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

Background document  
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**Data for Now initiative: use of innovative methods, tools and data sources for more accurate, timely and granular Sustainable Development Goal data**

# Data for Now initiative: use of innovative methods, tools and data sources for more accurate, timely and granular Sustainable Development Goal data

## Overview

The Data for Now initiative, aims to develop countries' capacities to deliver the information needed by local and national policy and decision makers to achieve the 2030 Agenda. It supports members of the national statistical systems in participating countries to collaborate more effectively with local, national, and global partners from intergovernmental organizations, academia, civil society, and the private sector in the use of new data solutions. Activities are focused on leveraging innovative sources, technologies and methods for the streamlined production and dissemination of better, more timely and disaggregated data for sustainable development.

The Data for Now initiative was launched by UN Deputy-Secretary General Amina Mohammed on the sidelines of the UN General Assembly, in September 2019. The project is co-led by four core partners: the United Nations Statistics Division (UNSD), the World Bank's Development Data Group (WB), the Global Partnership for Sustainable Development Data (GPSDD), and the Thematic Research Network on Data and Statistics of the Sustainable Development Solutions Network (SDSN TReNDS).

This background document provides an overview of the progress made under the Data for Now initiative, including:

1. A summary of key achievements to date
2. Strategic development in 2021, including development of guiding principles, partnerships and communications

Information on the work can also be found on the UNSD homepages of the Data for Now initiative: <https://unstats.un.org/capacity-development/data-for-now/>

## 1. Key achievements

In the initial phase, the Data for Now initiative engaged with eight trailblazer countries: Bangladesh, Colombia, Ghana, Mongolia, Nepal, Paraguay, Rwanda and Senegal. Since then, the four core partners have been able to engage with the majority of the eight countries through individual funded projects. Some of the achievements are highlighted here.

According to the most important of the [Data for Now Guiding Principles](#), the priorities to be addressed by the project activities were set by the countries, which has led to strong ownership by countries of the implementation of the work.

### **Colombia:**

In Colombia, for instance, poverty data were lacking for many municipalities, particularly in rural regions, and disaggregation was limited. The Departamento Administrativo Nacional de Estadística

(DANE), the National Statistical Office (NSO), therefore sought to improve its office's capacity to measure multi-dimensional poverty estimates using non-traditional data sources and methods, including mobile data, gridded population data, Bayesian statistics for predictive modelling, satellite imagery and small area estimation methods. The work was initially supported by SDSN TRenDS, funded by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ). They partnered with Centro de Pensamiento Estratégico Internacional (CEPEI) and local academic experts to help identify methodologies and data gaps for multi-dimensional poverty. They also conducted a series of technical trainings to improve representatives' skills and knowledge, and DANE began to measure multi-dimensional poverty in the country's Pacific region, home to some of the highest poverty rates. Following this, UNSD, with funding from the Italian Government, supported DANE in refining the methods and expanding measurement to the whole country, working with experts from the Oxford Poverty and Human Development Initiative (OPHI), the World Bank, and the University of Southampton. Bespoke technical trainings in small area estimation and related methods have been developed, with DANE additionally applying these to monetary poverty, making use of satellite imagery and administrative data. The data are still categorized as experimental statistics, but the aim is to include them as official statistics once quality concerns are fully addressed.

Another priority set by Colombia under the project supported by UNSD was to improve the information on SDG 16 indicators. For this, DANE, is making use of natural language processing (NLP) on social media information (mainly Facebook). With the support of the Presidential Council of Human Rights, DANE built the definition and creation of semantic fields on forms of discrimination. It then constructed a data set with a selection of top Facebook profiles within different categories. This data set went through a data pre-processing and explanatory analysis. The information was complemented with Google News data. With the support of D4N consultants and the UNDP SDG lab in Armenia, a preliminary algorithm to track the discrimination forms has been built, based on several models, including zero-shot classification, emotion rating, and emotion classification. This has resulted in a model that predicts discrimination and democratic representativeness. Although further work is now needed to further assess quality and other concerns, the exercise has already provided DANE with additional knowledge on the use of social media data and NLP.

To help ensure sustainable and efficient processes, UNSD is also supporting Colombia and Senegal with the upgrade of their IT infrastructure to be better equip the NSO to handle new, larger datasets and the use of innovative methods. This was done by setting up a combination of local and cloud-based data lakes mainly using open source software. Colombia, who has already finalized the upgrade, has estimated that their new system has substantially reduced the loading time related to production of tables using administrative data sources (for one particular administrative data source the loading time improved from 45 to under 3 minutes).

More information about the work in Colombia can be found in the [Data for Now Colombia pages](#).

### **Bangladesh:**

Bangladesh has also prioritized the improvement of their poverty indicators at sub-national level and have taken a similar approach to Colombia. Both countries are benefiting from consultancy support, including from the University of Southampton, who have strong expertise on small area estimation. The work in Bangladesh is funded by the UN DESA Peace and Development fund and the UNSD-FCDO project on SDG monitoring. It is being supported by a national poverty working group, composed of high-level

experts in poverty, to guide the process and provide technical advice on the country's priority to develop poverty measures. This has also been helpful in ensuring broad ownership and in bringing relevant background information. Following the technical workshops, the national team, led by the Bangladesh Bureau of Statistics have developed some initial experimental estimates of poverty, drawing on a wide range of geospatial and administrative data sources. . More information about the work can be found [here](#).

#### **Paraguay:**

In Paraguay, SDSN TRenDS worked with local partners, CEPEI, and the NSO in Paraguay, The Directorate for Statistics, Surveys and Censuses (DGEEC), to develop a centralized water information system to track water resource utilization for timely decision-making, a key challenge indicated by DGEEC. The process involved convening key stakeholders across sectors and line ministries in the country to build the necessary partnerships, as well as organizing a number of peer-to-peer knowledge exchanges with DGEEC and countries, including Mexico and the Dominican Republic. As a result, 40 available data sources and 13 new indicators were identified to measure water indicators in the country using non-traditional data sources, and the governance framework for the water system and requirements for the IT system architecture are in development.

#### **Ghana:**

In Ghana, marine litter inflicts enormous damage on its coastline, but the country lacked continuous data to monitor marine litter and comprehensively address the issue. As such, the Ghana Statistical Service (GSS) was motivated to use citizen science (which had shown potential for contributing significantly to SDG indicators) to monitor SDG 14.1.1b. Working with SDSN TRenDS' expert members and several other stakeholders, including the UN Environment Programme, The Ocean Conservancy, The Wilson Center Earth Challenge, the Ghana Environmental Protection Agency, and others, a series of meetings, policy roundtables, and workshops were organized to harness existing networks and citizen science initiatives already taking place in the country and bring together the key partners to harmonize approaches, refine methodologies, review reporting requirements, and discuss policy needs for marine litter. As a result, Ghana has become the first country to report on the indicator 14.1.1b using citizen science data.

#### **Senegal:**

GPSDD, SDSN TRenDS and UNSD have all been engaged in work in Senegal. The largest project is implemented by UNSD, with funding from the Italian Government. There, the initiation phase took a few months due to a more decentralized National Statistical System (NSS) and therefore a need for a more thorough stakeholder engagement process, but activities are now well underway. One of the goals in the country is to set up a COVID-19 data hub, and work has been ongoing to collect information about available data sources and assess their feasibility and relevance. All 95 members of the NSS were contacted by a consultant funded by the project to identify who potentially has COVID-19 information, and the majority responded. Out of these, 30 had data linked directly or indirectly to COVID-19. The data sources selected for initial upload include case numbers of deaths, those who tested positive, and those who recovered; prevention and infection control data; consumer prices; labor statistics; WASH indicators and maritime traffic. The data hub is planned to be set up in the first quarter of 2022. More information about areas of support in Senegal can be found [here](#).

The IT architecture and infrastructure development work in Senegal includes technical advice on the implementation of a data lake environment capable of enabling statisticians, GIS analysts, and other substantive experts at ANSD to collaboratively integrate, access, retrieve, process and analyze different types of datasets in a common data management environment. Based on recommendations following the assessment of the existing infrastructure, the project has now begun the implementation phase of the proposed data lake environment, which consists of a data storage, access, processing and analysis components to be deployed in ANSD's own infrastructure. The aim is to also support new countries joining the Data for Now initiative with this approach.

### **The approach overall**

As is also showcased above, various partners have actively been involved in the work, depending on indicators and methods chosen. More details about partners involved is presented in section two. Key general partners, however, have been the UN Regional Commissions and UN Resident Coordinator Offices (UN RCOs) in each respective country. The UN RCO in Bangladesh has, for instance, been vital to the progress of work, actively supporting coordination and bringing the right stakeholders onboard, including at policy level.

To benefit the broader statistical community, the plan is to make as many of these experiences and training materials available online. UNSD is in the process of uploading data stories and an initial selection of training videos and presentations on its websites.

As demonstrated from the selection of activities presented in this summary, putting the countries in the 'driver's seat' has led to much variation in what and how the work has been implemented. This includes different priorities in areas to cover, varying use of innovative data sources, methods and tools, as well as variation in approaches to engagement with partners. Availability of funds has also influenced the scope of engagement of the core partners. The flexible approach of the Data for Now initiative has increased the intensity of work for the core partners but has also led to a high degree of ownership and likelihood of sustainable solutions at national level. Making materials available to other countries and their partners so that solutions can be replicated will, over time, increase efficiency and the overall value added of the initiative. This can already be seen within the countries involved in the Data for Now initiative; particularly via the work on poverty estimation, use of small area estimation methods and the IT infrastructure upgrade that were carried out in more than one country, and the countries and partners were able to benefit from mutual learning and experience exchange.

## **2. Strategic development**

### **2.1. Guiding principles and other strategy documents**

As work progresses in the countries, there has been a need to clearly communicate the objectives and approaches of the Data for Now initiative, and the core partners have developed a set of strategy documents. At the core of them are the *Guiding Principles*.

These consist of a total of 12 principles. The main one, at the center of the figure below, is that priorities are always identified by countries.

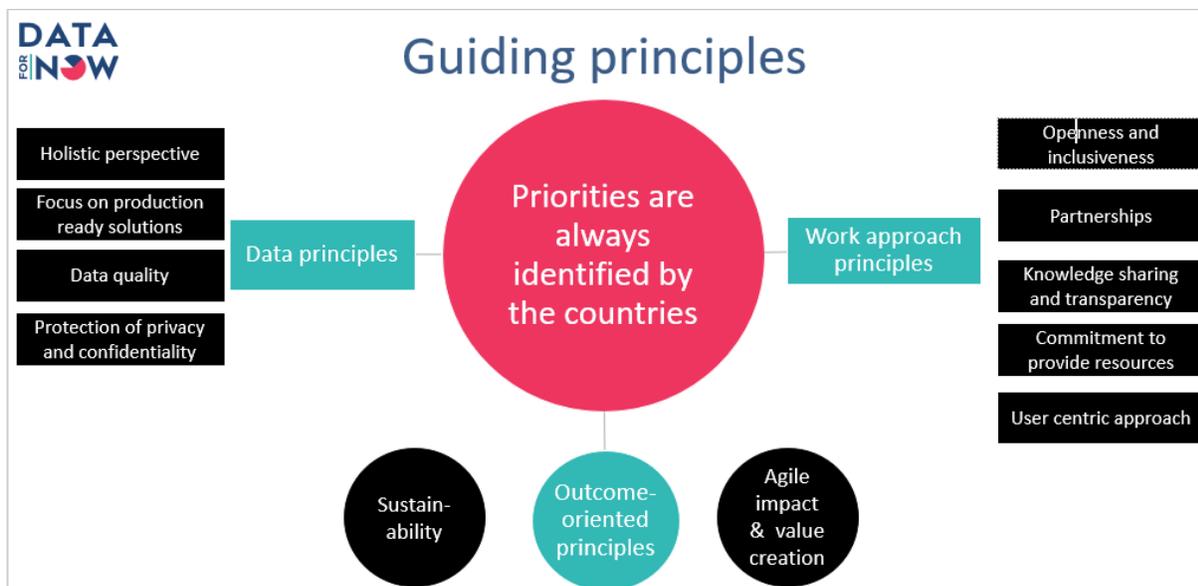


Figure 1: Illustration of the Data for Now Guiding Principles

There are four data principles as shown at the left side of the figure. They highlight that, while the focus of the work is on using innovative data sources, methods and tools, the implementation should be in line with the UN Guiding Principles of Official Statistics, following key data quality, privacy and confidentiality standards. They also highlight that the focus should be on production-ready solutions that lead to regular production of official statistics, potentially with a temporary testing phase. A holistic perspective should also be taken in this context.

Further, there are five work approach principles, as shown at the right of the figure. They include various aspects of involvement, starting with openness and inclusiveness towards all countries that want to join and follow the approach and towards partners who want to get involved and contribute to the work approach. They also highlight another key aspect which is a strong focus on knowledge sharing to other countries and partners that can benefit from the capacity development work and its results.

Last, as shown at the bottom of the figure, are the outcome-oriented principles. They bring everything together by highlighting the aim of the other principles: sustainability and high-level and high-impact value creation.

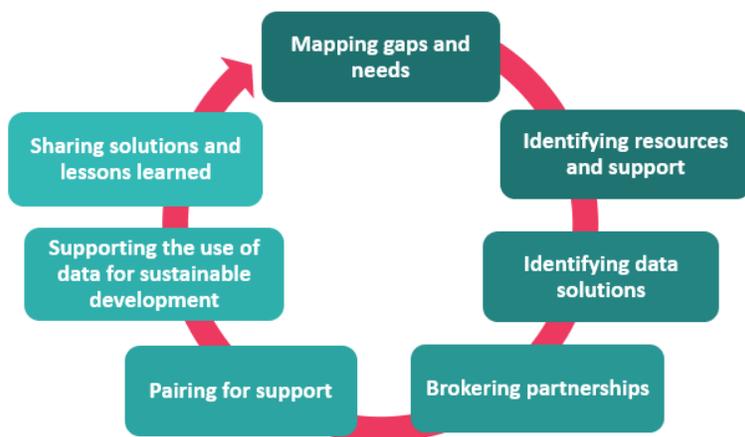


Figure 2: Illustration of process to meet the Data for Now Guiding Principles

The work approaches of the Data for Now initiative have also been structured along a timeline where the gaps and needs of the decision-makers and other key stakeholders first are mapped out, followed by an assessment of resources, and a determination of who can contribute to the work. Based on this, data solutions are identified and relevant partners at national and international level involved. The data collection and processing work then begins and once ready, communication processes are initiated to reach users who can use them for their policy and decision-making processes. The solutions are also shared, including key lessons learned through the process.

The four core partners have agreed that they bring different competencies and therefore can complement the work of each other. Each partner entity does not bring expertise in all areas of work and should rather involve and build on the work of that of the other core partners, as well of that of additional partners depending on the areas covered. UNSD, for example is a warrantor of country ownership and official statistics production, while SDSN TREnds brings the academic and multi-disciplinary perspective from its broader network and expert membership, including partners that have experiences in working with innovative data, methods, and tools. GPSDD specializes on the wider exchange, building partnerships beyond the traditional statistical community, including civil society and the private sector. The World Bank brings expertise on aspects related to poverty, economic statistics and related fields at a global level and a large network of country level programs that can be brought in to support activities.

In this context, the core partners also focus their engagement in countries differently. As an example, UNSD focuses on in-country implementation at a technical level, but also linking to policy priorities and bringing relevant partnerships. GPSDD has a stronger focus on more general level trainings that can be easily extended to more countries and gives opportunities to share experiences with a broader group of countries.

This way, the Data for Now takes a global approach that aims to cover and work with countries as widely as possible, sharing the results of the more in-depth activities carried out in a selected number of countries for which resources can be secured through individual donor-funded projects.

## 2.2. Partnerships

Partnerships are a key element of the Data for Now initiative and this has been reflected both in the guiding principles and the work approach. In the course of 2021, the core partners have engaged actively with additional partners, both related to ongoing projects and in order to expand the work to other countries and areas of work.

### 2.2.1 Implementation partners

At national level, partners have actively been engaged in the initial prioritization process and as the work progresses. This has probably been most evident in Senegal, where several members of the NSS have contributed to the mapping of gaps and needs assessments, participated in trainings and contributed to discussions and data sharing. Most of the partners are representatives from the government, but NGOs and academia have also been involved. The most prominent one is the Initiative Prospective agricole et rurale (IPAR) which has helped facilitate processes and contributed to the development of the work. The initial engagement with IPAR was through GPSDD, but later continued in UNSDs project through a consultancy. In addition, many partners have also been involved through the work of SDSN TRenDS in Senegal, including Université Cheikh Anta Diop in Dakar, alongside core and local partners to conduct a series of virtual meetings and webinars to improve the framework and design of the cadastral system, review data sources, tools, and methods for urban data, cadastral data, and sustainable land use in the country.

The UN Resident Coordinator Offices have been very helpful in connecting the work to other ongoing work of the UN and other partners in countries, helping ensure collaboration and avoid duplications. The strongest partnership in this context has been in Bangladesh as was also highlighted under “Key achievements”.

Among international partners, at this point, the strongest contributors have been UN agencies, including custodian agencies and regional commissions. UNDP has for instance been actively engaged in the work on SDG16 and has committed its own resources to support the development work in Colombia. UNODC and OHCHR have also been involved and provided input at early stages. On education, there is an ongoing collaboration with UIS (UNESCO). ECLAC has also engaged in and supported work related to geospatial data and small area estimation related to the poverty estimates. Similarly, in Senegal, FAO and UN-Habitat have taken onboard work related to SDG indicators for which they are the custodian.

There has also been engagement with other partners, including multi-stakeholder collaboratives, such as the POPGRID Data Collaborative, which aims to bring together and expand the international community of data providers, users, and sponsors concerned with georeferenced data on population, human settlements and infrastructure. Through the D4N initiative, SDSN TRenDS has worked with members of the Collaborative to design technical trainings for NSO representatives to develop the skills needed to use gridded population datasets in different application areas (further details provided in Section III). They have also received interest to continue these trainings for other Data For Now country partners, as well as from technology and industry partners to support future training events.

Additionally, the University of Southampton, through consultancies and contracting work, have supported the work on small area estimation in Bangladesh and Colombia. Partners to the work in Ghana and Paraguay have also contributed as was presented in the key achievements above. From the private sector, ESRI has continued to provide licenses at lower rates according to the agreements with the core partners which has helped facilitate work on education statistics in Colombia and setting up the

COVID-19 hub in Senegal.

Finally, NSOs who have systems in place to support and partner with other NSOs have also contributed to the work, and this engagement is expected to also expand in 2022. The most active NSO is Statistics Norway as they have received funding from the Norwegian Government to support the Data for Now work in a selected number of countries. Engagement has started in Colombia and is expected to be expanded to a number of other countries. Conversations have also started with the Office of National Statistics of the UK and their data science hub group who are interested in partnering up to provide inputs to innovation work in some of the countries.

#### 2.2.2. Donors

Donors are key to help ensure continued progress and expansion. The Italian Government has been an early and strong supporter of the Data for Now initiative. They have supported the work of UNSD in Colombia and Senegal, and a new agreement is being finalized that will support eight additional countries in Africa and Asia. This is also made possible through a contribution from the Norwegian Government which allows UNSD to hire a staff that can support the program in the eight countries.

In 2021, UNSD also benefited from funding for Bangladesh through the United Nations Peace and Development Fund through a DESA interdivisional project on Evidence-based, coherent and well financed strategies to implement the 2030 Agenda. Recently, the UNSD-FCDO project on SDG monitoring, funded by the British Government, also expanded its scope and is currently allowing continued engagement with Bangladesh and allowing smaller scale engagement with Burundi, Ethiopia, Ghana, Kyrgyzstan and Rwanda, much of which fits well under the Data for Now umbrella.

A key donor for SDSN TReNDS in implementing Data for Now work is the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ). They have supported the work conducted in Colombia, Paraguay, and Senegal, and conversations are underway to expand and support additional countries.

In addition, UNSD and GPSDD have engaged actively with a number of countries and agencies in the Collaborative on the use of administrative data for statistics. While administrative data are not fully innovative, some of the approaches that are being discussed, particularly on data quality, linking and interoperability, provide new data solutions to fill important data gaps. The work approaches of the Collaborative and the Development Account 13 on Administrative data for disaggregated Sustainable Development Goals indicators in Africa, Asia and the Pacific and Latin America that UNSD is implementing in this context can also therefore be seen to contribute to the Data for Now approach.

GPSDD have likewise been in promising conversations with potential donors and, if these come through, they also expect to expand activities under the Data for Now umbrella in 2022.

#### 2.3. Communications work

The core partners have also engaged in the area of communication and outreach. They have drafted an extensive strategic communications plan which addresses target audiences, short and long-term objectives, our approach, planned activities, as well as other key components to enhance brand visibility and to ensure that Data For Now principles and standards are widely recognized and used as a benchmark for defining solutions that deliver real benefits for the SDGs.

The webpages of the core partners provide more details about ongoing work. The [Data for Now](#) pages of UNSD for example contains the Data for Now Guiding Principles, information about work in each country, key partners, and donors. Data stories highlighting certain elements of the work as well as training materials will be made available in the first quarter of 2022.