment and Lessons Learned

This report is the product of inputs and experiences from Colombia, Ghana, Kenya, the Philippines, Senegal, Sierra Leone, and Tanzania regarding their development of a national data roadmap process for sustainable development, as well as inputs from the Country Data Roadmaps and Ecosystems Working Group, country focal points, and the Global Partnership for Sustainable Development Data Interim Steering Group and Secretariat.

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1.0 **Introduction**

In September 2015, the United Nations' 193 member states adopted the 2030 Agenda for Sustainable Development, which includes 17 Sustainable Development Goals (SDGs), also known as the Global Goals. The SDGs build on but move significantly and substantially beyond the 2000–2015 Millennium Development Goals (MDGs). Whereas the MDGs comprised eight largely social goals, the SDGs cut across the three pillars of sustainable development: social, economic, and environmental. The 17 SDGs are broken down into 169 concrete targets, and the international official statistics community has identified 232 indicators[1] to measure progress. A major principle and commitment underlying the 2030 Agenda is to "leave no one behind."

Developing and adopting the goals, and the related implementation and monitoring agenda that governments are starting to address, has increased awareness of the huge demands for data—both to provide the raw material for the monitoring framework and also as an essential part of the infrastructure for delivering the goals. The expectations of governments are high and rising, and running an effective health or education service, understanding how to raise agricultural productivity, or how to incentivize investment in new industries all require huge amounts of data for governments and other stakeholders to make effective decisions and implement good policy.

One of the most critical conditions for the realization of the ambitions expressed in the 2030 Agenda will be the more effective and efficient use of dynamic and disaggregated data for improved decision-making, service delivery, citizen empowerment, entrepreneurship, competitiveness, and innovation to help achieve and monitor the SDGs and their targets.

This increase in demand has come together with a huge increase in supply, driven by new technologies and methods of data production and collection. There is a transformative 'data revolution' under way, by means of which

> **[…] new technologies are leading to an exponential increase in the volume and types of data available, creating unprecedented possibilities for informing and transforming society and protecting the environment. Governments, companies, researchers and citizen groups are in a ferment of experimentation, innovation and adaptation to the new world of data, a world in which data are bigger, faster and more detailed than ever before" (A World that Counts, 2014, p.2).**

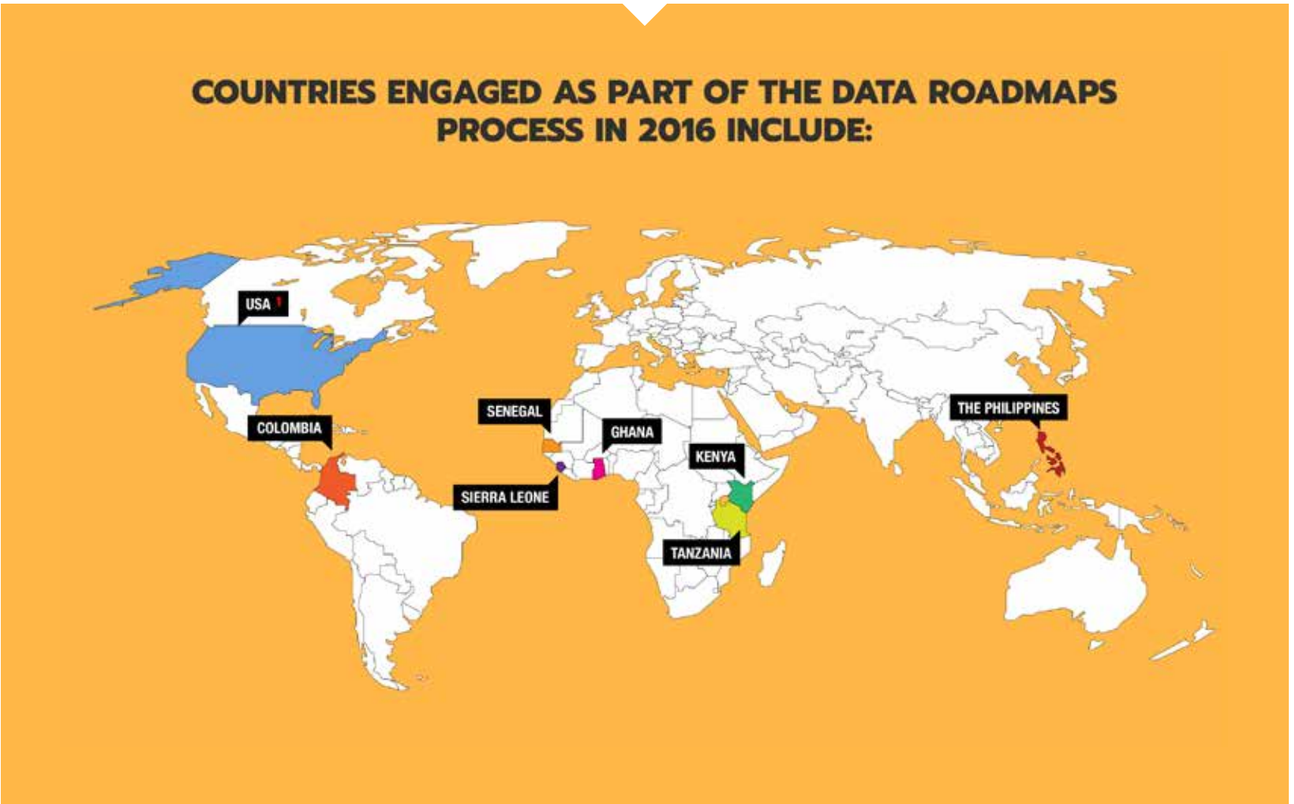
In response to both the increase in demand for data and new opportunities for how these data can be sourced, distributed and used, the Global Partnership for Sustainable Development Data (the Global Partnership) was launched during the United Nations General Assembly in September 2015 to support countries around the world and stakeholders across sectors to better harness data to achieve the SDGs. The creation of a partnership was recommended in reports from the High-Level Panel on the Post-2015 Development Agenda and the Inter-Agency and Expert Group on SDG Indicators, both produced under the auspices of the UN Secretary-General during the post-2015 development process. These recom-

[1] The global indicator list is determined by the Inter-Agency and Expert Group on SDG Indicators, which periodically revises the number and classification of the indicators. The current list of indicators can be found at https://unstats.un.org/sdgs/indicators/indicators-list/.

mendations were taken up by a number of governments, companies, and civil society organizations to launch the partnership in 2015. The Global Partnership now has over 280 members, including vanguard governments, international agencies, the private sector, civil society groups, and statistics and data communities from all corners of the world, spanning sectors and disciplines.

The Global Partnership exists to connect different stakeholders working on data, to catalyze ideas and innovations that generate progress and solve problems, and to drive the political changes that are needed if data is to play its role as a key part of the infrastructure for sustainable development.

At the national level, a central pillar of the Global Partnership's strategy is to work with governments and other organizations to support their priorities for investments and innovations in data. We do this by engaging with them in 'data roadmap processes', which are country-led and take a whole-of-government and multi-stakeholder approach. Accordingly, the data roadmap, in the current context, can be defined more as a process bringing stakeholders together at the Country-Level to make progress against the SDGs, as opposed to a specific document outlining the path forward. While the intent is to use a multi-stakeholder approach to drive a strategic process that leads to clear actions over a defined time frame, some countries have also used this process to organize, define priorities, connect with relevant partners, and better understand what is happening at the Country-Level. In addition, the data roadmap process as defined by the Global Partnership is meant to complement and align with other national development strategies, including the National Strategy for Development of Statistics.



By engaging in this way, the Global Partnership has been able to better understand some of the key issues and challenges (or demands) countries are facing. As a response, the Global Partnership has been working with its network of 280 partners to assemble a set of resources, inclusive of best practices, guidelines, and tools, that address these challenges. These have been assembled and made available through the Data4SDGs Toolbox.

BACKGROUND

This work program was initiated through the Data Roadmaps and Ecosystems Working Group established by the Global Partnership in early 2016. The working group included four co-facilitators:

- ☑ **Paul Zeitz, U.S. Department of State**
- ☑ **Johannes Jütting, PARIS21**
- ☑ **Philip Thigo, Kenya Office of the Deputy President**
- ☑ **Philipp Schönrock, Cepei (Colombia)**

Guided by this working group, the roadmap process was to support countries in harnessing the data revolution for sustainable development, with emphasis on the SDGs and priorities articulated in national development plans.

A key objective of this work was to better understand country-level demand for which tools, resources, good practices, and guidelines could be assembled and made available through a toolbox to support the data roadmap effort. The Data4SDGs Toolbox is intended to support SDG monitoring. It also supports the production and use of data for implementing the SDGs by covering the institutional and policy needs, as well as regulatory, capacity building, and data and technology needs, issues, and challenges stakeholders are facing.

The work was intended to be complementary to other efforts, such as PARIS21's work with national statistical offices, the United Nations Development Programme's (UNDP) ecosystem mapping project, and the World Bank's work on Open Data Readiness Assessments. There was a focus on responding to the following government priorities:

[2] The United States has been a partner of the Global Partnership since its inception, a strong advocate for its mission, and supported the development of the data roadmap process. In partnership with the Center for Open Data Enterprise, the U.S. developed a roundtable approach to gain political momentum and commitments within the U.S. government on the data roadmap approach. The roundtable was held on 14 December 2016 in Washington, D.C., and included various U.S. government agencies to develop recommendations on the SDG Data Revolution Roadmap. The themes focused on the U.S. SDG National Reporting Platform, data for action, and supporting global efforts. The outcome report from the roundtable can be found at https://wb-gpsdd-datainnovation.forms.fm/call-for-proposals-collaborative-data-innovations-for-sustainable-development.

Because the U.S. process for this roundtable followed a slightly different path than the general national workshop approach for data roadmaps, and because the majority of the other countries are addressing issues regarding data for the SDGs within a developing country context, the U.S. has not been included as its own section in this report. The above referenced report is the appropriate resource to find out more about the data roadmap process for the U.S., and the Global Partnership will continue to support and work with the U.S. as it develops its overall approach and process.

- Be country led and country owned, according to local priorities and national development plans
- Align with other planning efforts, such as the National Strategies for the Development of Statistics (NSDS), Open Data Readiness Assessments (ODRAs), and data ecosystem mapping efforts
- Define the essential minimum package of SDG data needed with attributes for disaggregation, frequency/accessibility, and minimum quality—a toolbox module developed by the working group in January 2016
- Identify data gaps and establish an SDG monitoring baseline
- Coordinate multi-stakeholder institutional arrangements and ensure country ownership on roadmap implementation
- Identify opportunities and risks in the use of new sources of data
- Develop milestones and SDG targets
- Support capacity building and innovation for the generation, sharing, and utilization of data at national and sub-national levels

PURPOSE

The Global Partnership's work at the national level has now been developed through engagement with eight countries and through presentations and feedback at several global events. The approach and findings from this report seek to align with a number of other international efforts and outcomes.[3] With the Global Partnership's new governance structure in place, the time is right to review the process and key lessons learned, thus providing further insights for improving the process. This review aims to address the data roadmap process from two perspectives:

1. What common patterns, synergies, and challenges are countries facing with their data roadmaps processes? This part examines the process to identify key observations and conclusions that offer shareable lessons, with the understanding that every country is politically, culturally, and technically unique, while also at different stages of SDG implementation.

2. How can the Global Partnership improve its engagement with partner countries? The second part further evaluates the process for engagement on data roadmaps between country stakeholders and the Global Partnership. This evaluation identifies key challenges and opportunities for how the Global Partnership Secretariat and network of partners can better help countries achieve their objectives in building a robust ecosystem for data to drive sustainable development.

[3] Cape Town Global Action Plan for Sustainable Development Data
A Busan Action Plan for Statistics
A Road Map for a Country-Led Data Revolution

Next section:
Country-Level Approaches

2.0 **Country-Level Approaches**

To date, country-level engagements have typically started by countries indicating to the Global Partnership their interest in a national workshop on data for sustainable development in the context of the data revolution. The entry point has varied by country, but has often been through the National Statistical Office, presidential offices, Freedom of Information (FOI) institutions, or civil society groups with prominent representation and co-hosting from other key institutions including ministries of finance, planning, environment, or other development partners. Thereafter, the Global Partnership Secretariat works closely with the host institution through a process (see Appendix A) to define the approach, logistics, agenda, partners, and overall program.

The Global Partnership recognizes each country's different political, cultural, and technical context, as well as progress on SDG implementation and development of its data ecosystem. As a result, the data roadmap process, as suggested by the Global Partnership, while consistent in its overall objectives, is applied uniquely in each country as described below.

It is important to note that while a data roadmap can (and should) result in a strategic plan with key milestones for addressing data challenges for the SDGs and sustainable development more broadly, in many cases it has also triggered a process for how to organize, collaborate, assess, institutionalize, and innovate around key data issues. The Global Partnership Secretariat has been following up with each country when possible. Countries also reconvened during a private side event as part of the UN World Data Forum, to share lessons learned and discuss the way forward.

The data roadmap process is meant to support both the political and technical aspirations of each country. While a balanced approach is ideal, the national workshop process is ultimately led by the country according to their local needs, challenges, and priorities. As a result, some national workshops were more political than technical, and vice versa.

For example, the Tanzania workshop included over 300 participants from across the country. It included high-level panelists from a range of institutions. As a result, the overall approach was much more political in nature, focusing on the Tanzania Bureau of Statistics' role in the broader ecosystem and multi-stakeholders learning and collaboration around national SDG implementation. The same applies to Sierra Leone, with the Open Data Council acting as a central mechanism for organizing around the SDGs. Colombia and Kenya were more technical in nature, due partly to previous work, including a national partnership initiative in Kenya that had kicked off the process one year earlier.

COLOMBIA

The Colombia Multi-Stakeholder Workshop on Data for the SDGs Roadmap was held in Bogota, Colombia, on 27-28 April 2016, with additional Global Partnership working group meetings held on 29 April 2016. DANE, the National Statistical Office for Colombia, was the lead agency supporting this work. Cepei, a civil society organization based in Bogota, supported the development of the workshop program and logistics, and worked closely with DANE to facilitate much of the coordination.

The Colombia workshop was the first in the data roadmaps national workshop series. It came at a pivotal point for the Global Partnership, when many of the partners were coming together a few months after the Secretariat was formed.

A key objective for this workshop was to provide a multi-stakeholder platform to bring leading experts together to discuss issues relevant to the data revolution for sustainable development in Colombia. This included providing a space to exchange experiences and lessons learned and to identify opportunities for cooperation and collaboration with other entities in the implementation and monitoring of the SDGs at national and sub-national levels.

Figure 1. Colombia national workshop, held in the Bogota Chamber of Commerce

Key discussion points included the following:

- ☑ **Alignment of the SDGs with national development priorities**
- ☑ **Information gaps**
- ☑ **Access to data from the private sector**
- ☑ **Data quality**
- ☑ **Sub-national data considerations**
- ☑ **Use of administrative data**
- ☑ **Country-Level experiences**

The full workshop outcome document can be found here.

Following the workshop, DANE requested inputs on its innovation papers, which several members of the Global Partnership provided. In addition, the Global Partnership Secretariat supported the development of new methods of using satellite images to calculate statistics on land cover and land use. This tied to DANE's request for Global Partnership support on leveraging methods to fill Tier 3[4] data gaps.

The Global Partnership Secretariat continued its consultation with DANE and Cepei and visited Colombia again in November 2016 for a direct follow-up on the data roadmaps process. In these meetings, the Global Partnership together with DANE, Cepei, and the Bogota Chamber of Commerce discussed progress against the data roadmap process. This section provides key outcomes from these discussions.

It should also be noted that NASA and GEO graciously came forward to work with partner countries on filling key data gaps using satellite and earth observation data. This offer builds upon work done in 2016 on satellite data for land use and land cover, as well as work done with the Group on Earth Observations on developing a Data4SDGs Toolbox module on the use of earth observation data for the SDGs. At the time of this report, Colombia had come furthest in these discussions, identifying several indicators as gaps or those that need improvement (forestry, urban resilience, agriculture, water ecosystems).

Based on several iterations of defining the key issues, a workshop on the use of satellite data to fill key data gaps was held on 30 March 2017, in Bogota, Colombia, with DANE, the Ministry for Environment and Sustainable Development, Institute of Hydrology, Meteorology and Environmental Studies, the National Parks Authority, NASA, GEO, the World Bank, Cepei, the University of Maryland, Committee on Earth Observation Satellites, and the European Space Agency.

[4] The SDG indicators have been classified into three tiers based on the level of data and methods available:
Tier 1: Indicator conceptually clear, established methodology and standards available and data regularly produced by countries.
Tier 2: Indicator conceptually clear, established methodology and standards available but data are not regularly produced by countries.
Tier 3: Indicator for which there are no established methodologies and standards or methodology/standards are being developed/tested.

Institutional Considerations

DANE has implemented a cross-departmental policy to position itself as an innovative and modern institution by 2018. DANE is addressing the 2030 Agenda at multiple levels:

- Global: As part of the Inter-Agency Expert Group on SDG indicators (IAEG-SDGs), Colombia represents Ecuador, Peru, Bolivia, Guyana, and Suriname. In addition, Colombia was a reporting country as part of the United Nations' High-Level Political Forum in 2016.

- Regional: DANE participates in the Statistical Coordination Group for the 2030 Agenda in Latin America and the Caribbean and the Statistical Conference of the Americas via the UN Economic Commission for Latin America and the Caribbean (ECLAC).

- National: As part of the High-level Institutional Commission for the implementation of the 2030 Agenda (created in February 2015 by Presidential Decree 280), DANE created an SDG Indicators Task Force to consolidate its work on the SDGs.

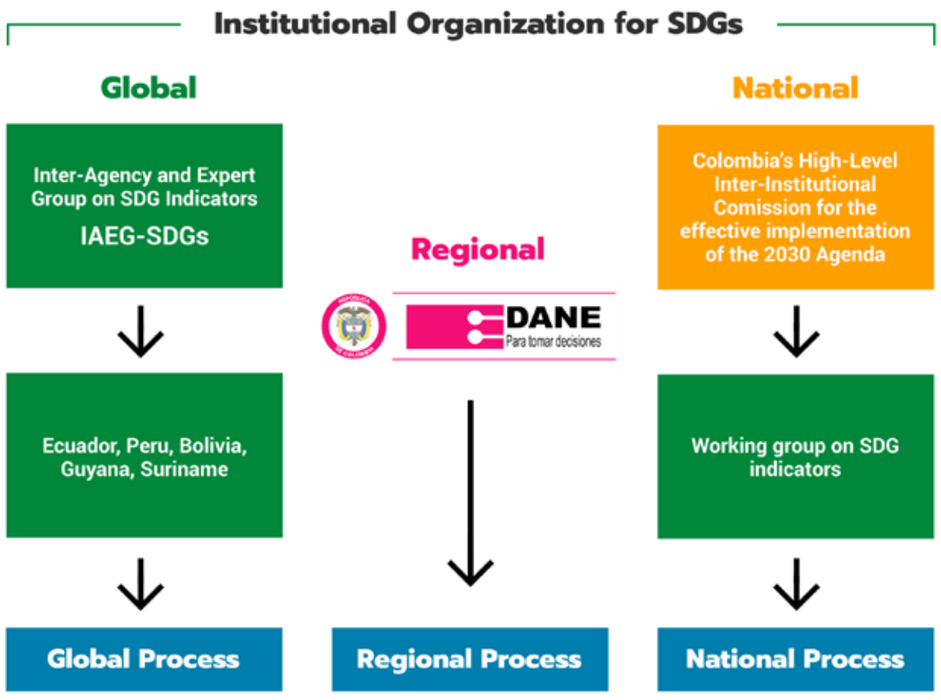


Figure 2 Institutional Organization for the SDGs in Colombia

The SDGs are aligned with Colombia's National Development Plan (2014-2018) with DANE taking a leading, technical role focused on monitoring and providing information for supporting decisions.

Challenges at the institutional level include:

- Strengthening institutional cooperation

- Ensuring multi-stakeholder partnerships are inclusive of the private sector, philanthropy, and civil society

- Strengthening DANE's leadership role

- Engaging with the private sector

The Earth observation data for the SDGs workshop in March 2017 identified difficulties in cross-agency coordination for the use of satellite data for environmental indicators, thus illustrating the challenge of strengthening institutional cooperation. This situation is common and apparent across many data roadmap countries. However, by focusing on a topic and priority, and bringing together the key organizations relevant to these topics, the workshop allowed for better understanding of differentiated roles and challenges. In other words, this discussion was a step towards increased collaboration.

Data and Technology Issues

Colombia produces 469 official statistics across 109 national entities as part of its National Statistics System (NSS). Of these, 92 are produced by DANE, which is transforming itself to respond to the data revolution for sustainable development. Through this effort, DANE is working to identify sources of information and improve plans for how new sources of data can be integrated as part of its broader strategy to achieve the SDGs and address key data gaps. A DANE diagnosis found data available for 54% of SDG indicators, with 30% needing improvement and 16% having no data or methodology.

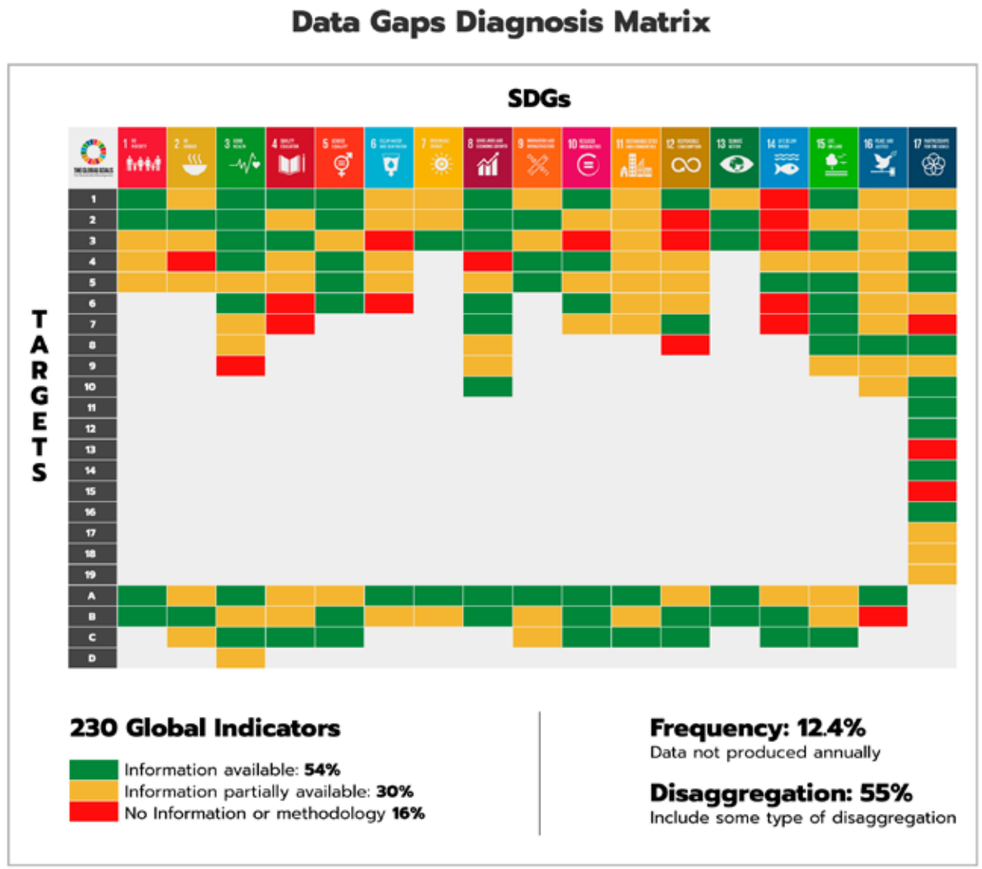


Figure 3 SDG Data Gaps Diagnosis for Colombia

Key challenges identified for monitoring and reporting against the SDGs include:

- ☑ Measuring new thematic areas for SDG6, SDG12, SDG13, SDG14, and SDG16
  - Quality of service delivery
  - Consumption and production
  - Climate change
  - Oceans
  - Peace
- ☑ Data disaggregation
- ☑ Strengthening administrative records
- ☑ Access to new data sources

In response, DANE put several strategies in place to address these challenges:

1. Produce and improve existing sub-national statistics
2. Develop a smart data strategy:
   a. Identify new work streams and projects
   b. Address interoperability at the institutional and technical levels via a statistical data and meta data exchange (SDMX)
   c. Standardization—frequency, coherence, comparability, quality, and granularity
   d. Merge with DANE—methods, visualization, open data, sampling, exhaustive use of geospatial data
3. Develop strategic partnerships

SIERRA LEONE

The national workshop for Sierra Leone was held in Freetown on 14-15 June 2016, led by the Right to Access Information Commission (RAIC) with support from the Ministry of Finance and Economic Development and Statistics Sierra Leone. Sierra Leone already had various relevant activities and initiatives under way, which made the timing of this workshop opportune. These included the following:

- ☑ Sierra Leone was one of the 22 countries reporting at the High-Level Political Forum (HLPF) in July 2016
- ☑ Sierra Leone conducted a Post-2015 Data Test
- ☑ Sierra Leone became a member of the Open Government Partnership
- ☑ Sierra Leone recently completed an Open Data Readiness Assessment

The multi-stakeholder workshop was developed with about 75 participants across sectors, driven primarily by Sierra Leone's commitment to report on SDG progress at the 2016 HLPF. This workshop aimed to leverage the progress made in Sierra Leone per the above activities and further align the open data program with the SDGs through the Open Data Council.

The full workshop outcome document can be found here.

Institutional Considerations

Sierra Leone's alignment with Africa 2063 and the African Data Consensus – two key regional development strategies – bolster its efforts towards leveraging the data revolution for sustainable development. In addition, the Ministry of Finance and Economic Development aligned the SDGs to the 2016 national budget and the Agenda for Prosperity, an integrated results framework aligning the SDGs and the Ebola Recovery Strategy.

Figure 4. SDG Alignment to the Agenda for Prosperity in Sierra Leone

Several open data initiatives in Sierra Leone also provide an opportunity to align the SDGs with existing mechanisms around open data. Sierra Leone became a member of the Open Government Partnership in 2013 and had a 2014-2016 Action Plan in place (per OGP requirements). In 2015, it established a whole-of-government and multi-stakeholder Open Data Council to coordinate open data programs and initiatives in Sierra Leone. In 2016, an ODRA was completed for Sierra Leone, providing insights into data gaps and key recommendations for the further development of the data ecosystem for the country. There was also interest in having Sierra Leone join the International Open Data Charter.

As key workshop outcomes, it was concluded that the Open Data Council, given its multi-stakeholder organization and mandate, would be leveraged as the key governance body to integrate Sierra Leone's open data program with the SDGs. The Open Data Council's core leadership from government would include RAIC, the Ministry of Finance and Economic Development, Statistics Sierra Leone, the Ministry of Information and Communications, and the Sierra Leone International Benchmarks Project. In addition, Sierra Leone decided to join the International Open Data Charter through a communique drafted during the workshop.

Identifying the mechanism for institutionalizing the SDGs within government proved challenging. The Ministry of Finance and Economic Development (MOFED) and the Office of the Presidency were both well-placed to direct leadership on the SDGs. Despite some tension, it became clear that MOFED was better placed and the SDGs required a collaborative effort from other institutions.

Funding, capacity, and resources were also identified as priorities to support coordination of the data roadmap effort for the SDGs, including integration and alignment with the open data program. This included:

- ☑ Funding and sufficient ICT support for open data
- ☑ Mobilizing resources for tracking and achieving the SDGs by harnessing the full range of data in Sierra Leone
- ☑ Developing a roadmap for technical support

In response, the Global Partnership Secretariat worked closely with RAIC to develop a short proposal, at the request of the World Bank, based on recommendations coming out of the national workshop. The objective was to align open data and the SDGs in Sierra Leone, as well as build on some of the recommendations around harnessing the data revolution for sustainable development. Through several iterations between the Global Partnership, RAIC, and the World Bank, an investment of USD $60,000 was announced by the World Bank during the International Open Data Conference in Madrid, Spain, in 2016.

In parallel, discussions had started with the World Bank's Sierra Leone country manager, who was present during the national workshop, about how a larger, multi-year investment could support key needs and priorities identified during the workshop. The Global Partnership worked with the World Bank country manager, World Bank headquarters, and RAIC to scope and align this effort. This resulted in a multimillion-dollar investment from the World Bank that is now being implemented across three institutions (MOFED, the Ministry of Information and Communications, and RAIC) in Sierra Leone. For the first time, the World Bank had funded an open data process to enhance accountability in public financial management.

Additionally, as another outcome of the workshop, Sierra Leone is in the process of developing a data compact based on engagements with stakeholders. The Center for Global Development has been leading the development of this financing model, which is a performance-based agreement between the national government and external funders in which awards are made against progress in producing and publishing better data on a set of thematic areas identified by each country. Currently, there is a placeholder in the Data4SDGs Toolbox for a module to be developed on this method.

As with other countries, funding continues to be a key challenge for Sierra Leone. With the advent of the SDGs, it became clear that there was very little national-level data or information. Work was being done in silos and the Ministry of Finance and Economic Development had limited resources to galvanize action on the SDGs. Furthermore, the national budget does not fully reflect the key deliverables as committed for implementing the SDGs. The political will is strong; however, neither government nor donors have made substantial fiscal commitments to the roadmap process. The Global Partnership and the government of Sierra Leone should increase advocacy to donors to mobilize support for fragile countries such as Sierra Leone.

Data and Technology Issues

As noted previously, a number of initiatives under open data and SDG alignment with national development priorities and regional frameworks had been completed or under way. Workshop participants also identified the following priorities to continue developing a strong data ecosystem in Sierra Leone:

- ☑ Data for impact: increase data use, capacity, and literacy
- ☑ A vibrant data ecosystem: link open data, official statistics, administrative data, citizen-generated data, telecommunications data, and Earth observation data
- ☑ Improving data: strengthen data quality, disaggregated data, gender data, and data collection

Furthermore, the following key challenges and opportunities emerged from the data roadmap discussion:

- ☑ The need for data disaggregation and its related need for better data on women and girls
- ☑ Collaboration between PARIS21 and Statistics Sierra Leone on the ADAPT Tool
- ☑ The need for citizen-generated data and how this integrates with official statistics

THE PHILIPPINES

The Data Revolution Roadmap for the Sustainable Development Goals National Workshop for the Philippines was held on 5-6 October 2016 in Mandaluyong City. The Philippine Statistical Authority (PSA) led the workshop in collaboration with the Global Partnership[5], PARIS21, and UNDP. The multi-stakeholder workshop included representatives from the PSA and other line ministries, regulatory agencies, the private sector at both the national and international levels, academia, civil society, and other development partners (107 attendees in total).

Key objectives for the workshop included:

- ☑ Addressing new and emerging demands for data on sustainable development
- ☑ Examining the possibilities and constraints of using new and alternative data sources such as big data, open data, private sector data, citizen-generated data, registries, and administrative data
- ☑ Investigating new and innovative approaches in existing surveys and administrative data systems

In addition, the workshop stressed the role of statistics for monitoring against the Philippine Development Plan for which the development of a broader data ecosystem would be valuable. This data ecosystem is envisioned to integrate different information systems to support needs across institutions and provide better and timely response to the growing data needs for policy and decision-making.

The full workshop outcome report can be found here.

A representative from the Global Partnership Secretariat visited the Philippines in December 2016 to follow up on the data roadmap process and support inputs for this review. During this visit, the PSA presented its overall approach on the data roadmap, thus providing more context on the Philippine data roadmap process. Please refer to this presentation for further detail.

The PSA is considering a sector-specific roadmap process in which each sector becomes its own chapter within the NSDS. Initiatives under way within the data roadmap framework for the Philippines include:

- ☑ Update to the Philippine Statistical Development Program
- ☑ Asian and Pacific CRVS Decade 2015-2024
- ☑ Selected PSA board resolutions
- ☑ Participation in the global consultation
- ☑ National consultation and assessment
- ☑ Discussions at the Inter-Agency Committees and Technical Committees Coordinated by PSA

Next steps for the Philippine data roadmap include:

1. Adopt the 2013 Master Sample designed to generate reliable estimates at the provincial level
2. Develop methodology for generating multi-dimensional poverty index (MPI)
3. Assess the pilot survey on evidence and data on gender equality (EDGE) – measuring asset and ownership from a gender perspective
4. Explore the possibility of generating maternal mortality rate from other data sources, e.g. civil registration
5. Improve administrative-based data systems to serve as possible source of various data requirements in the SDG framework (e.g. conducting a seminar on administrative data)
6. Explore the possibility of using data from third-party sources for some of the SDG indicators that are not available from existing data collection systems
7. Explore the use of big data to address the huge increase in the quantity of data that needs to be generated, data gaps, and disaggregation variables (e.g. PSA-International Telecommunication Union project “Big Data for Measuring the Information Society”)

[5] Note that the Philippines has been a critical partner for the Global Partnership, participating in other country-level national workshops and contributing to the broader roadmaps agenda. However, due to a conflict in timing with the International Open Data Conference, representatives from the Global Partnership Secretariat were not able to attend in person. The Global Partnership supported the Philippines in developing the program, supporting international participation, and providing various inputs. The PSA is commended in their leadership for carrying out this workshop.

8. Explore the use of tablets/Computer Assisted Personal Interviews (CAPI) to improve data collection (e.g. conduct a pilot test using tablets in the Labor Force Survey)
9. Explore the use of statistical techniques, such as small area estimation, to generate lower-level data
10. Strengthen the Statistical Survey Review and Clearance System (SSRCS) so all government-funded surveys (including administration-based data collection) adopt statistical standards to ensure high-quality data
11. Conduct a pilot time-use survey to generate indicators on unpaid work
12. Designate SDG focal points in data source agencies
13. Use PARIS 21 Advanced Data Planning Tool (ADAPT) as defined by the national development plan; ADAPT assists target countries in meeting the demands of global SDG-monitoring agencies, and helps countries contextualize these demands in alignment with national priorities.
14. Finalize metadata for the Tier 1 national SDG indicators and consultation with the relevant agencies/IACs/TCs
15. Assess national SDG indicators at the sub-national level and training/capacity building of PSA regional offices for the monitoring of SDGs at the local level
16. Host the 2017 International Conference on SDGs (ICSDGS)—4-6 October 2017
17. Host the seventh session of the ASEAN Community Statistical System (ACSS) Committee in line with the Philippines' chairmanship for the 50th Founding Anniversary of the Association of Southeast Asian Nations (ASEAN)—11-13 October 2017

Institutional Considerations

The National Economic and Development Authority's (NEDA) AmBisyon Natin 2040 is a long-term vision aimed at providing an anchor for development planning across administrations for which the SDGs are integrated within the context of the Philippine Development Plan. Within this context, government agencies including the Department of Education, the Department of Social Welfare and Development, the Department of Health, the Department of Environment and Natural Resources, the Philippine Commission on Women, and representatives from academia provided their plans for action on their respective set of SDG indicators.

While the national workshop was in progress, there were parallel conversations – and challenges – around the relationship between government agencies responsible for producing administrative data and the PSA, and the institutionalization of the SDGs across government with ownership and accountability was not clearly defined. While challenges continue to exist in this regard, much progress has been made on the institutional arrangements and differentiated roles and responsibilities.

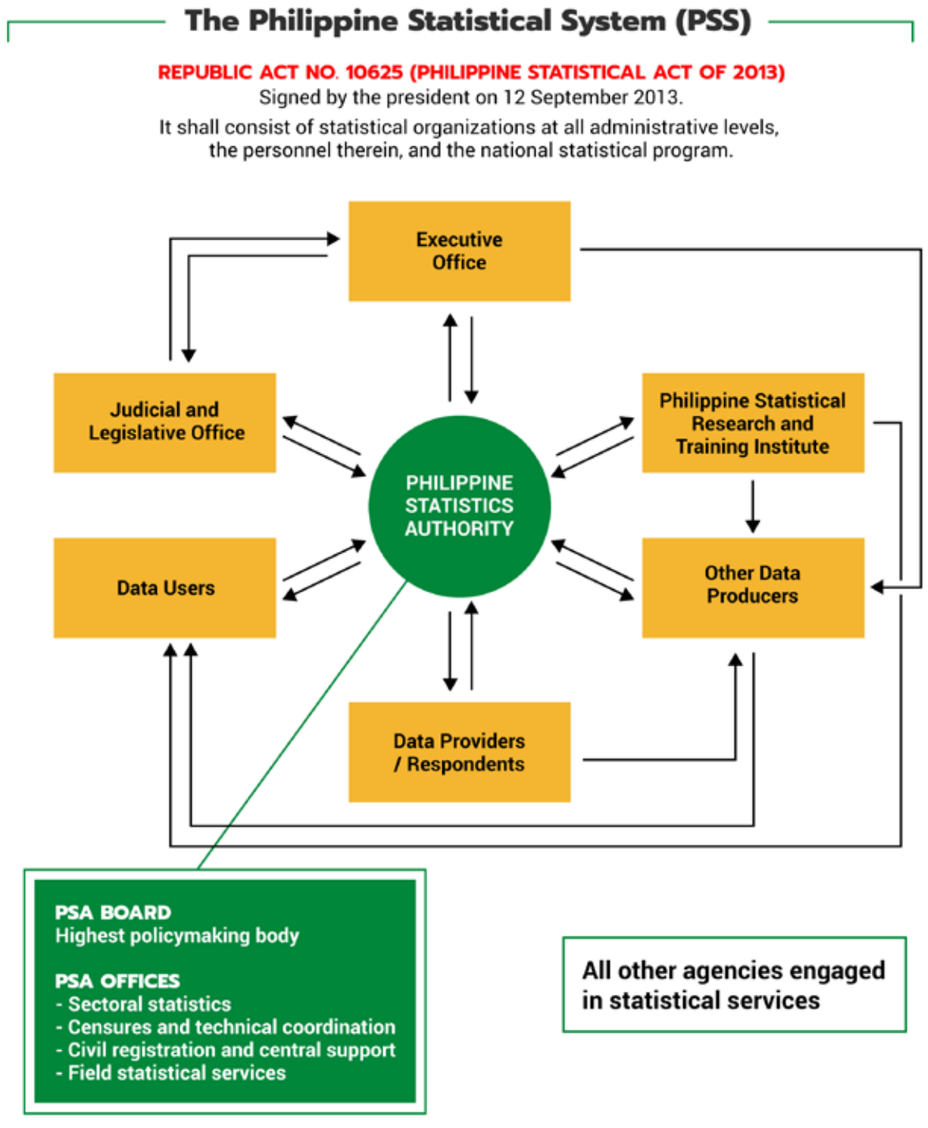


Figure 5 The Philippine Statistical System (PSS)

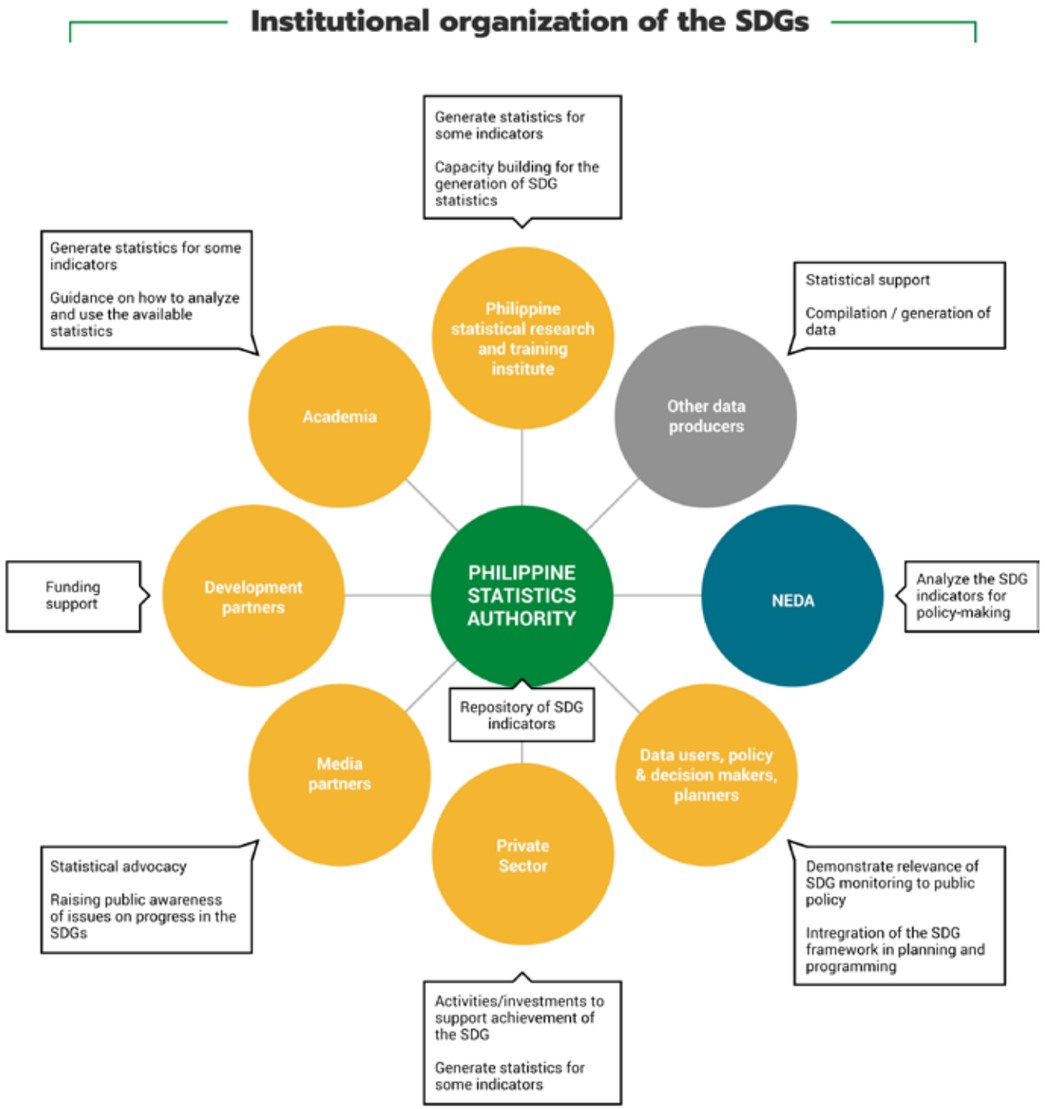


Figure 6 Institutional Organization of the SDGs – Philippines

Additional challenges observed include the following:

- ☑ Need for interagency mechanisms to discuss challenges associated with regular production of statistics at the local and national levels
- ☑ Need for a single, national coordinating body for the SDGs
- ☑ Funding and resource constraints
- ☑ Need for capacity building and resources for generating data that conforms to statistical standards and methodology
- ☑ Need to strengthen coordination mechanisms, including legal frameworks and partnerships.
- ☑ Need to improve citizen involvement

Data and Technology Issues

The SDGs place very high demand on statistical systems for generating and monitoring indicators. As a result, and in line with local development priorities and national plans, the government must focus on key indicators and targets that reflect the needs of the people.

Government agencies identified the following data needs and recommendations:

- ☑ Need for more relevant, timely, disaggregated, and better quality statistics
- ☑ Improved administrative data
- ☑ Need for optimal use of information technology, including improved dissemination of SDG indicators
- ☑ Mechanisms for data collection at the local level
- ☑ Unlocking data from private sector programs and projects
- ☑ Improvements on metadata
- ☑ Improving data sharing and data access including open data
- ☑ Standards, classification, and quality assurance
- ☑ Developing relationships with the private sector and legal frameworks for sharing privately held data

TANZANIA

The Tanzania National Workshop on SDG Data was held on 12-13 August 2016 in Dar es Salaam. The Tanzania National Bureau of Statistics (NBS) led the workshop in collaboration with the Global Partnership, the World Bank, and the Millennium Challenge Corporation (MCC)-President's Emergency Plan for AIDS Relief (PEPFAR) Partnership. NBS convened a multi-stakeholder steering committee bringing together representatives from government, civil society, research institutes, and development partners to support preparation for the workshop. The workshop brought together over 300 participants and aimed to build awareness of the need for developing a national data roadmap for the SDGs. The aims of the workshop included:

- Raising awareness among Tanzanian stakeholders about SDGs and the roles different agencies can play in implementation and tracking
- Building understanding of the Tanzanian data ecosystem
- Defining short- and medium-term 'quick win' actions and deliverables for advancing the sustainable development data roadmap process

This was NBS' second national workshop on SDGs. The first was held in October 2015. Several high-level recommendations and pledges have come out of this multi-stakeholder process, including the following:

- Engage with the government in the process of developing and implementing the data roadmap by sharing technical expertise, tools, and resources
- Work with the government on SDG monitoring and implementation based on individual institutional strengths and program focus areas
- Support and complement government efforts in producing, curating, and disseminating high-quality data to guide decision-making, use of data for impact, and monitoring progress

The workshop outcome document can be found using this link and all workshop materials can be found here.

The Global Partnership Secretariat returned to Tanzania in December 2016 to meet with NBS and members of the multi-stakeholder committee (established to produce the outcome report and provide NBS with interim technical support in the roadmap process) to check on progress and identify how the Global Partnership can continue to add value. Several issues were identified:

- The need for funding to implement proposed recommendations
- The need to institutionalize the multi-stakeholder process and SDG monitoring more broadly within the Tanzanian government
- Improve alignment between the open data program and SDG data, including the need for data visualizations to better understand gaps and progress
- The need to improve quality, availability, and accessibility of administrative/routine data produced by government ministries, departments, and agencies as well as local government authorities
- The need to build political support for the data for development agenda: sustainable development data and open data in the context of the post-2015 election environment and the change of leadership

The workshop also generated the following partnerships:

- A new collaboration on data gaps assessment and SDG indicators localization between NBS, dLab, and PARIS21, using the Advanced Data Planning Tool (ADAPT) developed by PARIS21
- A collaboration between NBS and CIVICUS to disseminate and communicate the Statistics Act 2015 to the non-state data community
- Collaboration between NBS, CIVICUS, and UN Women to convene a gender data forum and a gender data advisory group

The Global Partnership is also working with MCC-PEPFAR through its Data Collaboratives for Local Impact (DCLI) program in Tanzania to further the data roadmap process through:

1. Supporting the development of the sustainable development data roadmap

2. Supporting the open data program and alignment with the SDGs

3. Developing methods for SDG implementation at the sub-national level. (In collaboration with the Open Institute, and thanks to the funding provided by MCC-PEPFAR, a module on SDG considerations at the village and community level is now available in the Data4SDGs Toolbox.)

The broader intent of the DCLI program is to take the lessons learned, including methods and tools, and scale the approach in one additional country. This fits with the broader mission of the Global Partnership. The DCLI work program is also aligning with the data roadmap effort with NBS and other stakeholders. While details are still to be confirmed, the way forward includes the following:

- ☑ Further supporting the implementation of ADAPT in Tanzania
- ☑ Aligning ADAPT implementation with other open data and data visualization efforts
- ☑ Supporting integration of open data and the SDGs
- ☑ Hiring a coordinator position, for 1-1.5 years, to support the data roadmap effort in Tanzania, including by institutionalizing the process through a multi-stakeholder approach
- ☑ Applying outcomes and lessons learned to a second country
- ☑ Using the USD $30,000 grant for software and training provided to DLab by Tableau to further support data visualization needs as the integration between open data and the SDGs is further defined

Institutional Considerations

After Tanzania completed its ODRA in 2013, it embarked on a three-year open data initiative with resources from the Support for Open Government and Open Data in Tanzania (SOGDAT) trust fund, funded by the UK Department for International Development (DFID) via the World Bank. With the technical support of the World Bank, Tanzania established a government open data portal (www.opendata.go.tz); developed an open data policy draft (currently under discussion for Cabinet approval); invested in capacity building for institutions implementing the initiative in curation and dissemination of data; and ran a series of demand-side seminars and workshops to improve use of open data for decision-making. The open data initiative, however, had a limited sectoral focus covering only health, education, and water, and also including socioeconomic data produced by the NBS.

The NBS has also been implementing the National Data Development Strategy (Tanzania Statistics Master Plan, or TSMP) since 2011. Through the multi-donor support for TSMP the NBS has improved its capacity for production and dissemination of data; increased frequency of national surveys; and established portals for disseminating data and indicators (the National Data Catalogue for Surveys, the Tanzania National Data Archive, the DevInfo-supported Tanzania Socio-economic Database, and the Africa Information Highway open data portal).

The open data initiative and the TSMP are both ending. The SOGDAT funding will end in December 2017, after a six-month extension. NBS is in discussions with the World Bank on how best to sustain momentum post-SOGDAT funding. The TSMP is in its final year of implementation as well, extending to June 2018, and in a few months, the NBS will embark on a review exercise to develop the next five-year phase of the program, with the implementation start date slated for July 2018.

Key institutional recommendations delivered as outcomes of the Tanzania national workshop include the following:

- ☑ Ensure indicators under the five-year development plan, Africa Development Agenda 2063, and the SDGs are linked, and that the National Statistics System can generate data for monitoring and tracking progress for the national, regional, and global development commitments simultaneously
- ☑ Engage permanent secretaries to ensure awareness and define government institutions' roles and responsibilities for implementing, monitoring, and reporting on the agreed SDG targets and indicators
- ☑ Sector/thematic specific working groups should be established by the Ministry of Finance and Planning
- ☑ Establish a high-level technical committee, chaired by the Prime Minister, to oversee policy implementation and implications, resource mobilization, and advocacy on data for the SDGs
- ☑ Raise awareness of the Open Government Partnership and open data initiative; gain political support for approval of the Open Data Policy; build momentum in implementing and scaling the Open Data Initiative to other sectors

TNBS needs to meet its data reporting requirements under the SDGs. However, the SDG domestication process has been rather fragmented with limited collaboration between central institutions responsible for planning, data production and dissemination, and reporting. Efforts are being made to ensure coordination and collaboration between government institutions. The NBS developed a medium-term costed sustainable data roadmap document to help galvanize stakeholders in the government and outside the government to support the data revolution agenda. The roadmap document describes priority 'early win' activities to be implemented in the medium term ahead of the next TSMP in July 2018.

Currently there is a temporary SDG data roadmap steering committee that brings together stakeholders from within and outside the government under the leadership of the National Bureau of Statistics and provides advisory and technical support in the implementation of the roadmap process. There are no permanent public sector groups established for SDGs, but there are plans to anchor SDG discussions, including around data, within the existing Government of Tanzania dialogue structure with donors and civil society organizations (CSOs). There is a CSO forum on SDGs that is co-led by the African Philanthropic Foundation and the Foundation for Civil Society.

Data and Technology Issues

Through censuses and surveys, the NBS produces a small fraction (approximately 40%) of the official statistics needed for tracking progress on the national five-year development plan, as well as the SDGs. Ministries, departments, executive agencies, and local government authorities thus are a crucial source of other needed statistics. Non-state actors are also a potential source for statistics that are currently not produced by government agencies and/or may be beyond their capacity to produce in the near future.

Statistical capacity in ministries, departments, and agencies (MDAs) however is still quite weak. Moreover, the absence of interoperable data management systems and weak arrangements for data sharing continue to mire data supply from MDAs. Investments in ICT infrastructure however are providing a crucial opportunity to improve data production, management, and dissemination.

Recommendations for advancing Tanzania's data roadmap include the following:

- ☑ The NBS, in collaboration with the UNDP country office, should complete a rapid mapping of the data ecosystem in Tanzania
- ☑ Develop the first country-owned, open SDG five-year development plan and data visualization platform to better understand data gaps and enable collaboration across stakeholders
- ☑ Strengthen the capacity for data production, management, curation, and dissemination for MDAs and local government authorities, including setting standards for data quality and data management systems interoperability
- ☑ Strengthen data sharing and exchange between agencies, management, and use via a statistical data and metadata exchange (SDMX)
- ☑ Leverage new sources of data (e.g. data produced by private sector, civil society, international organizations, and citizens) and develop strategies and procedures to do so

KENYA

Prior to the data roadmap process, Kenya had already committed to a national partnership process for convening thematic, local, regional, and global data events to foster connectivity, collaboration, and innovation towards meeting the SDGs. In collaboration with the Office of the Deputy President, the Kenya National Workshop on Data for Sustainable Development leveraged this existing process to showcase progress by bringing together government agencies, civil society, academia, and the private sector on 15-16 August 2016, in Nairobi. The objectives of the workshop were to:

- ☑ Demonstrate the potential for transformation using data for decision-making at the national and sub-national levels
- ☑ Increase technical collaboration between anchor partners, champions of the Global Partnership for Sustainable Development Data, and the multi-stakeholder actors in Kenya to define an integrated data roadmap approach
- ☑ Prepare for data-driven engagement in the Vision 2030 MTP III process and the County Integrated Development Plan (CIDP) process

The full workshop report can be found here.

Institutional Considerations

In Kenya, there is good alignment between Vision 2030 and the SDGs, with the SDGs at the center of development. Additionally, Kenya's SDG roadmap (separate from the data roadmap) will be updated on a five-year basis.

Key challenges in Kenya include the following:

- A need to strengthen how data is applied to policy and decision-making
- A need for better coordination and capacity building for devolved governments, noting that service provision is highly decentralized
- A need for co-created legislation that enhances data sharing across different sectors, especially the private sector
- A need to develop a bill that ensures data protection through improved anonymity and responsible use of personal data

Data and Technology Issues

Key challenges and opportunities facing Kenya include the following:

- Data for 128, or 56%, of the indicators are available in Kenya; further engagement with partners is needed to fill data gaps
- There is a need to invest in human, financial, and technological capital to build capacity and ensure better data collection and reporting; this also ties to the need for more current data
- Numerous data and open data initiatives across sectors need better coordination for efficient use of resources
- There is a need to strengthen data sharing and open data initiatives
- There is a lack of coordination across geospatial activities in Kenya
- There is a need for the government to build long-term capacity by developing core data competencies in data science, analytics, and visualization
- There is a need for the government to move from legacy systems to open data platforms that allow for collaboration, interoperability, and co-creation

In response to the issues above, Kenya wants to develop a data roadmap approach that supports monitoring and reporting as well as data for action and decision-making. The data roadmap will be aligned to the SDG roadmap developed by the Ministry of Devolution and Planning. To move the data roadmap process forward, Kenya will:

- Identify data gaps in the NSS and methods to fill these gaps
- Identify new data sources and how to use, document, and share these data
- Develop partnerships across government institutions and devolved governments
- Translate business data to social transformative data
- Encourage citizen participation, engagement, and ownership of the SDG agenda; the SDG targets and indicators should be articulated in a way that addresses the needs of the citizens and drives further participation
- Develop a strategy for harmonizing data and statistics for both users and producers
- Standardize data systems and methods for data collection and reporting
- Work together with other African countries to share lessons learned
- Develop partnerships with the private sector
- Institutionalize a multi-stakeholder approach to the SDGs and further expand the data ecosystem to include other actors, including media and academia

SENEGAL

The National Workshop on Data for Sustainable Development for Senegal, hosted by the National Statistics and Demography Agency (ANSD) in collaboration with the Initiative for Agricultural and Rural Prospective (IPAR) and the General Directorate of Planning and Economic Policy (DGPPE), was held in Dakar from 12-13 October 2016. The objectives of the workshop were to:

- Learn from other countries' experiences and lessons to support Senegal in implementing and monitoring the SDGs
- Identify challenges and opportunities for the implementation of the SDGs at national and local levels
- Reflect on the activities to be developed with Global Partnership partners to address challenges
- Promote the integration of the SDGs in national development policies and show the importance of data in decision-making

The outcome report for the workshop can be found here.

Institutional Considerations

- The Emerging Senegal Plan (PSE) is the key national development policy mechanism to which the SDGs can be aligned. Other development policies under review include the Poverty Reduction Strategy Paper (PRSP), the National Strategy for Economic and Social Development (SNDES), and the Social Policy Document (DPES)
- Need to strengthen multi-stakeholder and multi-sectoral collaboration
- Develop ownership over the SDGs through the establishment of working groups and task forces
- Strong political leadership is needed to better align the SDGs with public policies and provide the coordination needed across institutions and stakeholders

Data and Technology Issues

- An ad hoc working group, established within the Prime Minister's Office to adopt a methodology for informing SDG-related data, identified data for 68.5% of the SDG indicators
- NSS needs increased capacity to account for regular production of disaggregated data (especially standardized gender data) and data on governance and environment
- There's a need for better access to data, data sharing, and greater orientation to open data, including transparency and accountability
- Improve data literacy through methods that include advocacy campaigns to inform key stakeholders about the importance of data
- Reduce the gap between internationally proposed indicators and those nationally monitored, including by harmonizing data from different sources and the coordination and centralization of data
- Formalize, and potentially institutionalize, collaboration between official statistics, private sector data, and citizen-generated data; this furthermore calls for a sustainable, multi-stakeholder process in the context of the data revolution to support SDG data needs moving forward

GHANA

The Ghana Data for Sustainable Development Roadmap Forum took place in Accra on 5-6 April 2017. The forum aimed to identify key issues Ghana faced in developing a data ecosystem that is fit for purpose, leveraged the data revolution, and provided data users with the information necessary to create better outcomes for the citizens of Ghana. The forum Ghana Statistical Service (GSS) organized the forum in collaboration with the SDGs Implementation Coordination Committee with support from the Global Partnership, UNDP, the World Bank, and the UN Data Group.

The forum aimed to address challenges around the SDGs, while building on the foundations of the National Strategies for the Development of Statistics (2009-2013 and 2017-2021) and other sectoral initiatives and forums. The forum was established as a multi-stakeholder platform for national and international actors to discuss data and technology activities in Ghana as well as new approaches to strengthen the data ecosystem in Ghana.

Ghana's data roadmap process worked towards the following long-term outcomes:

- ☑ Data producers will be clear about their responsibilities with regard to data production for the SDGs and other agendas in the short, medium, and long terms; data producers will engage with non-state actors as part of a broader ecosystem for data
- ☑ Increase data users' knowledge of data and information sources, and strengthen mechanisms to interact with the data producer community
- ☑ Ghana's National Statistical System will have a clearer picture of resource availability coordination

The workshop examined three themes:

☑ Theme 1: Addressing data gaps

- Present the current situation for Ghana to produce SDG indicators and highlight data gaps
- Discuss opportunities to strengthen census and survey regimes
- Discuss opportunities to further develop the administrative data system with a view to ensuring harmonization, comparability, and quality of data
- Present possibilities for using new data/technology to address identified data gaps and engage new actors
- Determine how alignment with national and regional agendas will impact data collection and indicator production and reporting

☑ Theme 2: Encouraging data use

- Have an open dialogue with key users on how data and statistics can better meet their needs
- Identify ways to harness the current momentum around data for the SDGs to strengthen the sharing, accessibility, and presentation of data
- Raise the profile of data production and use with key stakeholders, including policymakers, to encourage the use of improved data for evidence-based decision-making and accountability

☑ Theme 3: Strengthening the data ecosystem

- Solidify the multi-stakeholder approach to achieving and measuring the SDGs and create new data communities
- Identify and discuss solutions to major funding gaps
- Identify and discuss solutions to major capacity gaps
- Provide an opportunity for country-to-country learning in the SDG indicator production process
- Ensure high-level political and policymaker buy-in for the roadmap process
- Identify key issues for the policy and enabling environment for the data ecosystem

The detailed summary report can be accessed using this link.

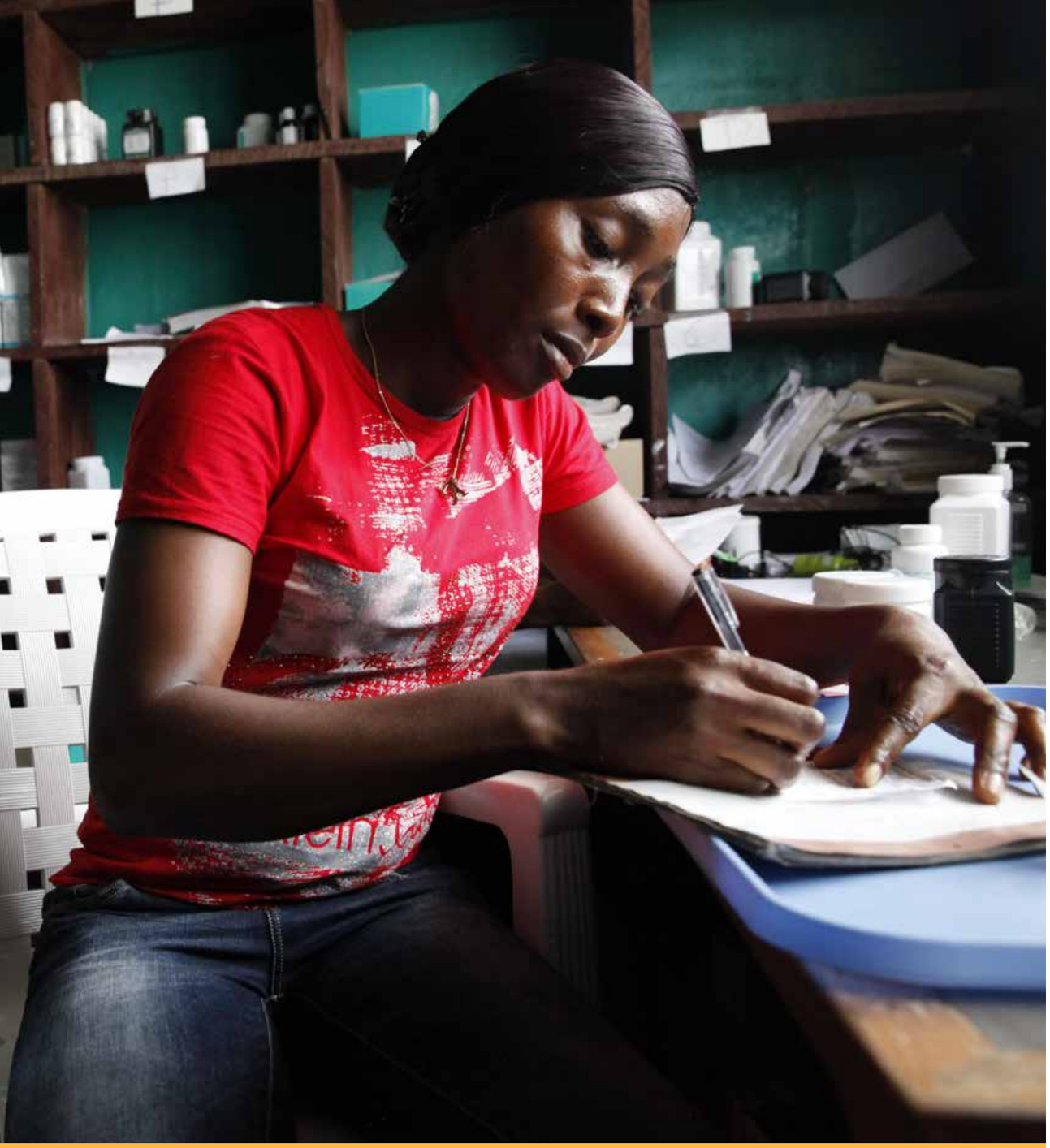
Data and Technology Issues

- ☑ There is a need for further investment in Ghana's administrative systems, requiring buy-in from line ministries, the private sector, central government, and development partners; the GSS is well positioned to provide technical expertise and direction on the development of these systems
- ☑ A renewed emphasis on coordination and collaboration is required to bring in the stakeholders that offer perspective and solutions, and the GSS agreed to lead on coordinating the national statistical system and pursue and support innovative collaborations with national and international stakeholders
- ☑ Further institutionalize a multi-stakeholder approach to the data roadmap process, strengthen the Roadmap Advisory Committee and establish working groups to address key issues
- ☑ A transformation of the policy and enabling environment is needed to ensure the development of a vibrant data ecosystem, including passing the Statistics Bill, Right to Information law, and reviewing/communicating data protection guidelines
- ☑ Mobilize funding and resources within the government of Ghana with strategic support from development partners

Data and Technology Issues

- ☑ A need for increased emphasis on administrative data and innovation in integrating new types of data into official statistics while maintaining a rationalized census and survey program
- ☑ Strengthen the open data program to further cultivate data users and innovation across the ecosystem
- ☑ Better communication and presentation of data to ensure data production supports evidence-based decision-making
- ☑ Data disaggregation, including the need to collect data on new thematic areas and produce more timely and frequent data
- ☑ Build and strengthen focus on environmental data has had little focus
- ☑ Strengthen data interoperability as a means to increasing data access and use

Next section:
Country-Level Lessons Learned



3.0 Country-Level Lessons Learned

As noted previously, each country will have a different approach to its data roadmap process, which must be locally contextualized according to key priorities. At the same time, each country has expressed an interest in learning from the experiences in other countries, a goal that is central to the overall mission of the Global Partnership. The intent of this section is to highlight those key challenges and opportunities observed across countries. It will also examine how the Global Partnership can better engage and support the data roadmap for sustainable development process moving forward.

Institutional and Policy Issues

Alignment with National and Regional Development Priorities. The data roadmap countries are all taking an approach that seeks to align the SDGs against existing national development plans and frameworks. In most cases, this is happening at the national level, but several countries (including Kenya, Ghana, and Colombia) are implementing the roadmap process at the sub-national level as well. In addition, the SDGs are also being mapped to Africa 2063, the regional strategic framework for Africa. At the national level, aligning the SDGs with development plans that span a range of time frames (5-15 years, in some cases longer) is making the SDGs relevant in local priorities and context.

Table 1. Country-Level Alignment to National Development Plans

COUNTRY	ALIGNMENT WITH NATIONAL DEVELOPMENT PRIORITIES
Colombia	High-Level Commission on Agenda 2030 and Presidential Decree 280
Kenya	Vision 2030
Senegal	Emerging Senegal Plan
Tanzania	5 Year Development Plan and Africa 2063
Sierra Leone	Africa 2063, Africa Data Consensus, 2016 National Budget and Agenda for Prosperity
Philippines	NEDA's AmBisyon Natin 2040 and Philippine Development Plan

With Agenda 2063 goals serving as a key regional indicator framework, some countries have requested Global Partnership support for mapping between these frameworks, while some countries, such as Ghana, have already conducted this mapping.

Strengthening Institutional Cooperation. Establishing a robust data ecosystem requires coordination across government to ensure that resources are used efficiently, data is shared, and common standards and protocols are followed. In several cases, the Global Partnership's involvement in a country resulted in increased cross-governmental coordination. This intragovernmental approach also distinguishes the Global Partnership from other actors, such as PARIS21, who work mainly with NSOs.

Many countries interviewed for this assessment reported stronger collaboration between institutions as a direct result of participating in the data roadmap process.

> ***Before the roadmaps, government ministries and agencies had been working in silos and the SDG leadership was not very clear. The workshop helped to carve out a collaborative approach.***

While increased collaboration was an outcome of the data roadmaps workshop for many countries, it is not clear how and under what circumstances it would be institutionalized into ongoing forms of co-operation leading to new practices such as routine data sharing between government departments. In many cases, a collaboration developed around a workshop did not survive beyond that event; however, in other cases, including Ghana, a previously ad hoc committee has now been transitioned into a more permanent body for multi-stakeholder implementation of the SDGs. Given that many governments identified greater collaboration as a key benefit of their engagement with the Global Partnership, a second phase of work could focus on institutional approaches to collaboration within government that last beyond a specific event.

This applies equally to collaboration with organizations outside of government. Within the context of the data revolution for sustainable development, participation from the private sector, civil society, academia, international organizations, and development partners is required to address the full range of needs—new methods and sources of data, citizen-generated data and engagement, capacity and resources, and technology. In most cases permanent or long-term multi-stakeholder committees to provide guidance on the development of the data ecosystem have not been developed. In other cases, where such bodies do exist, they are often functioning on an ad hoc basis where key cross-stakeholder issues and discussions are not getting the level of attention needed to be resolved.

To move forward effectively, the development of strong multi-stakeholder approaches requires strong leadership and a mandate tied to the highest level of government for support, decision-making, coordination, and sustained effort. Without this, institutions can and often do find themselves without a common understanding of roles and responsibilities, nor a clear mandate to point to that formalizes the coordination and collaboration needed across institutions.

The data roadmap process has highlighted the need for coordination and input across sectors. In some cases, existing bodies, such as the Open Data Council in Sierra Leone, offer this coordination mechanism and bring initiatives such as the SDGs and open data together. In other cases, as mentioned, this is still lacking. For example, in some countries, an inter-institutional mechanism coupled with thematically focused working groups might be in place, but often without consistent inputs from the private sector and civil society. The Global Partnership is working to further evaluate these models and provide guidance based on lessons learned.

The roadmap process often coincides with, or catalyzes, a developing interest from the Prime Minister's or President's Office, Ministry of Planning, Ministry of Finance, National Statistical Office, or an equivalent organization to lead on data for development issues. This aspect of Global Partnership engagement is highly valued by country partners:

> ***One critical element however that is important is on how to mobilize support of the higher levels, and to build recognition of the importance of data for development. It is equally important to find ways of engaging the legislature in the data for development process.***

> ***It is hard for statisticians to put in place high-level political commitments. This is a key role of the Global Partnership.***

Engagement with the Private Sector. Developing mutually beneficial relationships with the private sector around data for the SDGs is a consistent challenge for many countries. There are several private sector-specific challenges, including how to unlock private sector data, technology, services, and capacity and resources. The private sector has much to offer, but many constraints are limiting progress, including developing the right business models to engage the private sector effectively, as well as legal and privacy concerns over privately held data. In addition, the private sector should also be encouraged to use publicly available data, which advances robust data ecosystem approaches through the potential for entrepreneurship and innovation, driving economies and return on investment (ROI).

Technical Issues

Interoperability. Interoperability of data and systems continues to be a major barrier for the effective collection, distribution, and use of data, and a barrier for countries trying to set up more modern data ecosystems. At one level, there is a great need for data management systems to become more interoperable. Administrative systems used across institutions, and other systems of record and data collection, are often outdated and lacking the necessary information to link data across these systems. It becomes difficult to extract, distribute, and use these data with other organizations, and often, there is no unique ID that offers an intelligent link across databases. In addition, the use of data standards and communications protocols is limited.

The Global Partnership, in collaboration with the United Nations Statistical Commission (UNSC), is developing an SDG-focused interoperability working group to address these challenges. More information on this initiative can be found here. A second phase of the roadmap work, aligned to the interoperability working group, could help to develop practical processes aligned to country needs that will be scalable for other countries and sectors.

Data Gaps Analysis. While most of the countries engaged with the Global Partnership have conducted some level of data baseline assessments, several countries are still at the initial stages. There are multiple methods for conducting this analysis, but generally, it is important to consider any past data gaps assessments, and engage government, the private sector, civil society, academia, international organizations, and development partners in the data ecosystem mapping effort. This level of visibility of the country-level data situation will further promote a more robust data ecosystem, while providing further insights on the level of coordination needed to bring these stakeholders together. A better understanding of the main producers and users of data will further inform roles and responsibilities on data needs for the SDGs.

PARIS21 has played a key role in delivering capacity and tools to national statistical offices in this regard. Through the data roadmap process, PARIS21 has engaged with many countries working with the Global Partnership on issues related to data gaps assessments through its Advanced Data Planning Tool (ADAPT). As a result, PARIS21 has supported partner countries in better evaluating the extent of data gaps, how to address these gaps, and the costs associated with filling those gaps. The Global Partnership has been working with PARIS21, partner countries, and other data-focused programs to ensure that linkages between other data mapping efforts, ADAPT, open data portals, dashboards, and other platforms are considered when developing an efficient, multi-purpose data ecosystem

Alignment between Open Data and the SDGs. Every country involved in the Global Partnership data roadmap process has an active open data program in place. The SDGs offer a comprehensive data framework that can be used to better organize and map data gaps and opportunities across government and stakeholders. As such, work that has already been conducted on gaps assessments through ODRAs or other activities as part of the open data program can be used to further support the SDGs. In addition, available open datasets can also be classified to identify the SDG targets and indicators they can support. In this manner, SDG relevant data becomes more available across the ecosystem.

Data Sharing. Data sharing across government institutions and key stakeholders continues to be a challenge in many countries. Often, the policies or coordination mechanisms needed to support effective data sharing programs are not in place. Some countries may have developed data sharing programs like a National Spatial Data Infrastructure (NSDI) program or other initiatives that are meant to develop institutional and technical mechanisms for effective data sharing. However, these initiatives frequently treat the problems as purely technical, when ultimately the key barrier to data sharing is often people and institutions. In other words, identifying incentives such as alignment with business and program areas, efficiency, reduction in redundancy, cost savings, and innovation can get people and institutions to work together. A clear policy statement is also important, to ensure legal backing. The Global Partnership could build this into its political engagement work, and could include advice and the sharing of experiences on legal approaches and regulatory mechanisms.

Dashboards and Platforms. There is an ever-increasing number of dashboards and platforms becoming available to support the SDGs. This is not necessarily a negative point given the innovation that will likely develop through this process. However, it is also becoming a bit overwhelming for countries to find the right solutions amidst a wide range of options. In addition, the implementation process of any solution must include capacity building; otherwise, it will become another process or piece of technology that is not properly institutionalized and therefore not used effectively, resulting in wasted resources. Countries have called for additional guidance from the Global Partnership on choosing and institutionalizing the right technology; however, the Global Partnership Secretariat must remain neutral in this regard and rely on case studies and best practices that speak to successful implementations. These are some of the factors the Global Partnership is considering as part of its website and marketplace integration, as well as the work that will be conducted via the interoperability working group and API Highways.

Capacity and Resources Issues

Lack of Funding Resources for Data. Every country involved in the data roadmap process is facing challenges with the funding needed to appropriately address data for the SDGs, both for the NSO and for data capacity in line ministries and at the local level. Coordination, data collection, integrated systems, and capacity building come at a cost. As one member of the roadmap working group said:

> ***Here is this huge agenda, but at national and local levels they are cutting funds. No money is flowing.***

As part of the data roadmap national workshops, stakeholders have discussed how to raise data on the political agenda to ensure attention, and resources, from the highest levels of government. In addition, the Global Partnership has recently started convening development partner roundtables as part of the national workshop effort to highlight coordination and funding issues at the Country-Level. This was requested by a number of partners:

> ***In [country], the political will is strong but there have been minimal fiscal commitments to the roadmap process by both the government and donors. What is now needed is a robust advocacy by the Global Partnership and the government to donors.***

Development partners must coordinate better at the Country-Level to align resourcing to country-level needs. In Sierra Leone, as previously mentioned, the national workshop sparked World Bank interest in the possibilities of harnessing the data revolution, which resulted in World Bank funding data programs in the country.

Resourcing, from both domestic budgets and from donors, will continually need the support from the Global Partnership and related partners as part of the data roadmap effort.

Sustainable Funding Models. Funding for projects and programs must also be consistent and sustainable. Funding from development partners is often short-term and restricted to a pre-determined timeline, which can often result in projects and related products that don't have the funding necessary to continue. The Global Partnership funders group and country-level development partner meetings, both part of the data roadmap process, seek to address these issues. At the Country-Level, governments also need to prioritize data as part of their national budgets to ensure national ownership of these initiatives' long-term funding.

Data Literacy. Many roadmap countries have noted data literacy issues, which includes a gap in the technical skills required to manage, analyze, disseminate, and communicate data. Data literacy is an important factor in developing the right skills to ensure data has an impact on policy and decision-making. In the context of the data revolution, core data competencies such as data science, analytics, and visualization, are lacking. However, the public sector often does not prioritize these skills and the public sector should expand employment opportunities for data scientists, analysts, and big data-related job categories.

Next section:
The Way Forward

4.0 The Way Forward

The Global Partnership's country engagement strategy is a dynamic process that is constantly refined based on countries' experiences, feedback, and lessons. Addressing the data challenge broadly and in relation to the SDGs specifically is a complex undertaking with many factors – including politics, capacity, resources, funding, institutional arrangements, and technology – influencing outcomes. Each country's unique experience, guided by its country focal points' clear dedication to achieving the SDGs, is leading to knowledge and progress for their countries.

This section of the report aims to further evaluate what did and did not work in the data roadmap engagement process. Through various communications (meetings, workshops, side events, surveys), the Global Partnership Secretariat sought additional feedback from the country focal points to better understand the situation in each country and how the Global Partnership can address some of the key challenges and issues.

The Global Partnership Secretariat perspective identified the following key factors as contributors to the overall outcomes based on the Secretariat's internal lessons learned as well as country feedback. The last section outlines how the considerations are shaping the Global Partnership's new strategy.

Global Partnership Secretariat Considerations

- **Limited Resources.** In 2016 the Global Partnership Secretariat was limited in capacity and resources, posing a challenge for implementing the data roadmap working group and the data roadmap process in each country. The data roadmap process takes place over a one-year period, creating substantial need for time and resources that were not always available. As a result, the level of follow-up after the national workshop was not as regular or formalized as it should have been. Most of the follow-up was done on an ad hoc or opportunistic basis. Recognizing this gap led to the additional country visits towards the end of 2016. It also drove the need for conducting this evaluation.

- **Demand and Expectations.** Based on the limited resources available, it is arguable that the number of countries engaged in the data roadmap process should have been more limited to control expectations and engage at a sufficient level. However, the Global Partnership was still in its growth phase and there was high demand from countries. The data roadmap process is a key value proposition for country-level involvement, and as a result, the Global Partnership Secretariat wanted to support these countries to the best of its abilities.

Country-Level Feedback

The Global Partnership conducted a short survey with each country to better understand progress, issues, and challenges, as well as how to improve the Global Partnership's country-level engagement process. The survey questionnaire can be found in Appendix B. Key points relevant to improving engagement, based on the survey, are included below.

- **Importance of Stakeholder Engagement.** The data roadmap workshops have highlighted the importance of identifying data gaps, as well as the value of engaging with various stakeholders to fill these gaps. The multi-stakeholder nature of these workshops highlighted the value that non-state actors bring to the data ecosystem – a point that NSOs are increasingly willing to accept and engage with. Furthermore, the data roadmap process and national workshops provided a mechanism for connecting the dots across activities taking place at the national level. It gave the government a better, more comprehensive understanding of the various data-related SDG initiatives taking place amongst the different stakeholder groups.

- **Refinements to the Data4SDGs Toolbox.** The Data4SDGs Toolbox has rich resources, but it may not yet meet developing countries' needs and should become more user-friendly. Additionally, the term 'toolbox', which implies a technical solution, might be modified to reflect its diverse, dynamic range of resources.

- **Capacity and Resources.** The Global Partnership is requested technical and financial support for data collaborations. It's also encouraging partnerships in data production, analysis, and sharing, and innovative uses of data. Funding continues to be a key issue in all countries. As such, the ability to broker relationships and resources to specifically address countries' key challenges is still a work in progress.

- **Defining the Data Roadmap.** There remains confusion around the term 'data roadmap'. The Data4SDGs Toolbox contains a resource to address this, but the roadmap process still needs clarity on its definition, implementation, and intended outcomes. Furthermore, based on these intended outcomes, the Global Partnership might consider whether this terminology clearly and accurately reflects the process.

- **Documenting Case Studies and Lessons Learned.** Provide more opportunities for exchanging lessons learned across countries, including best practices and case studies from fragile countries.

Strategy Moving Forward

An interim steering group (ISG) meeting, held in Cape Town, South Africa, on the margins of the World Data Forum in January 2017, included a closed session with country focal points to discuss the data roadmap process and how it should be refined. Based on cumulative country feedback, decisions from the ISG meeting, and this review, the Global Partnership is making the following recommendations for refinement:

- **Increase Resources Available to the GPSDD Secretariat.** The Secretariat has recognized the need for additional staff to support this process. With additional funding secured for the GPSDD, this is now possible. The Secretariat is recruiting for the following:

  - *Technical Manager:* This position will support the data roadmap process and will lead on country engagement across several countries. It will also support the continued evolution of the Data4SDGs Toolbox and related resources and contribute to other technical aspects of the Global Partnership.

  - *Africa Regional Manager:* Throughout the roadmap processes, African colleagues have requested better mechanisms for exchanging lessons learned across the continent. This position will develop such mechanisms, while brokering the relationships needed to address key challenges and priorities. The Africa Regional Manager will support the data roadmap process for one country, and lead the development of the Africa Regional Strategy for the data roadmap process.

  - *Data Ecosystems Consultant:* Through the Global Partnership's relationship with MCC-PEPFAR, a Data Ecosystems Consultant based in Tanzania will, on a part-time basis, support the data roadmap process, including coordination between open data and the SDGs.

  - *Communications Director:* A Communications Director was hired to develop the much-needed broader communications strategy for the Global Partnership. This position will support various country-level meetings and broadcast key outcomes and milestones to strategic audiences.

- **Go Deep, Not Wide.** During the ISG meeting in Cape Town, the Global Partnership and its country partners decided to deepen its existing country engagements before beginning roadmap processes in additional countries. The intent is to work more closely with each country by identifying priorities areas for further support as the data roadmap process advances. As part of this deepening, the Global Partnership intends to document what works and what doesn't work, capture and share lessons learned, and scale proven methods. The Global Partnership does, however, want to remain responsive to the existing demand. It is therefore exploring partnerships with regional bodies such as the UN Economic Commissions to identify potentially workable models for scaling without negative implications for the current roadmap countries.

- **Provide Further Political Engagement.** The Global Partnership Secretariat is increasing its efforts to strengthen political engagement and buy-in from political leaders for advancing the data for development agenda. The engagement strategy targets political leaders at both the country and regional levels. A high-level meeting (HLM) , held on 29-30 June 2017 in Kenya, catalyzed high-level commitments from country and regional organizations in Africa. It also provided a space for collaboration and partnership building, as likeminded stakeholders were able join and contribute to commitments. HLM intended to ensure key national priorities were on the political agenda, and that each stakeholder had the resources and partnerships necessary to meet their commitments.

  The data roadmap process, and the resulting engagement and progress, created the relationships and context to hold a successful and fruitful HLM, which then further galvanized the role of data in decision-making and development for Africa. Overall, the event was a great success and provides a model for other regions.

- **Create Prioritized Action Plans for Each Country.** The Global Partnership Secretariat will be working with each country, through mechanisms such as the Kenya HLM, to identify priority areas for further support. With additional staff to support the data roadmap processes, it is now possible to provide more direct and frequent engagement with country focal points to advance these efforts. Priorities can range from financial and capacity building support to using new sources of data to address specific data gaps. Ultimately, these priorities are set by the national agencies as part of their data roadmap effort inclusive of input from any coordination boards or committees that may or may not exist.

- **Connecting to the Right Partners.** To The Global Partnership developed a community manager position to support partners' needs, questions, and engagement. Previously, a digital marketplace supported this function, however, this platform had limited use. The Global Partnership Secretariat is completely overhauling its online presence, and the website and marketplace functionality will be integrated.

  More broadly, brokering partnerships that catalyze productive and meaningful collaborations is increasingly a key value proposition of the Global Partnership. The Global Partnership Secretariat will work through various mechanisms to further support this brokering function.

- **Improve Usability of the Data4SDGs Toolbox.** As part of the website integration work described above, the Global Partnership will redesign the Data4SDGs Toolbox to be more user-friendly and consistent. While the exact solution is still to be determined, the overarching goal is to enable functionality that makes it easier for a user to identify resources most applicable to them. In addition, the Global Partnership Secretariat will also explore how to make the text-heavy modules more interactive and accessible.

- **Defining a Data Roadmap.** Based on discussions during the ISG meeting and feedback from stakeholders, the term 'data roadmap' adds some confusion to aims of the process. The Global Partnership Secretariat will work with its country focal points to identify a new term if applicable and agreed upon.

- **Defining Success for a Data Ecosystem Approach.** Much of the Global Partnership's country-level work strives to develop thriving and dynamic data ecosystems in which data flows easily between and from government, the private sector, and civil society. However, it is necessary to define a maturity curve in terms of components needed to enable a data ecosystem approach, and also to better evaluate outcomes and progress from Global Partnership interventions. The Global Partnership Secretariat's monitoring and evaluation tools and process, put into place in 2017, includes a rating matrix for scoring the robustness of a data ecosystem at the Country-Level. This can be found in Appendix C.

- **Extending Lessons Learned and Case Studies.** The website redesign will offer a feature to identify issue-based initiatives. Partners will be able to identify various projects that they are working on, including the key issue or problem statement, the solution, partners engaged, and how someone can get involved, if applicable. In addition, a case study template will offer a consistent approach for capturing knowledge and lessons.

- **Institutional Cooperation.** Institutional cooperation and institutionalizing a multi-stakeholder process continue to be a challenge. This could be improved through strengthened, high-level political buy-in and adequate resourcing for proper follow-up. As described previously, the HLM is one mechanism to acquire these commitments. There is also likely a policy and regulatory framework that needs further evaluation, but it is questionable if the Global Partnership should play a role in this regard. The need for better coordination across government and extended stakeholders, however, is clear. The Global Partnership Secretariat will continue to work with its country counterparts to identifying the right model(s) that address this issue with more direct and frequent engagement.

  Additionally, by focusing on a specific challenge or priority area and bringing the right stakeholders together focused on that issue, the Global Partnership has seen some traction in identifying key challenges and opportunities around institutional cooperation and collaboration. The Global Partnership Secretariat has seen some evidence of this through its engagement with countries on the use of geospatial and earth observation data. The Global Partnership brought several institutions together to better understand roles, gaps and challenges, and ways of working. While the working arrangements are still being developed, it is important that these issues surfaced and then triggered a process. As this process evolves, lessons learned and case studies will be generated.

- **Private Sector Engagement.** A consistent issue identified across countries is how to better engage with the private sector, in terms of unlocking data and also for the various services, technology, and innovation private sector offers. The Global Partnership experience in this regard has been limited: the right modalities for engagement remain unclear, as is a value proposition and workable business model. As a result, the Global Partnership Secretariat will commission a consultant to better understand key private sector partners and their experience in the Global Partnership, including their business interest and how we can define a value proposition and business model that provides mutual benefit.

- **Focused Collaboratives.** Based on consistent data issues identified across countries, three new data collaboratives are being formed within the Global Partnership:

  - *Interoperability.* This collaborative will focus on standards and protocols to allow data to more freely flow and allow systems to better link up with one another in a standardized format. This addresses many issues coming up through the data roadmap process, including data sharing, inefficiencies due to disconnected systems, use of registries, mashing up data from different sources, and APIs. The collaborative, formed by the Global Partnership and UNSD, will initially focus on data packages, APIs, and the SDMX metadata standard.

  - *Leave No One Behind (LNOB).* Issues around data disaggregation, gender data, and data on marginalized and vulnerable groups is lacking. This Collaborative is being formed to address these issues and will seek to formulate a number of task teams that specifically aim to develop methods and solutions that can be piloted in data roadmap countries.

- *Environment.* Environmental data gaps are a consistent issue across countries. Geospatial and Earth observation data can be applied to many of the targets and indicators associated with the environment. As a result, the Global Partnership Secretariat is working with NASA and GEO to extend these methods at the Country-Level and to develop linkages between data and associated methods with API Highways to scale applicability. In addition, the World Resources Institute will support the development of a climate change open data package by engaging with two countries to define core data needs and produce a resulting case study.

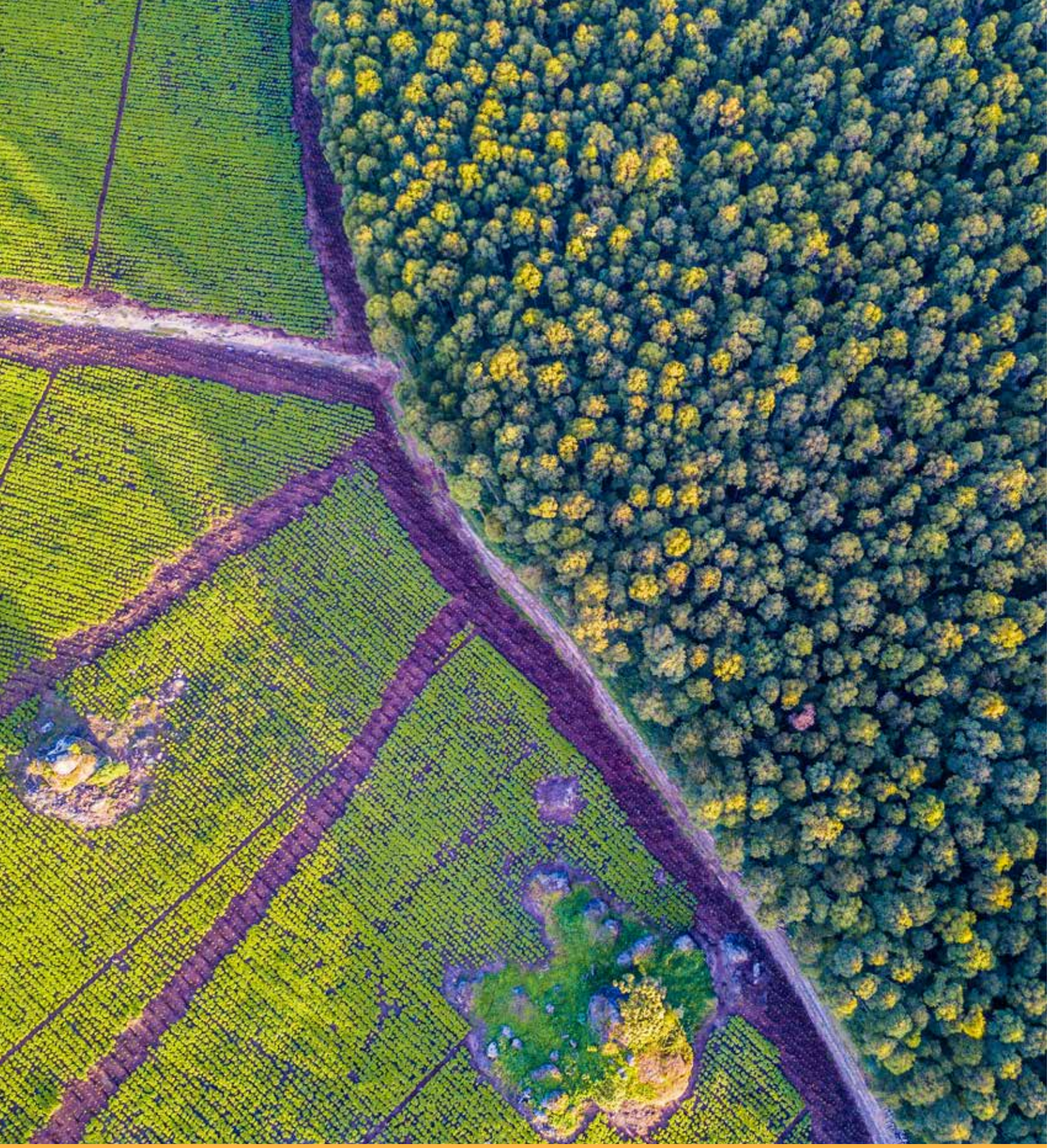
☑ **Funding.** As mentioned, funding remains a challenge in many countries. The Global Partnership Secretariat implemented a new process to hold a development partners meeting, directly after national workshops, to identify key challenges and opportunities for better coordination and impact from resulting funding. The aim is to align funding opportunities where possible with identified needs, and to better understand development partners' data challenges.

Additionally, in 2016, the Global Partnership launched the Collaborative Data Innovations for Sustainable Development Fund in partnership with the World Bank and DFID. This call for proposal received more than 400 applications, from which 10 received awards[6]. This level of demand further demonstrates the value of the Global Partnership's role as a channel for innovation on data for sustainable development. Aa second call for proposals will be launched in 2017.

There is much work to be done to improve coordination of funding mechanisms to address key challenges at the Country-Level. A Funders Group Meeting, held in the margins of the World Data Forum 2016, focused on data for development and included all the key development partners and organizations from around the world. Global, regional, and national coordination is required, and through the new governance structure being developed by the Global Partnership, additional avenues for how to deliver on this coordination will be further evaluated.

[6] The listing of projects awarded from the 2016 call for proposals can be found at http://www.data4sdgs.org/master-blog/2017/3/7/announcing-funding-for-10-development-data-innovation-projects

Next section:
Appendices



5.0 **Appendices**

Appendix A: National Workshop Planning Approach

Global Partnership Approach for Planning National Workshops on Data for Sustainable Development

The general approach developed by the Global Partnership to plan all the requirements for a country-level national workshop includes the following:

- ☑ A country approaches the Global Partnership indicating interest in conducting a roadmap process workshop.
- ☑ The Global Partnership checks alignment with the current work plan, strategy, and resources and makes a decision.
- ☑ The Global Partnership starts conversations with the lead organization and provides a general approach, based on past experience, for how these workshops can be conducted. The country defines priorities. General topics include the following:
  - Aligning SDGs with national development priorities
  - Other regional and international frameworks
  - Data roadmap process
  - Country-level experiences
  - Data, technology, and capacity gaps and issues
  - New sources of data and data for action—data viz, open data, geospatial, etc.
  - The way forward—priorities and commitments
- ☑ The Global Partnership holds weekly or biweekly calls with the host institution to work through logistics, priorities, program, and agenda.
- ☑ The local institution works with key stakeholders to define priorities and workshop details based on local context, including the invite list for local participants, considering a whole-of-government and multi-stakeholder approach.
- ☑ Documents on past events and relevant background are shared.
- ☑ A draft agenda is developed based on local priorities and matching international partners to identified needs (based on interest communicated by partners through an announcement and approvals from local colleagues).
- ☑ The above is an iterative process based on much dialogue with the country and its own internal discussions.

- ☑ In parallel, the Global Partnership contributes to logistics including venue, hotel, travel, catering, local transportation, receptions, etc.
- ☑ The MPs reception, newly introduced in 2017, seeks to elevate data on the highest political agendas, and a funders roundtable addresses key issues and priorities as related to coordination of funding to meet data needs.
- ☑ In many cases, a debriefing is conducted the day following the workshop to discuss overall impressions and outcomes from the workshop and outline next steps and an engagement strategy.
- ☑ Based on the workshop's inputs and outcomes, the Global Partnership Secretariat works with the host institution to develop an outcome report that is distributed to the members of the Global Partnership.
- ☑ The Global Partnership establishes regular follow-ups with each country as part of the new engagement process.

Appendix B – Review Questionnaire

Data Roadmaps for Sustainable Development Programmatic Review

The data roadmaps for sustainable development process has convened seven workshops since March 2016, and participated in several other events including HLFP, the UN General Assembly, the International Open Data Conference, and others. As envisioned, these whole-of-government and multi-stakeholder workshops seek to address the key challenges and opportunities as well as operating models for how countries are aligning their national development priorities to the SDGs, data gaps, and new sources of data for supporting data for action, decision-making, reporting, and monitoring. An interrelated outcome of these proceedings has been the development of a Data4SDGs Toolbox as well as connections to other Global Partnership public goods, including the website and API Highways.

With the completion of six national workshops and the Global Partnership's new incoming Executive Director on board, the Partnership is well positioned to assess the data roadmaps process from two angles:

1. **What are the common patterns, synergies, and challenges countries are facing on their data roadmap process?** This part of the review would further examine the data roadmap process to identify observations and conclusions that offer lessons learned for data roadmaps. Understanding that every country is unique politically, culturally, and technically, while also at a different stage of maturity on implementation against the SDGs, this review would offer further insights and outcomes from the countries the Global Partnership has supported thus far.

2. **How can the Global Partnership improve its engagement with partner countries during the data roadmap process?** The second part of this review would further evaluate the process for engagement on data roadmaps the Global Partnership has led over the last months. This evaluation would allow for country partners and relevant stakeholders to provide input on what worked well and what didn't in terms of the national workshop process and what can be improved to get the desired outcomes leading to success.

The intent of this process is to further demonstrate the Global Partnership's commitment to partner countries on their data roadmap process. With that being said, it must be noted that the Global Partnership is not an operational entity, and therefore, the levels of engagement and follow-up need to be balanced in accordance with the Partnership's mandate versus those implementation activities partner organizations can support.

Below, you will find a set of questions tailored to your role in the data roadmap process. Please do the best to answer those questions most appropriate to your situation as comprehensively as possible. Your inputs will be synthesized along with those provided by other countries into a report to better support peer-to-peer learning across countries. In addition, we will hold sessions at the World Data Forum in January 2017 to bring you together for an in-person exchange where this synthesis will also be provided.

Questions to support the assessment include the following:

For country partners:

Lessons on Data Roadmaps

- What were some of the incentives and challenges for undertaking a data roadmap process for the SDGs in the context of the data revolution?
- What model did you implement to align the SDGs with your national development priorities? Please include the national strategies that were used to map the SDGs against.
- How are you working with other government institutions and stakeholders? Have any agreements been established or permanent, multi-stakeholder bodies established?
- What benefits have you seen by engaging a multi-stakeholder process for the SDGs?
- What constitutes a thriving data ecosystem that leads to successful implementation against the SDGs for action and decision-making?
- What are the key challenges you face in regards to the data revolution and new sources of data?
- Have you been able to leverage new sources of data, and if so, can you please describe?
- What has your experience been in developing public-private partnerships with the private sector?
- What has been the most difficult part about developing a data roadmap process and where do you think the opportunity lies?
- Have you leveraged resources available in the Data4SDGs Toolbox? If so, which resources and what has your experience been? If not, why?
- How would you like to see the Toolbox improved? Are there other modules and resources you would like to see in the Toolbox?
- If you were to provide advice to another country just beginning the process for developing a data roadmap for sustainable development, what would you tell them – what you should and should not do?

Process Improvement

- Why did you want to engage with the Global Partnership?
- What have been the most useful insights from the roadmaps workshops that might not have been gained otherwise?
- Have the workshops helped to create a favorable political environment for investments in data and collaboration? If so, what have been the key factors behind this, and if not, what could have been improved to achieve this result?
- What have been the concrete outcomes from the workshops (new projects, new funding, new collaborations, anything else?)?
- Now that the Data4SDGs Toolbox has been released with increased modules, have you been able to utilize any modules to support your data roadmap efforts? Has it been helpful and what other suggestions do you have?
- What could have been done more effectively to increase the effectiveness and impact of the roadmaps process?
- What do you see as the role of the Global Partnership moving forward to support your work on data roadmaps?

For other stakeholders:

Lessons on Data Roadmaps

- How are you working with other government institutions and stakeholders? Have any agreements been established or permanent, multi-stakeholder bodies established?
- What benefits have you seen by engaging in a multi-stakeholder process for the SDGs?
- What constitutes a thriving data ecosystem that leads to successful implementation against the SDGs for action and decision-making?
- What are the key challenges you face in regards to the data revolution and new sources of data? What has been your main role in this regard?
- Are you engaged in any partnerships supporting government actors implementing the SDGs? If yes, please describe.
- What do you see as the main challenges in developing and implementing against a data roadmap accounting for the broader country data ecosystem?
- Have you leveraged resources available in the Data4SDGs Toolbox? If so, which ones and what has your experience been? If not, why?
- If you were to provide advice to other stakeholders in countries just beginning the data roadmap process, what would you tell them – what you should and should not do?

Process Improvement

- Why did you want to engage with the Global Partnership?
- What have been the most useful insights from the roadmaps workshops that might not have been gained otherwise?
- Have the workshops helped your organization better engage and collaborate with government and/or other stakeholders? If so, what have been the key factors behind this, and if not, what could have been improved to achieve this result?
- What have been the concrete outcomes from the workshops (new projects, new funding, new collaborations, anything else?)?
- What could have been done more effectively to increase the effectiveness and impact of the roadmaps process?
- If you have contributed to the Data4SDGs Toolbox, what was your experience and what would you like to see improved? Are there other modules and resources you would like to see the Toolbox include?
- What do you see as the role of the Global Partnership moving forward to support your work on data roadmaps?

Appendix C – Robustness of Data Ecosystem Evaluation Matrix

The Global Partnership Secretariat will use the following logical framework to assess the robustness of data ecosystems developed at the Country-Level. Country focal points will be consulted to further define what steps have been taken in response to each of the questions and what this means for progress being made on the development of a multi-stakeholder, data ecosystem at the Country-Level.

QUESTIONS		SCORE			
		1. WEAK	**2. IMPROVING**	**3. GOOD ENOUGH**	**4. STRONG**
A.GOVERNANCE AND LEADERSHIP	**HOW INSTITUTIONALIZED AND COORDINATED IS THE INTRA-GOVERNMENT DATA ECOSYSTEM AND IS THERE EXECUTIVE SUPPORT AND LEADERSHIP?**	There is no governing framework or agreements in place for how data is shared or accessed across government.	The importance of data sharing across government has been recognized. An informal mechanism has been established.	While no formal legal framework is in place to support data access and sharing, it is happening anyway with strong outcomes.	A formalized framework is in place to promote data access and sharing across government (could be formalized in law or otherwise institutionalized)
	TO WHAT EXTENT IS A MULTI-STAKEHOLDER DATA ECOSYSTEM INSTITUTIONALIZED?	Other sectors (civil society, private sector, academia, etc.) are not engaged with government or with each other	The importance of multi-stakeholder approaches has been recognized. An informal mechanism has been established.	While no formal, legal framework has been established, the public sector is engaging with the private sector and civil society with positive outcomes	A formalized framework is in place to promote and sustain a multi-stakeholder approach for in-country data ecosystems
B. CAPACITY AND RESOURCES	**TO WHAT EXTENT DOES FINANCING SUPPORT OR UNDERMINE THE DEVELOPMENT OF THE DATA ECOSYSTEM?**	Funding not aligned nor coordinated with limited control by government and heavy donor dependence.	Initiatives underway to better align and coordinate funding with accountability for both government and donors.	A balance has been reachedd with donor and domestic funding according to key priorities at the Country-Level.	Domestic resources are primarily used for funding and donors are coordinated and aligned per country priorities (gov. in control)
	HOW WELL DOES THE GOVERNMENT COLLECT, ANALYZE, DISSEMINATE AND USE HIGH-QUALITY DATA ABOUT SUSTAINABLE DEVELOPMENT?	No data sharing, fragmented system, large volumes of unused data, poor integration of data into decision-making and monitoring of the SDGs.	A data ecosystem is developing. Data gaps have been identified along with key roles. Data sharing or open data programs started. New tools coming online.	Priority data gaps are being addressed, data is being used across sectors, capacity building program in place, case studies being developed.	Institutions have capacity and tools to collect and share data, have skills and tools to analyze data and monitor progress on the SDGs, have data sharing strategies in place, high demand for and use of data among decision-makers

TABLE CONTINUES ON NEXT PAGE

Appendix C – Robustness of Data Ecosystem Evaluation Matrix

QUESTIONS		SCORE			
		1. WEAK	**2. IMPROVING**	**3. GOOD ENOUGH**	**4. STRONG**
B. CAPACITY AND RESOURCES	**HOW WELL EQUIPPED IS THE GOVERNMENT TO COLLECT DATA IN A MANNER THAT ALLOWS FOR DATA DISAGGREGATION?***	Limited data disaggregation or consideration of left behind groups.	Data disaggregation protocols, plans, capacities and strategies are developing.	Disaggregated data being used across sectors.	Institutions have capacity and tools to disaggregate data, have skills to analyze disaggregated data and use it implement effective policies and to monitor progress on the SDGs.
C. PRINCIPLES AND STANDARDS	**ARE THERE PRINCIPLES AND/OR PROCESSES IN PLACE TO ASSURE THE QUALITY OF DATA USED AND PUBLISHED BY GOVERNMENT?**	None	In early stages of being drafted with commitment to implement	Published and starting to be implemented but not being systematically followed.	Yes, principles are embedded in legal frameworks and they are being effectively implemented
D. TECHNOLOGY, INNOVATION AND ANALYSIS	**IS THERE A CULTURE OF INNOVATION ESPECIALLY AROUND USING A WIDE RANGE OF DATA SOURCES?**	Limited experimentation, limited access to non-official data, highly restrictive data sharing policies among private sector and civil society	Data sharing and open data portals and dashboards coming online, more done with data visualization and case studies.	Data is federated across government and flowing across stakeholders; an ecosystem has developed with tools for analysis and visualization.	A network is in place connecting data sources from pubic, private and CSO sources; Entrepreneurship is promoted with apps being developed; Jobs are being created and data science is being applied.
	ARE THERE INCENTIVES IN PLACE FOR SUSTAINED USE OF DATA FROM A WIDE RANGE OF DATA SOURCES?	Limited understanding of the value of sharing data from public, private and CSO sources	Incentives begin to shift whereby data producers and users can get value from data sharing	Incentives become more formalized, data producers and users get value from data sharing	Data sharing is routine practice; all stakeholders have an interest in the sustainable flow of data between stakeholders

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Global Partnership for Sustainable Development Data

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