Chapter 1

Overview: What will it take for data to enable development?

by
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Data are a prerequisite for delivering the 2030 Agenda for Sustainable Development, ensuring that no one is left behind. However, simply producing more data is not enough: data must be transformed, analysed and used to be useful for policy making, monitoring and accountability. The Development Co-operation Report 2017 *focuses on data for development because the quality, timely and disaggregated data that are crucial for achieving the ultimate goals of development – improving the welfare of people and fighting poverty – are missing. Investing in statistical systems needs to become a strategic priority for developing countries and providers of development co-operation alike. Strong political leadership in developing countries is needed to promote the cause of data for development and ensure data are produced with high-quality standards, protecting privacy and confidentiality. Development co-operation can help developing countries produce and use more and better data in a responsible and transparent way for good policy outcomes.*

Key messages

- Achieving the Sustainable Development Goals (SDGs) requires informed choices about priorities and strategies that are based on better evidence than is available today.
- Improving sustainable development data is a task for all. Political leadership, combined with the right institutional framework; financial, technical and human resources; and partnerships among public and private data producers and users are crucial for data to enable development.
- The total cost for 144 developing countries to produce data for the SDG indicators (Tiers 1 and 2) is estimated at USD 2.8-3.0 billion per year up to 2030 (GPSDD, 2016).
- With relatively little additional financial effort, development co-operation providers can fill the estimated annual funding gap of USD 685 million for SDG data in developing countries. To achieve this, aid for statistics needs to increase by about USD 200 million per year, beyond the 2015 level of USD 541 million (in current prices), and these volumes need to be sustained up to 2030.
- Increasing the quantity of aid alone will not guarantee success. The quality of financing for statistics must be improved by reducing duplication, targeting investments where needs are greatest, ensuring everyone's needs are counted, aligning to country priorities for data, and providing more relevant and sustainable statistical capacity building.
- To capture the full picture of resource flows for implementing the SDGs, a more comprehensive system and database are needed – such as the total official support for sustainable development (TOSSD) measure, which systematically captures all international development finance flows to developing countries and brings more actors on board for greater transparency.

Six concrete actions can bridge the data divide for sustainable development

- **Data action 1.** *Make statistical laws, regulations and standards fit for evolving data needs.*
- **Data action 2.** *Improve the quantity and quality of financing for data.*
- **Data action 3.** *Boost statistical capacity and data literacy through new approaches.*
- **Data action 4.** *Increase efficiency and impact through "data compacts" or other co-ordinated, country-led approaches.*
- **Data action 5.** *Invest in and use country-led results data to monitor progress towards the Sustainable Development Goals.*
- **Data action 6.** *Produce and use better data to help understand the overall state of SDG financing.*

The *Development Co-operation Report 2017* provides a holistic view of data-driven development and identifies concrete actions to advance the job of improving the quality of data and statistics, which are so important for driving development. But for data to be really effective, strong political backing is essential to forge a new mind-set that recognises and values the key role of data in delivering inclusive growth, prosperity and well-being. This, in turn, will improve the availability of independent, relevant and high-quality data, and their use in policy making, monitoring and accountability.

This report shows how international development partners, civil society and the private sector can work together to support the priorities and efforts of partner governments and national statistical systems so that they are capable of producing and using the right development data in a sustainable and responsible way (Box 1.1).

Box 1.1. **What are development data?**

"Development data" are important for setting development targets, measuring progress towards them and implementing development goals. Sources of development data include, but are not limited to, censuses, sectoral surveys, economic statistics, administrative data, civil registration and vital statistics, citizen-generated data, environmental data, and remote sensing and geospatial data. Development data are also compiled by international organisations and financial institutions to monitor the pace of economic and social development, as well as the status of the environment. There is strong complementarity and interdependence among diverse development data, which makes it important to take a systematic and comprehensive approach to producing data and strengthening statistical systems.

Source: SDSN (2015), "Data for development: A needs assessment for SDG monitoring and statistical capacity development", *http://unsdsn.org/wp-content/uploads/2015/04/Data-for-Development-Full-Report.pdf*.

Making the most of the power of technology can help to ensure that data serve development

The United Nations (UN) 2030 Agenda for Sustainable Development leaves no doubt that data are central to helping societies make real and meaningful progress. The 2030 Agenda is a data-driven programme of action. The SDGs create incentives for closing global data gaps and collecting new data to help achieve a transformative and universal agenda, improving well-being and leaving no one behind. Moreover, data needs are changing: to address intertwined global challenges ranging from climate change to the spread of infectious diseases and the effects of instability, vulnerability and conflict, policy action must be informed by reliable and high-quality data (SDSN, 2015; OECD, 2016).

Clearly, to be useful, data must come in a form and at a time when people can actually use them. In other words, they need to be accessible, usable and reused, refined and relevant. The data revolution offers governments and national statistical offices a welcome opportunity to produce more useful data by generating data from new sources that can complement and strengthen, though not replace, official statistics.[1]

Yet there is a somewhat paradoxical global data divide. This divide is characterised, on the one hand, by the continued scarcity in developing countries of basic data about people and the planet, and weak incentives and capacity to fill these gaps (Box 1.2). On the other hand, there is a surge in new sources and types of data emerging from digital and other technology. The transformative and at the same time potentially disruptive impact of the data revolution, and big data in particular, on the global economy and society has become a highly topical subject of research and debate.[2] But the so-called data deluge does not just stem from the data revolution. Development co-operation actors also collect and produce data for planning, programming and monitoring, often with limited benefit for developing

Box 1.2. **Key facts on data scarcity**

Lack of data for the Sustainable Development Goals (SDGs): There are no data yet for about two-thirds of the 232 SDG indicators. Eighty-eight indicators have neither an agreed methodology nor data for measuring them; 55 indicators have a methodology but no data (IAEG, 2017).

Seventy-seven countries have inadequate poverty data: About half of the 155 countries for which the World Bank monitors poverty data through the *World Development Indicators* database faced challenges in producing poverty estimates for the 2002-11 period, or in producing them in a timely fashion. If one considers having data for intervals shorter than five years, the picture is even less encouraging (Serajuddin et al., 2015).

Civil registration and vital statistics are missing: Only 56% of all countries worldwide (138 out of 246) have birth registration data that are at least 90% complete; on a regional basis, only 15% have these data in sub-Saharan Africa, 33% in Southern Asia and 36% in Southeast Asia. The number and proportion of countries with death registration data that are at least 75% complete are similar to those for birth registration (UN, 2017).

Lack of disaggregation: Even when data are available, they are often insufficiently disaggregated, making it impossible for policy makers to track or compare the situations of different population groups or communities (IEAG, 2014). For example, many countries worldwide do not have the strategies or skills to ensure robust gender-disaggregated data collection (UN, 2013).

Lack of legal frameworks: Only 37 countries have national statistical legislation that complies with the UN's Fundamental Principles of Official Statistics.[1] This legislation is strikingly absent in the least developed countries, small island developing states and middle-income countries across continents. Some OECD member countries also lack such legislation (UN, 2017).

Lack of financing: Across the globe, 81 national statistical plans are being implemented;[2] only 17 of these are fully funded, of which 11 are in Europe and North America (UN, 2017). Only 13% of countries dedicate a budget to gender statistics and many lack the national strategies and training needed to ensure robust gender-disaggregated data collection (UN, 2013).

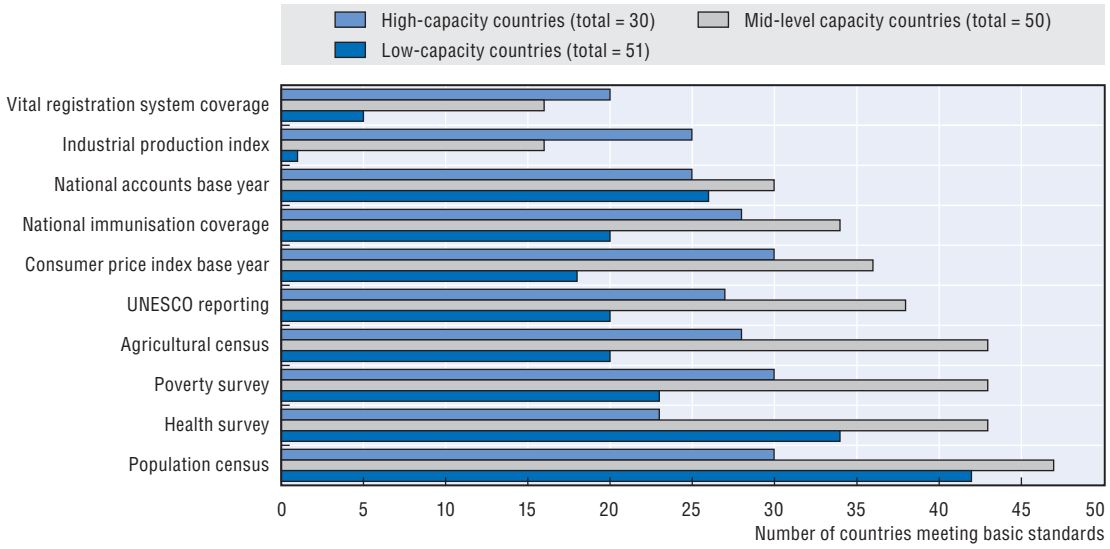
1. As outlined in UNSC (2014).
2. Out of a sample of 154 countries.

Source: Authors' compilation.

countries (see Chapter 5). Custer and Sethi (2017) use the term "data graveyards" to refer to data that are collected but not used – or usable – by decision makers because the "data producers are often far removed from the people they hope will use this information to make decisions and advocate reforms". According to Custer and Sethi, "the data revolution could succeed in building a supply of better data, but may falter if there is insufficient demand for its use. […] A ready supply of development data that lies fallow from disuse is little more than a graveyard, a place where data go to die".

Still, there continues to be a scarcity of key data about people in many developing countries. In her "In my view" piece (see Chapter 4), Sarah Hendriks of the Bill & Melinda Gates Foundation reminds us that "even the most basic information on women and girls is often lacking", stating that closing the gender gap requires closing the data gap. It is impossible to design good policies when basic information about the population – including the number of births and deaths – or data disaggregated by gender and disability are simply missing. But how can high-quality, trusted data be delivered when most developing countries still have a way to go to meet fundamental statistical standards and to finance their national strategies for the development of statistics? Figure 1.1 shows that the majority of developing countries, whether they are considered to have high or low capacity to produce statistics, do not yet have functioning systems for civil registration and vital statistics (see Chapter 3).

Figure 1.1. **Number of countries with capacity to deliver fundamental statistics, 2016**



Source: Calculation by authors of Chapter 3 based on World Bank (2017), *Statistical Capacity Indicators* (database), *http://databank.worldbank.org/data/reports.aspx?source=statistical-capacity-indicators#*.

StatLink http://dx.doi.org/10.1787/888933591803

The impact of the lack of data in developing countries ranges from lost business opportunities to costly and ineffective public service interventions by governments and providers of development co-operation, in particular for the poor (World Bank, 2016a). Unless countries improve their capacity, there is a risk that the data divide will get wider and that data limitations will hold back progress on the SDGs. This report analyses how developing countries and their development co-operation partners can bridge the data divide, seize the unprecedented opportunity and mitigate risks to make the most of the convergence of the power of technology with the most ambitious development agenda to date: the 2030 Agenda for Sustainable Development.

Harnessing the data revolution is challenging

The data revolution is often described in terms of a vast increase in the volume of digital data that has resulted in the phenomenon known as "big data", characterised by the four "V's" of volume, velocity, veracity and variety.[3] The size and scope of this revolution can be gauged by the increase in the amount of online digital information; the growth of new occupations such as "data scientist" and "data broker"; and the manifold impacts of digital information on our daily lives. Social media, call detail records, sensors, web scraping and satellite imagery, to name a few, represent new sources of information that provide the opportunity to produce more and better data for development (Coppola et al., 2014; UN Global Pulse, 2012).

Some developing countries are already embarking on the data revolution (see Chapters 2 and 3 and case studies collected for this report[4]). For example, Bangladesh, Haiti, Kenya, Nigeria and the United Republic of Tanzania (hereafter "Tanzania") are using a large, geospatial database to improve their understanding of stunting, literacy and access to contraceptives. Yet many countries, as shown by the report "Informing a data revolution", are not yet prepared or resourced to seize the data revolution in a systematic way; they need people with the relevant skills, investment in the necessary infrastructure, and reforms in their institutional and regulatory context (PARIS21, 2015).

The UN Global Working Group on Big Data for Official Statistics has demonstrated that unconventional data sources can be of great use when combined with more traditional data sources such as censuses or surveys (GWG, 2017a; 2017b; 2017c). National statistical systems in developing countries are starting to make use of new technologies and methods to respond to the growing

demand for actionable, empirical information. Geospatial data, for example, can help monitor socio-economic or environmental conditions, enable geographic disaggregation, and make geo-located data more dynamic.

A key challenge is that the data revolution is not yet producing dividends for most developing countries. Having appropriate information and communications technology (ICT) infrastructure is a pre-condition for seizing the opportunities presented by the data revolution. ICT can also increase the speed, accuracy and impact of data collection and dissemination while reducing costs.[5] Yet for this to happen, it is essential to bridge the significant digital divide that underlies the data divide. The Internet needs to be universally accessible and affordable if it is to empower people, and if digital economies are to provide dividends (World Bank, 2016a). According to *Aid for Trade at a Glance 2017* (OECD/WTO, 2017), 3.9 billion people, constituting more than half the world's total population, are still offline. The majority of these people live in the world's most vulnerable countries. In many developing countries – in particular the least developed countries, landlocked developing countries and small island developing states – development challenges hamper the spread of ICTs. These challenges include limited and costly access to national and international connectivity in small and isolated communities, difficulties in the rollout of terrestrial communication infrastructure across large land areas, and lack of, or limited, direct access to the sea.

In all its manifestations, the data revolution has the potential to transform how national statistical systems work in rich and poor countries alike. Policy making can also be improved by exploiting the massive streams of accurate, timely and granular data, as well as the opportunity to engage other data producers from the private sector and civil society. The analysis of big data can allow decision makers to track development progress in real time, improving social protection and the understanding of where existing policies and programmes require adjustment. This presents a tremendous opportunity to gain richer, deeper, timelier insights to complement the data that are being collected through censuses and surveys. As suggested in Chapter 2, a true data revolution would draw on both traditional and new sources of data to fully integrate statistics into decision making, promote open access to and use of data, and ensure increased support for statistical systems.

Developing countries struggle to respond to the increasing demand for data

The SDGs are putting high demands on national statistical systems the world over (see the "In my view" piece by Martine Durand). Most countries, including many OECD countries, have not yet started collecting data for many indicators in the UN global SDG indicators framework. There are serious methodological and strategic challenges to solve as well, including the need to strike a balance between producing the data for global monitoring, on the one hand, and for national policy making on the other. These challenges are even more critical for developing countries with low statistical capabilities.

Moving towards a virtuous data cycle is a challenge with growing complexity

Achieving a virtuous data cycle within a national statistical system is a challenge of growing complexity, with a multitude of actors involved in producing and using these data and a range of data demands and uses (Figure 1.2). Many developing countries are, however, stuck in a vicious cycle of low interest in and demand for quality data for policy making. Low interest and demand result in weak statistical institutions with poor governance; lack of investment in staff, infrastructure and tools; low human capacity; and highly fragmented statistical systems. These shortcomings, in turn, translate into low-quality data, which reinforce the starting point of lack of demand. The international community can compound these problems – notably when external actors produce and collect data through parallel channels with little positive spillover for the national statistical system or relevance for national policy making (see Chapters 2, 4 and 5).

In my view: Improving sustainable development data is a task for all

Martine Durand,
OECD Chief Statistician and Director of the OECD Statistics Directorate

In an era of fake news and alternative facts, statisticians have a special responsibility. As the custodians of the evidence base for policy making, they must stand up for the right of all citizens to true, reliable and accessible information.

This is especially the case in the development field, and even more so since world leaders adopted the extraordinarily ambitious and wide-ranging 2030 Agenda for Sustainable Development in September 2015. At the heart of this global "plan of action for people, planet and prosperity" are 17 Sustainable Development Goals (SDGs) that "are integrated and indivisible and balance the three dimensions of sustainable development: the economic, social and environmental", with the ultimate objective to leave no one behind. Achieving the SDGs will require informed choices about priorities and strategies, and for this we will need a better evidence base than we have today.

But statisticians – and especially statisticians in developing countries – cannot do this job alone. They will need the support of the whole of government and society to develop the data and analysis that will show how to meet agreed national and global objectives efficiently. Finance ministries must guarantee adequate funding over the medium term to develop sound national statistical systems and institutions, with national statistical offices playing a central role. Aid providers must be ready to co-ordinate and support the right technical capacity to help fill data gaps. Central governments must ensure that statisticians can work without political interference. And civil society, including the private sector, must work in partnership with national statistical offices to provide feedback and – where appropriate standards and safeguards are in place – contribute their own data.

When the then United Nations' Secretary-General Ban Ki-moon came to Paris in the run-up to the 2015 leaders' summit, OECD Secretary-General Gurría promised that the OECD would be the UN's "best supporting actor" in the global effort to achieve the SDGs. Since then, the OECD has been active on numerous fronts to help the world rise to the information challenge posed by the 2030 Agenda.

The OECD's first contribution has been to lend direct support to the UN by providing data on the agreed set of global SDG indicators, either straight from its own datasets or in combination with data from other agencies. The OECD has also contributed to both the 2016 and 2017 UN reports on SDG progress, and is working actively to help develop the required new, but yet unavailable, indicators identified by the UN's Inter-Agency and Expert Group on Sustainable Development Goal Indicators.

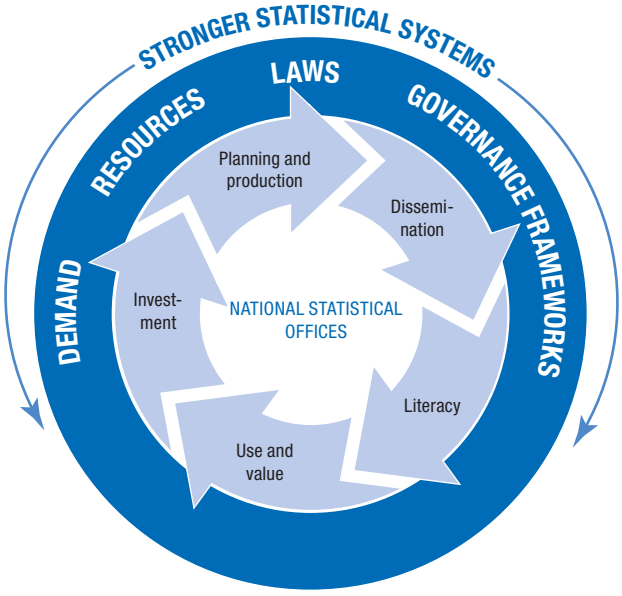
A substantial share of the OECD's data contribution to tracking SDG progress comes from the Organisation's database on official and private international flows for development. Annual data collection started in 1961 and has been successively extended and elaborated to provide ever more detailed and precise information, reaching down to the level of individual aid activities. In the context of the financing for development agenda endorsed in Addis Ababa in 2015, these data are vital for assessing whether aid is being directed to the areas of greatest need, pinpointing where donors may need to better co-ordinate, or comparing aid inputs with development results.

The universality of the 2030 Agenda also means that OECD countries have broader responsibilities. They should both set an example in implementing the 2030 Agenda themselves and ensure that their actions contribute to its achievement elsewhere. This thinking inspired the approach to the OECD Study on Measuring Distance to the SDG Targets,[1] which responded to demands from several OECD member countries for help in planning their policy and data responses to the SDGs. The study identifies relevant indicators, proposes a method for setting 2030 target levels, and suggests how performance can be compared among targets so as to identify priorities for action. It places special emphasis on transboundary or "spillover" effects. Several OECD countries have used the study to stimulate national dialogue on the SDGs, and OECD committees are finding it useful when considering how to integrate the SDGs into their policy work.

Two decades ago the OECD helped conceive and promote the Millennium Development Goals through its Shaping the 21st Century[2] strategy and its co-ordination of the inter-agency publication calling for *A Better World for All*.[3] The challenge posed today by the SDGs is even greater, especially in the field of data and evidence. The OECD intends to play its full part in the global effort to meet this challenge, and encourages all involved to do the same.

1. *www.oecd.org/std/measuring-distance-to-the-sdgs-targets.htm.*
2. *www.oecd.org/dac/2508761.pdf.*
3. *www.oecd.org/dac/abetterworldforall-reportandwebsite.htm.*

Figure 1.2. **The virtuous data cycle**



Source: OECD, based on PARIS21 and Open Data Watch.

To create a virtuous data cycle, national contexts and politics matter. The political appetite and demand for solid evidence for policy making varies among countries and governments, while the nature of this demand has a direct impact on data supply and on how the data ecosystem functions and whether it is capable of managing and benefiting from the data revolution. In countries such as Colombia, Grenada, Kenya, the Philippines, Samoa and Senegal, data and statistics are valued explicitly by the political leadership and government as being integral to economic and social development. As a result, the data ecosystems are flourishing in these countries. In the Philippines, for example, there is high demand by the Cabinet for data to inform government policies and decisions; this has translated into resources to strengthen the capacity and scope of the statistics office. Media outlets in the Philippines are also active users of statistics: data visualisations appear in print, on line and on television. In addition, there is a vibrant community of non-official data producers outside the official system, such as the "social weather station", which measures social indicators including poverty, happiness and well-being.[6]

National governments are ultimately responsible for ensuring that the data ecosystem is capable of producing and using quality data to design and implement policy priorities and monitor their outcomes. External partners can support this by, at a minimum, adopting a do-no-harm approach when investing in data and statistics for their specific development programmes and projects (see Chapter 5).

Ways to bridge the data divide for sustainable development

Data and statistics provide essential insights for understanding the practicalities of the development process, the interactions and feedback among different systems, and the factors that should shape decisions. Development is held back when the economic and demographic data that form the basis for decision making are lacking or insufficient to form a complete picture of what is needed. Moreover, as discussed in Chapter 2, the data revolution can enhance the availability of disaggregated, granular data that can enable policy makers to get beyond national averages to build

real-time awareness of the status of a population. Real-time feedback on the effectiveness of policy actions should in turn lead to a more agile and adaptive approach to international development and, ultimately, to greater resilience and better outcomes in the spirit of leaving no one behind.

This report identifies several steps that can be taken to make the most of the power of data for development in the doubly promising context of the SDGs and the data revolution. It puts special emphasis on how development co-operation can invest in country-led strategies and data ecosystems, identifying clear, achievable actions for developing countries, bilateral and multilateral actors, and other development partners.

Data action 1. ***Make statistical laws, regulations and standards fit for evolving data needs.***

To build inclusive data ecosystems that benefit global development and individual citizens, governments will need to transform their legal and strategic frameworks for data and statistics. Over the past two decades, developing countries have taken steps to reform their national statistical systems. Nonetheless, significant challenges remain, including the absence of legislative frameworks for statistics (Krätke and Byiers, 2014; and Box 1.2). The growing number of public, private, and civil society actors and institutions involved in the production and use of data make the need for clear legal, ethical, and quality standards and protocols even more urgent. These should regulate the use of traditional as well as new and non-traditional sources of data, fostering the trust that is needed for data to inform good policies and development results (Durand, 2017; Robin, Klein and Jütting, 2016).

National statistical offices should be at the centre of reform efforts, with laws and regulations protecting statistical agencies from partisan influence. The UN's Fundamental Principles of Official Statistics state that the "professional independence and accountability of statistical agencies are crucial", and that these "have to be guaranteed by legal and institutional frameworks and respected at all political levels and by all stakeholders in national statistical systems" (UNSC, 2014). National strategies for statistics also play a crucial role in setting priorities and ensuring accountability.

In the context of the data revolution, national statistical offices need to have the authority, legitimacy and capacity to partner with new actors that traditionally have not been part of the statistical system. As Chapter 3 describes, they must have the capacity to co-ordinate the system, manage strategic partnerships and propose solutions that can address hurdles to data sharing while protecting privacy. This includes putting in place the incentives that will encourage the private sector to share the data it owns, while also ensuring that the regulatory environment for the use of private data for commercial purposes is fit for purpose. The World Economic Forum's report "Data-driven development: Pathways for progress" (World Economic Forum, 2015) stresses the reluctance of many private actors to share their data because of regulatory uncertainties and associated risks of incurring liabilities or concerns about data security. Robin, Klein and Jütting (2016) discuss models that can help to overcome some of the obstacles associated with data sharing.

While the data revolution offers great opportunities to respond to a surge in demand for more and better data by all parts of society, there are also associated risks. As Chapters 2 and 3 point out, access to and use of private data raises important questions related to ownership, fraud, privacy and confidentiality. In Andreas Weigend's book *Data for the People* (Weigend, 2017), the former Chief Scientist of Amazon gives several examples of how companies use customers' "social data" without their knowledge or consent. He calls for a better balance of power between data creators and data companies (Weigend, 2017: 11).

In many developing countries, where the already weak regulations and standards for data protection tend not to be enforced, using new sources of data will only accentuate these weaknesses to the detriment of the public. As most countries face similar challenges in understanding and managing the benefits and risks of using new data sources (OECD, 2015), this is an area where

international co-operation, including peer learning, can add value. For example, knowledge sharing can contribute to the development of guidelines, standards and best practices for managing and mitigating risks. Moreover, to be effective in stimulating data use and evidence-based decision making, national statistical offices must also improve data accessibility by adopting open data policies.

It is fundamental that international development partners, including South-South providers of development co-operation, support countries in establishing and enforcing their legal and strategic frameworks. Through policy dialogue and technical co-operation, they can advocate and provide support for inclusive data ecosystems with strong and independent institutions, as well as appropriate checks and balances to ensure that development data are reliable, inclusive and freely available.

Making statistical systems fit for purpose, for immediate action:

- Countries should develop or update national statistical laws and regulations, authorising national statistical offices to adopt new modes of data collection, to engage in partnerships with external organisations, and to openly disseminate data from the statistical system. These regulations should be complemented by right-to-information laws and open data policies that guarantee access by citizens to statistics and other forms of government information while protecting privacy and confidentiality.
- Development co-operation providers should support their partners in developing open data policies and using non-traditional data sources and technologies, including through legal and regulatory reform. As many advanced economies are also embarking on these reforms, international knowledge-sharing mechanisms could help interested countries learn from good practices and experiences with developing new regulations.

Data action 2. *Improve the quantity and quality of financing for data.*

Budgets need to grow if national statistical systems are to respond to the growing demand for more and better data. Financing for statistics reflects the level of priority accorded by governments, the state of public finances and the trade-offs that are made when national budgets are constrained. Just 17 of the 81 countries with statistical plans have secured adequate financing to implement them, of which 11 are in America and Europe (see Box 1.2).

Official statistics in the developing world are particularly underfunded, especially in the least developed countries and the small island developing states, where national statistical offices are largely dependent on external resources. Part of the challenge is that the costs of producing data and statistics, and of building and maintaining statistical capacity, are not integrated into national development plans and budgets, limiting the visibility of these needs and, inevitably, the resources allocated to them (PARIS21, 2017). Moreover, national and international financing for statistics very often tends to prioritise the collection of sector-specific data mirroring investments (e.g. in health and education) over civil registration and vital statistics, and administrative data; or over capacity building for the sustainable production and use of key data (see the "In my view" piece by Ellen Cathrine Kiøsterud in Chapter 5).

The demand for more and better data for the SDGs is not yet translating into a corresponding growth in funding. Aid for statistics, as calculated by PARIS21 in its "Partner report on support to statistics" (PARIS21, 2017), averaged 0.30% of total official development assistance (ODA) between 2013 and 2015 (about USD 600 million per year). By way of comparison, aid for capacity building in financial policies and administrative management received about USD 800 million in ODA

Box 1.3. **The successful case of Progresso Social Brasil**

Innovative partnership approaches to data collection and analysis, and use of these data by policy makers, are improving people's lives in the Brazilian Amazon.

In 2014, under the leadership of Fundación Avina and Deloitte Brazil, a cross-sector network comprising Brazilian business and civil society organisations was formed. They launched Progresso Social Brasil, a unique initiative to develop localised, highly contextual social and environmental metrics for the 773 municipalities in the Brazilian Amazon based on the Social Progress Index methodology.[1] The index, which focuses on social and environmental variables to complement traditional economic measures, was chosen as the best tool available to offer a clear lens on the Amazon's social dynamics.

The Brazilian Amazon region is home to nearly one-third of the world's tropical forests, providing upwards of 20% of the Earth's oxygen. It is also home to more than 24 million people, for many of whom social conditions are worse than those of people in other regions of Brazil. Infrequent data updates and the limited geographic scope of official statistics, coupled with a reliance on economics-focused metrics, have until recently limited insight into this highly complex region, its people and the key barriers to improving their social conditions.

Progresso Social Brasil launched IPS Amazônia (Índice de Progresso Social Amazônia) in August 2014. IPS Amazônia published performance scorecards for 772 municipalities (one municipality lacked sufficient data to be included) and an interactive tool with comprehensive datasets for each. This enabled them to reveal the specific needs of these communities and highlight success stories that shed light on what works.

The publication of the IPS Amazônia study has had significant impact, shifting development priorities and prompting government, businesses and civil society to focus their resources on real needs throughout the region. For example, it motivated a USD 20 billion investment plan targeting specific social progress priorities in 95 municipalities in the state of Para in the Brazilian Amazon. IPS Amazônia has inspired similar action by local governments beyond the region, including the city of Rio de Janeiro. Working with Progresso Social Brasil and the Social Progress Imperative[2] – the creators of the Social Progress Index – Rio de Janeiro has developed a municipal-level index to measure the impact of Olympic activity and more general development throughout the city.

The study has also inspired a new form of corporate social investment in the region. For example, since it identified Carauari (state of Amazonas) as one of the most deprived municipalities, Carauari has been the focus of continued engagement by several large corporations. Coca-Cola Brasil and Natura, a Brazilian cosmetics company, partnered with the data collection experts IPSOS to create a community needs survey – IPS Comunidades – based on the Social Progress Index framework. This survey investigates the unique social and environmental concerns of the people in three communities within the Carauari municipality. The findings of IPS Comunidades were released in June 2015 and the study now serves as the foundation for a Participatory Community Management Strategy, which fosters collaboration with local community organisations, businesses, municipal and state governments, and federal agencies.

1. See *www.socialprogressindex.com*.
2. See *www.socialprogressimperative.org*.

Source: Social Progress Imperative case study available at: *www.oecd.org/dac/development-co-operation-report-20747721.htm*.

on average over the same three years. Supporting statistics does not appear to be a high priority for Development Assistance Committee (DAC) members. In 2015, ten DAC members[7] accounted for 96% of bilateral commitments (USD 181 million). Nevertheless, most of the aid for statistics is going to the countries with the lowest capacity, and fragile states receive a relatively high share of the total (see Chapter 4).

Given the changing landscape for development finance (see Chapter 6), fundraising strategies will need to find innovative ways of leveraging new sources of finance, including from the private sector. Filling the estimated SDG data funding gap of approximately USD 685 million per year in developing countries is achievable: an additional USD 200 million annually in ODA (USD 541 million in 2015) would make a huge difference in helping to enable countries to put in place statistical systems capable of supporting the SDGs, as long as the aid focuses on building sustainable statistical systems (UN, 2015; SDSN, 2015).

The quality of investments in data and statistics also needs to improve to have greater impact, as outlined in Chapter 4. Better measurement of international support to statistics would help increase accountability over how it is spent. By treating data as a cross-cutting priority in development co-operation, providers can start to recognise it as part of the core infrastructure for achieving the SDGs. With these objectives in mind, Chapter 4 proposes the creation of a marker for development data in the OECD-DAC Creditor Reporting System (CRS).[8] At the same time, wide participation in efforts to increase the transparency of funding for development data is essential. This includes the participation of philanthropic organisations, which could follow the example of the Bill & Melinda Gates Foundation by reporting data on their funding to statistics (see Chapter 4).

Public-private partnerships for statistics can offer countries more room for innovation and risk-taking than traditional funding modalities (Box 1.3). For example, data philanthropy[9] – donations to the public sector of data held by corporations – is emerging as a movement in corporate citizenship. Through data philanthropy, governments might be better placed to track diseases, avert economic crises, relieve traffic congestion and contribute to development in many other ways.

Improving the quantity and quality of financing for data, for immediate action:

- Increase public and private resources for statistics to meet the SDGs, including through innovative mechanisms, e.g. developing country domestic resources, peer-to-peer capacity building, public-private partnerships and data philanthropy.
- Make data a cross-cutting priority for development co-operation and recognise it as part of the essential infrastructure for delivering on national, regional and global development commitments. International leadership by the OECD DAC, the G20, the UN General Assembly and other fora can build support for improving sustainable development data and enabling accountability through reviews of progress.
- Increase the transparency and accountability of financing for development data and statistics. Developing countries should budget for data and integrate data priorities into national development strategies. Development co-operation providers should agree on a measure for tracking international support to statistics in a systematic and comparable way.
- Development co-operation providers should target aid for statistics where the need is greatest, notably in the countries that rely most on external sources of finance for data and statistics: the least developed countries, small island developing states and fragile states.

Data action 3. *Boost statistical capacity and data literacy through new approaches.*

By itself, the data revolution will not reform national statistical systems, expand capacity, or lead to better use of statistics and greater impact from them. Success in building capable national statistical systems requires long-term political commitment to strengthen and improve the core statistical capacities required to use new technologies. When statistical offices are isolated from the decision-making process or lack control over their own budgets and administrative processes, their ability to promote the effective use of statistics is inhibited (see Chapter 4).

There are large differences in the capabilities of national statistical systems. Despite some progress made, many countries still lack the skills and infrastructure needed to produce high-quality data and respond to growing demand. In his "In my view" piece in Chapter 3, Stefan Schweinfest flags the need not only for more data – covering all countries and relevant areas – but also for more integrated and disaggregated data and the resources and technical capacity to have data that are fit for purpose.

Increasing statistical capacity is a long-term process. It encompasses investments in people and institutions as well as improvements in the environment in which national statistical offices work. Capacity development efforts are often limited to training and workshops, with success measured by numbers of people trained or other quantifiable output indicators. Traditional approaches have largely focused on building technical skills or improving business procedures; on the margins, they may include statistical laws, funding arrangements and co-ordination within the national statistical system. Today's investments in capacity development should use new approaches that are broader in substance and scope, reaching far beyond national statistical offices to include other actors – for example civil society – to produce more and better data, generated by and useful to citizens.

PARIS21 promotes a radically different starting point from traditional approaches to capacity development: "capacity development 4.0".[10] This approach begins by acknowledging that capacity development entails three distinct features – people, organisations and the enabling environment – and that the capacity of all three needs to be fostered. It places emphasis on the development of "soft skills" such as leadership, change management, advocacy and networking capacities. In capacity development 4.0, strengthening the demand side for capacity development – the user perspective – is also essential. What kind of data do citizens want and what skills do they need to be able to make informed decisions? Finally, a new approach to capacity development needs to help national staff, partners and citizens connect the dots within the data ecosystem – for which building partnerships is an essential feature.

Boosting statistical capacity and data literacy, for immediate action:

- Developing countries and their partners should develop and pilot new, more comprehensive approaches to capacity development that go beyond the capacity to collect data and build the capacity of national statistical offices to play an evolving and multifunctional role in the data ecosystem and to improve the institutional and enabling environment for data and statistics. This includes improving data dissemination and promoting data literacy to spur the use of statistics and promote active user communities.
- Countries should continue to build capacity for "core" statistics, including censuses, surveys and administrative records – which are essential in the national statistical system.
- National statistical offices worldwide face similar challenges in harnessing the data revolution; they could benefit from a new mechanism for "knowledge solidarity", allowing data stakeholders across the globe to share knowledge and work together in an effective manner.

Data action 4. *Increase efficiency and impact through "data compacts" or other co-ordinated, country-led approaches.*

Co-ordinating support to statistics is challenging, with a diversity of actors and objectives for investing in statistics, making it difficult to streamline (Box 1.4). As Ellen Cathrine Kiøsterud points out in her "In my view" piece in Chapter 5, there is much discussion about the need for improved co-ordination, yet very little change in behaviour. Stefan Schweinfest (see Chapter 3) calls for "a new global data architecture for sustainable development" while Martine Durand insists that "improving sustainable data is a task for all". Developing country governments struggle to steer providers

Box 1.4. **Dedicated planning tools can help to streamline global and national data needs**

The need to manage, measure and report on progress against the Sustainable Development Goal (SDG) indicators is placing a heavy burden on developing countries' statistical systems. For global monitoring, countries need to collect comparable data over time and adhere to common standards and methods. However, many of the SDG indicators lack clear definitions and may require new data collection instruments that will need to be tested and calibrated. Where standards and methods already exist, baseline measurements need to be coupled with an agreed programme of regular data collection. In addition, national statistical offices need to provide granular, local data related to each country's unique situation and challenges.

The Advanced Data Planning Tool (ADAPT) is being piloted or used by the Plurinational State of Bolivia, Cambodia, Cameroon, the Philippines, Rwanda and Tanzania (PARIS21, n.d.). This tool helps to improve synergies between regional and global indicators by charting them in the context of local realities. It highlights gaps in data, reporting and financing for the specific data that the country has committed to report for global and regional monitoring. In this way, ADAPT helps integrate and co-ordinate international and national statistical processes, estimate costs, raise awareness of needs, and streamline international financial and technical support in the framework of each country's national strategy for the development of statistics.

In Tanzania, for example, the National Bureau of Statistics used ADAPT to assess data gaps for its five-year national development plan (2016/17-2020/21) and to co-ordinate among various data producers. The assessment found that of the 282 indicators in the national development plan, the National Bureau of Statistics produced the data needed for only 39%; the remaining 61% relied on data produced by other government departments or agencies. Regarding the SDG indicators, 180 (64%) do not have corresponding indicators in Tanzania's development plan. The National Bureau of Statistics concluded that to fill the gaps, it needs to strengthen routine data collection within the national statistics system. As part of the ADAPT process, workshops and technical support provided by the Tanzania Data Lab have helped to build awareness and capacity in the National Bureau of Statistics and among Tanzanian data scientists.

The Global Partnership for Sustainable Development Data's SDG Data Roadmaps (n.d.) also promote a tool for SDG monitoring. The roadmaps bring together national data producers and users, as well as international experts, to understand the potential for applying the international development agenda at the national level. They also help to identify how the country can strengthen the relevant development data (GPSDD, 2016).

Source: PARIS21 (n.d.), "Advanced Data Planning Tool (ADAPT)", *www.paris21.org/ADAPT*; Chuwa, A. (2017), "Tanzania case: Advanced Data Planning Tool – ADAPT and linking key indicators in Tanzania".

towards joint action in support of their national priorities. Yet the use of numerous related, but different, indicators leads to overlapping systems and reporting, with limited participation by national statistical offices – and high transaction costs for them. If involved at all, their role may be reduced to that of data collectors, while the processing and analysis takes place elsewhere.

The SDGs can serve as a platform for the shared generation and use of results data, enabling mutual accountability among all stakeholders. They offer an opportunity and incentive that developing countries can use to step-up alignment and harmonisation with their priorities. Indeed, many DAC members have recognised this opportunity, calling for a better division of labour among providers of development co-operation to enhance synergies and impact and to ensure more effective allocation of resources and minimise the burden on constrained national statistical offices. They have also identified the need for cross-government co-ordination in developing countries (Sanna and Mc Donnell, 2017).

To resolve many of the problems with support to statistics – including growing fragmentation, with more actors than ever before – closer co-operation among all stakeholders in the data ecosystem is urgently needed. Creating country-led data compacts can facilitate a mutually accountable multi-stakeholder approach, bringing together national governments, external funders, citizen groups, media and technical agencies (see Chapter 4). Signatories to data compacts engage from an early stage, buying into a joint action plan and a performance agreement based on the national development plan; the accompanying results framework specifies the indicators that will be used to measure progress. The compacts can build in incentives to improve data quality, ensure open data, promote data use and heighten data impact.

Governments in developing countries need to a play strong leadership role in identifying the needs of their national statistical systems and raising adequate resources and support to address them through data compacts, strategic planning or other joined-up approaches. Pooling resources can reduce transaction costs while enabling more harmonised support in line with the differing strengths of individual partners.

Improving co-ordination through country-led approaches, for immediate action:

- Developing countries and development partners should better align incentives for producing data for national policy making and global monitoring. The establishment of data compacts for co-ordinating and harmonising investment in data and support for statistical systems is a promising approach; it should be tested further to ensure that it meets the needs of all actors and fosters mutual accountability for delivering on joint, performance-based action plans.
- International development partners should be accountable for better aligning their data investments and new collection efforts with national strategies for statistics and for focusing on the development outcomes and change monitored and measured by national statistical systems.

Data action 5. *Invest in and use country-led results data to monitor progress towards the Sustainable Development Goals.*

Politicians in provider countries are under pressure to show that aid is being well spent. Taxpayers want to know how their money is being used and the results it is achieving. This leads providers to monitor and report on the immediate outputs of the projects they have funded, for example the number of people trained, facilities built, children educated, mothers reached during pregnancy, and households provided with safe water or reliable electricity (OECD, 2017). To shift the focus from the outputs of development co-operation to what aid is achieving for development in countries, or ultimately to progress towards the SDGs, requires data on outcomes, impact[11] and change – and these data should come from country's national statistical systems.

Chapters 3 and 5 discuss the challenges related to the quality and availability of country-led results data, which often are not sufficient to provide the results data that DAC members want. Many DAC members are unwilling to use countries' indicators, data and monitoring systems, citing the unreliability of national reporting and mismatches between provider and country reporting requirements and indicators (OECD, 2012). This creates a challenging balancing act for providers of development co-operation grappling to:

- maximise their contribution to the SDG results that developing countries have prioritised within their national systems and frameworks
- better understand the linkages between progress towards SDG targets and the allocation and use of development co-operation resources

- use results data to inform decisions about their development co-operation interventions and make course corrections
- safeguard ODA budgets by demonstrating impact to their constituencies.

Faced with these challenges, providers of development co-operation often invest in their own metrics and data to document the impact of development policies and interventions. This approach, however, goes counter to the universal process of delivering on the SDGs, as well as to commitments to use country-led results frameworks and associated systems (OECD, 2006; 2012).[12] In his "In my view" piece in Chapter 2, Morten Jerven points out that investing in monitoring for the sake of monitoring is unsustainable and calls for a rebalancing of the political economy of statistics.

Honouring commitments to invest in and use country-led results data and participate in accountability mechanisms that are relevant to developing countries and their priorities will entail changing providers' mind-sets as well as behaviour. It requires clear vision and pragmatism in dealing with the pressure to attribute results to every aid dollar. And it means ensuring that results from any independent data collection efforts are accessible to all development actors and co-ordinated with the statistical objectives of developing country governments. In this way, international development partners can go a long way in improving the value, use and relevance of data for development.

Investing in and using country-led results data, for immediate action:

- Countries should formulate data policies and strategies that will meet their needs and guide partners. There is scope to be assertive. Partners should respect national priorities for the supply of statistics, investing in statistics that are coherent with those priorities.
- International organisations and providers of development co-operation must work towards the sustainable supply of statistics rather than simply demanding more data for global monitoring and domestic accountability needs. When introducing or updating standard indicators for results reporting, DAC members should demonstrate how they are supporting country systems, linking project results to the SDG targets and indicators prioritised locally and, at a minimum, ensuring that there is no duplication. They should also make efforts to harmonise indicators among providers.
- Bilateral aid providers should be realistic about attributing aid to specific development results. If attribution is essential for domestic accountability, they should keep it to a minimum based on a small number of output indicators and use narratives to explain how results contribute to outcomes and change.

Data action 6. *Produce and use better data to help understand the overall state of SDG financing.*

Over the past two decades, financing for development has undergone fundamental changes in terms of sources, volumes and patterns of flows. Chapter 6 focuses on data related to development finance, setting out the current landscape and looking at how data systems are evolving in the context of the Addis Ababa Action Agenda on financing for development and the 2030 Agenda.

Data on development finance support better decision making for development outcomes by providing evidence on the reality of resource flows for sustainable development. They also help to shed light on how successfully the international community and individual countries mobilise resources to meet their commitments, and how they collectively work together to leave no one behind. In addition, data incentivise official providers of development co-operation and investors to step up efforts to fill financing gaps, leveraging a range of resources to deliver the 2030 Agenda (UN, 2015).

Chapter 6 explains that getting development finance data right means producing a comprehensive picture – from current flows and global gaps to specific needs, shortfalls and opportunities – in order to equip developing countries to plan and resource their national development strategies and priorities.

The fundamental condition for ensuring the quality of development finance data, however, is a sound measurement system with clear definitions and methodologies that make the collected data comparable across providers. The lack of agreed standards and systems for reporting of finance data beyond ODA means that the financing efforts of key development actors – notably providers of South-South co-operation, civil society organisations, philanthropic foundations and the private sector – are largely under-reported internationally. A better understanding of how all financing for the SDGs comes together, at the country level and globally, requires not only modernised measures and new data series, but also a new framework that captures this information in a systematic manner.

In order to track resources invested to achieve the SDGs, the international community is developing a new international statistical standard known as total official support for sustainable development (TOSSD).[13] The new framework will increase recognition and facilitate transparency about the full array of officially supported bilateral, multilateral and South-South support for sustainable development. It responds to new financing imperatives implicit in the 2030 Agenda, including the importance of mobilising SDG-supportive investments by the private sector; of marshalling more resources to provide global public goods; and of encouraging investments and services to promote the enabling conditions for sustainable development and to address global challenges. In addition to yielding a richer picture at the global level, a key plus of the TOSSD framework is the ability to provide enhanced information on development finance at the country level, as found in recent TOSSD pilots in the Philippines and Senegal. Key findings include:

- TOSSD has high potential as an international standard, including by ensuring comparability of data across different sources.
- TOSSD can enhance transparency and help to unpack complex financial packages.
- A framework such as TOSSD is essential to reflect all contributions to sustainable development, including those by emerging economies.
- Better tracking of triangular and South-South co-operation, the activities of non-governmental organisations and subnational co-operation in the TOSSD framework would strengthen TOSSD as a tool that responds to recipient countries' needs.
- It is critical to develop the technical features and boundaries of the TOSSD measure.

Making progress on addressing the challenges of improving data on development finance and coming up with new measures, methods and systems requires political leadership and consensus building through inclusive mechanisms. At the same time, development co-operation providers will need to reinforce or build up their capacity to collect, report and analyse development finance data to allow it to play its transformative role. Knowing that their efforts will be recognised better offers an incentive for providers and other development finance actors to invest in getting the data right. Yet the needs of developing countries for comprehensive, timely and predictable data should drive and shape this work.

Understanding the overall state of SDG financing, for immediate action:

Step up collective efforts to ensure that transparent and accountable financing is in place to deliver on the 2030 Agenda by:

- Increasing the availability and transparency of quality data on development finance, including concessional and non-concessional official flows, private finance mobilised through official interventions, private flows at market terms, South-South and triangular co-operation, and giving by philanthropic foundations and civil society organisations.
- Improving methodologies and standards, including the TOSSD standard, through an inclusive, international process that integrates them into the SDG monitoring framework; measures private sector ODA instruments; and establishes global data standards for social impact investment.
- Improving analysis of financing patterns, modalities and trends for both climate and development goals by exploiting synergies between existing systems for climate-related development finance and country reporting on climate finance to UNFCCC.

Notes

1. The United Nations' Cape Town Global Action Plan for Sustainable Development Data, adopted in March 2017, seeks to support the application of new technologies and new data sources in mainstream statistical activities. It sets out guidelines for the use of new and innovative data – generated outside the official statistical system – in official statistics (UNSC, 2017).
2. According to an article by Yuval Noah Harari (2016), "high-tech gurus and Silicon Valley prophets are creating a new universal narrative that legitimises the authority of algorithms and big data. This novel creed may be called 'Dataism'. […] Dataists further believe that given enough biometric data and computing power, the global data-processing system could understand humans much better than we understand ourselves".
3. See, for example, IBM's Big Data & Analytics Hub (n.d.).
4. The case studies are available at: *www.oecd.org/dac/development-co-operation-report-20747721.htm*.
5. Researchers belonging to the UN Sustainable Development Solutions Network calculated that the use of mobile phones could bring down the cost of surveys by up to 60% in some East African countries over a ten-year period (SDSN, 2015).
6. More information is available at: *www.sws.org.ph/swsmain/home*.
7. The top ten bilateral providers by size of contributions are Canada, Sweden, United Kingdom, Korea, Australia, Norway, Italy, Switzerland, United States and Japan.
8. The current CRS sector code for statistical capacity building fails, for example, to identify multi-sector projects that comprise only a small statistics component.
9. According to UN Global Pulse, the conversation around data philanthropy has been advancing since its emergence at the World Economic Forum in Davos in 2011 (UN Global Pulse, 2011).
10. Capacity development 4.0 is built on similar principles to "industry 4.0", namely that in an increasingly digitalised world the drivers of supply and demand for capacity development in data and statistics have fundamentally changed. In the new data ecosystems, the diverse actors are all interacting, exchanging and processing data and information. Hence, there is a need to change and adapt training models – and create new ones – for literacy in the age of data.
11. In the context of development results, impact is defined as: positive and negative, primary and secondary long-term effects produced by development interventions, directly or indirectly, intended or unintended (OECD, 2010).
12. By country results data and systems we refer both to the government's national statistical system and the country-led results framework. "A country-led results framework is understood as one that is led or originated by the government of the country itself. […] This can include any form of government-led planning instrument that defines a country's approach to development, sets out its development priorities and establishes the results expected to be achieved. It also outlines the systems and tools that will be used to monitor and evaluate progress towards these targets, establishes the indicators of progress and determines the baseline against which results will be measured" (OECD/UNDP, 2016).
13. For further information please refer to: *www.oecd.org/dac/financing-sustainable-development/development-finance-standards/TOSSD Flyer crops.pdf*. (accessed 28 July 2017).

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