The State of
Development
Data Funding
2016

ACKNOWLEDGEMENTS

THE STATE OF DEVELOPMENT DATA FUNDING 2016

EXECUTIVE SUMMARY

The Sustainable Development Goals (SDGs) comprise 17 goals, 169 complex targets and 230 indicators. In their scope and scale they present new challenges and opportunities for monitoring development progress, requiring a vastly expanded data collection effort. The SDGs also make a global pledge to "leave no one behind," a commitment that requires granular disaggregation of data and data that cover populations previously undercounted. At the same time, the data landscape is changing rapidly, challenging the global community to find ways to utilize new technologies and to forge new partnerships.

Building on the work of *Data for Development, A Needs Assessment for SDG Monitoring and Statistical Capacity Development*, published by the Sustainable Development Solutions Network (SDSN 2015a), this study provides updated estimates of the cost of producing the final set of SDG indicators agreed by the Inter-Agency Expert Group on SDG Indicators (IAEG-SDGs). It goes beyond the 77 IDA countries in the earlier study to include estimates for all low- and middle-income countries. The study focuses exclusively on the Tier I and Tier II SDG indicators for which there are existing data or known collection methodologies; it does not estimate the resources needed to develop methodologies and collect data for indicators classified by the IAEG-SDGs as Tier III.

The estimated cost of an expanded program of surveys and censuses and improvements in administrative data systems for 77 IDA-eligible countries over the SDG period is $17.0 to $17.7 billion. The study also includes estimates for the financing needs for the 67 lower- and upper-middle-income countries. These so-called "IBRD" countries have well-developed statistical systems, capable of producing many of the SDG indicators, but will still require additional resources to produce SDG indicators. **Total expenditures by IBRD countries to produce SDG indicators are expected to be $26.5 to $27.6 billion.**

IDA-eligible countries are likely to cover half of the amount required to monitor the SDGs. Thus, donors will be expected to provide $550 to $600 million a year in financing in the near term. IBRD countries facing expenditure needs of $1.7 to $1.8 billion a year may require as much as $85 million a year. **Total aid needed to support the production of Tier I and II indicators for the SDGs is expected to be $635 to $685 million a year over the period of 2016 to 2030.**

In 2014 single-recipient funding commitments made directly to IDA-eligible countries were $298.5 million from which expected disbursements are $240 million. Commitments to IBRD countries were $56 million and expected disbursements are $45 million. **To support the production of SDG indicators, an annual increase in aid of $350 to $400 million will be needed.**

In addition to increased aid for statistics, funding agencies should consider ways to make aid for statistics more effective. More evidence is needed to identify the design of effective aid instruments and measure their impact. There may also be opportunities for the use of non-traditional funding methods such as sponsorship, basket funds, budget support linked to implementation of statistics plans, seconding of in-country specialists to manage aid, or regional approaches using trust funds.

While new data sources provide an opportunity for greater granularity and timeliness of data, cost savings are not guaranteed. New methods are currently being tested and little is known about the requirements of scaling up. Strengthening the capacity and effectiveness of national statistical systems and national data agencies will be crucial to this process. The work of developing statistical systems will take deliberate action on the part of governments, collaborating with the private sector, NGOs, academic institutions, and all those who recognize the value of statistical evidence for guiding progress toward the SDGs.

The report makes the following recommendations:

- **Develop a data compact or a partnership between countries and the international community.** It will be essential for the Global Partnership for Sustainable Development Data and other partners to continue to make the case for better data. To support the process, this report recommends developing a data compact that articulates the importance of providing and using better data to drive sustainable development. This compact should be based on each country's priorities and data needs as determined through an SDG roadmap or NSDS process. Through the compact, countries would commit to making improvements and investments in their statistical systems and data processes, developing national partnerships, and collecting data for the SDGs. In turn, the international community would commit to providing realistic financial and technical support.

- **Develop a sustainable financing strategy for development data.** A financing strategy should be built on political support for data and statistics as part of the 2030 Agenda for Sustainable Development, with an understanding that collecting, compiling, and disseminating good quality statistical information is a core part of achieving the SDGs. A financing strategy should also include a commitment to open and transparent data, a renewed commitment to expanding the capacity of statistical systems, and a plan to bring in new partners and new ways of delivering aid.

- **Continue to monitor and report on progress.** The work on development data funding should continue, with a report produced perhaps once every two years, in coordination with other processes, including the PARIS21 PRESS and the United Nations' monitoring reports on the SDGs.

1. BACKGROUND AND INTRODUCTION

1.1. WHY THIS REPORT?

This report has been prepared by the Resource Mobilization and Alignment Working Group of the Global Partnership for Sustainable Development Data (GPSDD) . It is the first of a series of reports identifying what financial and other support will be needed to help all countries provide the data to monitor progress towards national development priorities and the Sustainable Development Goals (SDGs). It provides a summary of currently available information on sustainable development data financing. In addition to analyzing data needs and the availability of financing, it discusses the main challenges and opportunities facing both data providers and the users of the information. Its aim is to make information about funding for sustainable development data openly available and make the process more coherent and effective, to reveal gaps in funding, and to accelerate efforts to fill them.

The Global Partnership for Sustainable Development Data is an open, multi-stakeholder network committed to harnessing the data revolution for sustainable development. GPSDD works to strengthen data ecosystems; mobilize collective action; develop global data principles and protocols; spur innovation and collaboration; and harmonize data specifications and architectures.

Link: http://www.data4sdgs.org/

The launch of the 2030 Agenda for Sustainable Development at the UN General Assembly in September 2015, and the agreement to achieve 17 Sustainable Development Goals by 2030, presents an opportunity to transform lives for the better and a substantial challenge to the world as a whole. While considerable progress was made through the Millennium Declaration and the Millennium Development Goals (MDGs) to reduce poverty and improve the welfare and wellbeing of the world's people, much remains to be done.

The Global Partnership for Sustainable Development Data is a response to a fundamental problem at the heart of the efforts to eradicate extreme poverty: unreliable or non-existent data and a lack of skills and willingness to use them. Whether for reasons of convenience, cost, or corruption, important decisions about how money and resources are allocated to services helping the poorest people in the world's least developed countries are too often made using data that are incomplete, inaccessible to many, or simply inaccurate—from health to gender equality, human rights to economics, and education to agriculture. This report, therefore, is part of the effort to put in place a genuine and effective data revolution that was called for as a central component of the Agenda for Sustainable Development.

1.2. BUILDING ON WHAT HAS BEEN ACHIEVED AND AVOIDING THE MISTAKES OF THE PAST

After the MDGs were launched in September 2000, it became apparent that the capacity of the world to measure and monitor levels of poverty and wellbeing were limited, especially in the poorest countries where the problems of extreme poverty were most acute. The realization that good data are central to achieving development goals led to a global effort to invest in statistical capacity and to support efforts to collect and compile data for the MDG indicators. Starting with the launch of the Partnership in Statistics for Development in the 21st Century (PARIS21) in 1999 and continuing with the Marrakech Action Plan for Statistics (MAPS) (World Bank 2004) and its subsequent updates, a global effort to strengthen the capacity and operations, especially of national statistical systems, and to mobilize the resources for investment in people, systems, and statistical operations gathered momentum. Several factors spurred this effort:

- The conviction that effective capacity building must be led by developing countries themselves, based on their own priorities and plans;

- The implementation of results-based management, which requires clear statements of what is to be achieved together with time-bound action plans;

- The recognition that generating consistent data for use within countries and at the regional and global levels requires coordinated and concerted action by national statistical systems with regional and international agencies;

- The realization that building capacity takes time and requires a realistic assessment of the financing needs and resource flows that can be sustained over the period needed for institutions to strengthen.

A 2013 evaluation of the impact of the MDGs on statistical capacity and the extent to which countries were able to monitor progress concluded that the MDG framework had fostered "the strengthening of statistical systems and the compilation and use of quality data to improve policy design and monitoring by national governments and international organizations." (IAEG-MDG 2013, p 3) However, the evaluation also found that targets and indicators were perceived by many countries to be primarily an international-agency-driven, top-down initiative. If the same concerns are to be avoided with the SDGs, it will be important to ensure not only that the supply of data needed for the indicators is improved, but that the demand for the data within countries is strengthened. The development effort must make clear that data needed to report on the indicators for the SDGs are also relevant for monitoring and supporting national development efforts.

1.3. OUR VISION

The principal focus of the data-related initiatives during the period of the MDGs was on strengthening the capacity of national statistical systems in developing countries. It was important to build on what was already in place, and only national statistical agencies and their colleagues in other parts of government had the mandate and the technical skills to carry out large-scale data collection exercises. But the data environment is very different in 2016. The High-Level Panel, which provided the first set of recommendations on the Post-2015 Development Agenda, called for a data revolution, and recommended the establishment of the GPSDD:

The revolution in information technology over the last decade provides an opportunity to strengthen data and statistics for accountability and decision-making purposes. There have been innovative initiatives to use mobile technology and other advances to enable real-time monitoring of development results. But this movement remains largely disconnected from the traditional statistics community at both global and national levels. The post-2015 process needs to bring them together and start now to improve development data.

(United Nation 2013b, p. 23)

Our vision recognizes that the data world has changed and will continue to change at what may seem to be a bewildering pace. We must find ways in which the best of new technology, together with new partnerships and new ways of organizing work, can be brought together to meet the data challenges of the SDGs. Adaptability and flexibility will be required of all participants. And because we cannot afford to leave anyone behind, we must find new, sustainable, ways to finance the development of statistical systems.

Figure 1 provides our view of the data ecosystem as it currently exists. There are four main groups of actors, which we have labeled: government agencies; the private sector; civil society, including formally established organizations as well as informal groups of citizens; and the international community. They are all users of statistical data as well as providers in their own right. At the core is the national statistical system composed of the national statistical office and other agencies designated to collect, compile and disseminate official statistics. Because users of the data are generally not able to determine the quality of data – the extent to which it is reliable and fit for purpose – it is important that statistical data are compiled and disseminated according to recognized standards and methods. It is the role of national statistical agencies working with international agencies to make sure this is done. As the ecosystem becomes more complex and new players emerge, the need for data quality management will become ever more important.

GOVERNMENT AGENCIES
Census, Household Survey, Agricultural Survey, Geospatial Data/Infrastructure and Facility Inventories, Civil Registration and Vital Statistics (CRVS), Administrative Data, Economic Statistics, Environmental Data

UN, REGIONAL AND INTERNATIONAL AGENCIES
Demographic and Health Surveys, Labor Force Surveys, Agricultural Integrated Survey

CIVIL SOCIETY
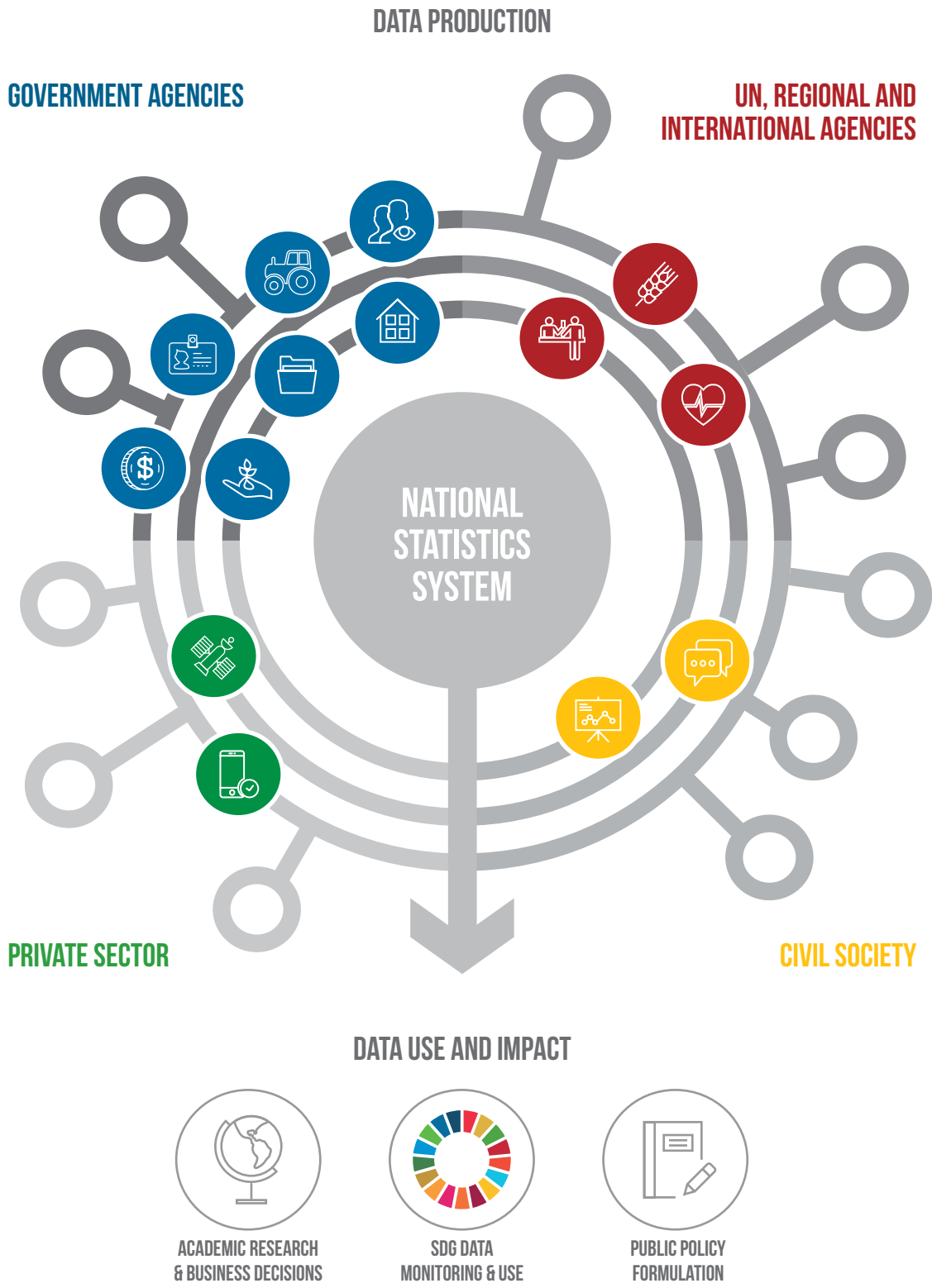Citizen Feedback Data, Budget Monitoring Data, Crowd Source Mapping

PRIVATE SECTOR
Satellite Imagery, Mobile Data, Utility Connections and Service data

DATA PRODUCTION

GOVERNMENT AGENCIES

UN, REGIONAL AND
INTERNATIONAL AGENCIES

NATIONAL
STATISTICS
SYSTEM

PRIVATE SECTOR

CIVIL SOCIETY

DATA USE AND IMPACT

ACADEMIC RESEARCH
& BUSINESS DECISIONS

SDG DATA
MONITORING & USE

PUBLIC POLICY
FORMULATION

The Global Partnership for Sustainable Development Data already recognizes the increasing complexity of the data ecosystem and is bringing in new players—from the private sector, non-governmental organizations, academic institutions, and civil society—in effective roles. The challenge and the vision for the next few years will be to harness the benefits of the new sources of data to fill the many SDG data gaps and to support the development of an integrated process in countries, especially for those with the biggest data challenges and the weakest capacity.

1.4. THE SCOPE OF THIS REPORT

By adopting the 2030 Development Agenda and the SDG monitoring framework, all countries have committed themselves to providing data on progress against the agreed targets and indicators. In light of this commitment, the current report should cover all countries, including high-income nations that were not included in the scope of the MDGs. At this stage, however, to keep the document within a manageable size and to limit the complexity of the information and its analysis, we propose to focus on the low- and middle-income countries that are eligible to borrow from the World Bank. For the high-income countries, the assumption is that while investment will certainly be needed to improve and expand the capacity of data and statistical systems, this will be provided from within normal financing processes. Developing countries, especially those in the low-income and lower-middle income groups, will not be able to bear fully the financial burden of producing the required statistics. The report, therefore, looks at the financing needs for data and statistical systems in these countries, identifying the potential for increasing domestic resources as well as the need for additional aid.

Meeting the data challenges of the SDGs will require the use of data from many different sources. A key part of the data revolution will be to bring together new partners and to encourage countries to make much more effective use of data derived from a much wider range of sources than has been the case up to now. Initially we focus on the activities and needs of national statistical agencies and the official statistical systems that they lead. Only these agencies and systems have the mandate to adopt standards, to design and implement large-scale data collection, and to take responsibility for the overall management of national data systems. Even where new types and sources of data are used, there will be a need to combine them with information from official sources and to provide both data and metadata that users trust.

1.5. THE TIME FRAME

The overall time frame for the SDGs is from 2016 to 2030, but the focus of this first report will be on the need for financing sustainable development data over the next five years, initially up to 2020. If the data challenges of the SDGs are to be met in time for action to be taken, we must make the investment in capacity and data systems now. This report looks at the immediate steps that need to be taken in the near term. Future editions will monitor the progress made to build open and capable statistical systems.

1.6. THE STRUCTURE OF THE REPORT

The report consists of three further sections. Chapter 2, "Understanding Data Needs," looks at data needs, the costs of setting up new data processes and systems, and the availability of finance. The chapter then brings these two analyses together and makes an assessment of the financing gap.

Chapter 3, "Financing Sustainable Development Data," focuses on strategies for increasing finance and other resources for data and statistics and what else will need to be done in the short- to medium-term to make the data revolution a reality. It also looks at some specific issues and concerns, focusing on the problems of countries in difficult circumstances, improving the efficiency of aid for data and financing of research and development in data related areas.

Finally, Chapter 4, "A Call to Action," describes steps that can be taken now to raise the resources needed for national statistical system and to deliver them in ways that are efficient and effective.

BACKGROUND AND UNDERSTANDING

UNDERSTANDING DATA NEEDS

FINANCING SUSTAINABLE DEVELOPMENT DATA

CALL TO ACTION

2. UNDERSTANDING DATA NEEDS

In 2015 the Sustainable Development Solutions Network, Open Data Watch, PARIS21, the World Bank, and other organizations collaborated to develop an estimate of the financing required to monitor the Sustainable Development Goals (SDGs). Their report, *Data for Development: A Needs Assessment* (SDSN 2015a--henceforth *D4D*-- sought to produce an aggregate figure for the cost of producing the statistics required for monitoring the SDGs in 77 countries eligible for grants or credits from the International Development Association (IDA). Since its release, the *D4D* report has been widely cited[1] and used by governments (particularly in IDA recipient countries) as guidance for the kinds of expenditures required for SDG monitoring.

In this chapter we update the previous cost estimates, based on the finalized set of SDG indicators adopted by the United Nation in September 2015, taking into account a number of lessons learned about the breadth of the monitoring challenge.

We have also extended the estimates from the 77 IDA-eligible countries to all low- and middle-income countries. Estimates of the levels of external funding currently provided for statistical program are derived from the PARIS21 PRESS database and national strategies for the development of statistics (NSDSs) prepared by countries. The difference between the estimated costs of producing the SDG indicators and available financing provides an estimate of the funding gap.

2.1. THE CHALLENGES OF THE SDGS

The Sustainable Development Goals comprise 17 goals, 169 targets, and 230 indicators across a range of economic, social, and environmental domains. Besides the sheer numbers of indicators, the SDGs present new challenges to official statistical systems. There is an urgent need to establish baseline measurements and plan for regular

FIGURE 2:

CHALLENGES OF THE SDGs

	MDG's		SDG's		
Country Focus	Developing Countries		Global		
Sector-Focus, Indicator Coverage	**8** Goals / **21** Targets / **60** Indicators		**17** Goals / **169** Targets / **230** Indicators		
Level of Disaggregation	National		Leave No One Behind		
Financing	Largely Donor Financed			Domenstic Resource Mobilization, New Sources of Financing	

data collection in coordination with existing programs. New instruments will need to be tested and calibrated and staff trained in their use and analysis.

The promise of the SDGs that no one will be left behind, means that all population groups, especially the poor and marginalized, should be included and identified in the statistical data. Data will have to be disaggregated by age, sex, disability status, and other relevant functional categories. Some population groups, for example, nomadic populations, are difficult to reach and to count accurately and may move across borders. Other groups may live in areas affected by unrest and or very limited communications. There may also be groups that are marginalized politically, on which governments may be reluctant or unwilling to spend resources to include.

The need to compare data over time and to aggregate them across countries and regions requires that they adhere to common standards and methods. It will be important, therefore, to establish or support appropriate standards and methodologies for the source data and to support countries as they put them into effect. This is particularly important for indicators whose methodologies are not yet well tested.

An important part of strengthening the demand for – and increasing the value of – SDG-related data will be providing data to a wide audience in formats they are able to understand and use. All the data, both the headline indicators and the underlying source data, should be open and accessible for further analysis and use. The value of making statistical information and data open is clear (see Box 2.1). The adoption of open data principles is a necessary step for strengthening national statistical systems and increasing public trust in their outputs.

2.2. COSTING THE SDGS

In this report we adopt and extend the costing methodology used in the Data for Development report (SDSN 2015a). Because the indicators for the SDGs had not been finalized at the time, the *D4D* study identified a set of statistical instruments and processes to produce a set of 100 indicators previously proposed by SDSN as representative of the data needed to monitor a comprehensive development agenda (SDSN 2015b). The instruments and planned frequencies are shown in Table 2.1. Costs of individual components were based on average unit costs adjusted for country size, income level, or density as warranted. Expenditures on education management information systems, civil registration and vital statistics, economic statistics, and geospatial monitoring included investments in training and infrastructure. The detailed cost analysis can be found in the *D4D* report (SDSN 2015a, pp. 17–30).

TABLE 2.1
DATA FOR DEVELOPMENT 2015: STATISTICAL INSTRUMENTS

Statistical instrument	Frequency per 10-year cycle
Census	1
DHS- or MICS-type surveys	4
LSMS type surveys	2
Labor Force surveys	10
Agricultural Surveys	2
Supplemental surveys (not specified)	2
Economic statistics and establishment surveys	10
Civil registration and vital statistics (CRVS)	Continuous
Education management information systems (EMIS)	Continuous
Environmental monitoring	Continuous
Geospatial data acquisition	Continuous

BOX 2.1 OPEN DATA

Open data - publicly available data from national statistical organizations and other government sources - is a powerful resource that can have a positive impact for sustainable development.

The World Bank has identified four major ways that open data can contribute to development:

- Fostering economic growth and job creation. Open data can be a resource for entrepreneurs who want to launch new businesses or for existing businesses that can use the data to make their operations more efficient. By improving government transparency, data can improve the climate for foreign investment. It can also be used to help match job-seekers to employers and fight unemployment.

- Improving efficiency and effectiveness of public services. Open data can help improve public health and healthcare services by identifying the areas of greatest need and providers who can address those needs. It can help governments assess educational attainment and improve schools. And it can be used to improve food supplies and food distribution.

- Increasing transparency, accountability, and citizen participation. Open data is a deterrent to government corruption and mismanagement. Through open contracting, data on government contracts can both prevent favoritism and open up government markets to new small businesses.

- Facilitating better information-sharing within government. Open data can help city and national governments track infrastructure needs, respond to disasters, and plan for the best use of their resources.

The Open Data Impact Map, an Open Data for Development Network (OD4D) project developed by the Center for Open Data Enterprise, has collected nearly two thousand examples of the use of open data in countries at different income levels around the world. Their use cases show how open data are being put to use globally across a wide range of sectors and geographical regions. For example:

- A government transparency portal in Brazil, now used by an estimated 900,000 people each month, has helped make the national government more transparent and accountable since 2004.

- In Mexico, Mejora tu Escuela is an online platform helping parents evaluate their local schools and find better options for their children.

- The Ebola Humanitarian Data Exchange played a central role in sharing information from government and civil society organizations to better map Ebola related data such as healthcare facilities and the most affected areas.

- The Global Open Data for Agriculture and Nutrition Program (GODAN) is using open data around the world to improve agriculture and food security.

- Here and in many other places around the world, open data are helping people and their governments achieve their development goals.

Implicit in this approach was the understanding that certain instruments and processes – particularly censuses, civil registration, and geospatial data – provide the basis for other statistical activities and that a single instrument, such as a household survey, can provide the data required for many indicators. Furthermore, among the SDG indicators there are many that are simple enumerations of government activities (for example, most of the 25 indicators for the 19 targets of Goal 17). There are also a number of indicators that are the responsibility of international organizations or bilateral donors, requiring no resources of national statistical systems. These include reports on aid flows, counts of signatories to international treaties and agreements, and the production of global indexes and scorecards.

The IDA-eligible countries are most likely to need development assistance to support and expand their statistical systems. They are also the countries for which the gap between what their statistical systems produce and the demands placed on them is the greatest. For these countries, *D4D* estimated annual spending of between $902 and $941 million would be needed to meet the projected demands for data. (SDSN 2015a, p31) The detailed cost estimates are shown in Table 2.2.

TABLE 2.2
DATA FOR DEVELOPMENT 2015: ESTIMATED COSTS

Statistical Instrument	Total cost for 77 IDA and blend countries 2016 to 2030	Annual costs for 77 IDA and blend countries
National survey programs (including household surveys, agricultural surveys, and labor force surveys)	$2.0 billion to $2.6 billion	$134 million to $173 million
Census	$4.8 billion	$320 million
CRVS	$3.3 billion	$220 million
EMIS	$1.4 billion	$90.5 million
Business establishment surveys	$289 million	$19 million
Improvements to real sector statistics	$60 million	$4 million
Geospatial	$1.2 billion	$80 million
Environmental monitoring (other)	$514 million	$34 million
Total Costs	**$13.5 to $14.2 billion**	**$902 to $941 million**

2.2. EXTENDING THE PREVIOUS COST ESTIMATES TO THE SDGS

After the 2015 estimates were published, the full list of 230 indicators have been agreed, covering a range of economic, social, and environmental domains. The Interagency and Expert Group on the SDG-Indicators (IAEG-SDG) has assigned each indicator to one of three tiers based on data availability, collection methodology, and international standards. Tier I comprises 97 indicators for which there are established methodologies and regular data production by a majority of countries. There are 53 Tier II indicators, which have established methodologies but are not regularly produced by a large number of countries. The remaining Tier III indicators lack an agreed methodology or production process. (See Annex 1).

In this report we focus mainly on Tiers I and II indicators. For the Tier III indicators, the immediate priority is to develop methodologies, standards, and recommendations. As their methodologies are developed, tested, and rolled out to countries, the additional resources that countries will need should be identified and included in later iterations of this report.

Tier I indicators
Most of the Tier I indicators can be produced using the instruments listed in Table 2.1, although in some cases extensions and larger sample sizes may be required to provide more detailed disaggregations of characteristics of people and their location. In most low-income countries, surveys supported by a decennial population census will be the major source of data for the SDGs. Other indicators will be produced by international organizations at little or no cost to national statistical systems.

Tier II indicators
For this report, we also evaluated the 50 Tier II indicators that were not included in the SDSN (2015b) list. As was the case with Tier I indicators, some gaps among the Tier II indicators can be filled by expanding current modes of data collection. For example, the SDGs include several indicators of access to the Internet and use of information communication technologies. These data can be obtained from a combination of existing household surveys, administrative data, and data provided by private companies. Monitoring data on new indicators such as cause of death will require expansion of civil registration and vital statistics (CRVS) programs, which was already included in our previous estimates. In some other cases, indicators can be supplied by international reporters or captured from development program records at no cost to national statistical systems.

There are three notable gaps in current data collection for Tier II indicators. First, the SDGs include six indicators under Goals 3, 5, and 16 that call for information on people who have been victims of crimes, including sexual or physical violence. Indicator 5.2.1, for example, specifies data on violence against women occurring in the previous 12 months. Because of the sensitive nature of the questions, they cannot easily be incorporated into general-purpose surveys and will require specially-designed victimization surveys, at an increased cost.

Second, SDG 4.6.1 calls for monitoring the percentage of population in a given age group achieving at least a fixed level of proficiency in functional (a) literacy and (b) numeracy skills, by sex. In addition, SDG 4.1.1 requires testing of student proficiency in reading and mathematics at regular intervals in primary and secondary school. While standardized tests exist to collect such data,

they have never been widely and regularly applied to large populations, especially in poor countries. Expanding these or similar tests to produce routine measurements across all countries will incur significant costs.

Third, SDGs 5.4.1 and 8.3.1 call for measuring the extent of unpaid and informal employment to better understand the economic contributions of women. Data for these indicators should be collected through time-use modules as part of labor force surveys. Additional data collection will also be required to gather information on average hourly earnings for indicator 8.5.1, which should be collected through establishment surveys. Again, these additional specialized methods will incur additional costs.

Censuses and surveys

Based on our review of Tier I and Tier II indicators, we recommend an expanded program of censuses and surveys as shown in Table 2.3. The frequency of agricultural surveys has been increased from once every five years to annual, in line with the *Global Strategy to Improve Agricultural and Rural Statistics* (FAO 2010). Two additional survey programs not mentioned in *D4D* report are also included to support the collection of data needed for Tier II indicators. Time use surveys, which may be incorporated into labor force surveys are included in this list, as are victimization surveys to record crimes against property and persons, including sexual assault.

TABLE 2.3

TEN-YEAR PROGRAM OF CENSUSES AND SURVEYS

Type of survey or census	Proposed frequency
Population census	Once every ten years
DHS-MICS type surveys	Every 2 or three years
Living standards or household budget surveys	At least once every five years
Labor force surveys	Annually
Business establishment surveys	Annually
Agricultural surveys	Annually, depending on need
Time use surveys	Annually
Literacy/numeracy surveys	Once every five years
Victimization or related surveys	At least once every five years
Other surveys for national needs	At least once every five years

Administrative data

Our previous estimate included costs for two sources of administrative data: the registration of births and deaths through civil registration and vital statistics (CRVS) systems and education management information systems (EMIS). In this round we include a placeholder estimate for improvements in health management systems, which should provide data for a number of SDG indicators. There will be other areas where investment is needed to improve the quality of the data being collected. Subjects for which further development of administrative data systems is needed include access to and use of health systems; access to and use of safe water and sanitation; access to and use of energy; employment and decent work; infrastructure; safe and sustainable settlements and cities; use of terrestrial and marine resources; and access to justice. They are not included in the round of costing because of uncertainty over the scope of work that will be required. These systems are the primary responsibility of other ministries or departments of government. Cadastral surveys, for example, which record the location and ownership of lands, provide a foundation for statistics on land use but are usually the responsibility of the taxing authorities. The responsibility of the national statistical office is to ensure that data are collected and reported according to agreed standards.

2.3 REVISED COST ESTIMATES

In section 2.3, building on the original *D4D* cost estimates, we identified a set of additional instruments and statistical processes that are needed to provide data for the SDG indicators classified as Tier I and Tier II. In this section we provide cost estimates of producing these data in the 77 IDA-eligible countries and then extend the estimates to the remaining 67 middle-income countries.

Additional surveys on the scale of DHS or MICS to collect data on violence and victimization, literacy and numeracy, and other personal and family characteristics.

Our previous estimate assumed that four DHS or MICS survey would be conducted over a ten-year period. Based on the indicators agreed by the IAEG-SDGs, we now estimate that four more similarly-sized surveys will be required over a decade. These are in addition to the two "supplemental" surveys included in the original estimates. The average cost for each survey is approximately $1.3 million per country. Over the period 2016 to 2030, six additional surveys will be required. The additional cost of implementing this expanded survey program in 77 countries over the 2016 to 2030 period is $600 million or an average of $40 million a year.

Include a light time-use module in labor force surveys to capture women's economic contributions.

As a first approximation we assume the additional cost to be 20 percent over the average survey cost of $464 thousand. The additional cost for 77 countries is $7.1 million a year or $107 million over the SDG period.

Strengthen health management information systems

Our previous estimate included costs for expansion of CRVS programs and improvements to education management information systems (EMIS). We excluded the costs of strengthening administrative data systems in other ministries and departments. In recognition of the important role health information systems are likely to play in managing and monitoring the SDGs, we suggest that an amount equal to the projected expenditures on EMIS be added to account for necessary improvements in health information systems. This amounts to $1.4 billion over the period or $90.5 million a year.

Agricultural surveys

As part of its Global Strategy to Improve Agricultural and Rural Statistics the Food and Agricultural Organization (FAO) is currently field testing a program of agricultural surveys that will provide direct information for six SDG indicators, most of which are classified as Tier II or Tier III, and indirect information for 16 more in all three tiers. The Agricultural

Integrated Survey (AGRIS) comprises a set of core surveys and four rotating modules that are to be delivered over a ten-year cycle in coordination with a decennial agricultural census.

Results from the field tests will yield information on the costs of the AGRIS program. When fully implemented, costs are expected to vary according to the size of the agricultural economy in each country, and some countries may elect not to implement the full set of surveys. For now, we use our previously estimated average cost of an agricultural survey at $1.5 million. Adding eight more in a decade, or twelve more over fifteen years, would increase costs by $18.6 million per IDA country. The total cost for the 77 IDA-eligible countries is $1.4 billion.

Other data sources
Our previous estimate also included costs for annual surveys of business establishments and improvements to real sector statistics. The SDGs will place new demands on all these systems and the staff that support them, but lacking further information about their capacity and the corresponding requirements of the SDGs, we assume no new incremental costs. This assumption should be revisited by topical experts as the implementation of the SDGs proceeds. The estimated costs of investing in geospatial technologies and environmental monitoring are assumed to remain unchanged from the original estimates. Costs of conducting censuses are, likewise, unchanged.

No estimates have been made for the production of Tier III indicators, which do not yet have established methodologies from which to calculate costs. Going forward, careful attention should be paid to the planning for these indicators, taking advantage of existing systems and innovative data collection methods to control costs. A large part of the responsibility for developing the Tier III indicators and providing technical assistance for their implementation will fall on the UN Statistics Division and the statistical

offices of the specialized agencies of the United Nations. Additional resources will be required to allow them to fulfil their expanded work program.

Based on this very conservative set of assumptions, the cost of producing the Tier I and Tier II SDG indicators in 77 IDA-eligible countries is likely to be on the order $17.0 to $17.7 billion over the SDG period. See table 2.4. This represents an increase of $3.5 billion from the original estimates. The increase in annual costs is on the order of $200 to $240 million. In line with the assumptions in the *D4D* report, this will require an increase in domestic resources for statistics of about $100 to $120 million a year and a matching amount from donors.

One major challenge in estimating resource requirement is obtaining information about the 67 lower- and upper-middle-income countries that are able to borrow from the World Bank but do not qualify for IDA grants or credits. These "IBRD" countries have well developed statistical systems capable of producing many of the SDG indicators. However, estimating their costs of producing the Tier I and Tier II indicators is problematic. The cost of conducting censuses and surveys, for example, varies with the size of the country and the overall price level. The *D4D* study cited costs per person for census administration from $0.30 to $5 and used an average cost of $2.04. Without a detailed study of the cost of data collection in the IBRD countries, we scale up the costs of the 77 IDA-eligible countries by the geometric average of the ratio of population sizes (4.50 billion/1.61 billion, or 2.80) and the number of countries (67/77 or 0.87). The average is 1.56. Applied to the cost estimates for IDA-eligible countries, this implies expenditures by IBRD countries of $26.5 to $27.6 billion or from $1.7 to $1.8 billion a year.

TABLE 2.4

SDG ESTIMATED COSTS, TIER I AND TIER II INDICATORS

Cost element	Total cost 2016 to 2030	Annual costs
COSTS FOR 77 IDA-ELIGIBLE COUNTRIES		
D4D estimates	$13.5 to $14.2 billion	$902 to $941 million
+ Victimization and literacy surveys	$600 million	$40 million
+ Health management information systems	$1.4 billion	$91 million
+ Time-use surveys	$107 million	$7 million
+ Additional agricultural surveys	$1.4 billion	$91 million
Subtotal	**$17.0 to $17.7 billion**	**$1.1 to 1.2 billion**
COSTS FOR OTHER LOWER-MIDDLE AND UPPER-MIDDLE-INCOME COUNTRIES		
Scaled estimate	$26.5 to $27.6 billion	$1.7 to $1.8 billion
Total	**$43.5 to $45.3 billion**	**$2.8 to $3.0 billion**

Taken together with the costs for IDA-eligible countries, the total cost for data needed to monitor the Tier I and Tier II indicators in all low- and middle-income countries is likely to be on the order of $44 to $45 billion over the SDG period. Compared to estimates of implementing the full 2030 development agenda, which range from $700 billion to over $3 trillion, these costs are modest. However, they should be regarded as a lower bound on the full cost of the statistical program required by the SDGs. Significant additional costs will be incurred to implement data collection programs for the Tier III indicators and additional investments will be required in administrative systems that have not been included here. Nevertheless, these estimates help to define the likely magnitude of the expenditures involved, and demonstrate that the estimates promulgated by Jerven and the Copenhagen Consensus vastly exaggerate the cost of measuring and monitoring the SDGs. (See Box 2.2).

2.4. INNOVATIONS FOR COST REDUCTION

Will new methods of data collection and analysis reduce the cost of monitoring the SDGs? Possibly. As was noted in the *D4D* report and by the Independent Expert Advisory Group on the Data Revolution (IEAG 2014), new data collection and monitoring technologies are rapidly becoming available. These innovations will dramatically advance our ability to monitor the impact of government programs and interventions, to assess the wellbeing of people, and to forecast future social, economic, and environmental trends. High-resolution satellite imagery, mobile devices, biometric data, and crowd-sourced citizen reporting will influence the way we generate data and the way it is used to help deliver sustainable development. Some of these innovations have considerable cost saving potential. For example, the cost of high-resolution image acquisition is falling while the availability of images and capacity for automated processing are

increasing. There are many applications for such data across multiple goals, such as predicting harvests, disaster response, earth observations and food security situations; monitoring geographic patterns and likely transmission corridors of diseases that have geospatial determinants; measuring population density and the spread of new settlements; and mapping and planning transportation infrastructure. Similarly, the expansion of ICT and smart-phone based data collection has the potential to reduce the time and cost of data collection, improve accuracy, simplify collection of GIS and image data, streamline integration with other information streams, and open up the possibility of incorporating micro-chip based sensors into survey processes.

BOX 2.2 OTHER ESTIMATES OF THE COST OF DATA

Morten Jerven (2014) has produced an estimate of the cost of SDG data for the Copenhagen Consensus Center (Jerven 2014), using a scaled up estimate of the cost of producing data for the Millennium Development Goals (MDGS). He specifies a census every ten years, a Living Standards Measurement Study survey every five years, a Demographic and Health Survey every five years, and a Core Welfare Indicator Questionnaire every year. Applying unit costs for each instrument to 138 countries, he estimates the cost of monitoring the MDGs' 18 targets would have been $27 billion, had all the necessary data collection been carried out. From this he derives a unit cost of $1.5 billion per target. Extrapolating to the 169 targets of the SDGs yields his estimate of $254 billion. At this price, he concludes, data collection for the SDGs would return less than a dollar in benefits for each dollar spent.

There are several problems with this approach. Jerven's MDG costs are based on a 25-year span, whereas the active monitoring period for the SDGs, like the MDGs, is only 15 years. Surveys that were not conducted in the past can't be made up in the present! But the larger problem is the assumption that the average cost of collecting data for a few goals and targets can be extrapolated to the larger set. A review of the SDGs shows a wide variation in the types of indicators required for each target. Some indicators depend on surveys, while data for others can be obtained readily from administrative sources or from other, non-governmental sources. A number of SDG targets require indicators that are products of international organizations' activities (such as reporting on aid flows or participation in international conventions) that have no direct consequences for national statistical systems. And surveys – such as MICS, DHS, and LSMS – that provide data for one set of goals and targets often provide data for others. So a naïve extrapolation from a limited set of targets is not likely to yield a sensible result.

Like Jerven the *D4D* report priced a set of household surveys and censuses needed to produce many of the social indicators included in the SDGs. But taking a more comprehensive view of the data needed, it estimates included business establishment surveys, improvements to administrative data systems, environmental reporting, and new investments in geospatial data systems. Despite the inclusion of a larger set of instruments and additional investments in statistical infrastructure, *D4D* came up with an estimate that was substantially less than Jerven's. While this may not be the final price, it provides a realistic starting point.

In practice we notice two things. First, these new technologies do not necessarily minimize costs even as they maximize our ability to produce higher resolution, higher quality data, complementing the official statistics with information that enables greater disaggregation of traditional statistics and improved timeliness. This level of disaggregation is essential if we are to uphold Agenda 2030's commitment to leave no one behind and to ensure the most vulnerable are reached. Second, although there is huge potential in many of these innovations, most projects are pilots being tested in single countries or regions, requiring further refinement and exploration before they can be rolled out systematically across countries. (See for example a recent commentary by Justin Sandefur (2016) on a new machine learning approach which interprets satellite images to create quick poverty estimates).

Although not all new data sources promise cost savings, new methods for planning and managing statistical systems may yield both cost savings and faster introduction of new technologies and statistical processes. The Global Partnership for Sustainable Development Data is supporting a national SDG Data Roadmap exercise in a number of countries. This is aimed at improving the planning of SDG data production and use through a multi-stakeholder partnership approach. So far the SDG Roadmap workshops have taken place in Colombia, Sierra Leone, Tanzania, Kenya, and Senegal. As a result of this work, a collection of information has been assembled in an online toolbox to support the SDG Roadmap exercise in other countries.[2]

PARIS21 has introduced a new tool for planning development of a statistical system: the Advanced Data Planning Tool or ADAPT. Drawing on widely used models of the functions of a statistical system, ADAPT allows managers and their funders to layout a logical framework for development tied to results. (See Box 2.3).

New approaches to data collection, interpretation, and analysis are welcome and should be encouraged. New data sources give us the opportunity for greater granularity and timeliness and some potential cost-savings. New planning methods can increase efficiency. While many new methods are currently being tested, little is known about the opportunities and requirements for scaling up. In the meanwhile, investments in the expansion of traditional statistical and administrative systems are essential. Therefore, we have chosen not to estimate the cost-saving potential of new sources of data in this report.

2.5. AID FOR STATISTICS

We have estimated the financing needed to produce the Tier I and Tier II indicators for the SDGs. This section addresses the questions of the sources and responsibility for financing. In principle, responsibility for funding national statistical systems lies with national governments, but many countries, which are facing urgent demands for scarce resources, will not be able to finance the development of their statistical systems solely from their own budgets. While there are many potential sources of external assistance to statistical systems – foundations, non-governmental organizations, and even the private sector –by far the largest source has been official development assistance (ODA) provided by bilateral and multilateral agencies. In this section we look at the level of aid for statistics in recent years and provide estimates of the amounts needed to fund the expanded activities required by the SDGs. In the *D4D* report, two sources of information on aid flows were used: aid for statistics recorded in the PARIS21 PRESS database and information on country budgets for statistics taken from national strategies for the development of statistics (NSDSs). We adopt the same approach here.

---

2. The Data4SDGs Toolbox can be accessed at http://www.data4sdgs.org/toolbox/

BOX 2.3 THE ADVANCED DATA PLANNING TOOL – ADAPT

National Statistical Offices tasked with coordinating statistical systems not only have to manage their own budget requirements but also try to consolidate investments in data delivery, quality, and statistical capacity across the statistical system. This task of coordinating and harmonizing data delivery systems now goes farther and deeper as the definition of the national statistical system changes to accommodate the evolving data ecosystem and new players and providers of data. National statistical offices may find themselves more and more eclipsed by parallel operations and initiatives that distort costs and erode the need for coordinated systems that comply with the principles as provided in principle eight of the *UN Fundamental Principles of Official Statistics* which states: "Coordination among statistical agencies within countries is essential to achieve consistency and efficiency in the statistical system."

Through the development of the NSDS and the Country Reporting on Support to Statistics (CRESS), PARIS21 has advocated for strong, well-financed and coherent statistical systems capable of providing adequate information on funding. Understanding the evolving complexities of coordinating a statistical system, PARIS21 has developed a new tool called the Advanced Data Planning Tool or ADAPT.

ADAPT allows agencies in a statistical system to define their priorities in development through their national development plans. There are three ways the ADAPT approaches the costing of statistical activities:

• Costing data collection: The ADAPT allows the identification of the data sources that are being planned in a national or sector development context. These data sources can then be costed and the ADAPT allows for reporting these in various formats. These can be integrated into a national funding strategy.

• Costing improvements to the national statistical system: In addition, the NSDS process requires that improvements to the statistical system be properly budgeted and funded. The ADAPT allows for the process of costing events and capacity building activities defined within the context of their national strategies.

• Costing data road maps: Costing and funding innovations is perhaps the most difficult aspect of planning a statistical system. Using ADAPT, the development of targeted and specific plans for improving and innovating the data process can be and costed.

The fundamental premise of the ADAPT system is that measuring improvements and results requires a systematic approach through a logical framework. These logical frameworks provide the instrument and form the basis for funding statistical activity as it pins funding to results. And where development funding is scarce, there is a greater need to provide support and evidence of the effectiveness of funding for statistics.

IDA-eligible countries

Some NSDSs provide detailed budgets that describe how much they plan to spend on improvements to the statistical system. We examined the NSDS budgets of more than 20 IDA-eligible countries. While there is variation between countries, the median country expected about half of its NSDS expenditures to be financed by aid and half to be financed from domestic resources. Although none of the existing NSDSs include plans specifically for producing SDG indicators, we expect that new NSDSs or SDG Road Maps now and in the future will reflect the urgent need to respond to the demands for monitoring the SDGs, and that the poorest countries will continue to require external financing for at least half of their spending on data collection, compilation, and dissemination.

According to the 2016 PRESS report commitments made directly to IDA-eligible countries for statistical programs in 2014 were $470 million (PARIS21 forthcoming), but this amount includes multi-recipient programs and international conferences and technical assistance provided in-kind or through consultants paid in their home country. Single-recipient funding commitments made directly to IDA-eligible countries in 2014 (the most recent year) were $298.5 million. This represents a decrease from the 2013 estimates of $350 million reported in *D4D*. PARIS21 estimates that 80 percent of committed funds are disbursed, so disbursements in 2014 should yield $240 million. Because of lags in reporting, these figures could increase slightly in later reports.

IBRD countries

For this report, we have expanded our estimates beyond IDA-eligible countries to include 67 middle-income IBRD countries. In 2014 a total of $56 million in donors funding commitments were reported being made to IBRD countrie. But the PRESS database does not provide complete coverage of upper-middle-income countries, except in Africa. Therefore, it is not possible to derive a robust estimate of the current level of donor funding for statistics in the 67 IBRD countries. IBRD

countries generally have more resources than IDA-eligible countries and can reasonably be expected to fund a larger share of their statistical activities through domestic financing than IDA countries. Relatively few have produced NSDSs and few of these clearly indicate how much external financing they anticipate for their plans. We were able to find data on budgets for Bosnia and Herzegovina, Botswana, Bulgaria, Georgia, Guatemala, South Africa, Swaziland, and Turkey. (See Annex 2). Where we have not been able to find aid levels in the NSDSs, we have turned to the latest PRESS data to see what levels of aid these countries currently receive for statistics. Among the countries we were able to examine, some appear to rely exclusively on domestic resources while others receive more than 20 percent of their funding from aid. The small sample makes it difficult to say with confidence what the average share of external financing may be among all IBRD countries. We take 5 percent as a working number.

2.6. BOTTOM LINE: ADDITIONAL FINANCING FOR THE SDGS

IDA-eligible countries will face average annual costs of $1.1 to $1.2 billion dollars a year to produce indicators for the SDGs. (See Table 2.3.) If they are able to finance half of this amount from domestic resources, donors—principally bilateral agencies and the international financial institutions—will be expected to provide $550 to $600 million a year in additional financing. In addition, IBRD countries facing expenditures of $1.7 to $1.8 billion a year may require as much as $85 million a year. Therefore, total aid needed to support the production of Tier I and II indicators for the SDGs is expected to average between $635 to $685 million a year over the period 2016 to 2030.

The 2016 PRESS data for 2014 show a total of $470 million in commitments to statistics, of which $240 million was likely to be delivered to IDA-eligible countries and $45 million to IBRD countries. Based on 2014 levels, the shortfall in aid for statistics is between $350 and $400 million a year. This shortfall is, almost certainly, an underestimate of what will actually be needed over the next three to five years when we take into account the need for many countries to initiate new data collection programs, especially for Tier II and Tier III indicators. It also omits the costs, largely borne by the specialized agencies of the United Nations, including FAO, ILO, UNICEF, WHO, and the World Bank, for development of the tier III indicators and maintenance of the international databases used to provide a global view of progress toward the SDGs. We have deliberately kept the estimates of the needs low, however, to be realistic about how much countries will be able to do in the short to medium term and their capacity to make effective use of additional aid.

2.7. SUPPORT FOR THE WORK OF INTERNATIONAL ORGANIZATIONS

Besides the costs incurred by national statistical systems, the SDGs place many responsibilities on the international statistical system for defining standards, developing new instruments and methodologies, implementing them and training national statisticians, and collecting and reporting results. Methodological development of the Tier III indicators is likely to be a responsibility of the UN's specialized agencies, all of which have very limited budgets for statistics. Currently there are approximately 80 Tier III indicators which require additional development. Within the 17 goals, there is an uneven distribution of Tier III indicators, making some goals such as those for well-being and health and poverty more readily measurable than others such as climate action and life under water that require

substantial attention and collaboration by the international community. The current workload to develop Tier III indicators will include defining international standards, establishing methodologies, designing instruments, and field testing, all before wide scale data collection can begin.

While we do not estimate the additional costs to collect data on these indicators, there are examples of newer data instruments that lend insight into what such efforts to develop methodology and standards may entail. One of the examples of methodological work by international organizations which require financing is the FAO's AGRIS. It passed the development stage and is currently being piloted. The costs of developing AGRIS should be added to the funds needed to measure the SDGs. For the estimation of other funding needs, previous international projects such as development of the 2008 System of National Accounts (SNA), methodological work for the International Comparison Program (ICP), and preparation for the 2010 census round may provide guidance. As Tier III indicators became more established, cost estimates should be revisited. For now, it is important to draw attention to the need for further development and to remind both public and private donors that additional resources will be needed to develop additional methodologies and ensure the continued functioning of the international statistical system.
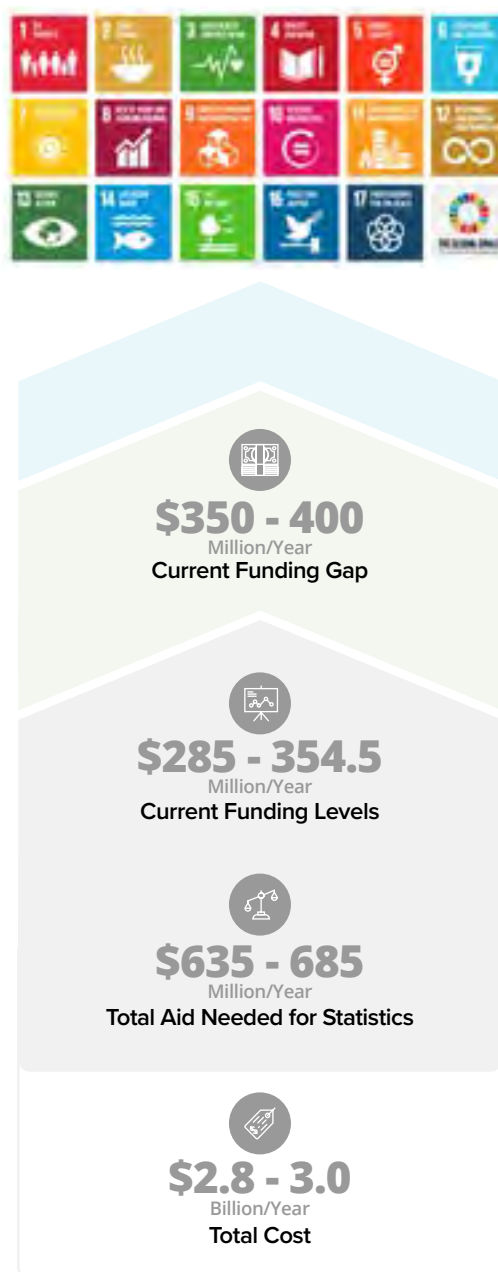
3. FINANCING SUSTAINABLE DEVELOPMENT DATA

3.1. THE NEED FOR ADDITIONAL FINANCING

In Chapter 2 we set out our best estimates of the costs of generating the data for the Tier I and Tier II SDG indicators over the period from 2016 to 2030. While the data are still very tentative, on both the cost and the financing sides, our best but conservative estimate is that IDA-eligible countries will need to commit $1.1 to $1.2 billion dollars per year over the life of the 2030 Agenda for Sustainable Development. For the middle-income IBRD countries we estimate the cost to be of the order of $1.7 to $1.8 billion per year. We also estimate that $635 to $685 million a year will be needed to provide about 50 per cent of the costs of IDA-eligible countries and up to 5 per cent for IBRD countries. Additional resources will also be needed at the international level to support the development of methods, standards, and guidance for Tier III indicators.

Progress on implementing the 2030 Agenda, as well as the ability to monitor progress and report on results, will require data for the SDG indicators to become available as soon as possible. We believe there is considerable potential both for cost savings and improvements in efficiency through technological change and for developing new ways of financing core statistical activities in developing countries over the next 15 years. However, in the next five years that are the main focus of this report, resources for statistical and data activities will continue to come from domestic budgets and external aid. While work to develop new methods and make use of new technology should get underway as soon as possible, it is also essential to make progress on compiling indicators now. To do this we have to start with the existing structures, systems, and capacities.

FIGURE 3:

FINANCING THE SDG DATA AGENDA: WHERE WE ARE AND WHERE WE ARE GOING

(2016 - 2030, IDA and IBRD Countries)

$350 - 400
Million/Year
Current Funding Gap

$285 - 354.5
Million/Year
Current Funding Levels

$635 - 685
Million/Year
Total Aid Needed for Statistics

$2.8 - 3.0
Billion/Year
Total Cost

BOX 3.1 RETURNS TO STATISTICS: EDUCATION OUTCOMES

Following a rare policy change in 2001 where Wales stopped publishing school performance statistics while England continued, we compare a composite measure of cognitive skills (the aggregated PISA scores of Mathematics, Science and Reading) for England and Wales in 2003 (baseline) and 2009 (endline). (See Burgess et al., 2013 for a more detailed analysis and several robustness checks.) Based on this quasi-experiment, the resulting difference-in-difference of 10 test scores corresponds to a 0.1 standard deviation improvement on the PISA scale in England compare to Wales. Hanushek and Woessmann (2009) and OECD (2010, p. 15) estimate that an increase in PISA scores by 0.1 standard deviations yields a 0.174 percentage point increase in GDP. Given England's GDP of GBP 1.38 trillion (ONS, 2015) in 2015, this results in an estimated improvement in economic production of GBP 2.4 billion (= 0.00174 x GBP 1.38 trillion) per year.

Compared to the cost of the examination system run by private exam boards that charge about GBP 300 per student (i.e. GBP 300 x 500 000 = GBP 150 million), this corresponds to an estimated return on investment of 1500 percent (= (GBP 2 400 million – GBP 150 million)/ GBP 150 million) from producing the school league tables. That is, a return of GBP 16 for every GBP 1 invested in educational statistics. It also demonstrates the importance of making data openly available to those who can act on the information.

Source: PARIS21 (2016), p. 5.

Implementing the data revolution will require increased financing from both domestic budgets and from increased aid allocations. This will need to be done in an environment where, at least in the short-term, the prospects for the global economy are gloomier than they have been for some time. The World Bank and International Monetary Fund (IMF) estimate that global growth will be 2 to 4 per cent between 2016 and 2018 (World Bank 2016; IMF 2016). The outlook is particularly difficult for advanced economies, which are facing average growth of less than 2 per cent, while emerging markets and developing economies are estimated to grow at 4 to 4.5 percent. These forecasts mean that the arguments for investment in poverty reduction and in data processes will have to be made even more strongly. We cannot afford to wait until economic conditions have improved.

The level of aid for data and statistics is important, but so is the way in which it is provided.

> While work to develop new methods and make use of new technology should get underway as soon as possible, it is also essential to make progress on compiling indicators now. To do this we have to start with the existing structures, systems and capacities.

3.2. INCREASING DOMESTIC BUDGETS FOR STATISTICS

An important part of this process will be demonstrating the value of statistics and the potential returns that can be derived from investment in capacity and data systems. Measuring the return-on-investment of official statistics comes with many methodological challenges. First and foremost, statistics are a public good and no market prices are available to quantify users' valuations. Other challenges range from data generally having multiple users and uses (so it is often not even clear where to expect impacts) to the practical impossibility of running rigorous randomized control trials (because withholding information is unethical or because of information spillovers between treatment and control groups). But occasionally opportunities are presented to take advantage of a natural experiment. See Box 3.1.

3.3. MAKING AID FOR STATISTICS MORE EFFECTIVE

The level of aid for data and statistics is important, but so is the way in which it is provided. An inventory of financial aid instruments used to support statistics has just been completed by Open Data Watch (ODW 2016), updating an earlier report from 2015. The report found that among donors for which data were available for 2015 and 2016, aid for statistics decreased by about 11 percent. A summary of their findings is provided in Annex 3. The principal mechanisms for supplying aid were found to be:

- Multilateral lending to specific countries. The lending institution follows its internal mechanisms for funding, usually in line with applicable country partnership strategies. There is typically a lengthy approval process for loan preparation, design, and the approval of projects. This type of funding decreased significantly from 2015 to 2016.

- Bilateral grants to countries or regional agencies or for specific themes. Donor agencies or private foundations provide funds to specific countries or institutions through formal grant agreements

- Technical assistance. Bilateral, multilateral, or organizational support provided in the form of technical assistance, typically making use of expertise within a specialized host organization.

- Multi-donor trust fund financing projects executed by the host agency. The host agency usually has a mandate to manage the program and make decisions on funding country or regional activities.

- Multi-donor trust fund-host financing. Projects may be executed by the managing agency or a partner. They are usually created to finance large projects such as the International Comparison Program or implementation of the Global Strategy to Improve Agricultural and Rural Statistics.

- Multilateral or private foundation development grants for specific projects. Grants may be provided by international agencies or private foundations.

More evidence is needed on the ways in which aid for statistics is changing and what impact, if any, these changes have on commitments and disbursements. It will also be important to bring together evidence on the outcomes and impacts of different projects and the extent to which the design of the aid instrument affects efficiency, effectiveness, and impact. At present much of the information we have is largely anecdotal, with some countries finding it difficult to meet the requirements of donors especially in areas such as procurement and financial management. GPSDD should continue to monitor the level of aid for statistics and the ways in which it is delivered. A knowledge base that puts together information from evaluations of aid projects should be established so that information about what works best and in what circumstances can be developed and shared.

More evidence is needed on the ways in which aid for statistics is changing and what impact, if any, these changes have on commitments and disbursements. It will also be important to bring together evidence on the outcomes and impacts of different projects and the extent to which the design of the aid instrument affects efficiency, effectiveness, and impact.

3.4. NON-TRADITIONAL SOURCES OF FINANCING

If there is to be an increase in aid for statistics, as this report calls for, then understanding how the aid should be committed and disbursed will be important. Development and testing of new ways of raising and delivering effective aid will also be needed. As yet, there is little or no evidence about new ways of financing statistical services and products. It will be important for GPSDD to monitor developments and to maintain communications with both the providers and users of finance. There may well be a case for the financing of studies to identify what works under different circumstances. As yet, for example, there are no examples of new ways of financing statistical activities included on the PARIS21 Platform on Innovations in Statistics (PISTA) (See Box 3.2.).

What evidence there is suggests that the potential for raising revenue directly from statistical activities, such as, undertaking work on commission and selling products, is limited. The example provided in Box 3.2 suggests that the revenue can be limited and the impact on staff and on improving access to data can be substantial. Some areas that could be investigated, however, include the following.

- Sponsorship, although care will be needed to ensure that the independence of official statistics is maintained and to avoid any questions about the integrity of different statistical products. One possibility may be to explore sponsorship for areas such as IT equipment.

- Making more use of basket funds, and budget support for the provision of aid, when linked to the implementation of an NSDS or similar plan. There are some examples already in place and more are in preparation. One example is the World Bank's Statistics for Results Facility (SRF) (World Bank 2016), which helps to create basket funds at country level.

- The provision of specialist support to countries that have found it difficult to access aid funds in the past to help them prepare proposals and set up mechanisms for the delivery and management of aid. The SRF has some experience in doing this and, for example, has found the use of donor financed in-country statistical specialists to be very useful.

- The use of regional trust funds or other regional approaches for countries in difficult circumstances, including, for example, small island countries, which are held by regional and international agencies.

BOX 3.2: PLATFORM FOR INNOVATIONS IN STATISTICS (PISTA)

The rapidly evolving data innovations landscape may seem to be an impenetrable jungle for many statistical agencies, not only, but especially in developing countries. PISTA is an online platform that sets out to clear this promising market by collecting information on innovations and statistical capacity in official statistics and matching identified challenges to potential solutions in a structured way.

With national statistical systems in developing countries often subject to unreliable funding and a lack of human resources, the collection and processing of relevant data imposes a great challenge. While innovations to improve the systems' efficiency are clearly needed, good examples of best practices are sparsely spread and statistical agencies rarely have the capacity to comprehensively search and evaluate innovative approaches on their own.

Thus, the purpose of PISTA is to inform members of the national statistical system on relevant solutions for challenges they face not only during strategic planning discussions, but also during their daily work. PISTA does this by providing an instant overview of the data innovations market and by providing a rapid self-assessment to determine potential focal areas. Public sector case-studies are shared to spread lessons learned and contact details displayed to facilitate a first interaction.

PISTA also gives innovators a platform to present their ideas to hard-to-reach customer such as statistical agencies. This supports local and regional solutions, which may not have the commercial power otherwise to advertise globally. In this respect, PARIS21 acts as quality assurance of the content displayed and provides support to statistical agencies both in statistical capacity assessment and innovation implementation.

Link: www.pista.paris21.org; http://54.149.34.7/paris21_dev/app.php/

4. A CALL TO ACTION

The 2030 Agenda for Sustainable Development is now in place. Seventeen goals, 169 targets, and 230 indicators have been agreed and action is needed now if we are to end all forms of poverty and leave no one behind. In this report we have set out what we know about the data ecosystem needed to monitor SDGs and the funding required to put such a system in place. Important gaps remain, notably the cost and feasibility of producing the Tier III indicators. Nevertheless, we believe that we know enough to make a start. If we do not begin to take action now, we may never be able to catch up.

The data revolution is already under way. Its impact on the statistical ecosystem may seem universal and unstoppable, but its power remains to be harnessed. We must bring together a wide range of partners, because capturing the benefits of the data revolution for sustainable development will take deliberate action on the part of governments, NGOs, businesses, international aid agencies, and all those who recognize the value of statistical evidence for guiding progress toward the SDGs. Strengthening the capacity and effectiveness of national statistical systems and national data agencies will be crucial to this process. Developing statistical systems takes time. Building capacity that can be sustained over the next 15 years is a long-term process that must start now and be reliably funded over the period.

Our best estimates — and these are very conservative — are that to strengthen the data ecosystem to meet the identified data needs of the SDGs will require between $2.8 to $3.0 billion a year over the next 15 years, of which about $635 to $685 million will need to be provided each year in the form of grants or highly concessional financing. In

addition, more resources will be needed at the international level to develop methods, standards, and guidance for the Tier III indicators. In this last chapter we set out a call to action to raise these resources and to deliver them in ways that are efficient and effective.

4.1. A DATA COMPACT OR A PARTNERSHIP BETWEEN COUNTRIES AND THE INTERNATIONAL COMMUNITY

Financing the data revolution will not be easy. It will be essential for the GPSDD and other partners to continue to make the case for better data at the international level and within individual countries. To support the process, we recommend developing data compacts that establish a partnership between individual countries and the international community. A data compact need not be a formal agreement, but it should express a commitment to meet the data challenges of the 2030 Agenda for Sustainable Development and set out the principles under which countries and the international community will work together. It should stress the importance of openness and transparency, both in the ways in which data are compiled and made available and in the ways in which financial and technical support are provided. In much the same way that the Paris Declaration recorded a commitment to making development aid more effective, the data compact should bring together different national priorities in a consistent international approach, recognizing the importance of more data and better data and open data.

Under the compact, the starting point will be each country's own priorities and data needs as set out in an SDG Road Map or a recent NSDS. Countries must continue to take the lead in identifying their own data priorities, addressing the constraints that affect their statistical systems and building on their strengths. Because all countries are different, have different levels of resources, and face different problems, a one-size-fits-all approach is inappropriate and will be ineffective.

Through the NSDS and SDG Road Map, countries can identify what they need to do and how to do it and provide realistic estimates of what it will cost and how it will be financed (See Annex IV for an example of financing statistics in Uganda). Tools such as ADAPT being developed by PARIS21 will be important for constructing comprehensive and realistic plans (see Box 2.3). In this way, countries would commit to making improvements and investments in their statistical systems and data processes and to developing national partnerships for sustainable development data. They would also agree to compile data for SDG indicators in line with agreed international standards and recommendations as far as they are able.

For the international community the compact will be a commitment to providing realistic financial and technical support in line with a country's SDG Road Map or NSDS and to working with the country to support and monitor implementation. The international community will also commit to supporting sustainable development data through research and development, the development and implementation of standards, and the provision of technical advice and support.

The data revolution is already underway. Its impact on the statistical ecosystem may seem universal and unstoppable, but its power remains to be harnessed.

4.2. A SUSTAINABLE FINANCING STRATEGY FOR DEVELOPMENT DATA

While the data compact will set out the principles under which the data revolution will be realized, an international strategy will also be needed to deliver the financial and technical support needed by low-and middle-income countries. We do not believe that this will require changes in the ways that the international community works or is governed, but the strategy will be important in promoting a more coordinated approach and closer cooperation between agencies. This strategy will evolve over time, but we recommend that it be built from the following elements.

Building political support for data and statistics as part of the 2030 development agenda. As part of this process it will be essential to make better data and more comprehensive and accurate statistics a central component of the 2030 Agenda for Sustainable Development. Collecting, compiling, and disseminating good quality statistical information is just as much a core part of achieving the SDGs as are investments in health facilities, clean water, and protecting the environment. The data revolution can only be achieved if expenditures on statistics and data-related activities are seen as essential, not an afterthought. Data should be viewed as part of the infrastructure needed to deliver on the SDGs.

Developing statistical system takes time. Building capacity that can be sustained over the next 15 years is a long-term process that must start now and be reliably funded over the period

Improving access, use, and the impact of data. Sustainable development data will have to be used more effectively and efficiently and will have to be made more accessible and useable. This means that data should not only be provided to analysts and officials working for governments and international agencies, but also to citizens, entrepreneurs, and communities everywhere. Data and statistical information are an essential part of making government agencies at all levels more accountable and are crucial in empowering people and communities. This can only happen if all agencies adopt and implement open data principles and are open and transparent about what they do. This will require a change of culture in many data agencies and organizations. In view of resource limitations, care should be taken in ensuring that data are fit for purpose. The aim should not only be to present numerical information, but to help people transform data into information, information into knowledge, and knowledge into action.

Increasing aid for sustainable data and investments in the capacity of statistical systems. Business as usual, however, will not be sufficient and changes will be needed in who provides the aid, how it is delivered, and who receives it. Important sectors of statistics are often left out. Our survey of financing for statistics finds, for example, that gender statistics have not been well-resourced. Furthermore, evidence from PRESS 2016 suggests that aid for data and

statistics is concentrated among a small number of aid providers and most of it goes to a relatively small number of countries that may not necessarily have the greatest need. For the data revolution to be effective, it must reach those countries with the lowest levels of capacity. It is these countries, however, that find it most difficult to access and use aid effectively. While it will continue to be important to have a variety of ways in which aid is committed and disbursed, we need to have more and better information about what works well and in what circumstances.

Bringing in new partners and new ways of delivering aid. The data revolution includes many new players with much to contribute to the functioning of official statistical systems The accelerating rate of technological change means it is difficult even for large international organizations to keep up. But national and international statistical agencies are willing and eager to adopt new methods. The private sector, particularly information technology and communications firms, have both data and technical expertise to share. As users of official statistics, the private sector should also be willing join with traditional donors to provide funding to improve statistical systems. Instruments that encourage donors to pool their funds are often better than single-donor, vertical funds, because providing aid in a coordinated way can reduce costs to countries of access to and interactions with donors. Resources will also be needed at the regional and international level to develop and test new solutions and to promote their widespread adoption.

4.3. CONTINUE TO MONITOR AND REPORT ON PROGRESS

This report is seen as the first of a series. We have already identified areas where more information is needed. We recommend that GPSDD support a process of monitoring progress of the data compacts and financing strategies and the overall capacity of national and international statistical data systems. To ensure that data issues and the development of statistical systems remain at the forefront of the international discussions on the SDGs, it will be important to carry out research and to report on outcomes on a regular basis. We recommend that further reports on the State of Development Data Funding be prepared and published, perhaps once every two years, in coordination with other processes, including the PARIS21 PRESS and the United Nations' monitoring reports on the SDGs.

4.4. GETTING IT DONE

Immediate action is needed to increase funding for statistics if the development of statistical systems is to meet the timetable of the SDG targets. We recommend that GPSDD prepare documents on the financing strategy and the data compact for consideration at the first World Data Forum that will take place in South Africa in January 2017. In partnership with PARIS21 and other agencies a limited number SDG Road Maps or updated NSDSs should be used to pilot national partnerships for sustainable development data and draft elements of a data compact. At the international level, GPSDD should also initiate discussions with financing agencies about how a sustainable strategy for financing development data can be developed and put into action. It is hoped that some progress can be reported in January at the World Data Forum, but more time may be needed to review what has been achieved.

New institutions are not needed for the type of improvements to development data funding discussed in this report. What is required is for all parties to work more effectively together and to bring in new partners. This will not happen unless there is a willingness to work together and to share expertise and information. The statistical and data communities, despite their focus on better data for everyone else, have yet to apply this discipline to their own activities. We hope and expect that GPSDD will provide an effective forum for sharing information and for making known what works and why. In the data world as in all other walks of life, if we do not have information on what is being done with allocated resources and what is being achieved, then real and sustained progress will be out of reach.

The aim should not only be to present numerical information, but to help people transform data into information, information into knowledge, and knowledge into action.

ANNEX I: THE TIER STRUCTURE OF THE SDG INDICATORS

The Interagency and Expert Group on the SDG-Indicators (IAEG-SDG) has assigned the 230 indicators used to track progress towards the goals and targets to three tiers based on data availability, collection methodology, and international standards.

TIER I	Indicator conceptually clear, established methodology and standards available, and data regularly produced by countries.
TIER II	Indicator conceptually clear, established methodology and standards available, but data are not regularly produced by countries.
TIER III	Indicator for which there are no established methodology and standards, or methodology/standards are being developed/tested.

There are currently 97 tier I indicators, 53 tier II indicators, and 80 tier III indicators.[3] This breakdown highlights how much work is still needed to fully measure and track progress towards the SDGs. Less than half of the indicators are conceptually clear and regularly produced, and even indicators with a Tier I classification will require further work as a deeper dive reveals data gaps. For example, Indicator 3.7.2: adolescent birth rate (aged 10-14 years; ages 15-19 years) per 1,000 women is assigned to Tier I, but data are currently only available for the age group 15-19 years old.

The table below provides an example of tier classification systems, including the rationale behind an indicator's categorization and its country coverage over the last five years.

Tier	Target	Indicator	Rationale	Country Coverage
Tier 1	2.1 By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round	2.1.1 Prevalence of undernourishment	There is an established methodology that has been tested and international standard present for this indicator.	Data are available for 116 countries. No data are available for developed countries.
Tier 2	8.3 Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services	8.3.1 Proportion of informal employment in non agriculture employment, by sex	There is an established methodology that has been tested and there is an international standard present.	Data are available for 35 countries.
Tier 3	9.1 Develop quality, reliable, sustainable and resilient infrastructure, including regional and trans-border infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all	9.1.1 Proportion of the rural population who live within 2 km of an all-season road	There is a suggested methodology but it has not been tested. No international standard but ongoing work towards the development of one.	Data are available for 8 countries through a piloted data collection instrument.

In addition to gaps in country coverage, the tier classification sheds light on the unequal distribution of data availability across the 17 goals. While 15 of the 26 indicators under Goal 3 on health are classified as Tier I, no indicators under Goals 13 on climate change are classified as tier I. Even more troubling, four of the seven indicators for Goal 13 are classified as tier III with no information on data coverage. While many of the indicators have been assigned custodians from international agencies, several indicators lack a responsible agency – mostly under Goal 16: Peace, justice, and strong institutions.

ANNEX II: NSDS DATA FROM IBRD COUNTRIES

This annex summarizes the domestic and international resources for statistics reported by IBRD countries. When currencies have been converted, exchange rates for January 1 of the budget year are used.

Bosnia and Herzegovina
According to the Bosnia and Herzegovina Agency for Statistics' Annual Report for 2015, the total NSO budget was 7,179,895 KM ($4.5 million). Of that total budget, 5,656,949 KM ($3.5 million), or 79 percent of the budget, is received from domestic sources. The remaining, 1,523,855 KM ($0.95 million), or 21 percent of the total budget, is received from donors. According to data from Partner Report on Support to Statistics (PRESS), Bosnia received $30,000 in 2015 and $354,433 in 2014 for statistical aid.

Botswana
According to Botswana Strategy for the Development of Statistics 2015-2020, the total budget for implementing the NSDS is estimated to be 187 million pula ($19.4 million), with the Botswanan government as the main contributor, followed by donors.

Statistics Botswana's Annual Report 2014/2015 indicates that its budget was 70,061,866 pula ($7.25 million) in 2015 and 45,326,915 pula ($5.1) in 2014. According to PRESS data, Botswana received $54,684 for statistical aid in 2014.

Bulgaria
Bulgaria's Strategy for Development of the National Statistical System of the Republic of Bulgaria for years 2013-2017 sets the necessary funds from government sources to be 9.6 million leva ($6.5 million).

Additionally, according to the Law on State Budget of the Republic of Bulgaria for 2016, the total budget of the 2016 National Statistical Institute budget is 19,152,100 lev ($10.6 million). Government funding is 18,052,100 leva ($10 million), or 94.3 percent of the budget, and donor sources of 1,100,000 leva ($0.6 million), or 5.7 percent of the budget.

Georgia

According to the National Strategy for the Development of Statistics in Georgia 2011-2014, the overall cost of implementing the NSDS as set out in this document is estimated at 39.7 million lari ($22.4 million) in total over the four-year period 2011 to 2014. Within the estimated costs, the total government and external sources amount to 30.3 million lari ($17.1 million), with a financial gap of 9.4 million lari ($5.3 million). Based on estimates from Table 7.2, $24.5 million lari ($13.8 million), or 80.9 percent of the NSDS budget, is from domestic sources, and 5.8 million lari ($3.3 million), or 19.1 percent of the NSDS budget, is from donors.

According to PRESS data, Georgia received $3,027,593 in 2011, $2,211,682 in 2012, $4,545,994 in 2013, and $152,019 in 2014.

Guatemala

Table 3.5 of Guatemala's Plan Estratégico Institucional 2013-2017 provides the annual costs projected for planned statistical program during the NSDS implementation years. The total cost for implementing the NSDS amounts to 606,622,568.47 quetzales ($75.3 million). According to PRESS data, Guatemala received $216,009 in 2013 and $2,110,238 in 2014.

South Africa

The Statistics South Africa Strategic Plan 2015/2016 – 2019/2020 estimates medium-term expenditure for 2015/2016 of 791.5 million rand ($68.4 million). According to the PRESS data, South Africa received $282,676 in 2014 for statistical aid.

Swaziland

According to the National Strategy for the Development of Statistics in Swaziland for years 2011 to 2016, the estimated cost to implement the NSDS is E364 million ($54 million), or E73 million ($10.8 million) annually. The assumed government funding is E280 million ($41.5 million), or 76.9 percent, with the remaining E84.4 million ($12.5 million), or 23.1 percent, of the funds to be provided by donors.

Additionally, according to PRESS data, Swaziland received $1,937,332 in 2011, $813,008 in 2012, $10,893 in 2013, and $150,000 in 2014 for statistical aid.

Turkey

According to Turkey's Strategic Plan 2012-2016, the total cost for implementing the NSDS will be 1,088,750,350 lira ($574,978,000). In particular, the total cost for the 2014 implementation year was 213,285,000 lira ($112,638,000). PRESS data show that Turkey received $7,143,352 in 2014 as aid for statistics.

ANNEX III: AID FOR STATISTICS: FINANCING INSTRUMENTS

In 2015, Open Data Watch produced "Aid for Statistics: An Inventory of Financial Instruments". This document drew on a survey sent to multilateral donors asking them to describe the financing mechanisms used to provide support for aid for statistics. The report produced a typology of the mechanisms used to finance aid for statistics.

As background for this report, Open Data Watch, with the assistance of Development Initiatives, has sent requests to donors for updates to the information they reported in previous years. In 2015, 10 organizations replied. In 2016, the survey was expanded to include more multilateral donors and private foundations. The data were checked to avoid double counting so contributions from a foundation to a multilateral trust fund were only counted once.

In 2016, the total estimated funds for statistics were $327.85 million. About $92 million of that total was from donors not included in the 2015 survey. The remaining $236 million was from donors for which data were available for 2015 and 2016. Among these donors, the total contribution was $264 million in 2015. This means that, among the donors for which we have data for both years, there was a 11 percent decrease in aid for statistics. Information from new donors added an additional $91.99 million. This accounts for a global total of $327.85 million.

The survey also categorized aid by several types of funding mechanism. Tables 1 and 2 provide a comparison of estimated annual value by host agencies and by financial instruments. There is a wide variety in the geographical and sectoral focus of the instruments. Some instruments provide global support, such as the World Bank Trust Fund for Statistical Capacity Building (TFSCB), while others provide regional support such as the AfDB funds. A number of instruments have a sectoral focus, such as the FAO's fund to support the implementation of the Global Strategy to improve Agricultural and Rural Statistics.

TABLE 1:
2015 AND 2016 COMPARISON OF ESTIMATED ANNUAL VALUE BY HOST AGENCIES

Host Agency/Donor	2015 $millions	2016 $millions
AfDB	$20.00	$20.00
EC	$63.20	$100.00
FAO	$10.00	$10.00
IDB	$49.00	$25.00
IDRC	$2.50	$2.50
IMF	$26.05	$15.20
IsDB	$1.00	$1.00
UNECE	$1.50	$1.50
UNSD	$3.60	$6.50
WB	$87.35	$54.16
Subtotal	**$264.20**	**$235.86**
ADB		$3.80
GODAN		$6.50
UNESCAP		$1.00
UNFPA		$63.00
UNIDO		$1.49
BMGF		$13.20
Hewlett		$3.00
Total	**$264.20**	**$327.85**

TABLE 2

2016 ESTIMATED ANNUAL VALUE BY FINANCIAL INSTRUMENT TYPE

Mechanism	2016 $millions
Multilateral lending – country focus	$27.50
Bilateral grant with country, regional or thematic focus	$108.80
Bilateral, multilateral, or organizational support in form of TA	$18.50
Multi-Donor Trust Fund (MDTF) country executed	$96.50
MDTF-host agency executed	$54.14
MDTF – host agency or partner executed	$3.48
Special development grants	$18.93
Total	**$327.85**

Compared to the 2015 data, there has been a significant decrease in the funding through loans, from $89 million in 2015 to $27.5 million in 2016.

Distribution by type of instrument and size: The value of the instruments covered in this survey also varies greatly. Fifty-one instruments have been included: twenty-four instruments fall into the small category (< $10 million); fifteen fall into the medium category ($10-$50 million); and twelve are noted as large (> $50 million).

The financial instruments in this survey contribute an estimated $328 million per year to fund aid for statistics. Figure 1 illustrates the distribution of these funds. Approximately 86 percent ($282 million) goes to instruments for financing technical cooperation or other grant-based trust funds. Six percent ($19 million) goes to provide technical assistance. The remaining eight percent ($27.5 million) is disbursed as loans.

It should be noted that the instruments covered do not include bilateral donors' direct support to countries. Figure 2 shows fluctuations in aid for statistics commitments per year for the past five years according to the 2016 PRESS Report (PARIS21 2016). The report estimates that donors committed $470 million dollars to statistical capacity building projects in 2014. This suggests that approximately $135 million dollars was contributed by mechanisms outside of this study, including multilateral and bilateral donors that did not report.

FIGURE 4:
ANNUAL AID BY FINANCING MECHANISM - $MILLIONS

$28
$19
$282

Loans
Technical Assistance
Trust Fund & Tech Corporation
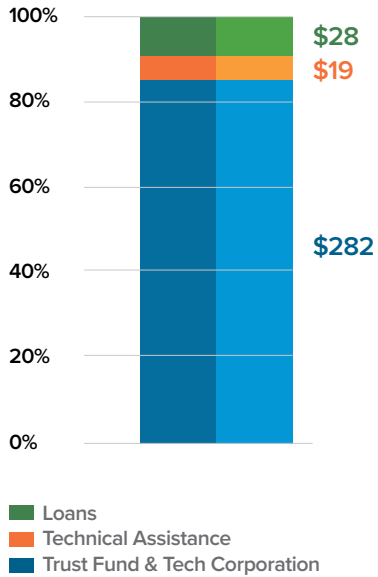
FIGURE 5:
ANNUAL TOTAL COMMITMENTS TO AID FOR STATISTICS - $MILLIONS
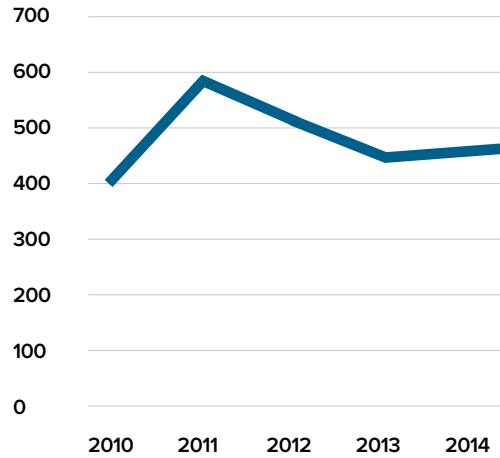
Source: PRESS Report 2016

Alignment of aid for statistics instruments with international guidelines: Financial instruments should be designed to adhere to general guidelines for aid effectiveness, such as the Paris Declaration on Aid Effectiveness and the Accra Agenda for Action. Multi-donor trust funds have the potential to increase harmonization and decrease donor fragmentation--central issues addressed in both international guidelines. Financial mechanisms should also be designed to improve aid predictability, which remains a major challenge for aid for statistics. The Paris Declaration and the Accra Agenda call for donors to disclose their plans for donations over a three to five-year window. This period would provide the necessary time for the development of effective trust funds. Ideally, donors would provide information about their plans for trust funds over a fifteen-year period, corresponding with the duration of the Sustainable Development Goals.

ANNEX IV: FINANCING STATISTICS IN UGANDA

In Uganda, domestic resources have played a significant role in supporting the national statistical system, and international resources could effectively complement local efforts if used correctly. The Ugandan Bureau of Statistics' (UBOS) latest Plan for National Statistical Development (PNSD) budgeted US$72 million for the national statistical system in 2014 for data collection, staffing, training, and other organizational costs. The plan calls for most of the funding to come from the central government, supplemented with international funding and other internally generated revenue (such as. fees and consultancy).[4] This box highlights the actual resources flows, their sources, and challenges to supporting the PNSD.

Current picture of resource flows
As shown in figure 1, the central government funds core statistical activities and wider statistical functions within planning, monitoring and evaluation[5]. While domestic public funding for wider statistical functions has remained consistent since 2010 in real terms, recurrent costs (wages, goods and services) for core statistical function have declined. The increased levels of funding from 2014 to 2015 by the government was a result of development costs for the population and housing census, with funding levels seeing dramatic reduction in 2016 due to its completion.

FIGURE 6:
DOMESTIC PUBLIC RESOURCES ARE THE MAJOR RESOURCE FOR STATISTICAL CAPACITY DEVELOPMENT
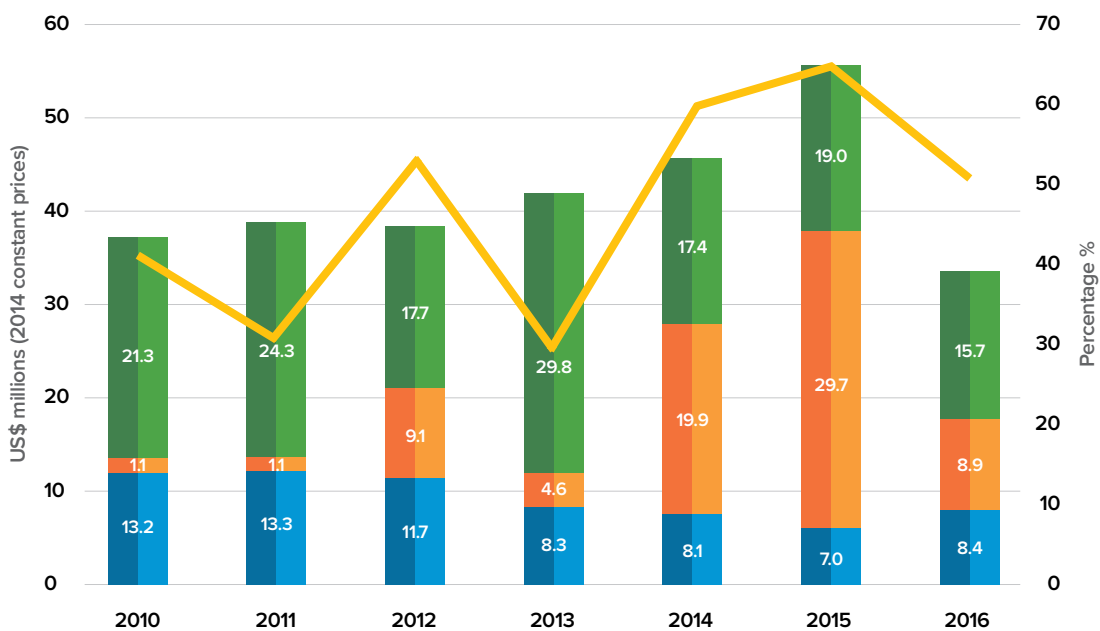
Source: Uganda's central government budgets 2009/10 to 2015/16[6]

Notes: Domestic public funding refers to support through central government revenue, excluding external financing. Figures refer to commitments, rather than actual disbursements. Calendar year refers to the year end of the financial year.

Uganda also receives international funding to support statistical activities in the national statistical system through UBOS and other government agencies[7], although much smaller in comparison to domestic public resources. Figure 2 for example highlights the level of donor funding for statistical capacity building, with support highest in 2011 at US$8.6m, which equates to 18.1% of overall funding to statistical capacity when combined with government allocations.

FIGURE 7:
DONOR FUNDING FOR STATISTICAL CAPACITY BUILDING IN UGANDA
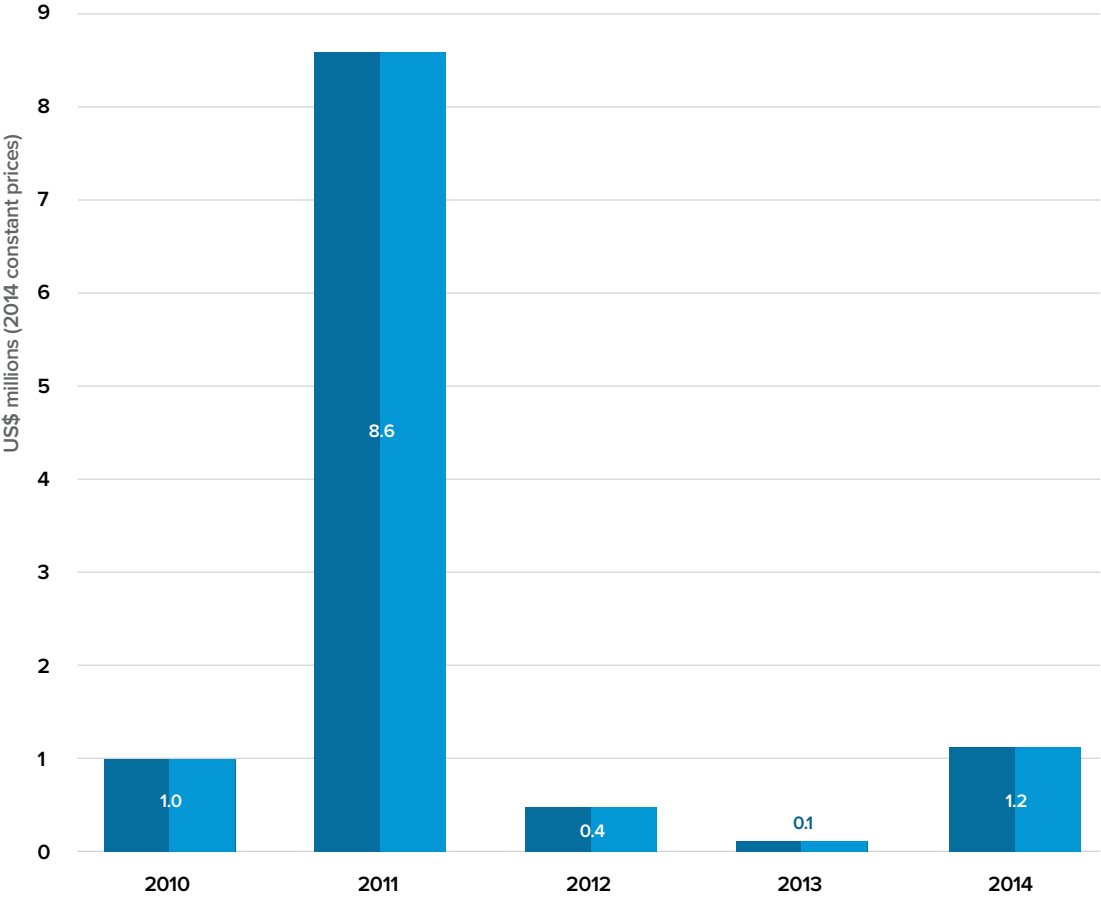
Source: OECD DAC, CRS database

Notes: Defined as total funding under CRS code 16062 'statistical capacity building' and not wider statistical funding, such as DHS surveys. Figures refer to commitments, rather than actual disbursements.

UBOS also generates a very small amount of revenue through provision of statistical consultancy services to other government agencies, private sector and any other partners.[8] This supplements government transfers and any donor grants. In the FY 2014 revenue raised through this means totaled only US$7,000[9]. One reason stated for this low level is the lack of incentives, given as revenue raised goes back to the treasury, rather than directly used by UBOS[10].

The level of funding for statistics is far lower than that set out within the current PNSD. In 2014, 2015, and 2016 funding levels have been less than required by 37.4 percent, 12.4 percent, and 46.4 percent respectively. Late disbursement of funds has also led to delays in activities outlined in the PNSD and to staffing challenges[11].

There are many opportunities for international organizations to provide support in agreement with Uganda's established plans. In particular, domestic and international funding could be particularly useful in supporting key innovations such as Uganda's community information system.

ENDNOTES

PAGE 9

1. See, for example:
IISD Reporting Services, *Sustainable Development Policy and Practice*, "SDSN Launches Report on Data Needs in Developing Countries," 17 April 2015. http://sd.iisd.org/news/sdsn-launches-report-on-data-needs-in-developing-countries

International Center for Climate Governance, *Climate Policy Observer*, "Data for Development: A Needs Assessment for SDG Monitoring and Statistical Capacity Development," April 2015. http://climateobserver.org/reports/data-for-development-a-needs-assessment-for-sdg-monitoring-and-statistical-capacity-development/

Jeffrey Sachs, *Project Syndicate*, "Data for Development," 6 May 2015. https://www.project-syndicate.org/commentary/sustainable-development-data-by-jeffrey-d-sachs-2015-05

PAGE 19

2. The Data4SDGs Toolbox can be accessed at http://www.data4sdgs.org/toolbox/

PAGE 32

3. To categorize the indicators, the IAEG-SDG and Secretariat invited international agencies and organizations to provide information on the state of methodological development of the indicator, data availability, and the existence of an international standard. During this consultation process, over 380 responses were received from organizations. The draft tier information sheet can be found at http://unstats.un.org/sdgs/files/meetings/iaeg-sdgs-meeting-03/Provisional-Proposed-Tiers-for-SDG-Indicators-24-03-16.pdf. A revised version dated 25 April 2016 has been circulated but is not available online.). A fourth meeting of the IAEG-SDG will be held in Addis Ababa, Ethiopia from October 18th to 21st 2016 to finalize this initial tier system for the indicators and review work plans for Tier III indicators.

PAGE 37

4. UBOS. (2014). Plan for national Statistical Development 2013/14 to 2017/18
5. These have extensive data collection and analytical components within them, although resources listed under this will be an overestimate of allocations, as it is not possible to disaggregate this function further.
6. Other statistical functions funding is budgeted as money for planning, monitoring and evaluation, which activities involve data collection, analysis and dissemination in government ministries, departments and agencies. It does not include funding for local governments

PAGE 38

7. Such as the office of the prime minister

PAGE 39

8. http://www.ubos.org/services/
9. http://www.ubos.org/onlinefiles/uploads/ubos/annual_reports/2013-14%20UBOS%20ANNUAL%20REPORT.pdf
10. http://unstats.un.org/unsd/environment/envpdf/unsd_EAC_Workshop/Session%202d_Uganda%20Present%20state%20of%20environment%20statistics%20in%20Uganda.pdf
11. http://www.ubos.org/onlinefiles/uploads/ubos/annual_reports/2013-14%20UBOS%20ANNUAL%20REPORT.pdf

REFERENCES

Burgess, S., D. Wilson and J. Worth. 2013. "A natural experiment in school accountability: The impact of school performance information on pupil progress." Journal of Public Economics. 106, 57-67.

Burgess et. al. 2010. "A natural experiment in school accountability: the impact of school performance information on pupil progress and sorting. The Centre for Market and Public Organization. University of Bristol. Working paper 10/246. http://www.bristol.ac.uk/media-library/sites/cmpo/migrated/documents/wp246.pdf

Food and Agriculture Organization (FAO). 2010. Global strategy to improve agricultural and rural statistics. http://www.fao.org/docrep/015/am082e/am082e00.pdf

Hanushek, E. and L. Woessmann. 2012. "Do better schools lead to more growth? Cognitive skills, economic outcomes, and causation." Journal of Economic Growth 17, 267-321.

Independent Expert Advisory Group (IEAG). 2014. A World That Counts: Mobilising The Data Revolution for Sustainable Development. . http://www.undatarevolution.org/wp-content/uploads/2014/11/A-World-That-Counts.pdf

International Monetary Fund. 2016. World Economic Outlook Update. July 2016. http://www.imf.org/external/pubs/ft/weo/2016/update/02/

Jerven, Morten. 2014. Data for Development Assessment Paper. Copenhagen Consensus Center. http://www.copenhagenconsensus.com/sites/default/files/data_assessment_-_jerven.pdf

Office of National Statistics. (ONS) .2015. Regional Gross Value Added (Income Approach): December 2015. http://www.ons.gov.uk/economy/grossvalueaddedgva/bulletins/regionalgrossvalueaddedincomeapproach/latest

Open Data Watch (ODW). 2016. Aid for Statistics: An Inventory of Financial Instruments. http://opendatawatch.com/monitoring-reporting/aid-for-statistics/

Organisation of Economic Co-operation and Development (OECD). 2010. The High Cost of Low Educational Performance: The long-run economic impact of improving PISA outcomes. OECD, Paris. http://www.oecd.org/pisa/44417824.pdf

PARIS21. 2016. Partner Report on Support to Statistics. PARIS21 Secretariat, Paris. http://www.paris21.org/PRESS2016

Sandefur, Justin. 2016. Views from the Center. "Can We Measure Poverty from Outer Space?" Center for Global Development. http://www.cgdev.org/blog/can-we-measure-poverty-outer-space

Sustainable Development Solutions Network (SDSN). 2015a. Data for Development: A Needs Assessment for SDG Monitoring and Statistical Capacity Development. http://unsdsn.org/resources/publications/a-needs-assessment-for-sdg-monitoring-and-statistical-capacity-development/

————— 2015b. Indicators and a Monitoring Framework for the Sustainable Development Goals: Launching a Data Revolution for the SDGs. http://unsdsn.org/resources/publications/indicators/

United Nations. 2013a. Lessons Learned from MDG Monitoring from a Statistical Perspective. Report of the Task Team on Lessons Learned from MDG Monitoring of the IAEG-MDG. http://unstats.un.org/unsd/broaderprogress/pdf/Lesson%20Learned%20from%20MDG%20Monitoring_2013-03-22%20(IAEG).pdf

————— 2013b. A New Global Partnership: Eradicate Poverty and Transform Economies Through Sustainable Development. The Report of the High-Level Panel of Eminent Persons on the Post-2015 Development Agenda. https://sustainabledevelopment.un.org/content/documents/8932013-05%20-%20HLP%20Report%20-%20A%20New%20Global%20Partnership.pdf

World Bank. 2004. Better Data for Better Results: An Action Plan for Improving Development Statistics. http://siteresources.worldbank.org/SCBEXTERNAL/Resources/MarrakechActionPlanforStatistics.pdf?resourceurlname=MarrakechActionPlanforStatistics.pdf

————— 2016a. Global Economic Prospects: Divergences and Risks. http://www.worldbank.org/en/publication/global-economic-prospects

————— 2016b. Statistics for Results Facility Catalytic Fund. http://www.worldbank.org/en/data/statistical-capacity-building/statistics-for-results-facility-catalytic-fund