



OPEN DATA TO SUPPORT THE SUSTAINABLE DEVELOPMENT GOALS

Advancing discussions on open data for
national statistical systems

The open data revolution is here. Implementing open data principles is not a matter of if but how.

“Official statistics that meet the test of practical utility are to be compiled and made available on an impartial basis by official statistical agencies to honour citizens’ entitlement to public information.”

The United Nations Fundamental Principles of Official Statistics, 2014

“Promote the release of data as open data by all data producers, and build capacity for continuous data innovation.”

A World That Counts: Mobilising The Data Revolution for Sustainable Development, 2014

“Encourage national statistical offices to embrace the open data initiative and ensure stakeholders of the national statistical system as part of the process.”

Global Action Plan for Sustainable Development Data, 2017



Achieving an open data revolution

The international Open Data Charter defines open data as “...digital data that is made available with the technical and legal characteristics necessary for it to be freely used, reused, and redistributed by anyone, anytime, anywhere.” The open data principles state that data should be open by default; timely and comprehensive; accessible and usable; comparable and interoperable; for improved governance and citizen engagement; and for inclusive development and innovation. As seen in the Global Action Plan for Sustainable Development Data, the move to implement the principles within national statistics offices and promote open statistical data is part of a global process to make governments more transparent and efficient while fostering innovation and growth. Open data strives to improve the lives of everyday citizens around the world.



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Bringing together national statisticians and open data experts, forums such as the International Open Data Conference, United Nations World Data Forum, and the open data seminar at the United Nations Statistical Commission offer opportunities to highlight the importance of open data in national statistics offices and explore new approaches to advancing open data within technology, legislation, capacity building, and partnerships. This brochure briefly discusses the value of open data to national statistics offices and the key issues to consider in implementation, identifies a nonexhaustive directory of key organizations that support open data, and showcases examples of countries who are advancing open data.

Supporting national statistics offices and promoting open data

Open data initiatives can provide advantages to national statistics offices in both developed and less developed statistical systems. As gatekeepers of official statistics, national statistics offices (NSOs) produce data highly-valuable and essential to any open data initiative. The data curated by an NSO are critical to tracking development progress and providing the information necessary to make sound decisions on environmental, social, and economic policies.

National statistical systems can and should take the lead in the open data revolution. The value of official statistics is enhanced the more they are used, and making data accessible and useable is an important function of any statistical agency, as described in the Fundamental Principles of Official Statistics. There are also internal benefits of open data for national statistical systems: process efficiencies, access to new data sources, and improved outreach and greater trust in statistics. Open data can also improve the functioning of government, assist in targeting the most vulnerable populations to ensure no one is left behind, and generate opportunities for economic growth and job creation in the private sector.

Data is quickly becoming a key part of the infrastructure in a networked world. However, there are still important challenges to be addressed for developing countries to fully benefit from the promises of open data.

Emerging open data issues for national statistical systems

The Global Action Plan for Sustainable Development Data, launched in January 2017 at the first United Nations World Data Forum, outlines a vision and describes concrete steps needed to achieve better data for all. Specifically, it addresses the importance of open data in achieving the Sustainable Development Goals (SDGs) and speaks to the responsibilities official statistical agencies have in making their data open. While the leadership of national statistical systems is of utmost value, here are several important topics of discussions to consider as countries embrace open data:

Legislation and institutional setting: Principles and standards of open data practice should be followed to ensure continuity and mitigate security and privacy concerns. The statistical community should discuss how best to interpret and adapt the Fundamental Principles of Official Statistics to include open data principles.

Technology: Adequate technology is a precursor to an efficiently functioning open data environment. In order to move principles into practice, the latest technological solutions such as open source applications, innovative storage, data interoperability, and computing capacity are necessary to meet the needs of open data storage, processing, and dissemination.

Partnerships: As the data revolution wages on, the ecosystem of data producers and users is becoming increasingly diverse. Fostering linkages between the private sector, civil society, and government are critical to sustainable, inclusive, and collaborative ecosystems. To unlock the true potential of open data for sustainable development and good governance, strategic partnerships both inside and outside the government should be embraced.

Capacity building and resource mobilization: The success of open data initiatives depends on the degree of technical, human, and financial resources available. Capacity building requirements should be identified at the country-level and based on a political-economy analysis. Adequate resources must be sustained through traditional funding sources or new financing mechanisms such as public-private partnerships or data compacts.

Open data for national statistical systems: An example of key organizations

Many international and regional agencies, partnership groups, and specialized think tanks are positioned to support the implementation of open data in countries and provide guidance and support in navigating the issues mentioned in the previous section. Below are some of the organizations working to address the challenges faced by national statistical systems while promoting practices open data. This is not an exhaustive list; it is a starting point for a comprehensive directory of organizations working at the intersection of open data and national statistics.

Global data partnerships

[Global Open Data for Agriculture and Nutrition \(GODAN\)](#) supports the sharing of open data to make information about agriculture and nutrition available, accessible, and useable. Currently a group with over 457 partners from national governments, non-governmental, international and sector organizations, GODAN encourages the agreement on and release of a common set of open agricultural and nutrition data.

The [Global Partnership for Sustainable Development Data](#) is an open, multi-stakeholder network committed to harnessing the data revolution for sustainable development. Key resources the Global Partnership provides to support open data and encourage statistical capacity are the Data Country Roadmaps, a strategic guideline for measuring the SDGs at country-level, supported by a Toolbox and the Digital Marketplace, a platform to share resources and solutions to sustainable development needs.

[Open Data for Development \(OD4D\)](#) is a global network of leaders in the open data community, working together since 2010 to scale appropriate open data solutions around the world. OD4D has supported established regional initiatives in Latin America, Caribbean, Africa, Asia and East Europe and supported a number of global research efforts that tackle the question of what works in open data. Host of the International Open Data Conference, the OD4D Network aims to build a collaborative global agenda for open data while enhancing the value and impact of open data.

The [Open Data Charter](#) is a movement of governments and organizations committed to achieving a world where data is used as a public good to empower people to build more prosperous, equitable and just societies. At the core of the Charter is a set of six Principles, developed in 2015 through a collaborative process including civil society, domain experts and government leaders. The mission is for governments, organizations and specific sectors to integrate the principles of open data into their work, and support effective implementation.

The [Open Government Partnership \(OGP\)](#) was launched in 2011 to provide an international platform for domestic reformers committed to making their governments more open, accountable, and responsive to citizens. OGP assists countries in establishing National Action Plans, a set of commitments that advance transparency, accountability, participation, and/or technological innovation. It also provides the Open Government Guide, which includes sections on open government data as well as privacy and data protection. The OGP Open Data Working Group, co-chaired by the Government of Canada and the Web Foundation, provides support to countries in developing open data commitments.

[Partnership in Statistics for Development](#) in the 21st Century (PARIS21) is a global partnership that promotes the better use and production of statistics throughout the developing world. PARIS21 provides technical support through their National Strategy for the Development of Statistics (NSDS) Guidelines and knowledge support through the Advanced Data Planning Tool (ADAPT) and Partner Report on Support to Statistics (PRESS). The latest version of the NSDS guidelines, to be released in early 2017, will place even greater emphasis on how to plan for open data within a national strategy.

[Leading organizations and think tanks](#)

The [Center for Open Data Enterprise](#) works to improve the open data ecosystems, with particular focus on the use by the private sector and other stakeholders. In the U.S. and internationally, they host interactive roundtables, conduct user-centered research, and provide tools and training for greater application of open data. A project of the Open Data for Development Network, the Open Data Impact Map is a public database of organizations that use open government data from around the world. It showcases open data use cases across 7 geographical regions and 13 sectors.

[Development Gateway \(DG\)](#) aims to empower practitioners, governments, and citizens with the knowledge they need to improve lives. DG delivers technology and information solutions for international development with a focus making data open, accessible, and useful. DG builds open data tools, specializes in international data standards (like IATI, OCDS, and EITI), and offers trainings that help people in governments and organizations use data and tech to improve their work.

The [GovLab](#) aims to strengthen the ability of institutions – including but not limited to governments – and people to work more openly, collaboratively, effectively and legitimately to make better decisions and solve public problems by leveraging data and networks. The GovLab contributes heavily to the research surrounding what drives the impact of open data. One project is Open Data's Impact - 20 + detailed case studies of open data projects around the world and a key findings paper describing lessons learned across the project's. ([odimpact.org](#)) In addition, the GovLab is focusing on how data collaboratives ([datacollaboratives.org](#)) can create public value - including the improvement of statistics - through data exchange among various actors.

[Joined-Up Data Standards](#) is an initiative supported by Publish What You Fund and Development Initiatives. While data has immense potential to drive sustainable development, data published in different formats and standards limits this. The project aims to tackle the issue by enabling data standards to align better by identifying priorities, fostering coordination between stakeholders, and developing technical approaches for joined-up data.

The [Open Data Institute \(ODI\)](#) strives to connect, equip and inspire people around the world to innovate with data. Founded by Sirs Tim Berners-Lee and Nigel Shadbolt, the organization trains and collaborates with individuals to promote innovation through open data by offering open data training courses, research, and regional nodes.

[Open Data Watch](#) is an international nonprofit that is uniquely placed to focus on the intersection of open data and the work of national statistical systems. It advocates for better and more open official statistics and creates knowledge of the need for statistical capacity and funding. It also monitors progress and provides information and assistance to guide implementation of open data systems through the Open Data Inventory - an assesment of topical coverage and openness of data provided by national statistical systems.

[Open Knowledge International](#) is a global non-profit organization focused on realizing open data's value to society by helping civil society groups access and use data to take action on social problems. It provides the Global Open Data Index, an education and engagement tool for citizens to understand the state of open government data in their country. Through a crowd-sourced survey, this tool provides a civil society audit on the openness of government datasets.

The [World Bank Group](#) aims to improve statistical systems worldwide through financial and technical assistance to countries for capacity building as well as free and open access to development data. The World Bank Group supports the implementation of open data through its Open Data Readiness Assessment (ODRA), a tool used to conduct an action-oriented assessment of a government's readiness to undertake an open data initiative. ODRA is part of the World Bank's Open Government Data Toolkit.

The [World Wide Web Foundation](#) blends powerful advocacy, cutting-edge research, and practical innovation to advance the open Web as a public good and a basic right. The Web Foundation produces the Open Data Barometer - a tool that assesses the prevalence and impact of open data initiatives. It gathers comparative data to rank countries on readiness, implementation, and impact of open data initiatives within countries.

[Regional organizations](#)

The [Africa Open Data Network](#), launched at the last International Open Data Conference in Madrid, is an African-led initiative exploring the role of open data in the achievement of Agenda 2030's goals and the Africa Data Revolution. One of the founding members is the United Nations Economic Commission for Africa (UNECA), which has promoted the harmonization of statistics across African countries and assists member states to undertake statistical activities, including censuses, surveys, and civil registration and vital statistics.

[Asia Open Data 2020](#), hosted at the Open Data Jakarta Lab, is a regional initiative for Asia that intends to support research and innovation focused on harnessing the potential of open data for social impact in the South and Southeast Asia region.

The [Caribbean Open Institute \(COI\)](#) is a regional coalition of individuals and organizations that promotes open development approaches to inclusion, participation and innovation within the Caribbean, using open data as a catalyst. There has been significant engagement with NSOs since the initial workshop in 2010 and the topic was the theme of a number of the regional activities and conferences such as Developing the Caribbean.

[Open Data in East Europe and Central Asia](#), hosted at UNDP in Istanbul, is a platform to support government representatives, civil society activists, tech activists and citizens that care about and work with open data. It focuses on the use and potential of open data to transform societies by empowering citizens and supporting governments to meet the SDGs.

[Latin America Open Data Initiative](#) is an innovation and research hub exploring the opportunities and challenges of using open data to prevent and solve development problems. ILDA is co-hosted at the Organization of American States and the United Nations Economic Commission for Latin America and the Caribbean (ECLAC).

Open data champions at the country-level

Alongside these organizations, champions of open data are also found within national statistics offices, helping move principles into practice. Both communities are critical as the potentials of open data – transparency, accountability, and innovation - cannot be achieved without coordination and collaboration between them. Below we provide a few examples of countries leading the way in promoting open data within their national statistics office.

Increasing use and re-use of data in Canada

The concept of increasing public access to high-quality data is at the core of all statistical agencies. For Statistics Canada, the move towards open data has been a gradual evolution beginning many years ago. In 2012, the agency eliminated all costs for access to the CANSIM – the main socio-economic output database. During this time, the agency also eliminated barriers to reuse and redistribution of official statistics by adopting an open license and removing all licensing and royalty fees. As a result of these open data initiatives, visits to the CANISM web application more than doubled. While it is difficult to quantify a cost benefit analysis of this transition from closed data to open data, the increase use can have several positive externalities such as evidence-based policy and more

informed business decisions. While the expressed benefits of open data tend to be more abstract, the dramatic increase of use of Statistics Canada's data is a concrete example of the direct link between opening data from statistical agencies and increasing the use of that data. This example shows that when the principles of open data are added, benefits of increased use do follow.

Improving access to open data in Ecuador

Ecuador has been long recognized as a regional example of transparency of information and strong statistical foundations. Since 2007, the National Institute of Statistics and Census (INEC) has provided microdata and metadata from their statistical operations on their website for free. In the course of the year, INEC improved access to data even further by implementing a new dissemination tool which included a clear Creative Commons license, linked INEC's website to other data producers within the national statistical system, and allowed users to more easily locate data with improved search functions. Ecuador is proof that with a strong motivation and commitment, a country can make great strides in opening their data. Alongside their actions to improve access, INEC strengthened their coordinating role by increasing the awareness of open data principles within the NSS, advocating for the dissemination of the Code of Good Statistical Practices of Ecuador, and promoting the inclusion of open data criteria on the certification process of official statistics in Ecuador.

Using strong leadership to improve open data in Mexico

The story of Mexico is an example of how with the right partners and leadership, open data environments can flourish - and flourish quickly. As part of a wider open government strategy to achieve a "digital Mexico", open data was embraced as an enabler of economic and social growth, lever to fight corruption and a mechanism to promote evidence-based policy making. To achieve these goals, the Coordination of National Digital Strategy of the Office of the President of Mexico partnered with the National Institute of Geography and Statistics (INEGI), to set up an Open Data Technical Committee tasked to align national statistical plans and open data policy implementation across government. This committee identified more than 30 high value datasets as part a critical National Open Data Infrastructure that have been released in datos.gob.mx, including the National Economic Units Directory, Birth Registry, and the Inventory of Ozone Depleting Substances, among others. To allow anyone to visualize, explore and compare the progress around each Sustainable Development Goal, the agenda2030.mx national SDG platform will be launched, including a public SDG Open Data API at its core.



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