Post-2015 Data Test
country level experiences

Implementing Agenda 2030
Unpacking the Data Revolution at Country Level

Shannon Kindornay, Debapriya Bhattacharya and *Kate Higgins*

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CENTRE FOR POLICY DIALOGUE (CPD)
B A N G L A D E S H
a civil society think tank

NPSIA
The Norman Paterson School
of International Affairs

Southern Voice
2015 On Post-MDG International Development Goals

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Cover and graphic design
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FOREWORD

The High-Level Panel of Eminent Persons on the Post-2015 Development Agenda (HLP) called for a "data revolution" in its final report in May 2013. I had the privilege of holding the pen for that report, and in that capacity I talked to literally thousands of people. Many reacted with amusement to the idea of a data revolution. Was this a call for "statisticians of the world to unite?" Surely development data, the dry numbers coming out of statistical offices, could not mobilise the energy, enthusiasm, and indeed the passion, that a revolution needs.

In point of fact, there is enormous excitement around development data. There's a tangible sense that better data will allow for far more rapid progress on development outcomes, the kind of departure from business-as-usual that is needed to meet the Sustainable Development Goals (SDGs). To take just one example, Agenda 2030 issued a call to leave no one behind. But most of the data used for monitoring the Millennium Development Goals (MDGs) could not be disaggregated by gender, geography, income, disability, or other categories. Several countries were deemed to have met the goals even though inequality was rapidly increasing and sizeable parts of the population were not benefiting.

This is no longer acceptable. Policy-makers and civil society organisations want to know what is going on in their countries, and around the world, in much more detail, and in a much more timely fashion, so that data becomes actionable. Development data cannot be a historical record of what happened in the past. It must be a current review of what is happening now and must inform the follow-up of what needs to change.

This means that the quality of data has to improve. Until now, there was no systematic assessment of data quality. Plenty of anecdotes bemoaned the poor quality of data in developing countries, in particular, and capacity development programmes to improve both quality and quantity have been carried out. But there are no universally agreed-upon standards for acceptable quality, nor efforts to identify and prioritise countries where data gaps are most problematic.

This is the substantive contribution of this volume. It gives prominence to the issue of data quality and, through a set of case studies, tests out a methodology to assess, in a comparative way, how well countries are doing in providing the kind of data needed to review and follow up on their commitments toward selected goals and targets. Importantly, this assessment is done by people in their own countries. The voice of the South comes through loud and clear.

The emphasis in this volume is on what national statistical offices (NSOs) have to do and how others can help. In a world where the fashion is to talk about "big data," this is a welcome reminder that the main providers of development data will likely continue to be national government offices, despite all the bureaucratic and financial obstacles that they face. But NSOs need not be left on their own. They can be helped enormously by better use of technology and partnerships.

Technology is dramatically changing the way in which data can be collected and the speed with which it can be made available. Prices can be tracked and verified through mobile-empowered enumerators, geospatial data can identify physical objects at an increasingly local level, and crowd-sourced mapping can build community datasets.

Partnerships will help diversify the sources of data, and will provide the catalyst for transforming data into action. Data becomes more actionable when it is timely, personal and understandable. Governments mostly don't do a good job in any of these areas. But with the right partners, especially at the community level, data can be refined and simplified to make them useful for informing policy.

The ambition of the SDGs is to be the largest collective effort in history to improve the lives of billions of people by setting quantitative goals and targets to drive evidence-based policy-making. The whole endeavour depends on improving the quality of data. Towards this end, nothing short of a data revolution will do. This volume takes one large step forward to make sure this happens.

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Kate Higgins is an Adjunct Research Professor at the Norman Paterson School of International Affairs (NPSIA) at Carleton University, Ottawa. She also works for CIVICUS – the World Alliance for Citizen Participation, where she leads work on data, accountability and sustainable development. She previously led the Governance for Equitable Growth team at the North-South Institute in Ottawa, and was a Research Fellow with the Growth, Poverty and Inequality programme at the Overseas Development Institute in London. She has worked and published extensively on the post-2015 sustainable development agenda, Millennium Development Goals, inclusive growth and chronic poverty, has provided policy and programming advice to a range of multilateral and bilateral development agencies, and has extensive experience of working with think tanks, NGOs and communities across the Global South. Kate has degrees in international development and economics from University of Oxford and the University of Sydney.

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PREFACE

The Post-2015 Data Test was conceived in May 2013, just as the High-Level Panel on the Post-2015 Development Agenda released their report. At that point, September 2015, the time when the next set of global development goals were set to be agreed by world leaders, seemed a long way off. But some things were clear. First, this was going to be a universal agenda, applying to all countries, not just those in the "developing" world. Second, it was going to be a broader and bigger agenda, with a heightened focus on data. Indeed, a "data revolution" had been called for to ensure we have the information needed to measure and drive progress against the new set of global goals. Third, the agenda was expected to be more "inclusive", leading to more demand for disaggregated data on marginal groups and communities. Fourth, for the goals to make a real and sustained difference, they had to be embedded at the country level in national priorities, policies and processes. And finally, discussions on what the next set of global development goals should be should provide adequate space and opportunities for the process to be informed by experts and think tanks from the South.

Over the past two years, teams of researchers in seven countries have been carrying out the Post-2015 Data Test. Specifically, they have been applying a set of new global sustainable development goals in their countries, identifying the priorities and accompanying indicators that make sense in their particular country contexts, and examining, in considerable depth, the availability and quality of data for tracking those. Beyond this research and analytical work, they have been fostering discussion and debate with a wide range of stakeholders at the national level on what their country's sustainable development priorities should be and what their country's data challenges are. Critically, they have been bringing these country-level findings to global and regional fora to ensure these processes are informed by the realities faced on the ground.

With Agenda 2030 and the seventeen new Sustainable Development Goals (SDGs) now agreed, and the "data revolution" and the Global Partnership for Sustainable Development Data well on their way, we hope the results of the Post-2015 Data Test, synthesised in this report, can inform how this global agenda interacts with country-level realities, and provide clear guidance on where and how investments in the data revolution could be made. This report comes at an opportune moment when a wide range of countries are getting involved in data mapping as they mainstream SDGs in their national plans and policies.

We also hope that this initiative has demonstrated the possibilities and advantages of providing more space to Southern voices in leading and shaping global conversations, and the value of bringing these national-level experts into the arena of global policymaking. The initiative also demonstrates a successful example of collaboration in global knowledge networks between think tanks in the South and the North.

We hope the experience of Post-2015 Data Test will inspire similar initiatives to contribute to strengthening the legitimacy and accountability, and ultimately the delivery, of Agenda 2030.

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This report does not necessarily reflect the views or opinions of CPD, or NPSIA, Carleton University, or their respective Boards of Trustees or Governors, or anyone consulted throughout the research process.

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ACRONYMS AND ABBREVIATIONS

CPD	Centre for Policy Dialogue
GPS	Global Positioning System
HIV/AIDS	human immunodeficiency virus/acquired immune deficiency syndrome
ICT	information and communications technology
IPAR	Initiative Prospective Agricole et Rurale
MDAs	ministries, departments and agencies
MDG	Millennium Development Goal
NPSIA	Norman Paterson School of International Affairs
NSDS	National Strategy for the Development of Statistics
NSS	national statistical system
NSO	national statistical office
OECD	Organisation for Economic Co-operation and Development
PARIS21	Partnership in Statistics for Development in the 21st Century
PASGR	Partnership for African Social and Governance Research
PPP	purchasing power parity
REPOA	Policy Research for Development
SDG	Sustainable Development Goal
UN	United Nations
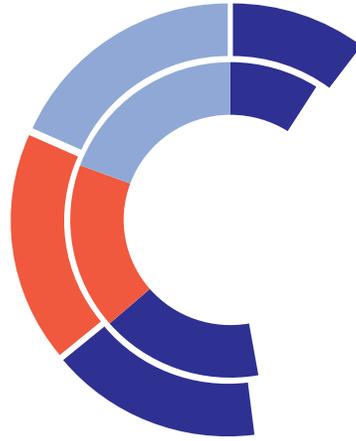
Report Highlights

REPORT HIGHLIGHTS

This report synthesises key findings from the Post-2015 Data Test. Drawing on country studies from seven low-, middle- and high-income countries, it identifies opportunities and challenges for effectively applying and measuring a universal, country-relevant Sustainable Development Goal (SDG) framework.

Specifically, the report:

- Unpacks how Agenda 2030 and the SDGs can be effectively and universally applied and measured across countries with different sustainable development challenges and priorities;
- Examines the availability and quality of data at the country level for measuring and driving progress on the SDGs; and
- Identifies implications for realising the data revolution for sustainable development.

REALISING AGENDA 2030 IN PRACTICE

Universality works. The universal, country-relevant SDG framework that comprises global goals and targets, but gives space and flexibility for country differentiation, can work. The SDGs resonate across countries with different sustainable development contexts.

National priorities matter. Allowing policy space to identify national priorities is critical to ensuring the utility of the SDG framework and robust adoption at the national level.

Keep the global relevant. The global monitoring framework should be characterised by a limited number of indicators monitored only in the countries for which they make sense. For example, high-income countries should not be asked to report on extreme poverty, as measured by proportion of population living on less than US$1.25 (purchasing power parity) per day, and low-income countries should not report on all aspects of global partnership.

Keep the global SDG structure light. Significant efforts to address sustainable development challenges are already underway at the country level. There is less need for a top-heavy global architecture to facilitate national efforts. Rather, the global architecture should enable the flow of resources and capacities to where they are needed, as well as provide an accountability framework through effective follow-up and review processes. Implementation and monitoring of the SDGs should be country-led, carried out by institutions in country.

Focus on national needs and less on international comparability. Ensuring that SDGs are country-relevant means allowing countries space to monitor SDG implementation according to national priorities and frameworks. While international comparability of some targets and indicators is desirable, there is no need to make all country-level SDG monitoring variables internationally comparable.

Getting to zero means substantial resourcing and prioritisation. Zero targets are not feasible for many low-income countries without dedicated and enhanced international financing for implementation and measurement. Realising zero targets should influence international development cooperation priorities from now until 2030.

Measure global partnership at the country level. The experience with the Millennium Development Goals (MDGs) showed that when everyone is responsible for global partnership, no one is held accountable. But it is possible to measure individual provider country contributions in different areas of international economic and development cooperation (for example, foreign aid, market access and technology transfer), and hold individual provider countries accountable for their contributions to global partnership.

Broaden the conversation on implementation. At the country level, there is a need to broaden the SDG conversation. As the world moves forward on implementing the SDGs, action must move from New York to national and provincial capitals, and from foreign ministries to central and line ministries, to make sure that the right stakeholders, including the private sector and other non-state actors, are engaged in SDG delivery and its assessment.

REALISING THE DATA REVOLUTION FOR SUSTAINABLE DEVELOPMENT

Invest in national priorities, systems and institutions. Efforts to support the data revolution at the country level should be grounded in national priorities and the establishment of statistical building blocks. This requires country leadership and coordination on resourcing to ensure that national statistical systems are supported with the necessary financial, human, technological and material resources.

Put national statistical offices in the leading role. National statistical offices (NSOs) should play the leading role in strengthening national statistical systems, including in identifying priorities, harnessing and improving the quality of administrative data, and coordinating with unofficial data producers to address data gaps. NSOs have to be endowed with effective autonomy to impartially discharge their duties.

Engage with data users to improve data relevance. In most countries, there are lack of policies and guidelines on how to regularly follow up with data users – both technical users and others – which can weaken the relevance of data being produced. In the short-term, periodic ad hoc user consultations may be a simple way to begin improving the relevance of data collected. Over the longer term, countries will need to develop policies and systems for user consultation.

Take stock of and harness existing data. Significant amounts of data, including administrative and unofficial data, to monitor progress on sustainable development exist, but are not used as effectively as possible. Identifying and using these data better are critical first steps in realising the data revolution at the country level. Assessments of existing data production should be encouraged before making investment decisions, such as launching new survey instruments.

Fill new data gaps. With the new goals, new data gaps are considerable. Data are more readily available to monitor the goals on poverty, education and employment. Those related to energy and infrastructure, environment and disaster resilience, governance and global partnership face greater data gaps. Existing data gaps should not lead to the exclusion of important sustainable development priorities in global- and national-level monitoring frameworks. Indeed, the inclusion of new priorities for which data gaps exist reflects their importance as part of the new agenda for sustainable development, and can and should drive resourcing and efforts.

Invest in disaggregated data. Investments in disaggregated data are critical for ensuring that "no one is left behind." Governments have different incentives to ensure that disaggregated data exist and, as such, different strategies and tools will be needed depending on local context.

Invest in national priorities, systems and institutions
Put national statistical offices in the leading role Engage with data users to improve data relevance Take stock of and harness existing data Fill new data gaps Invest in disaggregated data Collect data more often and with consistency Ensure predictable financing Support global partnership for the data revolution at the country level

Collect data more often and with consistency. The frequency of data collection on economic and social welfare using major statistical instruments is insufficient in low-income countries. Concepts and methodologies lack consistency across instruments, hindering the comparability of data sources.

Ensure predictable financing. Efforts to strengthen statistical capacities in the past have been undermined by a lack of predictability in government and external partner funding. Predictable flows of finance from both domestic and foreign sources have to be ensured in order to administer a critical set of statistical instruments at frequent intervals (for instance, national household surveys). Resources should be committed according to national plans over the long term.

Unofficial data should be harnessed, but they are not substitutes for official statistics. Unofficial data sources should be harnessed to fill data gaps, complement official data sources and ensure more regular reporting on important indicators. But investments in unofficial data to support SDG monitoring should not come at the expense of strengthening official data collection.

Adopt appropriate technologies suited to country context. The integration of new technologies should be understood within the context of existing physical and information and communications technology (ICT) infrastructure constraints at the country level.

Support global partnership for the data revolution at the country level. The strengthening of country-level data collection efforts in the context of SDG implementation has to be substantively complemented by global partnership initiatives on, *inter alia*, financial resource flows, standardisation of definitions, quality assessment mechanisms, introduction of new approaches and technological tools, and integration of unofficial data in national statistical systems.
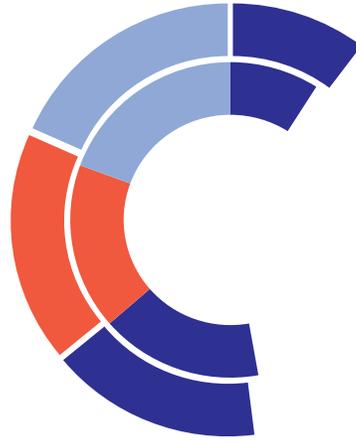
Country Profiles

COUNTRY PROFILES

Two-page snapshots of findings for each country involved in the Post-2015 Data Test are presented in this section. These country profiles are meant to provide brief overviews, and thus do not cover the full range of key findings and recommendations in the country studies. Country studies and report highlights are available at www.post2015datatest.com.

UNDERSTANDING THE COUNTRY PROFILES

The first page of each country profile provides an overview of the country's Sustainable Development Goal (SDG) priorities, including the key challenge that the country will likely face in terms of SDG implementation. This is followed by a list of national priorities identified through the country study according to each of the seven goal areas examined under the Post-2015 Data Test initiative. The seven goal areas, which were determined well in advance of the finalisation of Agenda 2030, capture elements of 14 of the 17 SDGs.

The second page provides an overview of the national statistical system, data availability and quality by goal area and an overview of the political economy dimensions of the data revolution in the country, including challenges associated with the generation of disaggregated data.

The bar chart illustrates data availability in the country for the 45 indicators that all countries examined under the initiative. Data were considered available if an indicator was already available or could be calculated using existing data. Though research teams identified potential survey instruments with which new data could be collected, data were considered unavailable in all cases where no data, including microdata, currently exist.

With respect to the data quality assessment, research teams applied a standardised quality assessment framework to examine data adequacy for each goal area (see Annex 4). The assessment criteria were: relevance, accuracy and reliability, timeliness and punctuality, accessibility and clarity, and coherence and comparability. Research teams examined the quality of available data for global targets and indicators under each goal area against the five criteria. Essentially, a basket of survey instruments was examined and an overall score for each goal area was provided. The scores represent the totals for each criterion on a scale from 1 to 5. A score of 5 indicates that data for the goal area meet all criteria sub-components, 3 indicates that the data meet more than half of the criteria sub-components, while 1 means that no data meet the criteria. A 4 denotes a situation where the majority of sub-components are met. A 2 represents instances when less than half of the sub-components are met.

Finally, the country studies under the Post-2015 Data Test were not designed to be comparable. Rather, they were designed as case studies meant to shed light on key challenges at the country level with respect to SDG prioritisation, implementation and monitoring. While the use of the same methodology by all teams facilitates some comparison across studies, it should be recognised that the studies are not strictly comparable.

COUNTRY PROFILE: BANGLADESH

The SDG Context

Bangladesh has performed remarkably well in attaining many of the Millennium Development Goals (MDGs), particularly in the areas of poverty reduction, gender parity in education, reducing maternal and child mortality and combating HIV/AIDS and other major diseases. With regard to the SDGs, Bangladesh will need to address many ongoing challenges. These include addressing the growing income disparity, persistent undernourishment of mothers and children, difficulties in attaining safe and unadulterated food for all, high drop-out rates in secondary education, inadequate access to modern energy and infrastructure, and weakening rule of law and personal safety.

As Bangladesh moves forward on implementing the SDGs, dedicated efforts and resources will be needed to reach the zero targets agreed to in Agenda 2030. A dedicated SDG monitoring committee may be established. It would likely include representatives from the Government of Bangladesh, the private sector, civil society, local government and development partners, and initiate multi-stakeholder consultations for selecting national priorities while ensuring intra-ministerial coordination and accountability for delivering the SDGs in Bangladesh.

National Priorities for the SDGs

Reduce overall poverty | Reduce hunger by increasing caloric consumption | Ensure food security | Increase nutritional status of mothers and children | Ensure social protection

Ensure quality education for all | Improve secondary school completion rates | Increase student-teacher ratio | Integrate research, innovation and training

Achieve full and productive employment for all | Ensure equal pay for equal work | Support inclusive growth and reduce inequality | Eradicate child labour | Increase workplace safety | Increase youth employment | Increase female and overall labour force participation

Improve energy access and consumption | Increase access to energy-efficient transport, such as railways

Build disaster resilience and reduce deaths from natural hazards | Safeguard ecosystems and biodiversity | Increase fish stocks | Decrease pollution | Ensure access to drinking water and safe sanitation

Increase civic engagement | Ensure right to information for all | Improve transparancy and accountability of public institutions | Improve capacity of law enforcement agencies

Increase trade facilitation | Decrease illicit financial flows | Increase financing of productive capacity in low- and middle-income countries

National Statistical System

The Bangladesh Bureau of Statistics produces most of the country's data on development progress. These data originate from three national censuses, five regular surveys, several ad hoc surveys and administrative records.

Bangladesh has seen gradual improvements in data production, dissemination and use with regard to development issues over the last 10 years. Though the quality of data for MDG indicators has improved significantly, Bangladesh will still need to undertake serious efforts to address emerging data demands for the SDGs, particularly in terms of improving the quality and frequency of data collection.

Data Availability

Data Quality Assessment by Goal Area

Goal area	Relevance	Accuracy and reliability	Timeliness and punctuality	Accessibility and clarity	Coherence and comparability
Poverty	4	4	4	4	4
Education	4	4	4	4	4
Employment and inclusive growth	4	4	4	4	4
Energy and infrastructure	2	2	2	2	2
Environment and disaster resilience	2	2	2	2	2
Governance	2	2	2	2	2
Global partnership	2	2	4	4	4

Political Economy of the Data Revolution

Bangladesh must make it a priority to improve the transparency and accountability of the national statistical system. The MDGs were constrained by inadequate data and information, which has made assessing progress difficult. Though certain efforts have sought to reform the statistical system in Bangladesh, they are inadequate to meet the growing demands for more and better data. Progress on data improvement activities has not been satisfactory because a number of actions planned as part of statistical capacity development strategies have not been implemented within the stipulated timeframe.

The global ambition towards a data revolution has begun to gain ground in Bangladesh. Relevant stakeholders are becoming increasingly aware of emerging data demands. Additional efforts will be needed to ensure that Bangladesh has adequate disaggregated data. Where available, data are disaggregated by age, sex and sub-region in many cases. Data disaggregated by ethnicity and income are poor. Issues related to the accessibility and affordability of data need to be addressed urgently. There is a need to promote the dissemination of data, including disaggregated and unit-level data, at minimum cost and in user-friendly forms.

COUNTRY PROFILE: CANADA

The SDG Context

The SDGs are relevant for Canada and align well with national priorities. Canada will need to take significant steps to improve the economic, social and environmental well-being of Aboriginal people in its adoption of the SDGs to ensure that benefits of progress are shared and meet the commitment to "leave no one behind." Improving the sustainable management of natural resources and addressing climate change will also be priorities.

Ongoing efforts in Canada provide a roadmap for SDG implementation and potential exists to harness existing policies and coordination mechanisms across federal, provincial and territorial, and municipal jurisdictions. Going forward, Canada can prepare for the SDGs by bringing together Canadian stakeholders, including sub-national governments, the private sector and civil society, to begin a national conversation on what Canada's SDG priorities should be and how they can be achieved.

National Priorities for the SDGs

Reduce overall poverty | Address poverty for Aboriginals, people with disabilities, female-headed households, recent immigrants and the homeless

Improve access to child care | Improve secondary school completion rates for Aboriginal people | Increase the number of young adults with problem-solving and critical-thinking skills | Increase the number of adults participating in lifelong learning

Promote decent work | Support inclusive growth and reduce income inequality | Ensure equal pay for equal work | Achieve full and productive employment for all including women, youth and Aboriginal people

Ensure access to safe, efficient and affordable transportation | Improve maintenance of public transport infrastructure | Ensure access to energy and improve efficiency and sustainability of energy supply, including renewable energy

Address climate change | Build resilience and reduce vulnerablity to natural hazards | Safeguard ecosystems and biodiversity | Improve air and water quality | Reduce per capita waste | Improve integration of biodiversity, ecosystem services and benefit sharing

End discrimination and address inequalities of Aboriginal people, people with disabilities, women and recent immigrants | Increase access to justice | Increase political participation | Reduce bribery and corruption

Address special needs of developing countries | Promote better statistics for development | Support climate change adaptation and mitigation | Strengthen domestic resource mobilisation in developing countries | Implement official development assistance commitments | Promote global citizenship

National Statistical System

Canada's highly centralised national statistical system is based on a sound legal framework with a relatively high degree of political autonomy. Statistics Canada serves as the national statistical office and collects data on nearly all aspects of Canadian life, though other government institutions also produce official data.

Canada is well placed to measure progress on the SDGs, with gaps existing largely for newer goal areas, namely energy and infrastructure and governance. The availability of good quality data is excellent. Statistics Canada's Quality Assurance Framework provides a set of management tools and mechanisms to ensure the interpretability, accuracy, timeliness, accessibility and coherence of data that are produced.

Data Availability
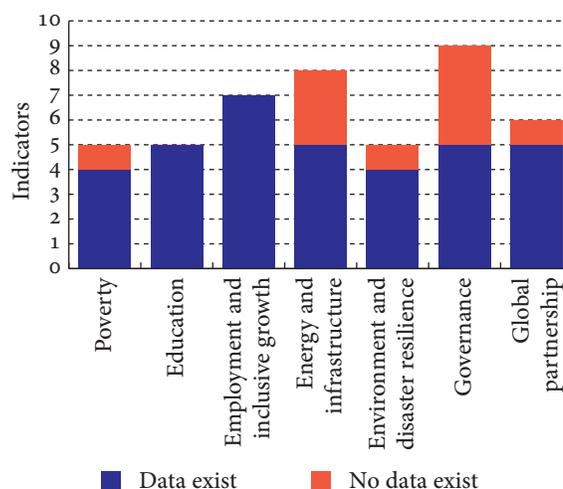
Legend: Data exist (blue), No data exist (red)

Data Quality Assessment by Goal Area

Goal area	Relevance	Accuracy and reliability	Timeliness and punctuality	Accessibility and clarity	Coherence and comparability
Poverty	4	4	5	5	5
Education	4	4	5	5	4
Employment and inclusive growth	3	4	5	5	5
Energy and infrastructure	3	4	4	4	4
Environment and disaster resilience	4	4	4	4	4
Governance	3	4	4	4	4
Global partnership	3	3	4	4	5

Political Economy of the Data Revolution

While Canada has an excellent statistical system, challenges exist. The government's commitment to good quality data has been questioned owing to budget cuts that have reduced the quality of data for affected programmes and led to insufficient human resources. Changes to data collection practices have also been a driver of data gaps. Nevertheless, data accessibility is excellent. Canada's adoption of open government principles has greatly improved the availability of officially produced data, particularly through Canada's Open Data Portal. A significant amount of Statistics Canada's data is also freely available online and through public use microdata files.

Canada has a high degree of disaggregation by location, language, sex, age, ethnicity and income. While Canada has comprehensive data on Aboriginal peoples from the National Household Survey, which is conducted every five years, other more frequent survey instruments do not capture data on this minority population.

An examination of the data availability-transparency-accountability nexus in the country shows that Canada's legal framework provides an appropriate basis for accountability. The Canadian media report on official data and independent research, and collectively serve as an important accountability mechanism. However, closing space for advocacy and dissent – particularly in the form of government funding cuts for research and public engagement activities – may undermine the ability of civil society to hold the government to account.

COUNTRY PROFILE: PERU

The SDG Context

The SDGs align well with Peru's national priorities. Key priorities that emerged following national consultations on the SDGs conducted by the United Nations system in Peru include gender equality, climate change, financial inclusion and industrial technical innovation for diversified production. Though poverty rates continue to fall, the probability of falling back into poverty will persist if inequalities based on gender, ethnicity and territorial factors remain. Going forward, Peru will need to focus on leaving no one behind.

An important challenge that Peru will face during SDG implementation is the lack of proactive, strong leadership within government institutions to build synergies for Agenda 2030. Due to past experiences, it has been generally difficult for all political parties to engage in long-term policy making.

National Priorities for the SDGs

Address caloric deficiency | Reduce child poverty | Reduce poverty rates for indigenous people and those living in rural areas

Ensure early childhood development | Improve access to education for children with disabilities | Provide intercultural bilingual eduction for indigenous children | Improve secondary school completion rates in rural areas | Provide quality education | Ensure safe and secure schools | Improve access to quality higher education

Promote decent work | Achieve full and productive employment for all, including youth | Ensure equal pay for equal work | Monitor and end discrimination and inequalities in economic life on the basis of social status

Ensure access to energy and improve efficiency and sustainablity | Improve maintenance of public transport infrastructure | Ensure access to safe, efficient and affordable mobility | Ensure full access to developed infrastructure and communication technology

Address climate change | Build resilience and reduce vulnerablity to natural hazards | Safeguard ecosystems and biodiversity | Improve air and water quality | Implement integrated solid waste management | Ensure environmental impact assessments of mining projects

Improve security and reduce violence, notably for women and children | Increase social reintegration for the prison population | Establish a strong state and fight corruption | Monitor and end discrimination and inequalities in economic life on the basis of social status | Improve relationships between the government, companies and communities | Promote rational, ordrely and sustainable occupation of national territory

After discussions with stakeholders, the research team decided not to propose national targets and indicators under this goal area because Peru is only an emerging South-South donor

National Statistical System

Peru has a trustworthy national statistical system that is generally prepared to measure progress on the SDGs. The National Institute of Statistics and Information Technology (INEI), which is Peru's national statistical office, and other government institutions produce relevant, accurate and timely data. The majority of databases can be accessed by the public.

The INEI provides quarterly and annual indicators, microdata archives and systems to cross-check variables in a user-friendly way. Also, every ministry and other government institution has a "statistics" section on its website. Data users do not have problems accessing existing data.

Data Availability
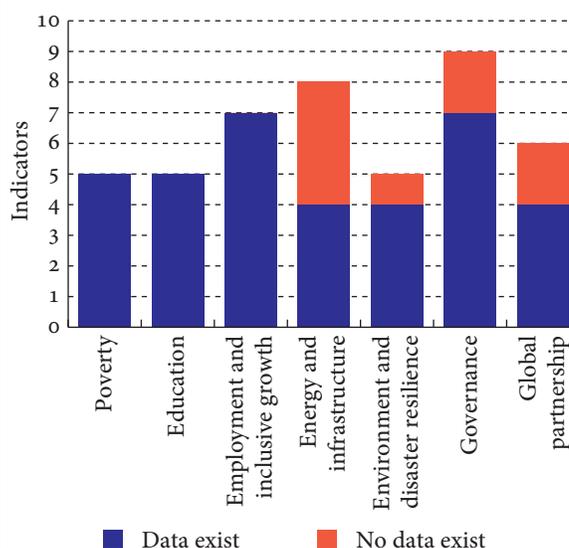
Data Quality Assessment by Goal Area

Goal area	Relevance	Accuracy and reliability	Timeliness and punctuality	Accessibility and clarity	Coherence and comparability
Poverty	5	4	3	4	4
Education	5	4	3	4	4
Employment and inclusive growth	5	5	3	3	3
Energy and infrastructure	3	4	2	2	4
Environment and disaster resilience	4	3	3	2	2
Governance	3	2	3	2	2
Global partnership	3	4	4	2	2

Political Economy of the Data Revolution

The SDGs bring with them two major challenges for the INEI. First, deficiency in the decentralisation process affects data producers and the poorest government institutions precariously use the provided statistical information. Second, due to changes in budgeting in recent years, the need for specialised information from all sectors has increased, but the law states that the sectors are not responsible for collecting data. For this reason, the INEI is responsible for managing too much data, conducting several surveys and serving many sectors.

In addition, the low level of data disaggregation is a challenge that needs to be overcome. Most of the indicators can be disaggregated by place of residence (urban and rural), region (political organisation) and age, but data disaggregation by sex (important for indicators regarding financial inclusion) and minority group (for example, Afro-Peruvians) is important and requires more efforts if no one is to be left behind during the post-2015 period.

COUNTRY PROFILE: SENEGAL

The SDG Context

Under the initiative of the United Nations Development Programme, Senegal was one of 50 countries selected to conduct national consultations on the post-2015 agenda in 2013. Stakeholders shared their visions for a post-2015 agenda that included eradicating poverty in all its forms and ensuring the protection of the environment and natural resources. Stakeholders also identified that Senegal's post-2015 priorities should include good quality education, a better health system, honest and responsible government, access to drinking water and sanitation, quality food at affordable prices, better employment opportunities, protection against crime and violence, and action on climate change. The agenda, they said, should take into account the values of equality, solidarity, tolerance, respect for the environment, transparency and responsibility sharing. Going forward, Senegal has a good basis for mapping out an SDG implementation plan based on the priorities identified through the consultation process.

National Priorities for the SDGs

End extreme income poverty | Increase social protection for all | Reduce food poverty and increase caloric intake | Reduce unemployment rates

Increase school enrolment of poor and marginalised segments of the population | Increase education expenditure to improve overall quality of education

Improve employment opportunities following university completion and training | Improve geographic mobility for employment

Increase number of paved roads | Implement modern lighting solutions | Increase access to electricity for all | Support mobile phone penetration

Increase efficient land use | Build resilience and reduce vulnerablity to natural hazards | Support and implement an environmental management plan | Reduce carbon dioxide emissions

Improve personal safety for all | Improve civil registration in conflict-affected areas

Strengthen and increase the resources aimed at building statistical capacity | Improve the contribution of remittances to local development | Create a regulatory framework for a sustainable environment

National Statistical System

Data availability in Senegal is considered to be relatively good. The national statistical system in Senegal is made up of the National Statistical Council, National Agency for Statistics and Demography, and various ministries and directorates. Institutional reforms completed 10 years ago within the statistical system led to improvements in statistical capacity and data availability and quality.

Data availability is excellent for the goal areas on poverty and education, because all of their global indicators can be measured and monitored with existing survey and administrative data. The goal areas on environment and governance will require additional work. Going forward, efforts to address accuracy and reliability as well as timeliness and punctuality are needed.

Data Availability

| Goal area | Data exist | No data exist |

Data Quality Assessment by Goal Area

Goal area	Relevance	Accuracy and reliability	Timeliness and punctuality	Accessibility and clarity	Coherence and comparability
Poverty	3	2	2	3	4
Education	3	2	3	4	4
Employment and inclusive growth	3	2	2	4	4
Energy and infrastructure	3	2	2	3	3
Environment and disaster resilience	2	2	2	3	2
Governance	3	2	3	3	3
Global partnership	4	2	3	3	3

Political Economy of the Data Revolution

Notwithstanding efforts to improve statistical capacity, insufficient human and financial resources constrain Senegal's national statistical system. Senior statisticians are likely to resign if they find jobs at international organisations, which tend to offer more competitive salaries with more interesting career opportunities. Ministries in particular face a lack of senior statisticians. Insufficient human resources are often intertwined with financial constraints.

Special attention should be given to human resources in Senegal's data strategy for the SDGs. A solution to improve data availability and quality could be to post in every ministry a statistician in-charge of the production of quality data, in addition to ensuring the coordination of sectoral statistical operations in collaboration with the National Agency for Statistics and Demography. In other words, the data strategy should ensure that ministries have qualified human resources with in-depth knowledge of statistical tools, while the National Agency for Statistics and Demography plays a key coordination role in streamlining ministries and centralising the management of human resources.

Finally, data disaggregation tends to be fairly good overall. Gaps exist in terms of disaggregating data to the local level, which will be an important area for improvement going forward, particularly in the context of Senegal's decentralisation process.

COUNTRY PROFILE: SIERRA LEONE

The SDG Context

Due to the civil war of 1991–2002, Sierra Leone delayed efforts on achieving the MDGs. The following decade saw periods of optimism about development as the government directed efforts to mainstreaming poverty reduction. However, monitoring was problematic due to capacity constraints and the insufficient availability of data. Nevertheless, the country saw improvements in maternal health, gender equality and education under the MDGs.

Looking forward, Sierra Leone has a number of key areas to address as part of its efforts on the SDGs. These include poverty reduction, youth employment and decent work, employability through skills development, disaster management and sustainable environmental practices. The government will need to allocate more resources to the implementation of strategies to reduce poverty and improve employment rates, specifically generating awareness about decent work and putting in place mechanisms to reduce youth unemployment. This approach will require the government to focus on education and skills development, which will play a key role in solving the long-standing issues of poverty, unemployment and gender inequality.

National Priorities for the SDGs

End extreme income poverty | Reduce proportion of people who suffer from hunger

Ensure all children have access to early childhood and quality primary and secondary education | Ensure the safety and security of schools | Increase student-teacher ratio | Decrease bullying in schools

Promote decent work | Support inclusive growth and reduce inequality | Achieve full and productive employment for women, youth and people with disabilities

Ensure access to safe, efficient and affordable transportation | Improve use of fuel in transportation | Ensure access to energy and improve efficiency and sustainability of energy supply | Increase access to electricity for all

Build resilience and reduce vulnerablity to natural hazards | Safeguard ecosystems and biodiversity | Improve air and water quality | Reduce solid waste in ecosystem | Improve benefit sharing with local and indigenous communities in regard to land use

Support and increase the number of women in management positions | Monitor and end discrimination and inequalities in access to justice and participation in political and economic life on the basis of social status | Improve justice for all and support right to education | Increase voter particiaption | Support prosecution of corruption

Address special needs of fragile populations | Improve statistical capacity | Address climate change | Improve domestic resource mobilisation | Decrease transboundary waste

National Statistical System

Sierra Leone faces significant political, institutional, policy and resource constraints to producing good quality data. The country's national statistical office, Statistics Sierra Leone, is not autonomous. Political interference has meant that each government has conducted data collection that serves as a quick-win, and can be easily funded by the government and development partners.

The data collection process itself will need to be refined to ensure gender sensitivity, increase the frequency of data collection, and shorten the time between data analysis and the dissemination of findings.

Though data gaps clearly exist, data quality is fairly good overall, largely owing to the significant role of international development institutions in statistical processes.

Data Availability
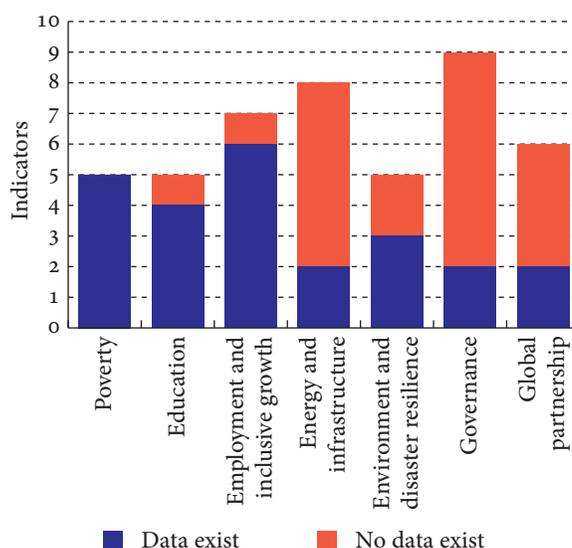
Legend: ■ Data exist ■ No data exist

Data Quality Assessment by Goal Area

Goal area	Relevance	Accuracy and reliability	Timeliness and punctuality	Accessibility and clarity	Coherence and comparability
Poverty	4	4	3	3	3
Education	4	3	3	2	2
Employment and inclusive growth	3	3	3	3	3
Energy and infrastructure	3	3	3	3	2
Environment and disaster resilience	4	3	3	3	3
Governance	3	3	3	3	3
Global partnership	3	3	4	4	3

Political Economy of the Data Revolution

Due to the numerous challenges facing the national statistical office, Sierra Leone is not in a good position to comprehensively measure progress on the SDGs. In particular, lack of autonomy and delays in the release of funds to carry out statistical activities have severely hindered Statistics Sierra Leone's operations. The government should legislate for all data collection to be coordinated and superintended by Statistics Sierra Leone, and for the attachment of statisticians to all ministries, departments and agencies who can act as liaison officers between their respective institutions and the national statistical office. This approach could lead to standardised data collection methodologies, quality assurance and better data comparability over time.

In relation to the SDGs, the government will need to prioritise the production of disaggregated data on employment and the country's main economic sectors, including agriculture, mining and infrastructure. Where data are disaggregated, they are typically available by sex, age and locality. The government will also need to focus on producing data related to emerging non-traditional labour market activities and environmental issues.

COUNTRY PROFILE: TANZANIA

The SDG Context

Unlike for the MDGs, the Tanzanian government has taken great interest in engaging the voices of the population on the subject of the SDGs through consultations with different stakeholders, including marginalised and vulnerable groups. The SDGs reflect current development debates in the country and complement the current Tanzania National Development Vision 2025, which aims to promote sustainable development, industrialisation, modern agriculture and environmental sustainability.

Going forward, Tanzania has a number of challenges to address in order to achieve the SDGs. The lack of financial and human resources is a major roadblock. There is a need to diversify sources of support, with strengthening local capacity to mobilise resources and exploring South-South cooperation being options.

National Priorities for the SDGs

Reduce overall poverty | Reduce hunger | Ensure food security and nutrition | Reduce income inequality

Ensure access to education and quality of secondary and vocational education | Improve access to teaching materials | Increase public expenditure on education | Improve secondary school enrolment | Improve access to eduation for children with disabilities

Ensure equal pay for equal work | Promote productive employment | Ensure social protection | Eradicate child labour

Promote clean and renewable energy | Improve access to electricity | Improve transportation infrastructure

Mainstream environmental sustainability through environmental assessments | Safeguard ecosystems, species and genetic biodiversity | Build resilience and reduce deaths from natural hazards | Publish and use economic, social and environmental accounts in all governments and large companies

Promote and ensure the protection of human rights | Improve access to justice | Ensure legal identity

Ensure financial stability | Ensure financial transparency and prevent illicit financial flows | Promote rule-based, non-discriminatory international trade

National Statistical System

The central institution in mainland Tanzania in the national statistical system is the National Bureau of Statistics, while in Zanzibar it is the Office of Chief Government Statistician. Other government institutions also contribute to data collection and analysis.

An important challenge in Tanzania is making the most of existing data collection processes. Various institutions produce data based on their functions in society, but data production is not harmonised in such a way that other institutions may utilise those data instead of repeating the collection of data. Harmonising datasets from various sources would likely solve the problem of data gaps and enable the comparative analysis of data collected by different sources. Harmonisation can be achieved by building the capacities of various data producers.

Data Availability

Data Quality Assessment by Goal Area

Goal area	Relevance	Accuracy and reliability	Timeliness and punctuality	Accessibility and clarity	Coherence and comparability
Poverty	4	4	2	4	4
Education	4	3	2	4	4
Employment and inclusive growth	4	4	2	4	4
Energy and infrastructure	4	4	2	4	4
Environment and disaster resilience	4	3	2	4	4
Governance	4	4	2	3	4
Global partnership	4	4	2	4	4

Political Economy of the Data Revolution

The key challenges in implementing and monitoring the SDGs are data availability and consistency. Political, legal and resource drivers of data gaps will need to be addressed. Efforts related to the data revolution should include a focus on addressing data gaps, particularly in areas such as gender-based violence, peace and security, justice and human rights. Moreover, disaggregated data are limited, and thus efforts will be needed to ensure data can be disaggregated by locality and social group.

The Statistics Act of 2015 will also have a major influence on the SDGs. For those who see this act positively, the National Bureau of Statistics will assure the quality of statistics from other sources and integrate them into the monitoring system. Those who look at the law negatively argue that the National Bureau of Statistics and government will challenge other stakeholders' statistics and limit monitoring. A notable concern is with regard to the act making it illegal to (i) publish or communicate (what is labelled) false or misleading statistical information and (ii) without lawful authorisation of the National Bureau of Statistics, publish or communicate statistical information that may result in the distortion of facts. There is no protection for those acting in good faith and a minimum of 12 months imprisonment and/or heavy penalties.

COUNTRY PROFILE: TURKEY

The SDG Context

The MDGs and SDGs are largely supported only by concerned Turkish government institutions. The SDGs are relevant for Turkey and align well the country's growing concerns over gender equality and environmental sustainability. At the global level, Turkey shares the vision of an equitable, rights-based and sustainable process of global development. Increasing education quality, promoting employment and realising inclusive growth are also priorities for the country.

Going forward, the challenge is to persuade policy-makers and practitioners that the new set of goals, targets and indicators are important tools of sustainable development policy, and to help them use a data-driven and evidence-based framework in policy design, implementation and assessment.

National Priorities for the SDGs

Reduce overall poverty | Reduce inequality | Reduce multidimensional and persistent poverty | Increase caloric intake

Ensure quality education for all | Reduce student and teacher absenteeism | Increase student-teacher ratio | Ensure education for immigrant children | Improve regional distribution of educational outcomes

Create jobs, sustainable livelihoods and inclusive growth for all | Achieve gender parity in employment | Increase workplace safety | Eradicate child labour | Increase youth employment

Ensure sustainable energy and develop infrastructure for all | Improve maintenance of power outages | Increase investments in electricity | Increase access to electricity

Establish a sustainable, healthy and resilient environment for all | Improve air quality | Improve disaster risk management | Strengthen planetary boundaries and efficient natural resource use | Safeguard ecosystems and biodiversity

Establish open, accountable, inclusive and effective institutions, rule of law and a peaceful and inclusive society | Increase number of women in senior management | Increase access to justice through legal aid | Improve voting in elections | Strengthen trust in public institutions

Establish a global partnership for sustainable development | Increase aid | Promote rule-based, non-discriminatory international trade

National Statistical System

Turkey's main source of data is TurkStat, the national statistical office. Data are available to the public within the confines of confidentiality. In general, the use of statistical data in governmental decision-making is often rudimentary. The same can be said about the media, opinion leaders and the public as well. Thus, those who have data are not hard-pressed to make them available because they are not widely demanded.

In order to measure progress on the SDGs, Turkey will need to take additional steps to track disparities between regions and minority groups. In addition, administrative data are not being harnessed to their full potential and should be employed much more efficiently to improve data availability.

Data Availability

Data Quality Assessment by Goal Area

Goal area	Relevance	Accuracy and reliability	Timeliness and punctuality	Accessibility and clarity	Coherence and comparability
Poverty	5	4	5	5	5
Education	2	5	3	2	2
Employment and inclusive growth	5	4	5	4	4
Energy and infrastructure	4	4	3	4	4
Environment and disaster resilience	3	2	4	3	3
Governance	2	4	4	2	4
Global partnership	4	5	4	4	5

Political Economy of the Data Revolution

TurkStat is professional, impartial and respected, but not administratively independent. No political intervention has been observed in the process of data collection, manipulation and publication. However, political intervention may exist in deciding which data to collect. Since some ministries, agencies and directorates are not professionally equipped to collect key statistical data, resourcing could be improved to considerably increase the availability of reliable, comparable data. Nevertheless, data quality in Turkey is good, particularly when data are produced according to the standards of Eurostat, the European Union's statistical office.

The availability of data in Turkey for monitoring the SDGs seems fairly satisfactory, but certain significant gaps exist. For example, information on minorities, ethnic groups and migrants is essentially unavailable. Difficulties also persist with respect to regional and urban/rural disaggregation, which are complicated by changes of definitions over time. There is room for improvement with regard to relevance, accessibility and clarity.
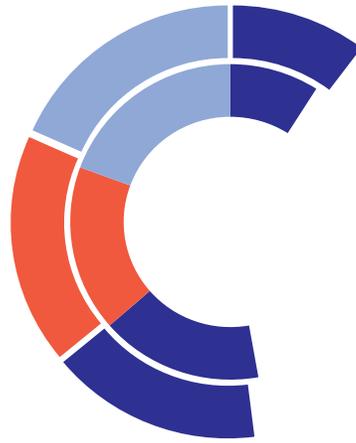
Introducing the
Post-2015 Data Test

INTRODUCTION

In September 2015, governments agreed on a set of Sustainable Development Goals (SDGs) to replace the Millennium Development Goals (MDGs) and guide sustainable development efforts through to 2030. As the world now turns towards implementing the agenda, this global synthesis report looks at how the universal SDGs can be effectively applied and measured across countries with different sustainable development challenges and priorities. The present report provides a synthesis of key findings from the Post-2015 Data Test, an initiative that began in November 2013 to examine SDG implementation and measurement in seven low-, middle- and high-income countries – Bangladesh, Canada, Peru, Senegal, Sierra Leone, Tanzania and Turkey – as well as bring Southern perspectives to global policy discussions on the SDGs and the data revolution for sustainable development. The report unpacks key implications and recommendations for implementing the SDG framework, particularly in relation to follow-up and review. Based on an analysis of data availability and quality, the report also provides an overview of key data gaps for monitoring progress on the SDGs and their implications for efforts going forward.

This report makes a number of valuable contributions. First, the Post-2015 Data Test is the first and only initiative to date to take on, in a practical way, the universal nature of the SDGs and road-test the SDG framework across a variety of low-, middle- and high-income countries. The report contributes by focusing on what works and what does not. Second, the report takes the data revolution to the country level, taking stock of the current state of play with respect to data availability and quality for monitoring the SDGs based on data mapping and assessments carried out in seven different countries. While the sample of countries is too small to make broad generalisations, the findings presented in this report do offer a benchmark for, or an indication of, what can be expected in terms of data adequacy for monitoring the SDGs. Third, the findings related to data adequacy are rooted in an examination of national-level official data and comprehensive analysis of national statistical challenges based on consultations with country-level policy-makers, development partners and statistical experts. While the SDGs served as an important entry point for the country studies, the findings, implications and recommendations presented in this report go beyond the SDGs, and serve as a valuable resource for stakeholders interested in supporting data-related activities and, more specifically, national statistical systems (NSSs). In this sense, the report aims to inform efforts on realising the data revolution. Finally, the report is based on research carried out by country-level think tanks and academics in all seven countries. The report is grounded in a range of diverse perspectives that offer new insights and thinking, particularly from the global South, on the SDG framework and the data revolution.

Following the introduction, the report provides an overview of the current context and introduces the Post-2015 Data Test. It then presents key findings on how a universal, country-relevant SDG framework could work in practice. The following section provides an overview of data availability and quality for monitoring the SDGs, based on the data-mapping process carried out across the seven country studies under the initiative. The political economy dimensions of data collection, production and dissemination are then discussed. The report concludes with recommendations for governments and international partners drawn from the analyses in preceding parts.

CONTEXT

THE SDGs: A UNIVERSAL, COUNTRY-RELEVANT AGENDA

At the 70th session of the United Nations (UN) General Assembly in September 2015, 193 countries adopted *Transforming our world: the 2030 Agenda for Sustainable Development*, the outcome document and agenda of the UN Summit for the adoption of the post-2015 development agenda, and a new set of global development goals – the SDGs. These goals will guide the world's efforts on sustainable development for at least the next 15 years. The SDGs – also referred to as the Global Goals – include 17 goals and 169

Figure 1: Sustainable Development Goals (SDGs)

Source: UN (2015a).

targets (see Figure 1) that capture the three pillars of sustainable development – the economy, society and the environment.

The goals not only reflect expert assessment of what the world's most pressing challenges are today and will likely be in the future, but also extensive citizen feedback, largely facilitated by the UN, on what people think the world's top priorities should be (UNDG Millennium Development Goals Task Force 2013).[1]

The SDGs capture a broader number of issues than the MDGs, seeking to truly reflect in one framework the world's sustainable development challenges and priorities. Beyond the increased number of issues that the SDGs cover, there is a strong push to "leave no one behind." This means identifying groups being left the furthest behind and monitoring progress against the SDGs in a disaggregated way to ensure that all people, particularly those who have been historically marginalised, benefit from sustainable development progress.

Unlike the MDGs, the SDGs are universal, meaning that they apply to all countries, not just developing countries. In order to connect domestic priorities with the global agenda more effectively, and respond to the critique that the MDGs were not adequately embedded into national policy processes, countries will likely have a strong say in the targets that they set. This approach also aims to respond to an important measurement critique of the MDGs – that they were unfair to some countries because they did not account for initial starting points (Easterly 2007; Takeuchi and Samman with Steer 2015; Lange and Klasen 2015). Under the SDG framework, allowing space for countries to set their own targets aims to ensure that starting points are indeed taken into account.

But how can a framework that is universal on one hand, but takes into account national realities and priorities on the other, work in practice? As Shannon Kindornay and Twigg (2015) and Anna Knoll et al. (2015) recently noted, this is not straightforward – countries have different sustainable development challenges, differing capacities to respond to their own challenges and assist others in achieving ambitious

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[1]See www.worldwewant2015.org (now www.worldwewant2030.org following the adoption of the SDGs) and vote.myworld2015.org for examples.

targets and different responsibilities for protecting global public goods. They suggested that a differentiated application of targets may be needed to account for countries' initial starting points, as well as common but differentiated responsibilities with respect to global public goods under the framework.

The UN Statistical Commission has been called on to play a key role in building the indicator framework for the goals and targets of the global agenda. An Inter-Agency and Expert Group on SDG Indicators, comprising select UN member states and including regional and international institutions as observers, has also been established. This group provided a proposal of global and universal indicators and an indicators framework for consideration by the UN Statistical Commission at its 47th session in March 2016.

While negotiations continue, it remains unclear exactly how targets – in terms of to whom they apply and their level of ambition – will be effectively applied across countries in a way that supports the universal ambitions of the SDGs, but also ensures their relevance across country contexts. As pointed out by Andrew Scott and Paula Lucci with Tom Berliner (2015) in their review of national development plans for some 75 countries, variation exists between global and national ambitions that will somehow need to be addressed going forward. They argue for the use of interim targets to help bring the SDGs into national use and note the need for clear guidance on national target setting to counter the risk of targets being too ambitious for some countries and not ambitious enough for others.

THE DATA REVOLUTION

There is strong recognition that a data revolution is needed to support the monitoring and implementation of the SDGs (see Box 1). While it is widely acknowledged that global and national efforts in support of the MDGs have resulted in considerable improvements in the availability and quality of data in developing countries (UNTT 2013; Chen et al. 2013), significant gaps remain.

Key challenges have been highlighted by a number of recent reports and studies (see OECD 2013; UNDG Millennium Development Goals Task Force 2013; Data for African Development Working Group 2014;

Box 1: The data revolution: A brief history

In its May 2013 report to the UN Secretary-General, the High-Level Panel of Eminent Persons on the Post-2015 Development Agenda called for a "data revolution" to support the monitoring and implementation of the post-2015 agenda.[2] It argued that a data revolution should promote the integration of statistics into public and private decision-making and support efforts to build trust between societies and states through transparency and accountability. The High-Level Panel called for: improvements in the quality, availability and timeliness of data, including disaggregated data, greater data transparency and accessibility, and harnessing diverse sources of knowledge and data, such as mobile technology, crowd sourcing and other "real-time" initiatives to complement official statistics. Furthermore, it recognised that a data revolution must also enhance government transparency and empower citizens to demand more from their governments (HLP 2013).

In August 2014, the UN Secretary-General appointed an Independent Expert Advisory Group on the Data Revolution for Sustainable Development to generate recommendations on measures that need to be taken to close data gaps and strengthen national statistical capacities. In its November 2014 report, the group defined the data revolution as "[a]n explosion in the volume of data, the speed with which data are produced, the number of producers of data, the dissemination of data, and the range of things on which there is data, coming from new technologies such as mobile phones and the 'internet of things', and from other sources, such as qualitative data, citizen-generated data and perceptions data [and] a growing demand for data from all parts of society" (IEAG 2014, 4). The group called for the establishment of global principles and standards on data, the creation of mechanisms to share technology and innovations, new resources for capacity development and leadership to coordinate and mobilise efforts.

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[2] See www.post2015hlp.org for more information.

PARIS21 2015a; Open Data Watch 2015). Many countries do not have the necessary statistical building blocks in place despite improvements in censuses, household surveys and administrative systems. Funding for statistical activities is insufficient and there is a need to better align international monitoring priorities with national data. Within NSSs, conflicting data sources and statistics exist, incentives for the sound production and use of statistics in many countries are not in place, and data are not always accessible and in useable forms. In short, efforts are needed to close the gap between data needs and data supply. The World Bank has dubbed the persistent and significant data gaps that exist in many developing countries to be a new form of deprivation – data deprivation (Serajuddin et al. 2015). In response to this challenge, the World Bank (2015) committed to work with developing countries and international partners in order to ensure that household-level surveys are conducted every three years in the 78 poorest countries.

At the same time, advances in information and communications technology (ICT) and the proliferation of open data and big data are presenting new opportunities for data collection and analysis, better-informed policy making and citizen engagement. ICT also presents opportunities for countries to leap-frog in terms of modernising NSSs. Increasingly, governments, development partners, the private sector and civil society are making use of ICT to solicit information from citizens, including real-time feedback on public services.[3] Sixty-five countries have signed onto the Open Government Partnership, an international platform for governments committed to being more open, accountable and responsive to citizens. As part of their commitments, governments are making more information, including datasets, available to citizens and improving their transparency. International financial institutions, such as the World Bank and African Development Bank, are making data and information available to stakeholders and the International Aid Transparency Initiative is improving transparency in foreign aid spending. Social media and private firms are generating big data (in other words, massive amounts of data on prices and consumer habits, for example), all with the power to fundamentally change the sustainable development landscape if harnessed effectively.

There is no question that the ambitions of the SDGs will require significant investments in data collection and statistical production, particularly to ensure that no one is left behind and capture information on progress in newer goal areas that were not subject to international monitoring in the past. Estimates of the costs associated with SDG monitoring vary widely. At the high end, Morten Jerven (2014) suggested that the total cost of providing the data to support the Open Working Group on SDGs' proposed 169 targets is around US$254 billion, almost two times the total annual spending on official development assistance. However, Jerven's estimate assumes that no official data currently exist. A collaborative effort led by the Sustainable Development Solutions Network estimated that the cost of improving NSSs to be able to measure the SDGs is around US$1 billion per year (SDSN 2015), while the Partnership in Statistics for Development in the 21st Century (PARIS21) estimated that between US$2 billion and US$2.25 billion by 2020, with US$1 billion coming from domestic resources, is needed to improve NSSs in developing countries (PARIS21 2015a). While identifying the exact funding gap is difficult, it is clear that there is a gap between current expenditures and future requirements.

More recently, the global discussion on the data revolution culminated in the establishment of the Global Partnership for Sustainable Development Data,[4] which was launched in September 2015 after the UN Summit. The partnership aims to: support multi-stakeholder data initiatives that connect efforts on the data revolution in achieving the SDGs; build capacity to generate, share and use available data at local levels; fill data gaps; develop international principles tying together data, including sharing and leveraging privately produced data; and convene stakeholders at local, regional and global levels to increase connections, collaborations and innovations to measure the SDGs.

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[3]See for example, www.fixmystreet.com in the case of the United Kingdom and openschoolskenya.org in Kenya.
[4]For more information, see www.data4sdgs.org.

THE POST-2015 DATA TEST

ABOUT THE INITIATIVE

With the support of the International Development Research Centre's Think Tank Initiative, the William and Flora Hewlett Foundation, the UN Foundation and Partnership for African Social and Governance Research (PASGR), the Centre for Policy Dialogue (CPD) and the Norman Paterson School of International Affairs (NPSIA) in association with the Southern Voice on Post-MDG International Development Goals network launched the "Post-2015 Data Test: Unpacking the Data Revolution at the Country Level" in February 2014, following initial consultations on the project in November 2013. The initiative applied a select set of candidate post-2015 goals, targets and indicators to seven low-, middle- and high-income countries – Bangladesh, Canada, Peru, Senegal, Sierra Leone, Tanzania and Turkey. In doing so, it assessed data availability and quality for measuring post-2015 progress at the country level. The initiative also examined opportunities and challenges that may arise from a universal, country-relevant framework (see Box 2). Through the process, the initiative also sought to enhance the capacity of Southern think tanks that conducted the country studies to contribute to the global policy debates shaping the post-2015 agenda. The initiative provided a platform for these think tanks to be heard with the aim of also ensuring that global processes are informed by country-level realities.

> **Box 2: Key issues addressed by the Post-2015 Data Test**
>
> Data adequacy, including disaggregated data, for measuring post-2015 progress at the country level
>
> Feasibility and relevance of selected candidate "zero targets" in different country contexts
>
> Challenges of implementing a universal but country-relevant post-2015 framework, particularly from a measurement perspective
>
> Improvements in data quality, accessibility and transparency at the country level and their drivers
>
> Potential of technology-enabled and non-traditional modes of data collection to support measurement of the post-2015 agenda
>
> Different stakeholders' expectations for the "data revolution," including likely opportunities and constraints

PARTNERS

The Post-2015 Data Test brought together research teams from seven countries. In addition to leading the project, CPD in Dhaka and NPSIA in Ottawa respectively conducted the Bangladesh and Canada country studies. As Secretariat of Southern Voice, a network of policy-oriented think tanks based in the South, CPD played a critical role in soliciting network members to carry out several of the country studies. The Group for the Analysis of Development (GRADE), a private non-profit, non-partisan research centre based in Lima, was responsible for the Peru country study. Southern Voice members Initiative Prospective Agricole et Rurale (IPAR) based in Dakar and Policy Research for Development (REPOA) based in Dar es Salaam were respectively responsible for the Senegal and Tanzania country studies. The Sierra Leone and Turkey country studies were carried out by a research team made up of personnel from the University of Sierra Leone based in Freetown and a research team composed of members from various universities and think tanks based in Turkey, respectively.

METHODOLOGY

The Methodology and Implementation Guide for the initiative was prepared by CPD, NPSIA and Southern Voice in consultation with the research teams. Feedback was also solicited from statistical, research and policy experts at statistical authorities, think tanks, UN agencies, universities, diplomatic missions and philanthropic foundations around the world (see Bhattacharya, Higgins and Kindornay 2014). The guide is available at www.post2015datatest.com. Annex 1 provides an overview of the research process.

Country Selection

The primary factor that drove country selection was membership in the Southern Voice network and interest in and capacity to participate in the initiative during the given timeframe. Seven countries were selected for the initiative, including Bangladesh and Senegal – then low-income countries and now lower middle-income countries – as well as Sierra Leone and Tanzania, both low-income countries. Two middle-income countries, Peru and Turkey, and one high-income country, Canada, were also included. These countries have a range of characteristics that provided a useful cross-section from the perspective of examining the SDGs and their measurement components. They all have significant minority populations, which was useful for examining how the selection of national-level priorities, targets and indicators can support the "leave no one behind" aspect of the SDGs. A number of the countries have significant natural resource endowments, which offered interesting insights into how countries can balance environmental, economic and social considerations under the SDGs. The countries also represent a range of levels of statistical capacity according to the World Bank Bulletin Board on Statistical Capacity.

Goal Area Selection

The goal areas examined under the initiative were selected prior to the Open Working Group's proposal for 17 SDGs and corresponding 169 targets, which largely make up the finalised SDGs. The goal areas selected for study were based on an examination of prominent candidate goals and priorities identified in a number of UN and unofficial reports and initiatives on the post-2015 agenda released before November 2013, when initial preparations for the Methodology and Implementation Guide were carried out. Given the available resources and timeframe for the initiative, CPD and NPSIA selected seven candidate goal areas (see Figure 2). They were selected based on the following criteria:

- prominence in selected post-2015 reports and initiatives;
- mix of MDGs and goals that are not included in the MDGs;
- goal areas that would likely comprise a mix of "zero targets" and country-specific targets;
- likelihood of posing particularly acute data and measurement challenges (such as governance, which is a newer goal area); and
- expertise and capacity of participating think tanks.

Figure 2: Goal areas selected for the Post-2015 Data Test

SDG Areas Examined by Data Test Teams

Poverty · Education · Employment · Energy and Infrastructure · Environment and Disaster Resilience · Governance · Global Partnership
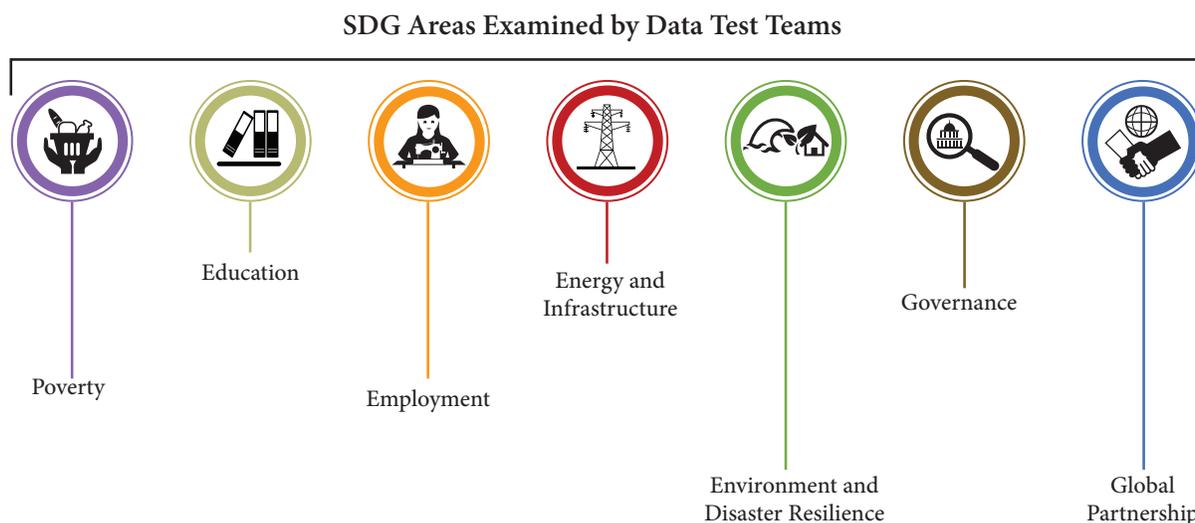
For each goal area, research teams examined 6–8 targets and approximately 12–16 indicators. In order to assess how a universal but country-relevant framework could be applied to a variety of different countries while still allowing space for country differentiation, a set of "global" targets and indicators were examined in all countries. These global targets and indicators were identified from major reports and proposals for the post-2015 agenda and reviewed by a group of policy experts engaged heavily in negotiation processes at the UN, statistical experts, representatives from academia and think tanks, and the research teams participating in the Post-2015 Data Test (see Table 1). The selection of 20 targets and 45 indicators allowed for comparison of data availability and quality across country studies. Within this set of pre-determined targets and indicators, at least one target reflecting a global minimum standard target, which collectively have come to be known as "zero targets," was selected. Eight global minimum standards – targets for which the aim is universal coverage by 2030 – were included (denoted by an asterisk (*) in Table 1). Definitions for the global indicators are available in Annex 2. To ensure consistency, global targets and indicators were based on international definitions, typically from UN agencies, the World Bank and the Organisation for Economic Co-operation and Development (OECD). Annex 3 provides an overview of the SDG targets and UN Statistical Commission's potential indicators captured by the Post-2015 Data Test. It shows that the goal areas examined under the initiative coincide greatly with the adopted SDGs, capturing elements of 14 of the 17 goals.

Table 1: Global targets and indicators examined in all countries

Targets[a]	Indicators
End poverty	
End extreme income poverty*	Proportion of population below US$1.25 (PPP) per day*
Reduce poverty	Proportion of population below US$2 (PPP) per day
	Proportion of population living below national poverty line
	Share of employed persons living below national poverty line
Reduce the proportion of people who suffer from hunger	Prevalence of child stunting in boys and girls under 5, %
Ensure quality education for all	
Ensure all children have access to early childhood and quality primary and secondary education*	% of girls and boys receiving at least one year in pre-primary programmes
	% of girls and boys who complete primary school*
	% of girls and boys who complete secondary school*
	% of girls and boys who achieve a passing grade in national learning assessments at the primary school level*
Increase the number of adults with skills, including technical and vocational skills	Proportion of individuals enrolled in a Technical and Vocational Education and Training institution
Create jobs, sustainable livelihoods and inclusive growth for all	
Achieve full and productive employment for all, including women and young people	Labour force participation rate
	Time-related underemployment (thousands)
Ensure equal pay for equal work*	Mean nominal monthly earnings of employees (local currency)*
Support inclusive growth and reduce inequality	Palma ratio
	Gini coefficient
	Growth rate of income of the bottom 40%
	Gross fixed capital formation (% of GDP)

(Table 1 contd.)

(Table 1 contd.)

Targets[a]	Indicators
Ensure sustainable energy and develop infrastructure for all	
Ensure full access to developed infrastructure and communication technology*	Internet users (per 1,000 people)*
	Average bandwidth speed (megabits/second)
	% of the population with access to an all-season road*
	% of adults with an account at a formal financial institution*
Ensure access to energy and improve efficiency and sustainability of energy supply, including renewable energy*	# of hours per day households have access to electricity on average*
	Rate of improvement in energy intensity
	Share of the population with access to modern cooking solutions (%)*
	Share of renewable energy to total energy consumption
Establish a sustainable, healthy and resilient environment for all	
Build resilience and reduce deaths from natural hazards	Disaster deaths per 1,000 inhabitants
Safeguard ecosystems and biodiversity	Net loss in forest area (% of land area)
	Trends in coverage of protected areas
Publish and use economic, social and environmental accounts in all governments and companies*	Share of large tax unit taxpayers using integrated reporting*
	Existence of national and sub-national government publishing according to the System of Environmental-Economic Accounting*
Establish open, accountable, inclusive and effective institutions, rule of law and a peaceful and inclusive society	
Provide free and universal legal identity, such as birth registrations*	Percentage of children under 5 who are registered with the civil authority*
	Proportion of adults with a basic legal identity document*
Monitor and end discrimination and inequalities in public service delivery, the rule of law, access to justice and participation in political and economic life on the basis of social status	Average time between filing a case and receiving a verdict
	Proportion of seats held by women and minorities in national or local level government
	% of adults with an account at a formal financial institution, disaggregated by sex
Improve personal safety	Prevalence of violence against women, including domestic violence
	Violent death per 100,000 people
Reduce bribery and corruption in all forms	Survey data regarding bribes or gifts for service from a government official – "In the past year, how often (if ever) have you had to pay a bribe, give a gift, or do a favour to government officials in order to get a document or receive a service"
Improve transparency in the revenue system	Share of eligible taxpayers who submit their taxes
Establish a global partnership for sustainable development	
Create an enabling environment for sustainable development*	Low-income country debt forgiveness or reduction (% of GDP)
	Share of trade in goods and services from low-income countries under duty-free, quota-free market access
	Existence of laws for ensuring country-by-country reporting by multinational corporations, disclosure of beneficial ownership and the prevention of money laundering*
Increase financing to productive capacity in low- and middle-income countries	Share of aid to the productive sector
	Proportion of foreign direct investment to the productive sector
	Share of South-South cooperation to the productive sector

Note:[a](*) denotes global minimum standard targets and corresponding indicators.
[b]PPP: Purchasing Power Parity; GDP: Gross domestic product.

To these global targets and indicators, research teams added plausible national targets and indicators. Responding to the critique that the MDGs were too "siloed" in their construction, teams were expected to choose at least one "cross-cutting" target and corresponding indicator to reflect synergies between goal areas (for example, the creation of jobs in the green technology sector reflects progress on the environment as well as employment and inclusive growth). In identifying national targets and indicators, a key criterion was ensuring selections reflect the sustainable development challenges and priorities of each country, rather than existing data availability (Bhattacharya, Higgins and Kindornay 2014, 26–29). While recognising the importance of outcome-based indicators, such as forest coverage, teams were encouraged to go beyond them to make use of structural and process indicators, such as proportion of forest area classified as protected. It was anticipated that many national-level targets and indicators would come from existing government plans and strategies. However, to facilitate the selection of national targets and indicators, research teams were provided with a compilation of potential global targets and indicators for each candidate goal area from key official and unofficial proposals (see Annex 5 in Bhattacharya, Higgins and Kindornay 2014). Table 2 demonstrates how this process worked in practice by outlining the global and national targets and indicators examined for the goal area on employment and inclusive growth in Canada and Senegal.

Table 2: Model for examining global and national targets and indicators

Goal area: Create jobs, sustainable livelihoods and inclusive growth for all		
Target	**Indicator**	
Global		
Achieve full and productive employment for all, including women and young people	Labour force participation rate; time-related underemployment	
Ensure equal pay for equal work	Mean nominal monthly earnings of employees (local currency)	
Support inclusive growth and reduce inequality	Gini coefficient; Palma ratio; growth rate of income of the bottom 40%; gross fixed capital formation (% of GDP)	
National	**Senegal**	**Canada**
Achieve full and productive employment for all, including women and young people	Youth employment	Unemployment rate for Aboriginal identity population; young people; immigrants
Support inclusive growth and reduce inequality	Geographic mobility for employment	Earnings ratio between the bottom 90% and top 10%

Throughout this report, targets and indicators examined by all countries are referred to as "global." All other targets and indicators, chosen by research teams, are referred to as "national."

RESEARCH ACTIVITIES AT THE COUNTRY LEVEL

A mix of research methods were used to conduct the country studies. Teams carried out literature reviews and engaged with policy-makers, data producers (national statistical offices [NSOs], for example) and data users (actors, such as civil society organisations, research institutions and civil servants, who use data to inform policies and programmes or play a role in holding other actors to account for progress against desired outcomes) during the research process through workshops, key informant interviews and focus group discussions. The majority of research teams also held validation workshops through which they received feedback on preliminary drafts of their country reports.

Following the selection of national targets and indicators, teams each conducted a data-mapping exercise to identify national official data sources to monitor global and national targets and indicators. Where data gaps existed, teams examined the potential for unofficial sources and innovations in data collection to fill gaps. They also looked at the availability of official data for the baseline year of 2010. Each team then

Figure 3: Overview of the data quality assessment framework

Relevance	Accuracy and reliability	Timeliness and punctuality	Accessibility and clarity	Coherence and comparability
Procedures and guidelines for data collection Meeting user needs and ensuring user satisfaction	Procedures to reduce sampling and non-sampling errors Addressing systematic and random errors Measures to revise data	Standards and procedures to ensure timely dissemination Procedures to monitor punctuality	Policy on accessibility Guidelines on presentation of outputs Methodological information available Documentation and availability of metadata and microdata	Measures to ensure consistency across data produced Extent to which data are comparable between sources and over time Extent to which common standards and concepts are consistently used

applied a standardised data quality assessment framework to examine data adequacy for each goal area (see Annex 4). The data quality assessment framework was based on international standards developed by the International Monetary Fund (IMF), European Union and UN *inter alia* (see Figure 3).[5] The criteria for the data quality assessment framework were: relevance, accuracy and reliability, timeliness and punctuality, accessibility and clarity, and coherence and comparability. These criteria are underpinned by a series of sub-themes, examples of which are provided in the Figure.

Each teams conducted an assessment of the political economy dimensions of the data revolution, or in other words, the political, legal, institutional and capacity constraints that inhibit the production and use of good quality data at the country level. Teams looked at issues related to the data availability–transparency–accountability nexus, such as data accessibility for civil society organisations and other data users and independence of NSOs from political interference. To inform their analyses, including recommendations, teams asked a variety of stakeholders to articulate their expectations for the data revolution at the country level, particularly in terms of identifying key priorities and action areas going forward.

Finally, the country studies under the Post-2015 Data Test were not designed to be comparable. Rather, they were designed as case studies meant to shed light on key challenges at the country level with respect to SDG prioritisation, implementation and monitoring. While the use of the same methodology by all teams facilitates some comparison across studies, it should be recognised that the studies are not strictly comparable.

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[5]An overview of the data quality assessment framework is detailed in the section on data availability and quality.
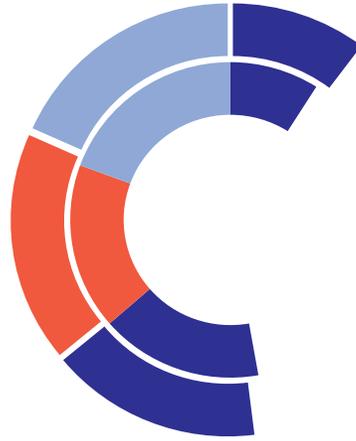
The Universal Agenda

- The SDGs resonate across countries with different sustainable development challenges, regardless of income level.
- It is possible to have a framework that enables countries to apply a set of global targets and indicators as well as identify targets and indicators that reflect national context and priorities. A key trade-off, however, is balancing enabling countries to select targets and indicators that make sense for their national contexts and enabling international comparability.
- It does not make sense to uniformly apply global minimum standards and global partnership targets and indicators across all countries. Doing so weakens the universal nature of the SDGs because countries have different possibilities to realise them.
- Global monitoring will need to take a differentiated approach. Not all global targets and indicators make sense for all countries. This should be reflected in global SDG reporting requirements.

UNIVERSAL BUT COUNTRY-RELEVANT IN PRACTICE

BALANCING UNIVERSALITY AND COUNTRY RELEVANCE

How can the universal agenda applicable to all countries be balanced with the need to ensure that goals, targets and indicators are relevant at the country level? The Post-2015 Data Test went beyond conceptual discussions to road-test how this could work in practice.

Each research team examined the extent to which the selected global targets and indicators could be reasonably applied to their country and whether they reflected national-level priorities. Targets and indicators were deemed a priority if, in the research team's expert view, a target or indicator focused on an issue that had been identified by the national government as a priority and/or the team considered it to be a priority for the country given the country's specific context and challenges. Targets and indicators were deemed applicable if, in the research team's view, a target or indicator could reasonably be applied to the country. The table in Annex 5 presents the findings from the research teams' analyses. It also includes findings on global minimum standards, identifying where global minimum standards made sense given the sustainable development priorities and challenges of a country. Critically, the table shows the issues that each team prioritised in their selection of national targets and indicators.

GLOBAL TARGETS AND INDICATORS

The road-tests revealed a number of interesting findings. With the exception of six targets,[6] all global targets examined under the initiative were deemed applicable and priorities in all countries. In the case of indicators, however, the findings are more nuanced.

Unsurprisingly, the relevance of indicators depends largely on the sustainable development challenges that countries face (see Annex 5). For example, indicators that measure extreme poverty as per internationally defined poverty lines are less relevant for the high and upper middle-income countries, while poverty indicators according to national definitions are highly relevant for all countries. Divergence on the importance of indicators is also seen with respect to the indicators that typically reflect well-known challenges in low-income countries. For instance, indicators related to universal primary education, access to basic infrastructure and legal identity are not overly relevant in Canada and Turkey.

NATIONAL TARGETS AND INDICATORS

Table 3 provides an overview of the national priorities identified across the countries included in the initiative. In the table, an asterisk (*) is used to denote cases where national priorities reflect issues already identified in the global set of targets and indicators. Typically, research teams chose to include similar issues to further emphasise their importance at the country level or for particular groups. For instance, on learning outcomes, governments often listed learning outcomes for particular groups of children as priorities.

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[6] Though all were deemed applicable, the following targets were not deemed priorities for all countries: End extreme income poverty (Canada and Turkey); Reduce the proportion of people who suffer from hunger (Canada); Build resilience and reduce deaths from natural hazards (Tanzania); Publish and use economic, social and environmental accounts in all governments and companies (Bangladesh and Turkey); Provide free and universal legal identity, such as birth registrations (Canada and Turkey); Monitor and end discrimination and inequalities in public service delivery, the rule of law, access to justice and participation in political and economic life on the basis of social status (Turkey).

The national targets and indicators listed in Table 3 often came from priorities that had already been identified by national governments in development plans and policy documents. For example, in Bangladesh, access to electricity is a significant challenge. As of 2012, only 53 percent of the population had coverage and per capita electricity generation was among the lowest in the world. The Government of Bangladesh has committed to providing affordable and reliable electricity to all by 2021. This challenge for Bangladesh and the government's commitment to tackling it were reflected in the national targets and indicators that the Bangladesh research team selected for sustainable energy and infrastructure – a target on ensuring access, efficiency and sustainability of energy supply and targets on electricity access and per capita electricity consumption.

In Turkey, student absenteeism is a challenge that the Ministry of National Education has been attempting to tackle. The ministry recently reported high levels of student absenteeism and has been designing a new module to be integrated into its main e-School Information Management System. For a national indicator on education, the Turkey research team proposed the indicator "% of instructional time lost due to student and teacher absenteeism."

Table 3: National priorities across countries

National-level priority identified[a]	Low-income countries				Middle-income countries		High-income country
	Bangladesh	**Senegal**	**Sierra Leone**	**Tanzania**	**Peru**	**Turkey**	**Canada**
End poverty							
Extreme poverty*	X		X				
Multidimensionality of poverty	X					X	
Persistence of poverty						X	X
Poverty rates for specific groups (children, indigenous, rural population, homeless, etc.)					X		X
Caloric consumption and malnutrition*	X	X		X	X	X	
Social protection	X	X					
Inequality				X		X	
Under- and unemployment		X					
Ensure quality education for all							
Pre-primary education and early childhood development*	X	X	X	X	X	X	X
Learning outcomes*	X	X	X	X	X	X	X
Technical and vocational skills*	X	X	X	X	X	X	X
Secondary school enrolment and completion*	X			X			
Teaching quality	X		X	X		X	
Education infrastructure and spending		X		X			

(Table 3 contd.)

(Table 3 contd.)

National-level priority identified[a]	Low-income countries				Middle-income countries		High-income country
	Bangladesh	Senegal	Sierra Leone	Tanzania	Peru	Turkey	Canada
Education outcomes for marginalised groups		X		X	X	X	X
Research investments	X						
Critical thinking							X
Life-long learning							X
Security in schools			X		X		X
Student debt							X
Student and teacher absenteeism						X	
Create jobs, sustainable livelihoods and inclusive growth for all							
Unemployment*	X	X	X	X	X	X	X
Pay equity between women and men*	X	X	X	X	X	X	X
Income inequality	X	X	X	X		X	X
Informality	X				X		
Child labour	X			X	X	X	
Youth unemployment	X	X	X		X	X	X
Women's employment	X		X				X
Employment and wage gaps faced by particular groups in society such as indigenous population or people with disabilities			X		X		X
Workplace safety	X					X	X
Transition from education to employment		X					
Productive employment				X			
Social protection				X			
Geographic mobility for employment		X					
Ensure sustainable energy and develop infrastructure for all							
Energy access*	X		X		X		
Energy efficiency, including in transport*	X		X				X
Renewable energy*				X			X
Electricity access*		X	X			X	
Transport infrastructure*		X			X		
Transport costs			X				X
Safe mobility					X		
Information and communications technology*		X			X		

(Table 3 contd.)

(Table 3 contd.)

National-level priority identified[a]	Low-income countries				Middle-income countries		High-income country
	Bangladesh	Senegal	Sierra Leone	Tanzania	Peru	Turkey	Canada
Investment in public infrastructure							X
Establish a sustainable, healthy and resilient environment for all							
Safeguard ecosystems*	X		X	X	X	X	X
Natural disasters*	X	X	X		X	X	X
Air and water quality	X		X		X	X	X
Safe sanitation	X						
Economic, social and environmental accounting*				X			
Environmental management		X					
Climate change		X					X
Waste management			X		X		X
Natural resource/ environmental management, including through environmental assessments		X	X	X	X	X	
Establish open, accountable, inclusive and effective institutions, rule of law and a peaceful and inclusive society							
Civic engagement	X		X			X	X
Access to justice*			X	X		X	X
Corruption*			X		X		X
Discrimination*			X			X	X
Personal safety*		X			X		
Right to information	X						
Transparent and accountable public institutions	X						
Law enforcement capacity	X						
Civil registration and legal identity*		X		X			
Social reintegration					X		
Cross-sector relationships (government, private sector, civil society)					X		
Realising rights for particular groups				X			X
Trust in public institutions						X	
Establish a global partnership for sustainable development[b]							
Aid*	X		X			X	X
Trade facilitation	X						

(Table 3 contd.)

(Table 3 contd.)

National-level priority identified[a]	Low-income countries				Middle-income countries		High-income country
	Bangladesh	Senegal	Sierra Leone	Tanzania	Peru	Turkey	Canada
Rule-based and non-discriminatory international trade*				X		X	
Financial transparency and illicit flows*	X			X			
Financial stability				X			
Statistical capacity development		X	X				X
Special needs for particular countries			X				X
Remittances		X					X
National regulatory environment/domestic resource mobilisation		X	X				X
Climate change mitigation and adaptation			X				X
Transboundary waste			X				X
Global citizenship							X

Note: [a](*) denotes where national priorities are similar to globally identified targets and indicators.
[b]The Peru team did not select national indicators, arguing that they do not apply to the Peruvian case as the country is relatively new to South-South cooperation.

A review of the national priorities identified across countries reveals six key findings. First, clear similarities exist in terms of the national priorities identified across countries for a number of goal areas. For example, for the goal area on education, all countries identified early childhood education, learning outcomes and technical and vocational training as priorities. With respect to employment, all countries identified youth unemployment and pay equity as priorities. Nearly all countries identified disaster resilience and safeguarding specific ecosystems as priorities as well.

Second, no clear pattern emerges across goal areas in terms of the priorities identified by countries at particular income levels. The range of priorities vary both across and within income-level groupings. This is particularly relevant in the case of national priorities identified for poverty, energy and infrastructure, governance and global partnership.

Third, many research teams identified additional country-relevant indicators for the global targets examined across countries. Rather than suggesting additional national targets, teams simply added national indicators to a global target. In this sense, they were able to clearly connect the global targets to appropriate national priorities. This also demonstrates that the global targets are comprehensive enough to cover a range of national priorities across different countries.

Fourth, the indicators selected by many teams to reflect national priorities moved beyond outcome indicators to include process indicators, covering the existence of legislation, plans or expenditures. The Tanzania research team, for example, suggested a national indicator on the existence of national legislation that guarantees equal pay for equal work, corresponding with the global target "Ensure equal pay for equal work." The Senegal research team proposed national environment indicators on the number of protected areas and the number of classified forests with approved management plans under implementation and

disaster resilience indicators tracking the proportion of local governments with disaster intervention plans. The Tanzania, Senegal and Bangladesh teams noted the need to monitor expenditures on education. The targets and indicators that were proposed reflect country contexts and the need for particular policy reforms and policy interventions to realise specific outcomes.

Fifth, all research teams recognised the need to focus on historically marginalised populations in their choice of national indicators. This suggests a convergence between global-level commitments on disaggregated data and the call to "leave no one behind" with challenges and subsequent prioritisation at the national level.

Finally, while teams were able to identify national priorities in the area of global partnership, it is important to note that, unlike under other goal areas, the question of responsibilities for realising global partnership was front and centre. Low-income country research teams, while recognising that their own governments have an important role to play, tended to highlight the roles and responsibilities of higher-income countries rather than suggesting specific actions that their countries could take to contribute to global partnership. The Canada and Turkey research teams focused greatly on the contributions that each country could respectively make to global partnership.

GETTING TO ZERO

Table 4 provides a snapshot of the applicability and relevance of global minimum standards. In most respects, the findings are unsurprising. It is possible to apply global minimum standards across most countries for each goal area. However, given that they typically target the poorest and most marginalised globally – and are measured according to indicators that reflect this – global minimum standards were largely irrelevant for the middle- and high-income countries examined. This was particularly the case for extreme poverty, primary education, access to energy and infrastructure, and legal identity. With respect to the environmental and global partnership minimum standard indicators, a number of countries found them less relevant given their national contexts and priorities. For example, the indicator on the use of integrated reporting by large tax unit taxpayers was deemed not relevant for Bangladesh and Turkey. Also, the Bangladesh, Senegal and Turkey teams noted that the indicator on country-by-country reporting, though applicable, was not particularly relevant for their contexts.

Table 4: Applicability and relevance of global minimum standards

Targets and indicators	Applicability	Relevance
End poverty		
End extreme income poverty		
Proportion of population below US$1.25 (PPP) per day	Bangladesh Peru Senegal Sierra Leone Tanzania	Bangladesh Senegal Sierra Leone Tanzania
Ensure quality education for all		
Ensure all children have access to early childhood and quality primary and secondary education		
% of girls and boys who complete primary school	All countries	Bangladesh Peru Senegal Sierra Leone Tanzania

(Table 4 contd.)

(Table 4 contd.)

Targets and indicators	Applicability	Relevance
% of girls and boys who complete secondary school	All countries	All countries
% of girls and boys who achieve a passing grade in national learning assessments at the primary school level	All countries	All countries
Create jobs, sustainable livelihoods and inclusive growth for all		
Ensure equal pay for equal work		
Mean nominal monthly earnings of employees (local currency)	All countries	All countries
Ensure sustainable energy and develop infrastructure for all		
Ensure full access to developed infrastructure and communication technology		
Internet users (per 1,000 people)	All countries	Bangladesh Peru Senegal Sierra Leone Tanzania Turkey
% of the population with access to an all-season road	All countries	All countries
% of adults with an account at a formal financial institutions	All countries	Bangladesh Peru Senegal Sierra Leone Tanzania Turkey
Ensure access to energy and improve efficiency and sustainability of energy supply, including renewable energy		
# of hours per day households have access to electricity on average	All countries	Bangladesh Peru Senegal Sierra Leone Tanzania Turkey
Share of the population with access to modern cooking solutions (%)	All countries	Bangladesh Senegal Sierra Leone Tanzania
Establish a sustainable, healthy and resilient environment for all		
Publish and use economic, social and environmental accounts in all governments and companies		
Share of large tax unit taxpayers using integrated reporting	All countries	Canada Peru Senegal Sierra Leone Tanzania
Existence of national and sub-national government publishing according to the System of Environmental-Economic Accounting	All countries	Bangladesh Canada Peru Senegal Tanzania Turkey

(Table 4 contd.)

(Table 4 contd.)

Targets and indicators	Applicability	Relevance
Establish open, accountable, inclusive and effective institutions, rule of law and a peaceful and inclusive society		
Provide free and universal legal identity, such as birth registrations		
Percentage of children under 5 who are registered with the civil authority	Bangladesh Peru Senegal Sierra Leone Tanzania Turkey	Bangladesh Peru Senegal Sierra Leone Tanzania
Proportion of adults with a basic legal identity document	Bangladesh Peru Senegal Sierra Leone Tanzania Turkey	Bangladesh Peru Senegal Sierra Leone Tanzania
Establish a global partnership for sustainable development		
Create an enabling environment for sustainable development		
Existence of laws for ensuring country-by-country reporting by multinational corporations, disclosure of beneficial ownership and the prevention of money laundering	All countries	Canada Peru Sierra Leone Tanzania

IMPLICATIONS

What are the implications of these findings for implementing a universal, country-relevant SDG framework?

Applicability of global minimum standards and global partnership

The first implication relates to how global minimum standards are applied. While some sustainable development targets and indicators are both relevant and applicable across a diverse range of countries (see Annex 5), this is not true for all targets and indicators, including global minimum standards. This means that the desire to have a universal set of goals, targets and indicators applied to all countries and the desire to reach global minimum standards across the world cannot be fulfilled by applying the global minimum standards in all countries. Attempts to do so, for example, by applying targets on ending extreme income poverty – measured using proportion of the population living below US$1.25 (purchasing power parity [PPP]) per day – or providing free and universal legal identify – measured using an indicator on birth registration – to all countries, would not work. Due to the irrelevance of the approach to high-income countries, such application would weaken attempts to make a universal framework relevant and compelling for all countries.

With regard to global partnership targets and indicators, there is a need to nuance how and to whom such targets are applied, particularly with reference to common but differentiated responsibilities. Clearly Bangladesh and Sierra Leone do not share the same levels of responsibility for addressing climate change and providing financial support for international development as countries like Canada and Turkey. Also, high- and middle-income countries can be held accountable for their contributions to global partnership through national-level monitoring. Under MDG 8, with the exception of foreign aid, commitments related to global partnership were tracked at the global level and in terms of aggregate flows (MDG Gap Task Force 2014). Commitments related to trade policy are typically discussed in

terms of multilateral trade negotiations, overall preferential access and key tariff and non-tariff barriers to trade. Debt is examined from the perspective of developing countries rather than individual debtors, while progress on access to affordable medicines is largely presented as a global narrative. With respect to technology transfer, indicators show trends in access to ICT. While these aggregate measures are important for generating a global narrative, they say little about countries' individual contributions. The lack of country-by-country reporting creates significant potential for free riding and does not create incentives for a race to the top.

Monitoring of global partnership will evidently need to take into account appropriate contributions from different types of countries (a point also recently made by Kindornay and Twigg [2015] and Knoll et. al [2015]). Given weak accountability and slow progress on MDG 8, national-level monitoring of contributions to global partnership could also provide an important way for countries to be held accountable with regard to global public goods. Targets would need to be appropriately applied to reflect common but differentiated responsibilities. For example, official development assistance providers would be measured using aid metrics while contributions in terms of South-South cooperation would require other appropriate metrics.

Balancing universality and country contexts

Second, with a broad set of goals, it is possible to have a framework that enables countries to both apply a set of global targets and indicators as well as identify national targets and indicators that reflect country contexts and priorities. Table 3 shows how this would work in practice for all goal areas. Effectively, each country can subscribe to the global targets and indicators, while also tailoring the universal agenda to their national priorities. In many cases, research teams chose targets, indicators and associated data sources that would not be comparable across countries. A balance will be needed between enabling countries to select indicators that make sense for their national contexts and reducing international comparability.

Structural and process indicators at the country level

Finally, when given the opportunity to identify targets and indicators that make sense for their country contexts, research teams selected various types of indicators. Teams were encouraged to move beyond outcome indicators if necessary. Some research teams selected and defended the use of structural and process indicators.
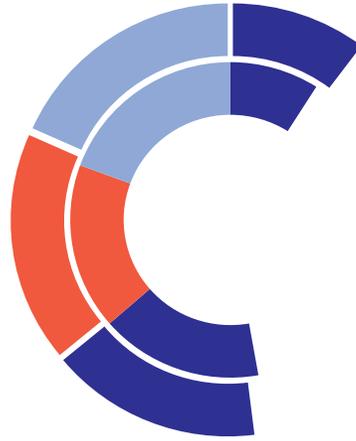
Measuring the SDGs

- Data are more readily available for the goal areas on poverty, education and employment and tend to come in the form of survey data collected by NSOs. The goal areas on energy and infrastructure have the most significant data gaps, followed by the goal areas on governance, environment and disaster resilience, and global partnership. Data for these goal areas tend to be supplied through a mix of survey and administrative data sources.
- Though data exist, significant efforts are needed to process and calculate existing data in order to be able to use it to track SDG progress using the indicators that have been selected through the UN process.
- The frequency of data collection is insufficient, particularly in low-income countries. Initiatives to generate data more frequently, improve comparability of data sources and make use of proxy data are needed.
- Significant efforts are needed to improve the quality of administrative data, which can be used to fill key data gaps and triangulate survey data.

GENERAL DATA AVAILABILITY FOR MEASURING THE SDGs

Unsurprisingly, the country studies found that general data collection on important topics, such as education, labour, business performance, health and the environment, tends to be better in the middle- and high-income countries – Peru, Turkey and Canada – with Canada's data collection being the most comprehensive.[7] The Bangladesh, Senegal and Tanzania country studies noted that data collection processes and overall data availability have improved in recent years, particularly since the establishment of the MDGs. Improvements have been seen in the areas of data availability, quality assurance, timeliness and accessibility. Nevertheless, making greater use of administrative data remains a challenge. While efforts have been made to improve the capacity of the NSS in Sierra Leone, significant data gaps remain with respect to labour market information, effects of natural disasters and information on particular groups such as disabled individuals, homeless/unsheltered children and orphans.

Where disaggregated data are available across the countries and goal areas examined, they tend to be disaggregated by sex, age and sub-region. All country studies highlighted general limitations in terms of disaggregated data, particularly in terms of data for particular ethnic groups and by income level (see Box 3).

Box 3: The challenges of disaggregated data

Bangladesh: The availability of data disaggregated by age, sex, ethnicity, sub-region and income level is poor.

Canada: High degree of disaggregation by location, language, sex, age, ethnicity and income level. While Canada has comprehensive data on Aboriginal populations from the National Household Survey, which is conducted every five years, other more frequent survey instruments do not capture data on this minority population.

Peru: Disaggregated data tend to be only available by sex, region and urban/rural distinctions.

Senegal: Disaggregation tends to be fairly good overall. Gaps exist in terms of disaggregating data to the local level. A number of Senegal's key survey instruments offer disaggregation by sex, age, region and sometimes ethnicity.

Sierra Leone: Socio-economic data are typically disaggregated by locality, age and sex. Significant challenges exist for all other forms of disaggregation.

Tanzania: Data disaggregation is limited. Important forms of disaggregation are often not possible given sample sizes, meaning that finding data disaggregated by locality and social group is a challenge.

Turkey: Securing data disaggregated by minority and ethnic groups, region and urban/rural distinction is a challenge, with complications for the latter two owing to changes in definitions over time.

DATA MAPPING RESULTS

Research teams mapped out the availability of national-level official data for the 45 global indicators examined under the initiative (see Annex 2). Data were considered available if an indicator was already available or could be calculated from existing data. Though teams identified potential survey instruments with which new data could be collected, data were considered unavailable in all cases where no data, including microdata, currently exist. Annex 6 provides an overview of the primary source identified by countries for each indicator. The source listed is the main source selected, though it should be noted that for a number of indicators, multiple data sources exist.

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[7] Statistics Canada currently runs over 350 surveys – typically conducted on a monthly or annual basis – and collects administrative data.

As shown in Figure 4, data are available across countries for nearly all indicators related to poverty, education, and employment and inclusive growth. These goal areas correlate with the MDGs in addition to key economic indicators that governments tend to prioritise in their data collection efforts. Data are less available for all other goal areas, with energy and infrastructure as well as governance being the most problematic, as data are available for 59 percent and 60 percent of indicators across countries, respectively. Data on the environment are available for 74 percent of indicators across countries, while data on global partnership are available for 79 percent.

Figure 4: Data availability by goal area across countries
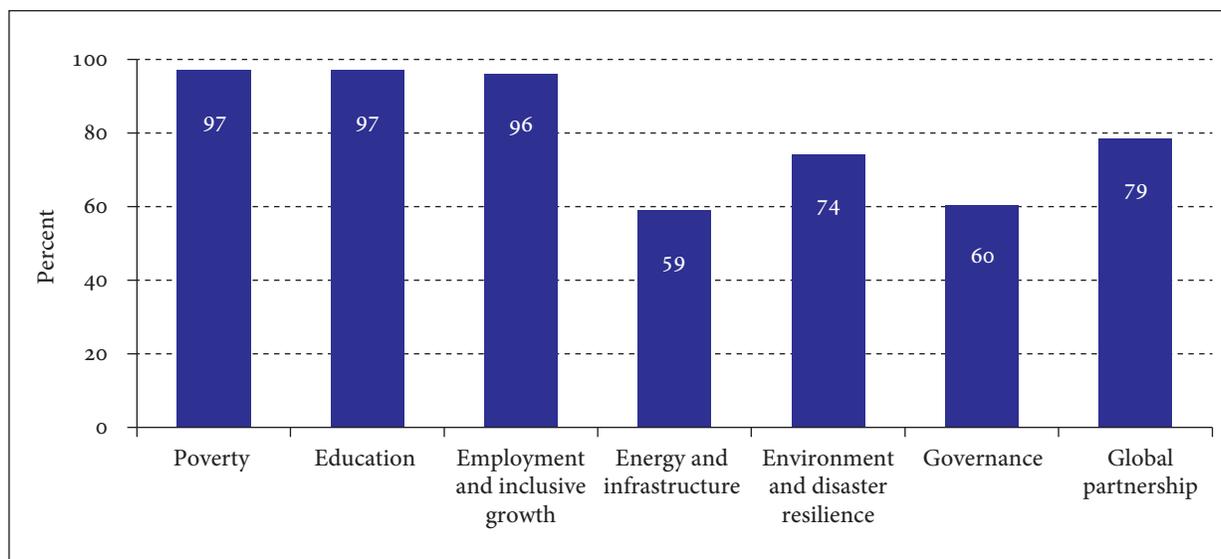
Figure 5 provides a breakdown of data availability across the 45 indicators by country. Senegal has data for the highest number of indicators (41), followed by Bangladesh (38), Peru and Turkey (36 each), Canada (35) and Tanzania (34). Monitoring progress in Sierra Leone will present more of a challenge, since data were available for only 24 of 45 indicators.

Figure 5: Total indicators for which national-level data exist across countries
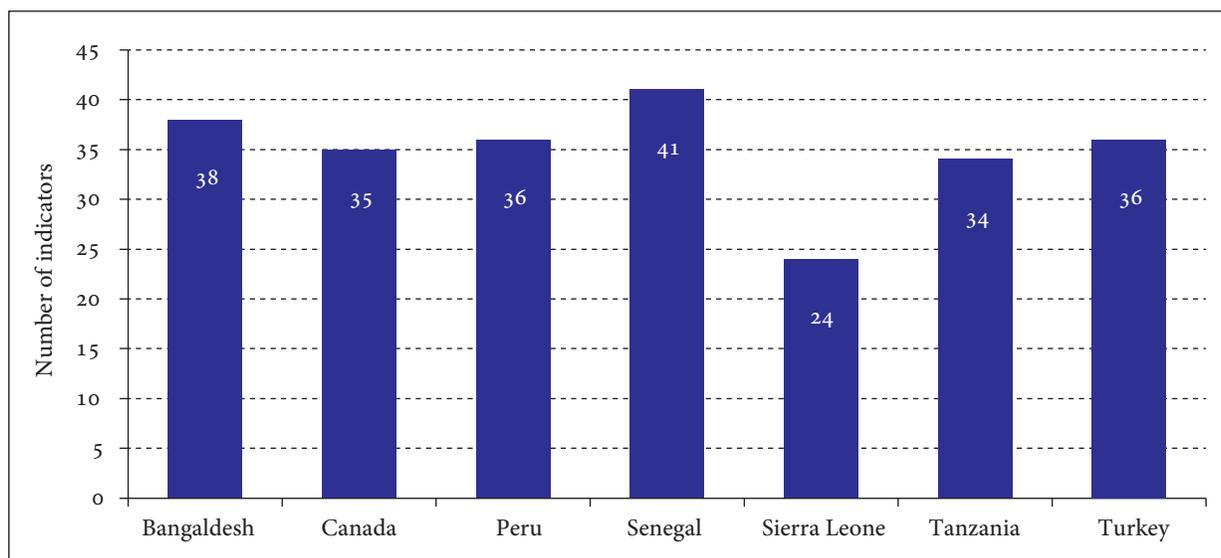
These findings, which appear to indicate that most countries included in the initiative are well positioned to measure the SDGs, have two important caveats. First, in a number of cases where data gaps exist, research teams stressed that the gaps may not be a major concern for SDG monitoring because some indicators are not particularly relevant for the country context. For example, of the 10 indicators for which data are unavailable for Canada, only three are particularly relevant.[8] The Peru research team noted that a number of the global partnership indicators, particularly those pertaining to low-income countries, are not overly relevant for the country. For instance, Peru does not carry significant low-income country debt. Access to modern cooking solutions, for example, is not relevant for Turkey. In the cases of the low-income countries examined, most indicators were found to be relevant, with those under global partnership being notable exceptions. In this regard, data gaps in low-income countries tend to reflect areas for which SDG monitoring would likely be a priority.

Second, though data exist, additional work would be needed to calculate the specific indicators selected to track progress. Figure 6 provides a breakdown of the indicators that are readily available, those for which additional calculations from existing data would be needed and those for which no data exist. The figure shows that, while data availability is good for all countries except Sierra Leone, additional calculations would be needed for nearly half of the indicators, for which data are available, for Bangladesh, Canada and Turkey. Peru would need to calculate 16 of the 36 indicators for which it has data, while Tanzania would need to calculate 11 of its 34 indicators. Senegal is the main outlier of the group, with only 13 of the 41 indicators for which it has data requiring additional calculations. Senegal's performance is explained by recent investments made in Senegal to improve the availability of data and the high level with which the indicators examined by all countries corresponded to national metrics.

Figure 6: Indicator availability across countries
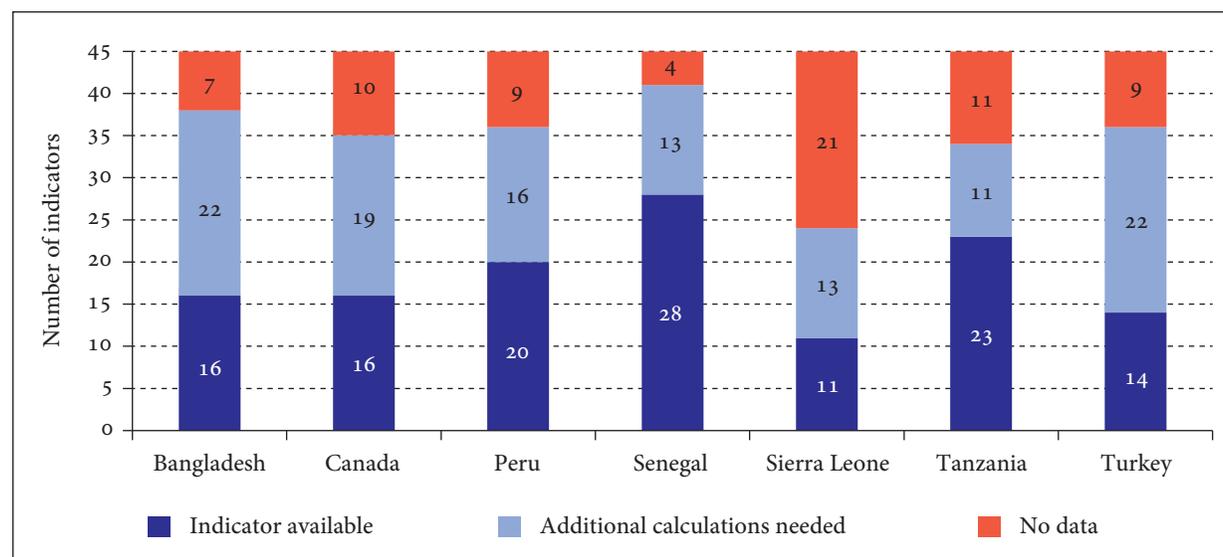
BASELINE DATA AND DATA COLLECTION FREQUENCY

Each research team examined the possibility of using 2010 as a baseline year for SDG monitoring. The Canada, Peru, Senegal and Turkey teams found that a significant proportion of available data is available for 2010 or earlier. A number of important surveys for Tanzania, such as the Integrated Labour Force

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[8]These include indicators pertaining to access to all-season roads, women's and minority populations' political representation at various levels of government, and use of integrated reporting by large tax unit taxpayers. Other indicators are certainly less relevant. For example, Canada does not have data on South-South cooperation because it is not a provider. Civil registration is near universal in the country, which means data are unavailable for the two indicators aimed at measuring the provision of free and universal identity.

Survey and Demographic and Health Survey, are conducted annually, meaning that data are available for 2010 for some indicators. However, data from the Population and Housing Census and multi-indicator cluster survey are only available for 2012. The Bangladesh and Sierra Leone teams both identified significant challenges with respect to a 2010 baseline year for monitoring the SDGs. Indicators related to education and poverty are more readily available for 2010 in Bangladesh, but other goal areas, notably those on energy and infrastructure, the environment and global partnership, have limited data for 2010. For Sierra Leone, the challenge is even more pronounced. The last census was conducted in 2004 and the 2014 census was delayed due to the Ebola outbreak in the country. While the Multiple Indicators Cluster Survey and Integrated Household Survey have data for 2010, the Demographic and Health Survey was only conducted in 2013 and the last Labour Force Survey was conducted in 1989–90.

There is no question that the frequency of data collection varies greatly across the examined countries. On one end of the scale, Canada, Turkey and Peru collect data on most key economic, social and environmental indicators annually at minimum, with some surveys being conducted on monthly and quarterly bases. On the other end, Sierra Leone has significant data gaps due to data collection timeframes. The Multiple Indicators Cluster Survey and Demographic and Health Survey are conducted every five years while the Integrated Household Budget Survey is conducted every eight years. Bangladesh, Senegal and Tanzania tend to fall between the two ends of the scale. These countries tend to have education data available on an annual basis, while data collection ranges from every three to five years for most other goal areas. Senegal has annual data for a number of indicators related to global partnership as well as energy and infrastructure.

DATA QUALITY

All research teams noted that their respective countries' NSOs are mandated to produce good quality data and have mechanisms in place to improve data quality. Working with international partners, Bangladesh, Senegal, Tanzania and Sierra Leone have each developed a National Strategy for the Development of Statistics. In Sierra Leone, an added layer of data quality assurance exists as international partners such as the World Bank and UN Economic Commission for Africa play a validation role to ensure that the quality of data is "good." In 2012, Peru saw the Code of Good Statistical Practices of Peru approved, while Turkey's NSO committed to complying with the European Statistical System Quality Declaration Norms and European Statistics Code of Practice. In 2002, Canada developed the Quality Assurance Framework and its NSO's quality guidelines are published and updated on an occasional basis. These frameworks share in common the goal of ensuring the production of relevant, timely, accurate and coherent data. In addition to policy frameworks, Canada, Peru, Senegal, Tanzania and Turkey have bodies, such as advisory committees, councils and working groups, that advise on the production of statistics. They also serve as mechanisms for interaction between data users and producers.

DATA QUALITY ASSESSMENT

The data quality assessment framework in Annex 4 was compiled using a number of quality assurance frameworks, including the Generic National Quality Assurance Framework Template (Expert Group on NQAF 2012), European Statistics Code of Practice (ESSC 2011), the IMF's Data Quality Assessment Framework (IMF 2006), and the Code of Good Practice in Statistics for Latin America and the Caribbean (Working Group on Capacity Building 2011). Canada's Quality Assurance Framework (Statistics Canada 2002) was also consulted.

The five main criteria for examining data quality include: (i) relevance, (ii) accuracy and reliability, (iii) timeliness and punctuality, (iv) accessibility and clarity and (v) coherence and comparability. Research teams examined the quality of available data for global indicators under each goal area against these criteria. The scores assigned for data quality throughout this report show the total for each criterion assessed on a scale of 1 to 5. A score of 5 indicates that data for the goal area meet all data quality criteria sub-components, 3

indicates that more than half of the criteria sub-components were met, while 1 means none were met. Scores of 2 and 4 are used to describe intermediate levels for which sub-component criteria were met.

Limitations to the Data Quality Assessment

A number of limitations exist with respect to the data quality assessment. First, while the research methodology aimed to ensure consistency between research teams, small differences existed between how teams scored data quality across the goal areas. In some teams, the data quality assessment was conducted by a range of team members based on their thematic expertise, while in others, a couple of individuals conducted the assessment across all goal areas. Furthermore, research teams had varying degrees of access to their respective NSOs during the data assessment process, meaning that some teams relied heavily on publicly available information, while others were able to review the criteria more systematically with their NSOs. It is possible that additional resources are available internally within NSOs, such as more up-to-date data dictionaries and methodology guides, which may have impacted scores. Further, in some instances, particularly for data sources produced by other government institutions, information was unavailable.

The data quality assessment framework has its own limitations. Sub-components within the framework are weighted equally, though their relative importance within and across criteria could be debated. In addition, some of the sub-components are framed in such a way that survey instruments were automatically scored lower. For example, under relevance, one sub-component is "legislative requirement to consult with the user on data collection." While nearly all teams noted that room exists for improvement on user consultation, consultation – in some form – does occur. However, a responsibility to consult with data users is not always enshrined in legislation. Furthermore, since the framework provides an overall score for each goal area based on a basket of survey instruments and the scoring criteria state that all sub-components must be met for a score of 5 to be given, if one survey instrument meets all but one sub-component, the highest score possible will only be 4.[9] On the other hand, in cases where only one survey instrument is used, it is easier to obtain a higher score.

Moreover, some aspects of the data quality assessment framework are repeated, which means that if a survey instrument scores poorly on one sub-component, this may occur repeatedly throughout the assessment. For example, consultation with data users is a key component of the framework included in different ways under various criteria. If no evidence of user consultation exists, this means that a survey instrument cannot receive a 5 across any of the criteria. At the same time, it should be noted that this limitation is tempered to a certain extent because the sub-components focus on different aspects of user consultation, such as existence of advisory committees, procedures to track user needs and consultations with users on dissemination.

OVERALL RESULTS OF THE DATA QUALITY ASSESSMENT

The results of the data quality assessment are presented in this section on a goal-by-goal basis. Given the small sample of countries, it is difficult to aggregate and generalise from overall scores. It is worth noting, however, that overall data quality tends to be better for the goal areas on poverty, education, and employment and inclusive growth, corresponding to the areas in which more and better data are available and NSOs typically serve as the official data producer. Data quality for all other goal areas tends to be poorer across the country studies. These are the goal areas for which more data tend to be produced by ministries that do not necessarily follow the same data quality standards as NSOs.

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[9] On the other hand, it is all the more impressive when a 5 is awarded under the scoring methodology because it means that all survey instruments meet all sub-components for a particular goal area.

END POVERTY

DATA AVAILABILITY

All countries included in this initiative are in an excellent position to measure progress against reducing poverty (see Table 5, Figure 7). Regular surveys provide the bulk of necessary information across countries. Of the indicators examined, only Canada has a data gap with regard to child stunting.[10] Neither Turkey nor Canada actually measure poverty according to the international thresholds of US$1.25 and US$2 (PPP) per day, since the thresholds are much lower than what would make sense in their national contexts. Nevertheless, microdata are available that could be used to calculate these indicators.

Table 5: End poverty: Data availability across countries

Target	Indicator	Bangladesh	Canada	Peru	Senegal	Sierra Leone	Tanzania	Turkey
End extreme income poverty	Proportion of population below US$1.25 (PPP) per day	X	X	X	X	X	X	X
Reduce poverty	Proportion of population below US$2 (PPP) per day	X	X	X	X	X	X	X
	Proportion of population living below national poverty line	X	X	X	X	X	X	X
	Share of employed persons living below national poverty line	X	X	X	X	X	X	X
Reduce the proportion of people who suffer from hunger	Prevalence of child stunting in boys and girls under 5, %	X	-	X	X	X	X	X

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[10]For Canada, it is likely that the country would be far more concerned with child obesity than child stunting, given the national context.

Figure 7 provides an overview of data availability, including the extent to which indicators are readily available or will need to be calculated from existing data. While it is clear that data are available to measure poverty outcomes across countries, additional efforts would be needed to calculate the specific selected indicators.

Figure 7: End poverty: Data availability
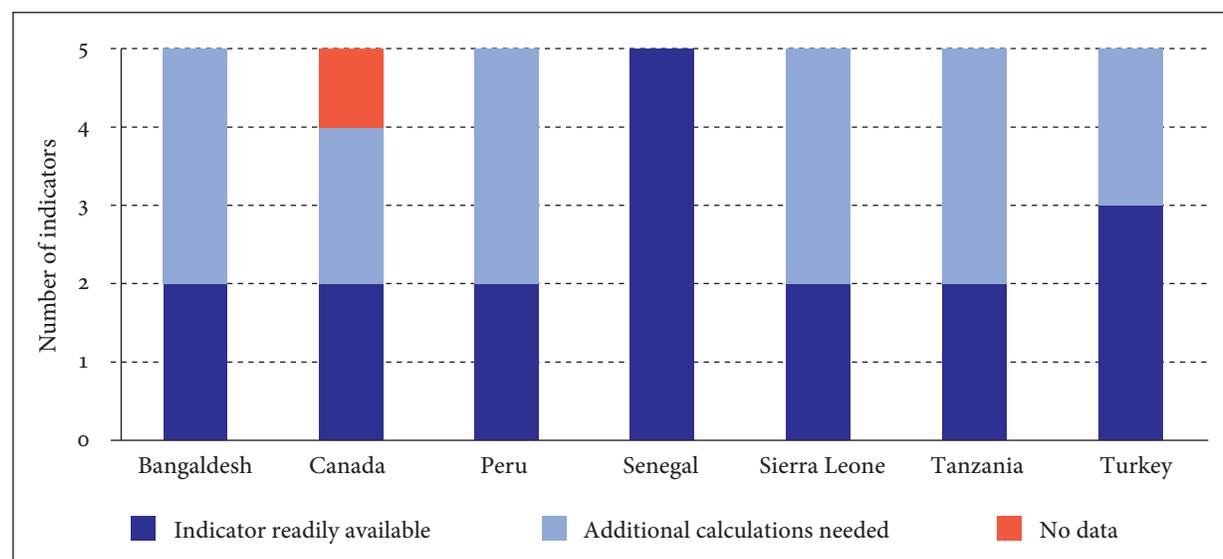
Disaggregated Data

Turkey and Canada can produce data on poverty at a high level of disaggregation including by characteristics such as gender, age, location and household size. Canada has poverty data for visible minorities, Aboriginal population and immigrants. Peru and Senegal tend to have poverty data disaggregated by age, sex and location (sub-region, urban/rural), while Tanzania tends to have data that can only be disaggregated by sub-region. Bangladesh has data disaggregated by sex and sub-region in some cases, but there is a need for greater levels of disaggregation to the sub-district level. Poverty data can be disaggregated by sex, locality and quintiles for Sierra Leone.

Baseline Data and Data Collection Frequency

Figure 8 provides an overview of the main survey instruments identified by the research teams for monitoring progress on poverty. It shows that all countries have data, at minimum, from the early 2000s. The figure also shows the variance that exists between Canada, Turkey and Peru in terms of data collection compared to other participating countries. It suggests that while data exist for poverty-related indicators, one challenge will still be to ensure that data are collected frequently enough for governments to monitor progress on poverty reduction in a timely fashion.

Figure 8: End poverty: Frequency of data collection for main survey instruments, 2000–15

Country	Survey instrument	Frequency of data collection															
		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Bangladesh	Household Income and Expenditure Survey	X					X					X					X
	Demographic and Health Survey	X				X			X			X			X		
Canada	Survey of Labour and Income Dynamics	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Annual Income Estimates for Census Families and Individuals	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Population Census		X				X					X					
	National Household Survey		X				X					X					
Peru	National Household Survey	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Demographic and Health Survey	X				X			X	X	X	X	X	X	X	X	X
Senegal	Senegalese Household Survey			X			X					X					
	Senegal Poverty Monitoring Survey						X	X					X				X
	Demographic and Health Survey of Senegal/Multiple Indicator Cluster Survey[a]						X					X	X	X	X	X	X
Sierra Leone	Sierra Leone Integrated Household Survey				X								X				X
	Multiple Indicators Cluster Survey						X					X					
Tanzania	Household Budget Survey		X						X					X			
	Demographic and Health Survey					X	X					X					
Turkey	Survey of Income and Living Conditions[b]							X	X	X	X	X	X	X	X	X	X
	Household Budget Survey			X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Turkish Demographic and Health Survey									X							

Note: [a]Prior to 2010, only the Demographic and Health Survey was conducted in Senegal (it was conducted in 1987, 1992, 1997 and 2005). In 2010, the survey became annual and was combined with the Multiple Indicators Cluster Survey.
[b]In 2006, a switch occurred from using the Household Budget Survey to the Survey of Income and Living Conditions for poverty indicators.

DATA QUALITY

The quality of poverty data tends to be quite good overall across countries (see Table 6). The quality of data for Canada and Turkey stands out. Canada has excellent data on poverty, as suggested by the scores below. This is perhaps unsurprising given that these data are produced by Statistics Canada, the NSO, and therefore subject to the agency's strong quality assurance standards. The main reason for the lower scores on relevance as well as accuracy and reliability is because the agency is only beginning to systematically compile user feedback to assess the relevance of survey instruments for user purposes.

Table 6: End poverty: Data quality assessment

Country	Relevance	Accuracy and reliability	Timeliness and punctuality	Accessibility and clarity	Coherence and comparability
Bangladesh	4	4	4	4	4
Canada	4	4	5	5	5
Peru	5	4	3	4	4
Senegal	3	2	2	3	4
Sierra Leone	4	4	3	3	3
Tanzania	4	4	2	4	4
Turkey	5	4	5	5	5

Turkey also has excellent data on poverty. The data follow Eurostat's procedures for data collection and users can easily contact TurkStat, the NSO, with questions. Workshops are also held with data users regarding the questions asked in surveys. Accuracy and reliability score high as well, since TurkStat is transparent when errors occur and quick to revise and re-publish data. TurkStat follows a timeline for data collection, production and release, and typically meets the deadlines that it sets for itself. Data and metadata are widely available to all users and microdata are available according to a clear policy, which results in a high score for accessibility and clarity. If there is a misunderstanding about a question or concept, the NSO is quick to answer when contacted via email. Finally, as the data fulfil Eurostat's standards, there is no standardisation problem. This explains the high score for coherence and comparability.[11]

The results from the Peru country study also show that the data there are of fairly good quality. Similar to Canada, these data are collected by the NSO, the National Institute of Statistics and Information Technology, and as such, subject to the Code of Good Statistical Practices of Peru. Databases provide technical documentation and have mechanisms to meet user needs. Data are seen as credible by users and data collection and release are done within predetermined time periods.

The quality of poverty data for the examined low-income countries is also fairly good, particularly when compared to other goal areas. For Bangladesh, poverty data score well across the board. While poverty data score fairly well across most criteria for Senegal, timeliness and punctuality as well as accuracy and reliability have low scores owing to the reliance of the National Agency for Statistics and Demography on technical and financial partners to conduct key surveys in this area. Delays in donor funding or the allocation of government funding mean that the NSO's planned activities do not always respect timelines. The scores for Sierra Leone and Tanzania in this area reflect a similar challenge in terms of reliance on external partners. The accuracy and reliability of poverty data is weak for Senegal owing to difficulties in comparing statistics produced from different surveys and for different periods, but also by the inadequacy of data analysis.

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[11]These references to Eurostat reveal an assumption that it is good to use Eurostat standards and that international acceptability and comparability are high when Eurostat standards are used.

ENSURE QUALITY EDUCATION FOR ALL

DATA AVAILABILITY

Data for indicators related to education were the most widely available across the countries examined (see Table 7). In Bangladesh, Canada, Senegal and Turkey, administrative sources provide education data, though survey data are available and can be used to verify administrative data. For Peru, Sierra Leone and Tanzania, regular surveys tend to be the main data sources.[12] All countries except Sierra Leone have data for all indicators. In the case of Sierra Leone, the only indicator for which no data exist is "Proportion of individuals enrolled in a Technical and Vocational Education and Training institution."

Table 7: Ensure quality education for all: Data availability across countries

Target	Indicator	Bangladesh	Canada	Peru	Senegal	Sierra Leone	Tanzania	Turkey
Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys receiving at least one year in pre-primary programmes	X	X	X	X	X	X	X
	% of girls and boys who complete primary school	X	X	X	X	X	X	X
	% of girls and boys who complete secondary school	X	X	X	X	X	X	X
	% of girls and boys who achieve a passing grade in national learning assessments at the primary school level	X	X	X	X	X	X	X
Increase the number of adults with skills, including technical and vocational skills	Proportion of individuals enrolled in a Technical and Vocational Education and Training institution	X	X	X	X	-	X	X

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[12]National Household Survey, Multiple Indicators Cluster Survey and Basic Education Statistics Tanzania, respectively.

Figure 9 suggests that, for the most part, many of the indicators are already available for most countries. Canada and Turkey stand out as interesting cases – all of the indicators would need to be calculated in both countries. This is because these countries do not calculate completion rates per se, but rather provide comprehensive data on annual enrolment rates by grade. In these cases, calculating the indicators would be relatively easy.

Figure 9: Ensure quality education for all: Data availability
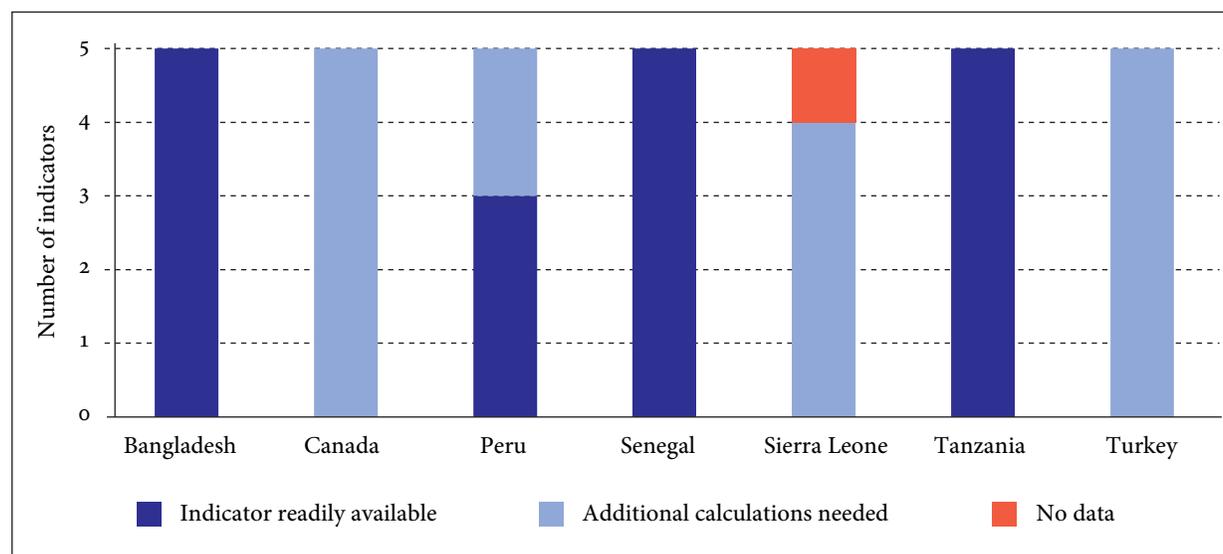
Disaggregated Data

Education data have the highest level of disaggregation across the goal areas. For all countries, education data are always available by age, sex and sub-region.[13] As is the case with poverty data, Canada has education data for visible minorities, Aboriginal people and immigrants. Sierra Leone continues to face significant challenges in generating disaggregated data.

Baseline Data and Data Collection Frequency

Figure 10 provides an overview of the main survey instruments identified by the research teams for monitoring progress on education. Most countries have multiple sources of education data such as annual survey instruments, in addition to census data and administrative data. The figure shows that, with the exception of Tanzania, all countries have education data from 2000 onwards. It also shows that the frequency of data collection is high. With the exception of Sierra Leone, all countries have at least one annual survey instrument that collects education data. The e-School database of Turkey's Ministry of National Education offers data in real time. In addition to the survey instruments that collect data on enrolment rates, all research teams identified a potential source for measuring education quality – or in other words, the proportion of students who achieve passing grades.

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[13]Senegal's data are disaggregated by urban/rural distinction. Data on pre-primary education are not available by sex for 2006 and 2012 in Bangladesh.

Figure 10: Ensure quality education for all: Frequency of data collection for main survey instruments, 2000–15

Country	Survey instrument	Frequency of data collection															
		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Bangladesh	Annual Primary School Census[a]							X	X	X	X	X	X	X	X	X	X
	Multiple Indicator Cluster Survey							X			X				X		
	Bangladesh Educational Statistics	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Canada	Elementary-Secondary Education Survey	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Registered Apprenticeship Information System	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Labour Force Survey[b]	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Pan-Canadian Assessment Program[c]		X		X			X			X				X		
Peru	National Household Survey	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Census Evaluation of Students							X									
	National School Census				X	X	X	X	X	X	X	X	X	X	X	X	X
Senegal	Ministry of Education[d]				X	X	X	X	X	X	X	X	X	X	X	X	X
	Assessment of the Economic and Social Situation in Senegal[e]	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Sierra Leone	Multiple Indicators Cluster Survey	X						X									X
	West African Examinations Council									X	X	X	X	X	X		
Tanzania	Basic Education Statistics in Tanzania				X	X	X	X	X	X	X	X	X	X	X	X	X
Turkey	Ministry of National Education e-School database[f]							X	X	X	X	X	X	X	X	X	X
	Ministry of National Education – formal education statistics							X	X	X	X	X	X	X	X	X	X
	Household Labour Force Survey[g]	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Note: [a]Prior to 2006, relevant data were collected through the Multiple Indicator Cluster Survey and Sample Vital Registration System, both of which continue to collect education data.
[b]Data are available monthly.
[c]Prior to 2007, the School Achievement Indicators Program had been in place. The Pan-Canadian Assessment Program was introduced in 2007.
[d]The ministry produces an annual report, the National Report on the State of Education.
[e]This report is produced annually based on administrative data and surveys, such as the Senegal Poverty Monitoring Survey. From this source, data are only available for the indicators "% of girls and boys receiving at least one year in pre-primary programmes" and "% of girls and boys who complete primary school" from 2006 onwards. Data on earlier years from the Ministry of Education exist for these indicators.
[f]Data on passing grades and pre-primary programmes are only available from 2007 onwards. Information is available in real time.
[g]Data on primary education achievement are only captured from 2008 onwards. Data on secondary education are only captured from 2004 onwards. Data were released quarterly from 2000 to 2004 and monthly from 2005 onwards.

DATA QUALITY

Across countries, the quality of education data ranges from poor to very good (Table 8). Education data for Peru and Canada tend to score fairly well across the data quality criteria. Where there are scores of 4 for Canada, the main reason is the lack of formal user consultation mechanisms. The quality of data in Bangladesh tends to be satisfactory across the criteria.

Table 8: Ensure quality education for all: Data quality assessment

Country	Relevance	Accuracy and reliability	Timeliness and punctuality	Accessibility and clarity	Coherence and comparability
Bangladesh	4	4	4	4	4
Canada	4	4	5	5	4
Peru	5	4	3	4	4
Senegal	3	2	3	4	4
Sierra Leone	4	3	3	2	2
Tanzania	4	3	2	4	4
Turkey	2	5	3	2	2

In the case of Senegal, data quality tends to be compromised in terms of reliability and accuracy. This is partly explained by the nature of the information produced and how data are collected and processed. The majority of data for the education indicators come from administrative sources. However, the administrative mechanisms for data collection, particularly those on education, are confronted by diverse constraints that compromise the accuracy and reliability of data. Weaknesses include insufficient human resources, lack of competence for the production of statistics, poor mobility of senior statisticians specialised in the domain of education, weak organisation of data collection in different school units, and issues related to data management and storage. Weak collaboration between sectoral structures producing data on education and the NSO, particularly in terms of coordination of statistical activities, concepts and methodologies, has also had consequences for the coherence and comparability of education data. Comparisons between survey data and administrative data show statistically significant differences,[14] a finding that is also consistent with Justin Sandefur and Amanda Glassman's 2014 review of survey and administrative data in sub-Saharan Africa. In the case of Tanzania, data quality tends to be fairly good for the most part, with the exception of timeliness and punctuality. The low score owes to delays between the collection and release of data. Data are not made available quickly enough to effectively inform decision-making.

Both Sierra Leone and Turkey scored low on accessibility and clarity as well as coherence and comparability, suggesting that data are not easily accessible and data between sources are not fully comparable. In the case of Turkey, the accessibility and clarity score is the result of inaccessible education data and no clear policy

[14]For example, administrative sources tend to show significantly higher figures for school enrolment rates than surveys.

regarding how individuals can access data. While data appear to be consistent and comparable internally, no information is available regarding compliance with international standards, users are not informed regarding deviations and there is no evidence of efforts to assess the quality of internal consistency. Relevance also received a low score because user needs tend to only be taken into account if the user is affiliated with the Ministry of Education. In Sierra Leone, various institutions collect data on education. The key challenge there is the lack of consistent quality standards. There is no simple way to determine the comparability of datasets and the availability and accessibility of data are limited.

CREATE JOBS, SUSTAINABLE LIVELIHOODS AND INCLUSIVE GROWTH FOR ALL

DATA AVAILABILITY

As in the cases of poverty and education data, the availlility of data on employment and inclusive growth is fairly good (Table 9). The only indicator for which data are unavailable is "Mean nominal monthly earnings of employees (local currency)" for Bangladesh and Sierra Leone.

Table 9: Create jobs, sustainable livelihoods and inclusive growth for all: Data availability across countries

Target	Indicator	Bangladesh	Canada	Peru	Senegal	Sierra Leone	Tanzania	Turkey
Achieve full and productive employment for all, including women and young people	Labour force participation rate	X	X	X	X	X	X	X
	Time-related underemployment (thousands)	X	X	X	X	X	X	X
Ensure equal pay for equal work	Mean nominal monthly earnings of employees (local currency)	-	X	X	X	-	X	X
Support inclusive growth and reduce inequality	Gini coefficient	X	X	X	X	X	X	X
	Palma ratio	X	X	X	X	X	X	X
	Growth rate of income of the bottom 40%	X	X	X	X	X	X	X
	Gross fixed capital formation (% of GDP)	X	X	X	X	X	X	X

All countries have data available to calculate measures of inequality, but only the Gini coefficient is regularly calculated in all cases. Additional calculations would be needed for the Palma ratio and the growth rate of income of the bottom 40 percent, which account for most of the indicators for which additional calculations are needed across countries (see Figure 11). In the cases of Canada and Turkey, mean nominal monthly earnings would need to be calculated. This can be done quite easily since Canada reports earnings figures on a weekly basis whereas Turkey reports on yearly and month-by-month bases.

Figure 11: Create jobs, sustainable livelihoods and inclusive growth for all: Data availability
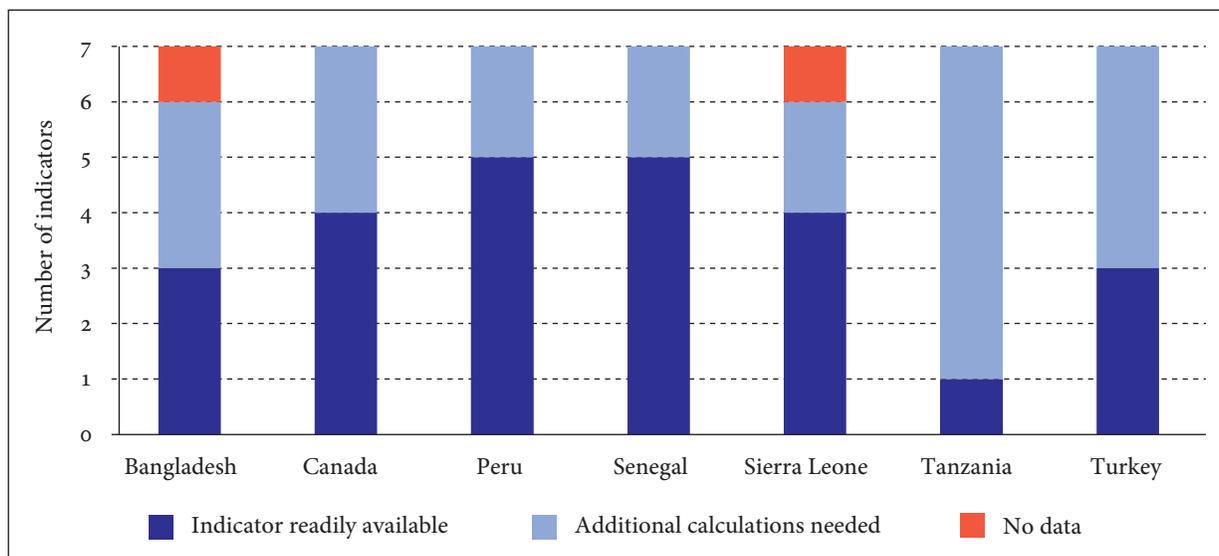
Disaggregated Data

Data on inequality can be disaggregated by sub-region across countries. Canada, Senegal and Turkey also have data disaggregated by sex for inequality indicators. For employment indicators related to wages and employment status, all countries except Sierra Leone have data disaggregated by sex and sub-region. Canada, Peru, Senegal and Turkey also have data disaggregated by age.

Baseline Data and Data Collection Frequency

Figure 12 provides an overview of the main survey instruments identified by the research teams for monitoring progress on employment and inclusive growth. Most countries have multiple sources of employment and income data, specifically regular survey instruments carried out by NSOs. All countries have information regarding gross fixed capital formulation available from national accounts, which is not listed below. Canada, Peru, Tanzania and Turkey have annual data, though Canada, Peru and Turkey collect employment data at a higher frequency than Tanzania. Bangladesh collects data every five years for its Household Income and Expenditure Survey, which provides income data for calculating indicators related to inequality, while data for the Labour Force Survey, which provides information on employment, are collected every three years. Regarding Senegal's key data source for this goal area, the Senegalese Poverty Monitoring Survey is conducted every five years.[15] Aside from the surveys listed below, national accounts are an important data source for this goal area, though issues regarding rebasing will need to be taken into consideration. For example, Tanzania's GDP grew by 1/3 following the 2014 rebasing. All countries have data available at minimum on an annual basis, with Canada and Turkey providing data more frequently. All countries have data for the baseline year of 2010.

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[15]Inequality measures do not tend to change quickly, and as such, these indicators may not need to be reported on an annual basis.

Figure 12: Create jobs, sustainable livelihoods and inclusive growth for all: Frequency of data collection for main survey instruments, 2000-15

Country	Survey instrument	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Bangladesh	Household Income and Expenditure Survey	X					X					X					X
	Labour Force Survey	X			X			X			X				X		
Canada	Labour Force Survey[a]	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Survey of Labour and Income Dynamics/Canadian Income Survey[b]	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Peru	National Household Survey[c]	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Senegal	Senegalese Poverty Monitoring Survey[d]				X	X						X	X				X
Sierra Leone	Sierra Leone Integrated Household Survey				X	X					X						
Tanzania	Integrated Labour Force Survey	X	X					X									
	Employment and Earnings Survey[e]		X	X					X				X	X			
	Household Budget Survey		X						X					X			
Turkey	Household Labour Force Survey[f]	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Household Budget Survey			X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Survey of Income and Living Conditions							X	X	X	X	X	X	X	X	X	X

Note: [a]Data are available monthly.
[b]This replaced the Survey of Labour and Income Dynamics for reference year 2012.
[c]Annual and quarterly versions are published.
[d]Time-related underemployment and labour force participation rate are the only indicators for which data are available for both 2005–06 and 2010–11.
[e]This survey was conducted only occasionally prior to 2011.
[f]Data released quarterly from 2000 to 2004 and monthly from 2005 onwards.

DATA QUALITY

Data for this goal area are produced by the NSOs. As a result, data quality tends to range from satisfactory to excellent across countries. For other goal areas, data collection tends to be done more by ministries, which do not necessarily follow the same data quality guidelines as NSOs and, as such, lower scores for data quality are seen. Table 10 shows that the quality of employment and income data ranges from satisfactory to excellent for all countries in terms of accuracy and reliability (with the exception of Senegal), accessibility and clarity, and coherence and comparability. As noted in the case of education data and for similar reasons, timeliness and punctuality continue to be a challenge for Tanzania and Senegal.

Table 10: Create jobs, sustainable livelihoods and inclusive growth for all: Data quality assessment

Country	Relevance	Accuracy and reliability	Timeliness and punctuality	Accessibility and clarity	Coherence and comparability
Bangladesh	4	4	4	4	4
Canada	3	4	5	5	5
Peru	5	5	3	3	3
Senegal	3	2	2	4	4
Sierra Leone	3	3	3	3	3
Tanzania	4	4	2	4	4
Turkey	5	4	5	4	4

DATA AVAILABILITY

Data on energy and infrastructure are available across countries for 59 percent of the indicators examined under this initiative, meaning that the goal area on energy and infrastructure has the lowest data availability. Table 11 provides an overview of indicators with data gaps. The range in terms of data availablity is large. Senegal has data for all indicators, while Sierra Leone has data for only two. The remaining countries have data available for a mix of indicators. Turkey and Peru have data for half of the indicators, while Canada has data for five of the nine indicators examined. These countries do not have official data on bandwidth speeds, but these speeds can be measured with data available from private sources in all instances. These countries also do not have data on the number of hours per day that households have access to electricity since access tends to be nearly universal. Finally, Canada and Peru do not have data on access to all-season roads, while Turkey does not have data on access to modern cooking solutions. In most areas where Canada, Peru and Turkey do not have data, the indicators do not particularly represent key challenges that these countries face and, as such, are not as relevant for their circumstances as would be the case in low-income countries.

Table 11: Ensure sustainable energy and develop infrastructure for all: Data availability across countries

Target	Indicator	Bangladesh	Canada	Peru	Senegal	Sierra Leone	Tanzania	Turkey
Ensure full access to developed infrastructure and communication technology	Internet users (per 1,000 people)	X	X	-	X	-	X	X
	Average bandwidth speed (megabits/second)	X	-	-	X	-	X	-
	% of the population with access to an all-season road	-	-	-	X	-	X	X
	% of adults with an account at a formal financial institution	X	X	X	X	-	-	X

(Table 11 contd.)

(Table 11 contd.)

Target	Indicator	Bangladesh	Canada	Peru	Senegal	Sierra Leone	Tanzania	Turkey
Ensure access to energy and improve efficiency and sustainability of energy supply, including renewable energy	# of hours per day households have access to electricity on average	X	-	-	X	X	X	-
	Rate of improvement in energy intensity	-	X	X	X	-	-	-
	Share of the population with access to modern cooking solutions (%)	-	X	X	X	X	X	-
	Share of renewable energy to total energy consumption	X	X	X	X	-	-	X

Bangladesh does not have data on access to all-season roads or modern cooking solutions. The country also does not measure the rate of improvement in energy intensity. For Tazania, official data on adults with an account at a formal financial institution,[16] as well as energy efficiency and renewable energy, are unavailable.

While there is a paucity of data for this goal area, indicators for which data are available tend to be readily available for Canada, Senegal and Turkey. A higher number of indicators for Bangladesh, Peru and Tanzania require additional calculations (see Figure 13).

Figure 13: Ensure sustainable energy and develop infrastructure for all: Data availability

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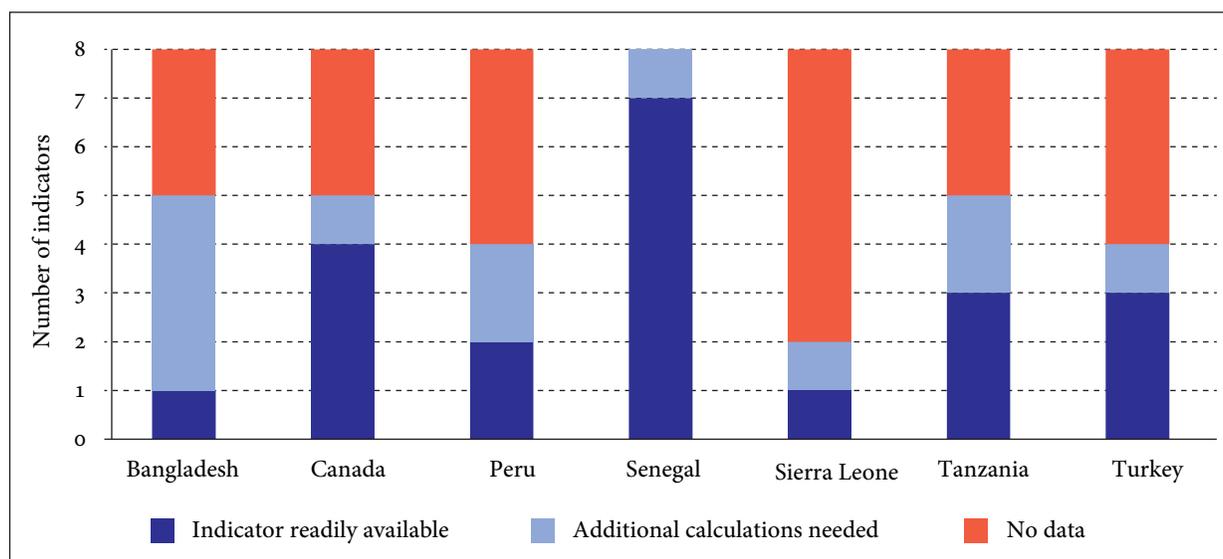
[16]Tanzania has data on this topic available through the FinScope Tanzania Survey, which is funded by the Financial Sector Deepening Trust, a consortium of five development partners – Canada, Denmark, the United Kingdom, Sweden and the Netherlands. The data from this survey are not considered official by the Tanzanian government, though the survey is nationally representative of the entire adult population. Approximately 8,000 people over 16 years of age take part across every region of the country and the survey results are invaluable to both public and private sector institutions.

Disaggregated Data

The type of disaggregated data needed for this goal area varies by indicator. For example, with respect to the proportion of adults with an account at a formal financial institution, it is important to have data disaggregated by sex, minority group and sub-region. Only Canada and Tanzania have readily available disaggregated data by sub-region. Peru and Senegal have no disaggregated data. Tanzania and Bangladesh have disaggregated data on hours of electricity use per day by sub-region, an important level of disaggregation for this indicator, while Senegal and Sierra Leone have no disaggregated data for this indicator. For countries with data on energy, which are Canada, Peru, Senegal and Turkey, only Canada has data disaggregated by sub-region on use of renewable energy and by industry for energy intensity, both of which are important levels of disaggregation for energy indicators. With respect to access to modern cooking solutions and all-season roads, data are nearly always available by sub-region for countries that collect this information. Finally, with respect to internet usage, only Canada and Senegal have data disaggregated by age and sex. Canada and Tanzania have data on internet users disaggregated by sub-region.

Baseline Data and Data Collection Frequency

Figure 14 below provides an overview of the main survey instruments identified by the research teams for monitoring progress on energy and infrastructure. Given the breadth of issues captured under this goal area, it is unsurprising that a variety of sources were identified. The figure provides information only on sources which produce survey or administrative data regularly. Unlike the preceding goal areas discussed, administrative data are much more frequently used for this goal area. The figure also shows that variation exists in terms of available baseline year data. A significant number of the survey instruments have data from 2000 onwards, though some gaps exist. At minimum, 2006 is the year for which most countries have data across the main survey instruments examined.

Figure 14: Ensure sustainable energy and develop infrastructure for all: Frequency of data collection for main survey instruments, 2000-15

Country	Survey instrument	Frequency of data collection															
		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Bangladesh	Bangladesh Telecommunications Regulatory Commission[a]	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Canada	Canadian System of Environmental and Resource Accounts	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	Electricity Supply and Disposition						■	■	■	■	■	■	■	■	■	■	■
	Survey of Household Spending[b]	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	Canadian Internet Use Survey[c]	■	■			■		■		■		■		■		■	
	General Survey on Consumers' Financial Awareness, Attitudes and Behaviour		■					■									
Peru	Economic-Energetic Information System of the Latin American Energy Organization - *National Energy Balance*										■			■			■
	National Household Survey		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

(Figure 14 contd.)

(Figure 14 contd.)

Country	Survey instrument	Frequency of data collection															
		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Senegal	National Survey on Information and Communications Technologies in Senegal										▓						
	Regulatory Authority for Telecommunications and Post^d	▓															
	Senegal Poverty Monitoring Survey						▓	▓			▓	▓					
Sierra Leone	Demographic and Health Survey									▓					▓		
Tanzania	Household Budget Survey		▓					▓						▓			
	Tanzania Communications Regulatory Authority								▓	▓	▓	▓	▓	▓	▓	▓	▓
Turkey	Transportation statistics, TurkStat	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓
	Environment and energy statistics, TurkStat	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓
	Bankacılıkta yapısal gelişmeler, Banking Regulation and Supervision Agency	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓				
	Sustainable development indicators^e	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓

Note: [a]Data are available monthly.
[b]Series on household cooking fuels terminated for reference year 2010 though household equipment (e.g. cell phone use, internet access) available.
[c]Data are available on an occasional basis.
[d]Data on internet usage are also publicly available from the National Telecommunications Company of Senegal, a private sector company, for the 2000–06 period.
[e]Sustainable development indicators in general are calculated by relevant units of TurkStat, while others are collected from organisations including the Ministry of Transport, Maritime Affairs and Communications, Ministry of Energy and Natural Resources, Ministry of Environment and Urbanization, Central Bank of the Republic of Turkey, Social Security Institution, Undersecretariat of Treasury, Turkish Cooperation and Coordination Agency, Republic of Turkey Ministry of Food, Agriculture and Livestock, and Republic of Turkey General Directorate of Forestry.

Bangladesh, Senegal and Tanzania have annual administrative data on internet use. In addition to administrative sources, some data points are also derived from regular surveys in these countries, particularly for indicators related to access to all-season roads and hours of electricity available per day, for example. Regarding the indicators for which they have data, Canada and Turkey frequently collect data on an annual basis. For Canada, internet data are collected occasionally, though historically at a fairly high frequency. Data on financial account holders, which are captured by the General Survey on Consumers' Financial Awareness, Attitudes and Behaviour, are less frequently collected and it is unclear when and if the survey will be conducted again. While Canada and Tanzania have surveys that collect data on financial account holders, such information is provided in annual reports on the financial sector in Peru and Turkey, and occasional reports in Senegal.

DATA QUALITY

Data quality tends to be poorer for goal areas that rely on administrative data from ministries, in addition to survey data collected by NSOs, for measuring progress (Table 12). For Bangladesh, the quality of data is very poor owing to a lack of policies for data collection, including metadata and information regarding revisions, standardisation and comparability, a lack of policies and evidence on appropriate user consultations, and significant limitations on data accessibility. The scores for Canada, which tend to be lower than those for the preceding goals though are still very good, are largely related to a lack of evidence demonstrating user consultations across the criteria relevance, accuracy and reliability, and accessibility and clarity. Coherence and comparability received a score of 4 because of the lack of comparability between statistics derived from different sources or different reference periods in the cases of a number of survey instruments.

Table 12: Ensure sustainable energy and develop infrastructure for all: Data quality assessment

Country	Relevance	Accuracy and reliability	Timeliness and punctuality	Accessibility and clarity	Coherence and comparability
Bangladesh	2	2	2	2	2
Canada	3	4	4	4	4
Peru	3	4	2	2	4
Senegal	3	2	2	3	3
Sierra Leone	3	3	3	3	2
Tanzania	4	4	2	4	4
Turkey	4	4	3	4	4

As with the case of data on employment and inclusive growth, the data quality assessment by the Senegal research team assigned low scores for reliability and accuracy as well as timeliness and punctuality. These weak scores owe to delays in planned activities, limited comparability between statistics produced using data from different surveys or time periods, and inadequate data analysis. In Sierra Leone, there is a lack of comparability between statistics derived from different sources or different periods of time in the cases of a number of survey instruments. For Tanzania, ensuring data on energy and infrastructure are made available in a timely manner to inform decision making remains a challenge. For Bangladesh, a number of factors inform the low scores, including a lack of clear policies related to data collection, data quality and coordination between data producers. The Bangladesh research team could not find evidence of consultations with data users and dissemination activities are weak. In the case of Turkey, data quality is very good across the board, with the exception of timeliness and punctuality. A lower score was assigned because data are not collected on a consistent basis. Much of the information is available in real time or through occasional reports rather than generated by regularly planned activities.

ESTABLISH A SUSTAINABLE, HEALTHY AND RESILIENT ENVIRONMENT FOR ALL

DATA AVAILABILITY

Though some gaps exist, particularly in Sierra Leone and Tanzania, data availability is fairly good for the indicators on environment and disaster resilience overall (see Table 13). All countries were able to verify the existence of government reporting to the UN System of Economic and Environmental Accounts, but only Bangladesh and Tanzania have data on the share of large tax unit taxpayers that use integrated reporting, which come from an annual report by the Tanzania Revenue Authority. Tanzania is the only country that does not have data on disaster deaths, though it should be noted that even for those who do have such data, they tend to be ad hoc, and not necessarily collected and reported in a systematic way, with Turkey serving as an exception. Perhaps surprisingly given its inclusion in the MDGs, a number of low-income countries

Table 13: Establish a sustainable, healthy and resilient environment for all: Data availability across countries

Target	Indicator	Bangladesh	Canada	Peru	Senegal	Sierra Leone	Tanzania	Turkey
Build resilience and reduce deaths from natural hazards	Disaster deaths per 1,000 inhabitants	X	X	X	X	X	-	X
Safeguard ecosystems and biodiversity	Net loss in forest area (% of land area)	-	X	X	X	-	-	X
	Trends in coverage of protected areas	X	X	X	X	X	-	X
Publish and use economic, social and environmental accounts in all governments and companies	Share of large tax unit taxpayers using integrated reporting[a]	X	-	-	-	-	X	-
	Existence of national and sub-national government publishing according to the System of Environmental-Economic Accounting[b]	X	X	X	X	X	X	X

Note: [a]Integrated reporting is a process founded on integrated thinking that results in a periodic integrated report by an organisation about value creation over time and related communications regarding aspects of value creation. An integrated report is a concise communication about how an organisation's strategy, governance, performance and prospects, in the context of its external environment, lead to the creation of value in the short-, medium- and long-term (IIRC 2013). Large taxpayers are very different from other categories of taxpayers and present certain significant risks to effective tax administration. Key characteristics of large businesses include: concentration of revenues, complexity of business and tax dealings, withholding agent or intermediary role, use of professional tax advisors and possession of in-house tax organisation. Businesses may be publicly listed corporations, multinational companies or private groups (OECD 2009).
[b]This is primarily a "yes-no" indicator and has binary variables that can only have two possible values.

do not have data on forest cover, though all countries except Tanzania have data on protected areas. In the case of Tanzania, the country has partial data for ecosystem-related indicators, but they do not cover the whole country.

Figure 15 shows that, in most instances, indicators are already available to monitor progress on environment and disaster resilience for the middle- and high-income countries. Indicators for low-income countries require additional calculations.

Figure 15: Establish a sustainble, healthy and resilient envrionment for all: Data availability
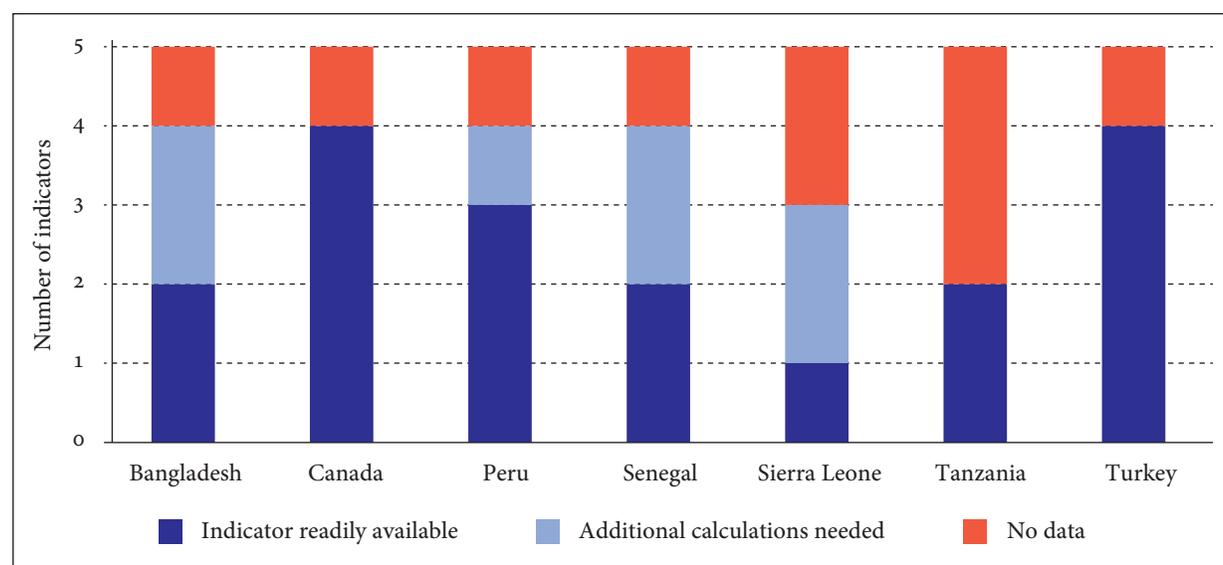
Disaggregated Data

Bangladesh, Canada and Turkey have data on disasters disaggregated by type of disaster. Peru, Canada and Turkey have this same information disaggregated by sub-region. Only Canada and Bangladesh have this kind of data disaggregated by sex. For indicators related to forest cover and protected areas, Senegal is the only country that does not have disaggregated data. Canada, Peru and Turkey have data for the sub-regional level.

Baseline Data and Data Collection Frequency

The bulk of the data sources for this goal area are administrative in nature. Figure 16 showcases regular survey instruments as well as cases where administrative data are regularly reported. A number of research teams noted that data are not available in a useable form. Much of the data for Peru come from publications by the Ministry of the Environment. For Senegal, a number of departments within the Ministry of Environment have data, but these data are not collected using a regular survey instrument or publicly available in usable form, with the exception of reports from the ministry. Where data do exist for Sierra Leone, the country faces a similar challenge. The case is similar for Turkey, where directorates of the Ministry of Forestry and Water Affairs supply data for the indicators under this goal area.

Figure 16: Establish a sustainable, healthy and resilient environment for all: Frequency of data collection for main survey instruments, 2000-15

Country	Survey instrument	Frequency of data collection															
		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Bangladesh	Disaster Management Bureau, Ministry of Disaster Management and Relief[a]	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪
Canada	Vital Statistics – Death Database	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪
	Canadian Environmental Sustainability Indicators database	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪
Peru	National Institute of Civil Defense											▪	▪	▪	▪	▪	▪
	National Service of Protected Natural Areas	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪
Senegal	No regular survey instrument exists and administrative data are not accessible to verify years for which data are available																
Sierra Leone	No regular surveys exist and administrative data on disaster deaths are not accessible to verify years for which data are available																
Tanzania	Tanzania Revenue Authority[b]	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪
Turkey	General Directorate of Forestry, Ministry of Forestry and Water Affairs						▪										
	General Directorate of Nature Conservation and National Parks, Ministry of Forestry and Water Affairs			▪										▪	▪		
	Prime Ministry, Disaster and Emergency Management Presidency[c]	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪

Note: [a]Available data are published on the ministry's website.
[b]Reporting is done through annual reports.
[c]Data collection is events-based.

DATA QUALITY

The scores for data on the environment are poor for most countries, particularly when compared to other goal areas (Table 14). Canada is an outlier in this regard, with scores that are marginally lower than those for poverty, education, and employment and inclusive growth, but very good overall. As is the case for data on energy and infrastructure, lower scores are largely related to a lack of evidence on user consultations across the criteria relevance, accuracy and reliability, and accessibility and clarity in the case of Canada. Coherence and comparability received a lower score owing to the lack of comparability between statistics derived from different sources or different reference periods in the cases of a number of survey instruments.

Table 14: Establish a sustainable, healthy and resilient environment for all: Data quality assessment

Country	Relevance	Accuracy and reliability	Timeliness and punctuality	Accessibility and clarity	Coherence and comparability
Bangladesh	2	2	2	2	2
Canada	4	4	4	4	4
Peru	4	3	3	2	2
Senegal	2	2	2	3	2
Sierra Leone	4	3	3	3	3
Tanzania	4	3	2	4	4
Turkey	3	2	4	3	3

Bangladesh, Peru and Senegal have fairly poor scores overall. For Bangladesh, this owes to inadequacies in terms of procedures, methodology, timeliness, coverage and quality, which is similar to the case of energy and infrastructure data. Often data lack reliability, representativeness and comparability. For Peru, low scores are explained by the lack of standardisation on data quality across government levels responsible for data production, insufficient resources for data collection, and insufficient understanding – in this case, by the Ministry of the Environment – to the importance of statistics in the decision-making process and public life which leads to an under-prioritisation of statistical production within the ministry.

For Senegal, environment and disaster resilience received the lowest score out of all the goal areas. Of the five fixed assessment criteria, only one succeeded in satisfying more than half of the sub-components. Enormous difficulties exist in getting access to relevant, reliable environmental statistics. One of the major challenges is the lack of comparability between data sources. Generally, data coming from the technical directorates of the Ministry of Environment and Sustainable Development often differ from those produced by universities and research centres. Sometimes there are contradictions in environmental statistics produced by directorates of the same administration. This contrast can be mainly explained by weak coordination and centralisation of environmental data production. Each structure collects, treats and analyses its data based on a precise objective without harmonisation of methodologies. The weak coordination between environmental data-producing directorates favours neither data relevance nor quality for measuring different indicators.

Turkey and Tanzania are in the middle of the pack in terms of data quality. In the case of Turkey, the score for relevance is explained by the unsatisfactory and inconsistent way in which data tend to be presented. Accuracy and reliability score low owing to differences in how protected areas are defined, which makes it difficult to ensure accuracy of data and also has implications for coherence and comparability. Lags also exist for the release of data for a number of the indicators under this goal area, a challenge also faced by Tanzania. Nevertheless, in the case of Turkey, for the most part, data appear to be accessible and presented in a clear way with appropriate explanatory texts.

ESTABLISH OPEN, ACCOUNTABLE, INCLUSIVE AND EFFECTIVE INSTITUTIONS, RULE OF LAW AND A PEACEFUL AND INCLUSIVE SOCIETY

DATA AVAILABILITY

There is a paucity of data for the goal area on governance (Table 15), with data available for only 60 percent of the indicators across countries. Sierra Leone has the least amount of data, while Bangladesh, Peru and Turkey are best positioned to report on this topic with data for seven of the nine indicators. With respect to indicators related to legal identity, all countries except Canada have data on the percentage of children under 5 registered with the civil authority. In Canada, this is not particularly a concern since registration is nearly

Table 15: Establish open, accountable, inclusive and effective institutions, rule of law and a peaceful and inclusive society: Data availability across countries

Target	Indicator	Bangladesh	Canada	Peru	Senegal	Sierra Leone	Tanzania	Turkey
Provide free and universal legal identity, such as birth registrations	Percentage of children under 5 who are registered with the civil authority	X	-	X	X	X	X	X
	Proportion of adults with a basic legal identity document	X	-	X	X	-	-	-
Monitor and end discrimination and inequalities in public service delivery, the rule of law, access to justice and participation in political and economic life on the basis of social status	Average time between filing a case and receiving a verdict	X	X	-	-	-	-	X
	Proportion of seats held by women and minorities in national- or local-level government	X	-	X	X	-	-	X
	% of adults with an account at a formal financial institution, disaggregated by sex	X	X	X	X	-	-	X

(Table 15 contd.)

(Table 15 contd.)

Target	Indicator	Bangladesh	Canada	Peru	Senegal	Sierra Leone	Tanzania	Turkey
Improve personal safety	Prevalence of violence against women, including domestic violence	X	X	X	-	X	X	X
	Violent death per 100,000 people	X	X	X	X[a]	-	X	X
Reduce bribery and corruption in all forms	Survey data regarding bribes or gifts for service from a government official – "In the past year, how often (if ever) have you had to pay a bribe, give a gift, or do a favour to government officials in order to get a document or receive a service"	-	-	-	-	-	-	-
Improve transparency in the revenue system	Share of eligible taxpayers who submit their taxes	-	X	X	X	-	X	X

Note: [a]Though it should be noted that the indicator is only partially informed. Data are available for suicides.

universal.[17] Data on the proportion of adults with a basic legal identity, however, are more problematic, with only Bangladesh, Peru and Senegal having official data. Tanzania recently launched a number of programmes aimed at obtaining such data, but no data currently exist.

Bangladesh, Canada and Turkey have data on the average time between filing a case and receiving a verdict. Most countries have data on the proportion of women and minorities representation in government. In Canada, Sierra Leone and Tanzania, these data are not systematically collected and reported as part of official statistics, though in Canada it is possible to get data on the proportion of women represented at the federal government level. It would be relatively easy to construct a dataset for this indicator, however, going forward, as the necessary information is readily available in these countries. The Inter-Parliamentary Union, for example, reports some of these data.[18]

Nearly all countries have data on financial account holders, an indicator that is also listed under the goal area on energy and infrastructure. Data on personal safety are also available for most countries. No country has official data on the proportion of individuals who have paid a bribe for public services, though unofficial data sources exist, such as the regional barometers like Afrobarometer, which could provide this information. Finally, data on the proportion of eligible taxpayers who pay their taxes are not systematically collected for most countries, though for countries without data, it is possible that national tax authorities could construct databases based on their data. Even where data do exist, as Figure 17 suggests, a significant number of the indicators will need to be calculated.

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[17]According to Statistics Canada, coverage is virtually complete because registration is a legal requirement, though the agency does receive late registrations – approximately 1,000–1,500 cases within the first five years of life. As such, data for this indicator are not regularly collected and reported.

[18]See http://www.ipu.org/wmn-e/classif.htm.

Figure 17: Establish open, accountable, inclusive and effective institutions, rule of law and a peaceful and inclusive society: Data availability
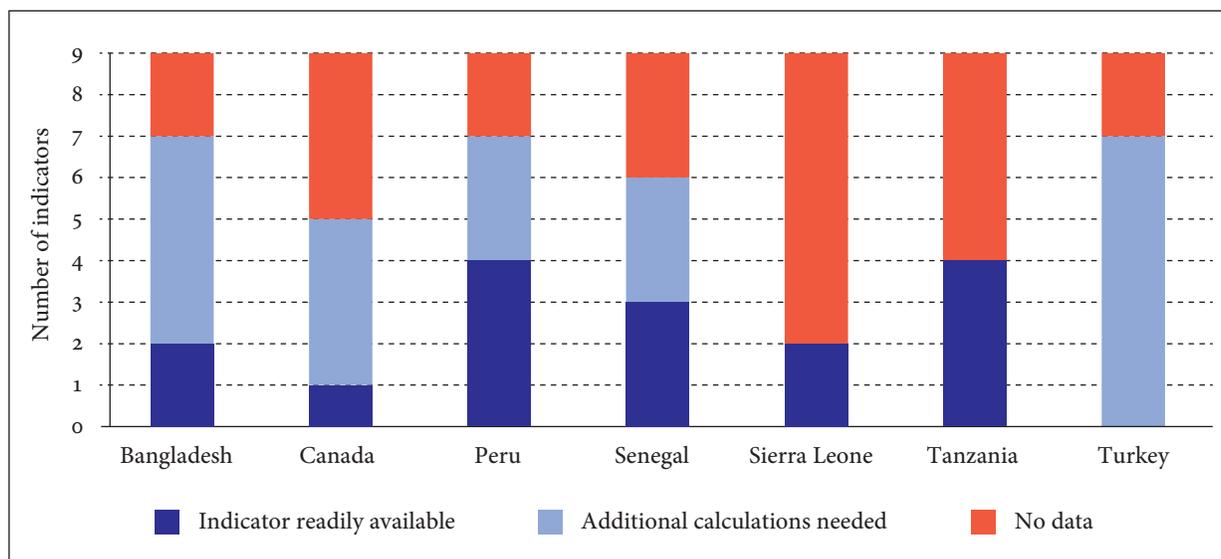
Disaggregated Data

For nearly all indicators captured by this goal area, disaggregated data by minority group or income are unavailable. The only exception to this is data on violence against women for Canada, which can be disaggregated by minority group. Where countries have data on legal identity, they are nearly always disaggregated by sex, age and sub-region. With respect to indicators on personal safety, Canada, Peru and Turkey have data disaggregated by sub-region. Canada and Peru also have data disaggregated by age. Data on violent death disaggregated by sex are lacking for all countries with the exception of Canada. For the three countries with data on the average time between filing a case and receiving a verdict – Canada, Tanzania and Turkey – only Canada has data disaggregated by age, sex and sub-region. Furthermore, for countries that have data on financial account holders, Tanzania has data disaggregated by sex, age and sub-region. Finally, regarding data on women and minorities in parliament, they are often available and disaggregated by sub-region where applicable (for sub-national governments).

Baseline Data and Data Collection Frequency

The data for this goal area come from a mix of survey and administrative data sources. Data on taxation, representation in parliament, access to justice, and violent death tend to be derived from administrative sources. Data on violence against women can be derived from both administrative sources and surveys, though in the cases of the developing countries examined, surveys are the dominant data sources. Data on civil registration for the most part come from surveys, though in Canada such data would come from administrative sources.

Figure 18 provides an overview of the main survey instruments identified across country studies. In nearly all cases, tax authorities and parliamentary websites were identified as data sources for the indicators on taxation and political representation, respectively, and are not captured in the Figure below given that they do not represent regular survey instruments. As noted in the discussion on energy and infrastructure, data sources on financial account holders are not included here as this information is typically presented in annual and occasional reports rather than regular survey instruments. The main survey instruments captured here are largely used to measure civil registration for children and violence against women. In the case of Canada,

Figure 18: Establish open, accountable, inclusive and effective institutions, rule of law and a peaceful and inclusive society: Frequency of data collection for main survey instruments, 2000-15

Country	Survey instrument	Frequency of data collection															
		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Bangladesh	Multiple Indicator Cluster Survey	X			X			X			X				X		
	Bangladesh Demographic and Health Survey[a]		X			X			X			X			X		
Canada	Vital Statistics – Death Database	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	General Social Survey – Victimization															X	
	Integrated Criminal Court Survey	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Civil Court Survey						X	X	X	X	X	X	X	X	X	X	X
Peru	Demographic and Health Survey	X				X	X	X	X	X	X	X	X	X	X	X	X
Senegal	Demographic and Health Survey of Senegal/ Multiple Indicator Cluster Survey[b]						X					X	X	X	X	X	X
Sierra Leone	Multiple Indicators Cluster Survey	X										X					X
	Demographic and Health Survey														X		
Tanzania	Population and Housing Census			X										X			
	National Panel Survey										X	X	X	X	X	X	X
Turkey	Address-Based Population Registry System										X	X	X	X	X	X	X
	Violence Against Women Survey									X							

Note: [a]Data on violence against women are only available for 2007 from this survey, though in 2011, the Bangladesh Bureau of Statistics conducted a Violence Against Women Survey.
[b]Prior to 2010, only the Demographic and Health Survey was conducted (during the years 1987, 1992, 1997 and 2005). In 2010, the survey became annual and was combined with the Multiple Indicator Cluster Survey.

only one survey instrument here captures violence against women, since it was identified as the preferred data source in the Canada country study, but the Canada research team identified two additional potential data sources that have annual data for the 2000–15 period.

Across the indicators, no clear baseline year emerged across countries and data collection frequency tends to be mixed. A number of countries have annual data. Data on civil registration for children under 5 years of age are available from the annual surveys noted below for Peru, Senegal, Tanzania and Turkey, though variation exists in terms of baseline data availability. Bangladesh and Sierra Leone collect data less frequently, but both have data from 2000 onwards. Data tend to be patchier on violence against women, with Canada and Peru serving as the only countries with data from 2000 onwards. Bangladesh and Turkey have data for a baseline year of 2008.[19]

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[19]Turkey has some data from official court cases dating back to 2006.

DATA QUALITY

The quality of data on governance ranges across countries (Table 16). Canada has fairly good data owing to the fact that a large proportion of the data come from Statistics Canada, though some challenges exist in terms of coherence and comparability for some survey instruments, particularly on access to justice. The issue of user consultations tends to lower scores across other data quality criteria.

Table 16: Establish open, accountable, inclusive and effective institutions, rule of law and a peaceful and inclusive society: Data quality assessment

Country	Relevance	Accuracy and reliability	Timeliness and punctuality	Accessibility and clarity	Coherence and comparability
Bangladesh	2	2	2	2	2
Canada	3	4	4	4	4
Peru	3	2	3	2	2
Senegal	3	2	3	3	3
Sierra Leone	3	3	3	3	3
Tanzania	4	4	2	3	4
Turkey	2	4	4	2	4

Data quality for Sierra Leone, Tanzania and Turkey is fairly good for most criteria, with the exceptions of accessibility and clarity for Tanzania and Turkey, timeliness and punctuality for Tanzania and relevance for Turkey. In the case of Sierra Leone, the scores are accounted by the fact that only one source was identified for this goal area – the Multiple Indicators Cluster Survey, which is conducted by the UN Children's Fund in partnership with Statistics Sierra Leone, the NSO, and is therefore subject to high data quality standards. In addition to the challenge of timeliness faced by Tanzania, there is a need to ensure greater accessibility of governance data. Turkey's scores are explained by the lack of data that meet user needs in this area. Minorities and other social groups are not considered, which limits the usefulness of information under this goal area for measuring the indicators noted above. Internal coherence between administrative units is imperfect, causing problems related to lack of completeness. Some administrative data, such as those on legal issues, are collected on the basis of an old regional division that is no longer used in statistics. Administrative data are not user-oriented and are often closed to access for analytical purposes. Follow-up after the generation of data could be improved. Accessibility and clarity are problems for registered databases, which are both limited and volatile, depending on the Turkish government's priorities and intentions. Coherence and comparability suffer in the case of administrative registered data because of non-standard definitions, particularly non-respect of international codes, such as those on occupations and regions.

Senegal and Peru see satisfactory to poor scores across a number of the data quality criteria. For Peru, low scores are explained by the higher use of administrative data sources outside of the NSO. Difficulties persist

in standardising the quality of data at all government levels and ensuring that the production of statistics is sufficiently resourced. In the case of Senegal, accuracy and reliability has the lowest score. Available data in government directorates are difficult to access and unreliable when they exist.

Bangladesh receives the lowest scores across all data quality criteria, despite the use of Multiple Indicator Cluster Survey and the Bangladesh Demographic and Health Survey, which are of good quality. These surveys are matched by a number of administrative sources. As in the case of the goal areas on energy and infrastructure as well as environment and disaster resilience, the challenges for data collected on governance are a lack of procedures, transparent methodologies, coverage, access and timely production. These factors undermine the quality of data across the data quality assessment criteria.

ESTABLISH A GLOBAL PARTNERSHIP FOR SUSTAINABLE DEVELOPMENT

DATA AVAILABILITY

The examination of data availability for this goal area should be understood within the context of the extent to which particular indicators are relevant for different types of countries (see Table 17). At first glance, it appears that data are only available for nearly 80 percent of the indicators across countries. However, when the applicability of the various indicators to different types of countries is considered – for example, South-South cooperation is not applicable to Canada – data are available for 33 of 37 targets, or nearly 90 percent of the time.

Table 17: Establish a global partnership for sustainable development: Data availability across countries

Target	Indicator	Bangladesh	Canada	Peru	Senegal	Sierra Leone	Tanzania	Turkey
Create an enabling environment for sustainable development	Low-income country debt forgiveness or reduction (% of GDP)	X	X	-	X	-	X	-
	Share of trade in goods and services from low-income countries under duty-free, quota-free market access	X	X	-	X	-	X	X
	Existence of laws for ensuring country-by-country reporting by multinational corporations, disclosure of beneficial ownership and the prevention of money laundering	X	X	X	X	X	X	X
Increase financing to productive capacity in low- and middle-income countries	Share of aid to the productive sector	X	X	X	X	X	X	X
	Proportion of foreign direct investment to the productive sector	X	X	X	X	-	X	X
	Share of South-South cooperation to the productive sector	X	-	X	X	-	X	-

Data are available for indicators that are particularly relevant to the high- and middle-income countries examined. Canada and Turkey do not have data for South-South cooperation because their official financial flows to developing countries are captured by the indicator on official development assistance. Turkey does not carry low-income country debt and, as such, does not have data. Peru shares similar circumstances in this regard. Data are also unavailable on the share of trade in goods and services from low-income countries as these countries do not have significant trade flows with this group of countries. Peru has data on the aid it receives and South-South cooperation it provides. Data availability for this goal area is also fairly good for low-income countries. All of the low-income countries examined, with the exception of Sierra Leone, monitor and track various financial flows to and from their country, capturing many of the indicators related to trade, investment, foreign aid and South-South cooperation. While data availability is fairly good, most indicators under this goal area would require additional calculations (see Figure 19). This is largely because data are often presented at aggregate levels and are not always available in multiple disaggregated forms. For example, investment data may be disaggregated by country or sector, but not by both. In addition, while many developing countries collect data on financial flows, they do not necessarily produce the necessary statistics for the indicators below.

Figure 19: Establish a global parntership for sustainable development: Data availability
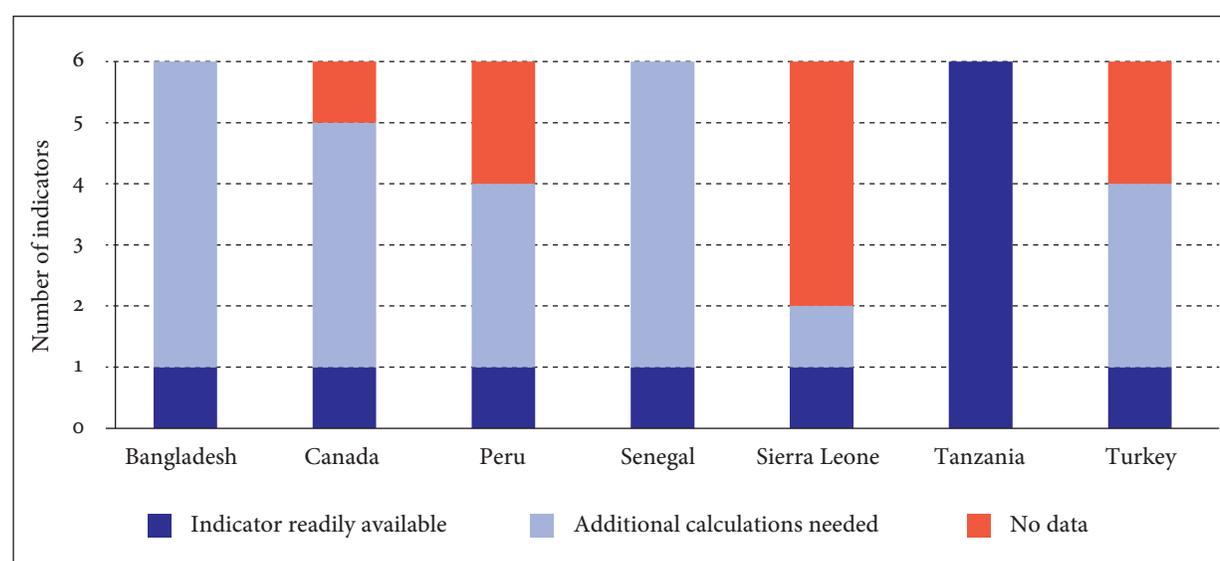
The road-test of the goal area on global partnership also revealed an interesting challenge related to how countries interpret indicators. For example, the indicator related to trade could be measured in terms of trade openness between developing countries or it could be measured in terms of the extent to which an individual country's exports enter high-income countries under duty-free, quota-free market access. Across the country studies, most research teams interpreted the indicator as it has been traditionally understood – between developing and developed countries. In the case of the indicator on South-South cooperation, the Peru research team interpreted it in terms of inflows rather than outflows.

Disaggregated Data

In terms of disaggregated data, there are a number of indicators for which disaggregation by sector and country would be helpful, namely trade, foreign investment flows and aid-related indicators. For Canada and Turkey, investment and aid data can be disaggregated by sector. Trade and foreign investment flows can be disaggregated by country for Canada as well. Bangladesh and Senegal do not have disaggregated data. In the case of Tanzania, data on various financial flows can be disaggregated by sub-region. Both Peru and Canada have aid data at the project level available, while Sierra Leone has aid data disaggregated by sub-region.

Baseline Data and Data Collection Frequency

The main data sources identified by research teams fare well in terms of baseline data availability and data collection frequency (Figure 20). For the high- and middle-income countries, data are available on an annual basis for the most part since 2000. Data from the Peruvian Agency of International Cooperation are an exception, with annual data being available from 2008 onwards. Senegal has annual data from 2000 onwards. In the case of Tanzania, data exist but they are not accessible, which made it impossible for the Tanzania

Figure 20: Establish a global partnership for sustainable development: Frequency of data collection for main survey instruments, 2000-15

Country	Survey instrument	Frequency of data collection															
		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Bangladesh	Economic Relations Division, Ministry of Finance[a]	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Canada	Canadian International Merchandise Trade	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	Canada's International Transactions in Services	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	Official aid statistics	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	Canada's International Investment Position	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Peru	Investment statistics	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	Development cooperation projects									■	■	■	■	■	■	■	■
Senegal	Agence Nationale de la Statistique et de la Démographie	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	Public Debt Directorate				■	■	■	■	■	■	■	■	■	■	■		
Sierra Leone	Development Assistance Database, Development Assistance Coordination Office, Ministry of Finance and Economic Development[b]			■	■	■	■	■	■	■	■	■	■	■			
Tanzania	Ministry of Finance data are not accessible, so data frequency cannot be reported																
Turkey	Trade data, TurkStat	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	Development assistance reports					■	■	■	■	■	■	■	■	■	■	■	■
	Central Bank of the Republic of Turkey	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Note: [a]No regularised surveys exist for indicators in this area. However the Economic Relations Division of the Ministry of Finance would serve as the key data source for indicators related to inflows.
[b]Compact discs outlining donor aid disbursements and programmes were distributed in 2003, 2004 and 2005. Data are available for 2007 to 2012, but personal contacts are required to elicit information from the office.

research team to verify the availability of baseline data and frequency of data collection. In addition to the key sources identified below, most research teams noted that data are also available from other government institutions, such as ministries of the economy or industry and central banks.

DATA QUALITY

Overall, data quality for global partnership is fairly satisfactory with a few notable exceptions (Table 18). Data for Bangladesh received fairly poor scores, with challenges related to clear data collection policies and procedures, mechanisms to receive user feedback, data reliability, timely data collection, analysis and publication, and coherence and comparability between data sources. Data for Canada, Sierra Leone, Tanzania and Turkey are of fairly good quality. The lower scores for Canada tend to owe to the inclusion of aid data that are not subject to the same quality standards as those produced by Statistics Canada, do not always meet user needs or are not consistently accurate. For Sierra Leone, accessibility is a key challenge.

Table 18: Establish a global partnership for sustainable development: Data quality assessment

Country	Relevance	Accuracy and reliability	Timeliness and punctuality	Accessibility and clarity	Coherence and comparability
Bangladesh	2	2	4	4	4
Canada	3	3	4	4	5
Peru	3	4	4	2	2
Senegal	4	2	3	3	3
Sierra Leone	3	3	4	4	3
Tanzania	4	4	2	4	4
Turkey	4	5	4	4	5

As in other goal areas, the key challenge for Tanzania is ensuring that data are collected, analysed and published according to regularly planned activities. Turkey was assigned the highest scores in terms of data quality across the criteria. The Turkey research team identified no major issues in terms of data collection guidelines and procedures, cooperation between different data producers, data accessibility and mechanisms to ensure aaccuracy and reliability. Data are published according to predetermined and publicly announced timelines, though efforts could be made to ensure more timely preparation and communication of aid data. A number of areas could be improved with respect to data quality for Peru and Senegal. For Peru, the key challenge is the need to strengthen statistical capacity in the institutions responsible for indicators in this area. For Senegal, data are often quite unreliable and difficult to access.

IMPLICATIONS FOR MONITORING THE SDGs

What are the key implications arising from the analysis of data adequacy for monitoring the SDGs?

First, the data-mapping process shows that a significant amount of existing data could be used for SDG monitoring. However, additional efforts will be needed to produce data, particularly on energy and infrastructure as well as governance.

Second, though data exist, significant efforts will be needed to calculate and process existing data to formulate SDG indicators that can be tracked and compared across countries.

Third, the frequency of data collection is insufficient for tracking SDG progress in a meaningful way. There is an absence of up-to-date data for a number of countries. The implication of this is that greater attention to the frequency of data collection for generating sufficient data on relevant variables will be needed, particularly in low-income countries. In addition, initiatives to generate and make use of proxy data as well as produce reliable intermediate estimates are needed.

Fourth, the review of data quality shows wide variation in the quality of data across goal areas. Data are typically better for social and economic indicators – such data are typically produced by NSOs and collected with surveys. Significant efforts will be needed to improve the quality of administrative data, which can be used to fill key data gaps and triangulate survey data.
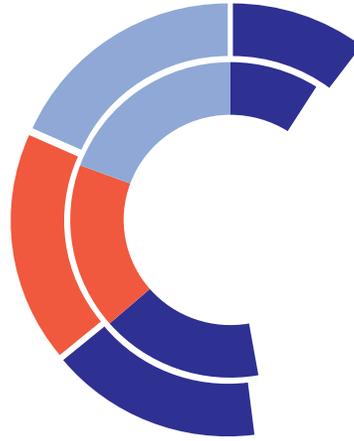
Policies, People and Politics

- Statistical building blocks are not in place for the effective production of good quality data.
- Funding to NSSs needs to be made more predicable and should align with national priorities.
- NSOs need to be mandated and resourced to coordinate and support other government institutions.
- Integration of new technologies into statistical activities can lead to significant gains, but they should be understood within the context of existing capacity and physical and ICT infrastructure constraints at the country level.
- NSSs are not well equipped to integrate unofficial data as a means to address data gaps. There is a need to build capacities to work with unofficial data producers and develop systems that allow for the use of unofficial data in national statistics.
- Efforts are needed to improve the availability and accessibility of microdata, data and metadata in user-friendly forms.

THE POLITICAL ECONOMY OF DATA AT THE COUNTRY LEVEL

The Post-2015 Data Test included an examination of the necessary statistical building blocks for ensuring good quality data at the country level. This examination included an assessment of policy and legal frameworks as well as institutional capacities, including financial and human resourcing, infrastructure and the role of technology. The country studies analysed relationships between NSOs and other data producers as well as data users. With respect to data users, significant attention was paid to data accessibility. There was a cross-cutting focus on political economy dimensions within NSSs that can support as well as undermine the availability of good quality data.

POLICY AND LEGAL FRAMEWORKS

The SDGs will rely heavily on data that are reliable, timely and comparable (OECD 2013). Appropriate policy and legal frameworks are an important basis for ensuring the effective functioning of NSSs. All countries examined have legislation that governs the statistical activities of their NSSs. These laws define the mission and responsibilities of an NSS. Typically, such laws lay out provisions for NSOs to produce high-quality data in accordance with national needs and priorities, often with reference to making use of international standards. Legislation governing the activities under the NSS also typically includes provisions for data dissemination. The existence of an access to information act, which Bangladesh, Canada, Peru, Sierra Leone and Turkey have enacted, also plays an important role.

In addition to legal underpinnings, statistical activities are also guided by a number of policy frameworks related to data collection priorities, ensuring data quality and efforts to improve the overall statistical system. With support from PARIS21, many developing countries have prepared a National Strategy for the Development of Statistics (NSDS). NSDSs (see Box 4) have been adopted by developing countries to maximise limited resources available to support NSSs as well as to match data supply with demand (OECD 2013; PARIS21 2015b). Bangladesh, Senegal, Sierra Leone and Tanzania currently have NSDSs, which are at various stages of implementation.

Canada, Peru and Turkey do not participate in the NSDS initiative. Canada has a number of policies in place to ensure data quality, is implementing an Action Plan on Open Government, and regularly communicates plans and priorities as well as forward spending. Peru established a National Strategic Plan for Statistical Development for the 2013–17 period and,

> **Box 4: NSDSs explained**
>
> Established in 1999 and hosted in the OECD Development Co-operation Directorate, PARIS21 promotes the better use and production of statistics in developing countries. It works with low-income and lower middle-income countries to design, implement and monitor NSDSs. A NSDS sets out a vision and plan for improving capacities across the NSS on a five- to 10-year time horizon. It includes milestones and provides a framework for mobilising resources for statistical activities as well as monitoring results. See www.paris21.org/NSDS for more information.

similar to Canada, follows a code of good practices for statistical production. Turkey complies statistics in accordance with the European Statistical System Quality Declaration Norms and the European Statistics Code of Practice.

Country studies revealed that the effectiveness of NSOs is constrained by outdated and inadequate legislation and a lack of awareness of the importance of statistics among policy designers and decision-makers. Where legislation exists, implementation is not always satisfactory. For example, in Peru, despite more than 10 years of the promulgation of the Law of Transparency and Access to Public Information

(N° 27806), citizens continue to be unable to access information in practice. In the case of Bangladesh, despite the enactment of the Right to Information Act in 2009, it is still not common practice for individuals to lodge requests to public offices. In Sierra Leone, the Right to Information Act of 2013 is still at a nascent stage in terms of implementation and use. Equally important is the inadequate coordination of statistical activities as required under legislation, which has led to weaknesses in statistical capacity and therefore data gaps. For example, in Turkey, there are very few institutions listed as part of the "official statistics programme." The importance of institutions engaged in data generation across government does not seem to be sufficiently appreciated.

INSTITUTIONS

Political Autonomy

All countries in the study have formal legislation which governs statistical activities. Typically speaking, such laws lay out provisions for NSOs to produce high quality data in accordance with national needs and priorities, often with reference to making use of international standards.

Country studies noted the vulnerability of NSSs to political influence. In the cases of countries where capacities are insufficient and there is a greater reliance on external funding, this challenge is exacerbated. Development partners' priorities often overtake national priorities and NSOs often lack sufficient incentives or capacity to improve how they interface with political influences. Moreover, budgetary allocation processes and reporting requirements can create perverse incentives to inflate or deflate figures as needed, particularly in the context of administrative data.

Given their role in meeting the statistical needs of government, it is expected that the directions and data collection priorities of NSOs will be subject to political priorities. However, in terms of direct government interference in statistical activities, only the Bangladesh and Sierra Leone country studies highlighted this as a challenge. In Bangladesh, there have been media reports on the interference of political and bureaucratic wings in the manipulation of official data. In case of Sierra Leone, the NSO's council and the head of the institution are heavily influenced by the president, who nominates individuals to key positions, which jeopardises the autonomy of the institution.

Coordination

The findings on data availability demonstrate the importance of NSOs and ministries for supporting SDG monitoring. A major function of NSOs is to coordinate statistical production across government ministries, departments and agencies (MDAs). This role is meant to ensure that official data are produced at a high level of quality and the duplication of efforts is avoided.

Most countries have some mechanism to ensure coordination among government institutions. Nevertheless, a major finding across countries is that insufficient coordination exists between NSOs and ministries. For example, in Bangladesh, a number of major surveys are conducted by government agencies in the process of complying with project requirements. A number of agencies have their own statistical units that collect data according to their own methodologies and resources. The use of different methodologies constrains comparability among agencies that work in similar areas, over time and between countries.

The issue of coordination, particularly the use of different methodologies, is exemplified in the results of the data quality assessment. Ensuring comparability between data sources and that administrative datasets meet high data quality standards are challenges that all countries face. They are exacerbated by the limited capacities of NSOs to support higher quality data production in other government institutions.

RESOURCING NSSs

Financial Resources

The challenge of ensuring that NSSs are effectively resourced is well documented (PARIS21 2015a; Krätke and Byiers 2014; Sandefur and Glassman 2014) and was highlighted by country studies.

Statistical production is financed by government allocations in all countries. For the low-income countries examined, external resources provided by the international development community play a critical role in financing statistical activities. In addition to these sources of finance, the NSOs of Canada and Turkey raise funds by rendering their services to other stakeholders, such as other government institutions and academic, private sector and civil society stakeholders.

All country studies questioned the extent to which NSOs are adequately resourced, particularly in light of the increased demands they will face when it comes to SDG monitoring. In Peru, government allocations are insufficient to meet the demand for data collection by different institutions. Canada faces a similar challenge, particularly when work is commissioned by other government institutions – insufficient funds have left some statistical projects uncompleted. The Senegal study noted that local governments also lack necessary financial, human and material means to achieve their objectives. The Sierra Leone study highlighted declining government expenditures as a key challenge. Country studies noted the need to ensure predictability in government expenditures for statistical activities.

For countries with a reliance on external funders, which play an important role in supporting statistical activities and reinforcing capacities, country studies highlighted a number of specific challenges. These include the nature of activities that are funded, the data that are collected and financing predictability. Generally speaking, development partners play a critical role in financing activities related to improved physical infrastructure and equipment development, institutional development, human resources, capacity development, coordination activities, and data management and dissemination activities. It is not uncommon for regular surveys to be partially or fully funded by development partners or for NSOs to receive technical support to undertake particular surveys. This applies to Senegal, which receives support for specific surveys.

Country studies highlighted the range of activities funded by external partners. For example, in Senegal, the NSO receives technical support for particular surveys and financial support for the acquisition of hardware. In Sierra Leone, support is provided to the NSO for human resource development and through technical expertise, for example, when producing the Multiple Indicator Cluster Survey. Foreign partners are the main funders of Tanzania's NSDS and provide support for study tours and technical assistance to local staff. External partners routinely fund statistical activities in Bangladesh and allocate funds for micro survey fieldwork and impact evaluations. However, instead of paying salaries, the Bangladesh study showed that donors are keen to finance per diems, computers and fieldwork for specific surveys. This means that official data producers are incentivised to work on donor-funded projects that offer per diems via workshop attendance, training, survey fieldwork and project proposal development, which potentially enhance employees' take-home pay. The implication of this is that the development of institutions and NSSs remains weak.

The level of reliance on development partners to support statistical activities varies by country. For example, in Tanzania, the biggest share of funding for statistical activities is accounted for by development partners. Conversely, the bulk of Senegal's statistical activities are supported by the government budget. Out of a global funding of 96.945 billion FCFA (approximately 203.5 million USD) for the Senegalese NSO in 2013, about 90.7 percent of the acquired funding came from the government's own financial resources (ANSD 2014).

An over-reliance on external support can create a number of challenges. Delays in the release of funds by development partners has set back the implementation of surveys in some countries. Moreover, disagreements can exist about the selection and prioritisation of areas for data generation. Donors' concern with international comparison, which tends to come at the expense of within-country sub-national comparisons, was highlighted as a challenge in the Bangladesh context, particularly with respect to the Demographic and Health Survey and Multiple Indicator Cluster Survey. The Senegal study noted that one of the implications of external funding is that the relevance of the collected information and coherence with national priorities are not guaranteed. In Senegal, external funders support statistical operations to follow the indicators that are useful to them but which may not correspond to national priorities.

For countries with a high reliance on external funding, predictability is also challenge. In Tanzania, where the NSDS is largely financed by external partners, changes in the funding priorities of development partners have hindered the implementation of the strategy and impacted NSO operations. In Senegal, delays in disbursements by external funders has meant that some statistical operations that were initially planned may not be conducted at the appropriate time. Similarly, key elements of Sierra Leone's NSDS, particularly capacity development and data collection, have not been implemented owing to delays in donor funding.

Human Resources

All country studies questioned whether sufficient human resources exist in NSOs and other official data producers to deliver on their data mandates. A significant challenge is the recruitment and retention of skilled, experienced and professionally qualified staff. In Tanzania, a gap exists in terms of available human resources, not only with respect to the number of staff, but also capacity to efficiently undertake data collection and management. Out of 150 staff members at the National Bureau of Statistics, two-thirds are statisticians who hold a diploma or degree, 12 have masters-level qualifications in statistics or demography and 15 are proficient in statistical packages. This challenge is exacerbated by the lack of a concrete capacity development plan. In Sierra Leone, the current staff of 161 is insufficient to meet current needs and the government regularly seeks funding to support capacity and personnel development activities. Moreover, the training components articulated in the country's NSDS have not been implemented. Staff members have not been trained on labour statistics, child labour, and industrial and labour economics because there has been a lack of funding. Senegal also faces a challenge in terms of the number and quality of staff members. Staff retention is a problem, particularly with senior statisticians who leave the NSO to work for international organisations that offer motivating salaries and more interesting career paths. To address this challenge, Senegal has taken a number of steps to improve human resources, including establishing a statistical education programme linked to the NSO and providing more regular and ongoing staff training opportunities (see Box 5).

A number of studies also noted the need for greater capacities in ministries. In Sierra Leone, the NSO recruited and deployed eight statisticians to eight ministries in 2008, but such efforts will need to be significantly ramped up to enable the country to improve data quality and effectively make use of administrative data. In Tanzania, a review of MDAs showed that staff was inadequate,

> ### Box 5: Addressing human resource challenges in the NSS: A long-term approach in Senegal
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> To overcome human resource difficulties in the NSS in Senegal, the government took a number of steps to strengthen the capacities of statisticians and increase the pool of potential qualified staff. To this end, the École Nationale de la Statistique et de l'Analyse Économique – a national school for statistics and economic analysis – was created in 2006 and connected to the NSO. The school offers pre- and in-service training aimed at strengthening capacities and satisfying the need for more statisticians within the NSS. This initiative has contributed to an increase in qualified staff and better retention at the NSO.

in both quantity and quality, to undertake statistical activities. Out of 22 MDAs that were assessed, only eight had well-established statistical units (URT 2010). In Senegal, sectoral statistical services do not have senior statisticians.

Capacity constraints impact data collection, production, analysis and dissemination. The Tanzania study noted that delays in terms of data analysis have meant that there are significant lags in data collection and the release of results. This is typically the case with big surveys like the Household Budget Survey, Population and Housing Census, and Agriculture Sample Census Survey. Delays mean that recommendations are often already outdated at the time that data are made available for use by the public.

INFRASTRUCTURE

Challenges related to infrastructure in NSSs were largely highlighted by the low-income countries examined. These include physical and ICT infrastructure as well as office infrastructure. Low-income countries pointed to a lack of physical and ICT infrastructure to effectively carry out statistical activities. For example, the Tanzania study noted that transport facilities to effectively reach all communities are required to strengthen the capacity of the NSS in data collection and coordination activities. Weak ICT infrastructure hinders data management and dissemination. The Bangladesh study also highlighted weak infrastructure and poor ICT infrastructure as key challenges.

The challenges related to inadequate office infrastructure include insufficient premises and a lack of basic equipment that is needed to carry out statistical activities. Tanzania lacks adequate premises to accommodate headquarters staff, computer centres, training rooms, library facilities and stores. Though most MDAs have statistical units, working facilities have limited equipment in terms of computers, scanners and photocopiers, for example. As a result of inadequate working facilities, in some cases data are processed and stored manually. Furthermore, most MDAs lack a one-stop centre for data capturing, which has led to uncoordinated efforts, data fragmentation and duplication of tasks. In Sierra Leone, the NSO has been waiting for a number of years for new facilities and existing office equipment is often outdated. Senegal has seen some efforts to improve material capacities. In 2005, regional offices saw the acquisition of new equipment such as office furniture, computers and generators. A new building was constructed to house the NSO and the new national school for statistics and economic analysis.

ROLE OF TECHNOLOGY

The importance of technology in data collection and management cannot be overemphasised. The country studies show the shear breadth of technology gaps between low-, middle- and high-income countries – an issue that has also been well documented elsewhere (see IEAG 2014). The studies also demonstrate how the use of appropriate technologies can lead to significant gains in data availability and quality.

Unsurprisingly, Canada and Turkey face limited technology gaps in carrying out statistical activities. Depending on the targeted constituency and issue, Canada makes use of electronic, phone and face-to-face surveys. Administrative data are collected and transmitted often through automated systems. Statistics Canada uses electronic systems for data collection, storage and dissemination. In Turkey, computer-assisted personal interviewing is applied in household surveys and web-based surveys have been applied in all enterprise surveys. A specific platform for data entering has been developed by TurkStat, which has recently improved its ICT infrastructure, data storage and server.

In low-income countries, the effective integration of modern technologies and human capacities to use new technologies are challenges. For instance, in Bangladesh, technologies such as geographic information systems and digital storage have been increasingly adopted to improve statistical activities. However, modern ICT is lagging in regional offices in comparison to the NSO headquarters. Moreover, Bangladesh

faces a shortage of technical know-how to effectively integrate new technologies into existing systems. Though challenges persist, a number of country studies noted that data quality and availability have improved as a result of greater incorporation of technologies into data collection processes. Peru is in the process of digitising and automating a number of areas of data collection and is now making use of Global Positioning System (widely known as GPS) devices in data collection processes. In Sierra Leone, the 2007 Core Welfare Indicator Questionnaire was administered with the aid of computers, prior to which the survey had been conducted using paper questionnaires. The country is increasingly making use of smartphones and personal digital assistants to collect data and it is increasingly possible to code data according to geographic region using GPS. Senegal's use of personal digital assistants during the last census in 2013 led to significant improvements in the timeliness of data and the country is now exploring a number of ways to further make use of cell phone technology and digitise record keeping (see Box 6). Moreover, the country's NSO has adopted an effective web platform to ensure timely and accessible dissemination of statistics. The Bangladesh study similarly noted that greater use of technology has improved the availability of good quality data notwithstanding the issues noted above. For Tanzania, the integration of updated and sometimes free software into statistical systems has also improved data collection and production.

While technological advances are contributing to improvements in NSSs, a number of the country studies also highlighted risks. For example, while electronic data collection has greatly sped up statistical processes, it is nearly impossible for enumerators to go back to respondents when an error is made in data collection (though through errors tend to be less frequent in electronic data collection). To address this issue, the Tanzanian NSO has begun using automated systems in which data collected electronically are received immediately by the head office, where internet is available. This system allows for real-time feedback to enumerators as data are collected, instead of waiting until data collection is complete. Peru took a similar approach to improving the accuracy of data collected with the support of technology. The use of personal digital assistants in data collection has allowed for information collected in the field to be released in real time into a server that permits access to users, such as ministries. This has improved measurement because users can report statistical problems while data collection is ongoing and the NSO can correct them before publishing definitive statistics.

While the use of new technologies is vital to collect accurate data, NSOs in the examined low-income countries continue to lack expertise and face financial constraints to purchasing updated equipment. Consequently, many surveys still use traditional methods of recording responses on hard copies and entering data into a data management system long after data collection was conducted.

NSSs AND UNOFFICIAL DATA PRODUCERS

All country studies noted the importance of unofficial data. Academics and others in the research community, private firms, civil society organisations and development partners produce data on sustainable development according to their needs and interests. Country studies highlighted the potential of unofficial data to fill gaps in SDG monitoring, examined coordination between official and unofficial data producers, and looked for ways that coordination could be improved in the future.

> **Box 6: Improving data quality through greater use of technology in Senegal**
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> In December 2013, Senegal conducted its first census with the use of personal digital assistants. Initial results from the census were available three months later, including data at various levels of disaggregation – national, regional, departmental, sex and age. By comparison, results from the country's 2002 census were only available five years after data collection. Similarly, the use of tablets, smartphones and personal digital assistants for the collection of survey data for the Demographic and Health Survey, Multiple Indicator Cluster Survey, and Senegal's survey on poverty have led to historic improvements in data quality. The time between data collection and release dropped significantly owing to the use of modern technologies.

There is no question that unofficial data could play an important role in filling data gaps for monitoring the SDGs, including in terms of providing disaggregated data on particular groups. In the area of governance, for example, perception surveys carried out by research institutions and other non-governmental organisations could play a key role in capturing data on corruption and trust in public institutions. A number of country studies highlighted credible surveys carried out by research institutions in this area, such as the regional barometers. Another example is data on violence against women. Figures reported by police departments and judicial bodies can significantly underestimate actual experiences of violence as they only capture incidences that have been officially reported. In some countries, non-governmental organisations in which women have a high degree of trust collect such data, which could be useful for establishing more accurate estimates.

In addition to data collected by research institutions and civil society organisations, big data also have the potential to fill data gaps. Big data are a by-product of daily activities, such as the use of social media or commercial transactions.[20] Increasingly, governments and the international development community are looking to big data as a possible data source to fill information gaps. Not all country studies focused significantly on the question of big data. Nevertheless, the Peru study highlighted the government's increasing interest in making more effective use of big data. Policy-makers from the Ministry of Finance and Ministry of Education in Peru are exploring how big data can be used to monitor different public policies and improve accountability at the province and district levels. In Bangladesh, while there is interest in big data, institutions are not yet effectively equipped with the appropriate technologies to collect, store and analyse big data. In Senegal, the NSO has collaborated with Sonatel, the national telecommunications company, and Orange to launch a Big Data Open Innovation challenge. The project enabled the country to collect anonymous data samples from the mobile network in 2013 and collect data on transportation patterns, energy needs and health patterns, *inter alia* (Sonatel and Orange 2015).

Given the potential of unofficial data to fill information gaps, research teams examined how NSOs coordinate with unofficial data producers and looked at possibilities for increased coordination. The country studies revealed a number of key areas in which official and unofficial data producers are coordinating across countries. These include through formal and informal consultative mechanisms, systems that enable NSOs to approve and use data collected by non-governmental stakeholders as official data, and direct partnerships between NSOs and non-governmental stakeholders. The Bangladesh, Canada and Turkey studies highlighted the role of non-governmental experts in technical and consultative committees hosted by NSOs. In Peru, data producers participate in the validation of official data via different committees.

The Bangladesh and Sierra Leone studies highlighted examples of partnerships between their respective NSOs and non-governmental organisations to jointly conduct important surveys. In Bangladesh, the Demographic and Health Survey is conducted in partnership with a non-governmental organisation. Though no formalised system of coordination exists, in Sierra Leone, it is typical for international non-governmental organisations to collaborate with the NSO to conduct surveys within accepted frameworks with input from technical experts.

While country studies highlighted the potential of unofficial data to fill official data gaps, they also highlighted a number of challenges. The focus on unofficial data should be balanced with the need to strengthen capacities within NSSs. There is much excitement about the increasing supply of unofficial data and how it can be used, but official data are not substitutes for a well-functioning NSS. The extent to which unofficial data are used to fill gaps will vary by country and thematic area. In countries with well-functioning NSSs and good quality data, unofficial data are useful for rounding out the picture painted by official data. For example, big data can offer insights on spending habits and inflation, and spatially disaggregated estimates of poverty, complementing official estimates. Unofficial data can also provide more localised, real-time

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[20]See Armah (2013), Bhushan (2012) and Einav and Levin (2013) for discussion on the opportunities and challenges presented by big data.

reflections of what is happening on the ground, such as through the use of community scorecards. From a thematic perspective, there are some themes where we see particular value in using unofficial data (for example, governance and gender).

Another challenge highlighted is that methodologies, concepts and definitions vary between official and unofficial data producers. This means that care should be taken when using unofficial data to fill official data gaps. Methodological and conceptual differences must be well understood between data sources, including biases that may exist within data. Finally, the use of unofficial data in official statistics requires some level of coordination between data producers. It was noted above that NSOs already face significant challenges coordinating across government institutions. This suggests that NSOs will need to be effectively resourced to work more closely with unofficial data producers in the future.

ENGAGING DATA USERS

Data produced by NSSs are used by a wide range of stakeholders including policy-makers, government institutions, the research community, private sector actors, civil society and the media. Engagement with these users of data is important for ensuring that data generated by NSSs support evidence-based decision-making by a range of stakeholders, as well as the relevance of statistical activities carried out by NSOs and other government institutions. Though NSOs are mandated to produce data according to government needs, they should be expected to take into account the views and needs of other data users.

The country studies show significant variation in terms of the extent and ways in which NSOs engage with data users. For example, in Bangladesh, no comprehensive coordination mechanism exists between the NSO and data users. In Canada and Peru, it is common practice for the NSO to solicit feedback from users in the design and elaboration of statistical instruments (though there is no formal requirement to do so). In Sierra Leone, coordination and consultation is more ad hoc. Tanzania makes use of a formal coordination mechanism – the Census and Surveys Technical Working Group. The working group – comprising data users, producers and development partners – provides guidance to the NSO on the quality, frequency and timing of data collection. For its part, Turkey also has a formal Statistics Council through which data users can engage.

DATA ACCESSIBILITY

A number of countries have adopted open data principles. With the exceptions of Senegal and Bangladesh, all examined countries are members of the Open Government Partnership, which includes commitments to improving access to government information. Moreover, all countries use various means to disseminate data. However, significant variation exists in terms of the type of information available, formats in which data are disseminated and user friendliness. Country studies highlighted the need to adopt effective policies across government institutions to ensure data accessibility.

Metadata, Statistics and Microdata

Country studies revealed a spectrum in terms of the extent to which metadata, statistics and microdata are made available by NSOs. Unsurprisingly, given their capacity levels, data are more accessible in Canada, Peru and Turkey. In Canada, nearly all elements of statistical production are made available to the general public. Most of the data produced by the NSO are available through an online database. Public use microdata files are updated frequently and provided free of charge. Requests for custom datasets can also be made, though clients are charged based on an hourly rate for this service. Census and National Household Survey web portals have been developed by the NSO and provide the most recent information in a convenient format, and, unlike most other survey data, provide information at very detailed geographic levels. In

Peru, the NSO's website publishes quarterly and annual indicators as microdata archives and systems to link variables in a user-friendly way. Censuses, general surveys, and specialised surveys can all be found online in the form of microdata, while other databases such as that for the National Census of Population and Household and others can be requested individually. Databases are frequently updated and are free of charge in Peru. For Turkey, statistics and detailed metadata files are easily accessible. Accessing microdata is more challenging. Selected institutions and organisations can access microdata upon approval by the NSO on the condition that microdata are used for scientific purposes. The operational rules for the NSO also set out the length of time in which the NSO must respond to requests for data (15 days) and, like in Canada, a fee applies.

The low-income country studies highlighted a number of challenges with respect to accessing data. While NSOs have websites to disseminate information, not all make microdata and metadata available. For example, in Bangladesh, metadata are available for some but not all indicators. Microdata are not available online, though a limited number of surveys can be purchased by the public in electronic formats. For Senegal, difficulty in accessing metadata and insufficient anonymisation of databases produced by the NSS are major constraints for the majority of data users. To address this issue, the NSO launched a research promotion instrument that makes microdata and metadata from 64 surveys and censuses available. Sierra Leone does not typically make microdata available, though they can be accessed by special request if they are needed for academic research. It should be noted however, that it is possible to get microdata from international sources for the Demographic and Health Survey as well as the Multiple Indicator Cluster Survey.

All country studies noted that administrative data are typically less accessible. In Canada and Turkey, government institutions do not always provide metadata or publish data in line with the regulations that govern the NSOs. In Tanzania, for data collected by a government agency, data are only available by special request and only after the agency has prepared an official report. Owing to lags in the production and analysis process, it is common for general reports to be produced two years from the time data are collected. This hinders the ability of data users to access data in a timely manner.

User-friendliness of Data

How information is made available to data users has a significant impact on its use. The country studies showed that data are disseminated in a wide range of ways, including through websites, information and research centres, sales centres, press releases, electronic formats such as Microsoft Excel files, and electronic and hard-copy publications. The extent to which countries offer data in user-friendly ways varies. Most of the NSOs make data available in an interactive way and also provide users with the ability to download information in machine-readable formats. Room for improvement exists, however. For example, the Bangladesh study noted that the NSO's website is not sufficiently interactive compared to international standards. Moreover, data are also often published in formats that are not user-friendly, such as reports rather than Excel files, for example. In the case of Sierra Leone, the website of the NSO is often down and much data is made available largely through hard-copy reports or compact discs. As noted above, some data is available through international sources.

Policy

The Bangladesh country study highlighted the challenge of significant variation across government institutions in data dissemination. All government institutions publish data on their websites and at an increasing rate. However, data are not updated on a regular basis or according to a public schedule. Moreover, government institutions beyond the NSO do not have data dissemination policies. In the absence of clear policies on data dissemination, cultures within organisations can make them hesitant to publish data. In the case of Bangladesh, this is because institutions either lack the capacity to publish

and manage data according to international best practices or do not understand the needs of data users and dissemination practices. Without clear policies, it also becomes problematic when users contact the responsible authorities to access data. Data users may not have a clear understanding of which data are available, while government staff may not know which information can be shared. Moreover, administrative units are sometimes reluctant to share information because of concerns with poor results. The accessibility of administrative data and the lack of clear policies regarding dissemination was highlighted across nearly all country studies.

DATA AVAILABILITY–TRANSPARENCY–ACCOUNTABILITY NEXUS

There is no doubt that Agenda 2030 requires data that are open and transparent to ensure real accountability. Country studies looked at how citizens are able to use data to hold government and other actors to account for progress on sustainable development. National contexts vary greatly across the countries examined. Nevertheless, some key insights arise from the studies.

The majority of countries have committed formally to increasing the openness and responsiveness of government. Canada, Peru, Sierra Leone, Tanzania and Turkey are part of the Open Government Partnership, each at various stages of implementation. As members of the partnership, the governments of these countries have agreed to increase the availability of information about government activities, support civic participation, implement high standards of professional integrity through administration and increase access to new technologies for openness and accountability. Each country is responsible for developing an action plan to support these commitments. For its part, Senegal participates in a programme called Open Data for Africa with the African Development Bank Group. The initiative promotes decision-making based on reliable information, good governance and administrative responsibility. The movement towards increasingly open government bodes well for accountability processes.

The Peru country study highlighted the importance of trust between data users and producers. Low levels of trust in government institutions has impacted data collection and use. As a government entity, the NSO is often regarded with disapproval, which negatively predisposes the population and augments the rate of "no response." Lack of trust in official statistics has led the Peruvian government to adopt a number of plans and initiatives aimed at improving data quality as a means to improve trust.

Lags between data collection and release undermine the ability of citizens to effectively use data to hold governments to account. All of the low-income countries highlighted this challenge, noting that efforts to improve the timeliness of data are critical not only for improved decision-making, but also for accountability.

IMPLICATIONS

A number of key implications arise from this analysis. Greater attention is needed in the development of the data ecosystem. Though gains have been made in terms of improving data availability and quality in developing countries, more efforts are needed to ensure that NSSs are supported with the necessary financial, human, technological and material resources. Funding needs to be made more predicable within NSSs and should align with national priorities. Efforts to improve the quality of administrative data should ensure that government institutions receive appropriate financial, human and material resources to produce statistics.

The integration of appropriate technologies into statistical operations can lead to significant efficiency and data quality gains. However, the integration of new technologies should be understood within the context of existing physical and ICT infrastructure constraints at the country level.

Coordination with various stakeholders is also clearly an important challenge that must be addressed. NSOs need to be mandated and resourced to coordinate and support other government institutions to ensure quality data production, ensure comparability between data sources and reduce the duplication of efforts. Engagement with data users is also key to ensuring the relevance of statistical operations. The development of policies and mechanisms to effectively ensure this engagement is crucial.

Unofficial data have significant potential to fill data gaps, but here too, coordination efforts will be needed. NSOs will need to be properly resourced to effectively coordinate with unofficial data producers. Some will also need to develop policy frameworks for this engagement, including for the validation of unofficial data in official use. Though it is unclear how unofficial data will be incorporated into SDG monitoring processes, the Post-2015 Data Test results suggest that unofficial data could be used strategically to fill gaps in particular goal areas, such as governance.

Finally, efforts are needed to improve the availability and accessibility of microdata, data and metadata in user-friendly forms. In this context, the creation and implementation of transparent data dissemination policies across government institutions is needed.
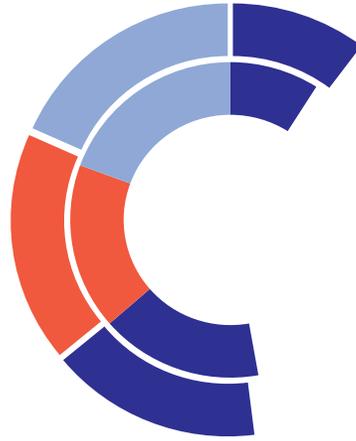
Recommendations

A UNIVERSAL FRAMEWORK FIT FOR PURPOSE

Universality works but national priorities matter

The SDGs resonate across countries with different sustainable development contexts and it is possible to apply and measure a global framework across countries with different sustainable development challenges. However, allowing countries space to identify national priorities is critical to ensuring the utility of a universal framework and robust adoption at the national level. We can expect that the global monitoring framework – as a compromise between member states – will be insufficient to capture national priorities. Thus, the global process may focus more on delivery of international commitments, while the national reviews may concentrate more on country priority areas.

Take a differentiated approach to global monitoring

It is clear that not all targets and indicators that the world may want to track globally, will make sense to track at the country level. As such, the global monitoring framework should be applied using a differentiated approach that accounts for the relevance of particular targets and indicators across countries. High-income countries should not be asked to report on extreme poverty, as measured by proportion of a population living on less than US$1.25 (purchasing power parity) per day, and low-income countries should not report on all aspects of global partnership. Moreover, some information and data have to be independently generated for the global monitoring exercise.

Keep the global SDG structure light

The Post-2015 Data Test results suggest a need to keep the global structure light. Significant efforts to address sustainable development challenges are ongoing at the country level – and this is where real change will happen. There is less need for a top heavy global architecture to facilitate efforts. Rather, the global architecture should enable the flow of resources and capacities to where needs exist through follow-up and review processes. Implementation and monitoring of the SDGs should be country-led, carried out by institutions in country.

Focus more on national priorities and less on international comparability

A country relevant approach means focusing more on national needs and less on international comparability in the implementation of SDGs. Countries should have space to monitor SDG implementation and beyond according to national priorities. This means the use of additional indicators that reflect their context for sustainable development, many of which may already be identified through national planning processes. In this context, concepts and definitions, as well as the types of targets and indicators selected, will vary. While international comparability of some targets and indicators is desirable, there is no need to invest in making all SDG monitoring internationally comparable.

Assess the utility of SDG targets and indicators before investing finite resources in them

Finite resources available for data generation are to be invested only after the SDG targets and indicators have been aligned with national priorities and possibilities. For example, a number of the low-income countries in the study questioned whether capturing data on integrated reporting by large taxpayer units in their local context as an indicator of environmental sustainability was the best use of limited resources. In the case of middle- and high-income countries, even when the data exists, investing in measuring particular indicators may not be relevant. For example, tracking the use of modern cooking fuels does not make sense in high-income countries.

Recognise that zero targets will need resourcing to be measured and achieved

It is not feasible to reach zero targets or global minimum standards in many low-income countries without dedicated international financing for both implementation and measurement. Realising zero targets should influence international development cooperation priorities from now until 2030. The level of development already attained by many middle- and high-income countries makes zero targets irrelevant for them.

Measure global partnership at the country level

The MDGs showed that when everyone is responsible for global partnership, no one is held accountable. While the global framework will concentrate more on monitoring the delivery of global commitments (global public goods) at an aggregate level, it will be necessary to measure individual country contributions to global partnership, and as such, hold individual countries accountable for their contributions.

Broaden the conversation on implementation at the country level

At the country level, there is a need to broaden the SDG conversation. As the world moves forward on implementing the SDGs, action must move from New York to national and provincial capitals, and from foreign ministries to central ministries to make sure that the right stakeholders, including the private sector and other non-state actors, are engaged in SDG delivery and its assessment.

INVESTING IN MORE AND BETTER DATA TO DRIVE SDG PROGRESS

Take stock of existing data as a first step to investing in the data revolution at the country level

Appropriate stock-taking is needed across countries to inform investments in the data revolution for sustainable development. The examination of data availability and quality suggests that while some general challenges are shared across countries, enough country-level variation exists to warrant tailored approaches to improving data availability and quality in different country contexts.

Once the global and national benchmark for the SDG monitoring framework has been established, all countries will have to do a data inventory to assess the availability of data to have an adequate national benchmark for the relevant SDGs.

Invest in disaggregated data so we know we are leaving no one behind

There is no question that additional efforts will be needed to produce disaggregated data. While disaggregation is often possible by sex, age and sub-region, other forms of disaggregation – particularly in terms of income and minority groups – are often not available. This also means that understanding how multiple forms of marginalisation interact – for example, sex, ethnicity and income level – is often not possible. As Emma Samman and José Manuel Roche (2014) note, this will not be an easy problem to fix. It will be costly as questionnaire space is limited and it is expensive to oversample particular groups. Greater use of existing data and expanding and facilitating links between data sources could help address this issue.

Be guided by measuring what matters – not what data exists

Though data gaps exist, they should not lead to the exclusion of important sustainable development priorities in global and national level monitoring frameworks. Indeed, the inclusion of new priorities for which data gaps exist reflects their importance as part of a new agenda for sustainable development and can drive resourcing and effort – including around data collection.

Data consistency and compatibility are important

At the country-level, assessments of existing data production should be encouraged before launching new survey instruments. As an immediate step, this approach could help to improve and ensure coherency between old and new data collection needs for monitoring the SDGs. In the longer term, NSOs will need to establish procedures for ensuring outputs are internally coherent and provide information on comparability between sources. Efforts will also be needed to facilitate the use of common standards and definitions across statistical outputs, periodically assessed against international standards with explanations provided for deviation.

Invest in harnessing existing data

Data is more readily available to monitor poverty, education and employment-related SDGs. Those related to infrastructure, energy, the environment, governance and global partnership face greater data gaps. However, significant amounts of existing data could be put to better use if efforts were made to improve data analysis and statistical production. Making use of existing data to establish baselines for the SDGs and report on SDG progress represents an area where minimal investments could have a significant pay off. Data already exists for many indicators, and as such, the key challenge will be working with NSOs and line ministries to prepare and make available statistics and accompanying analysis. Making better use of administrative data is also a potentially quick and effective way of utilising existing data to measure and drive progress on the SDGs.

Collect data more often and release results more quickly

The frequency of data collection for major statistical instruments on economic and social welfare is insufficient in low-income countries. Timeliness and punctuality tended to be a challenge across goal areas for the low-income countries included in the Post-2015 Data Test. A key challenge is ensuring that NSOs are adequately resourced to collect, analyse and disseminate data in a timely manner. Addressing this challenge will require long-term efforts and commitment by governments, development partners and data producers. In the short-term, the provision of information on data releases, including when any divergence from advance release times occur, should be encouraged. In the longer term, there is a need for data producers to establish and update data release policies in accordance with international standards, provide a calendar for releases and establish procedures to monitor punctuality and provide formal explanations in the event of delays.

Use unofficial data strategically, but not at the expense of official data

Unofficial data sources (e.g. research institutions, think tanks and non-governmental organisations) should be harnessed to fill data gaps and complement official data sources. Systems have to be put in place so that unofficial data are more acceptable to NSOs from methodological perspectives. Governance is an area where unofficial data will be particularly powerful. Civil society groups collect data on issues related to personal security, corruption and bribes, for example, and improving collaboration between official

and unofficial data producers at the country level should be encouraged. The NSO has a key role to play in working with unofficial data producers, particularly in a context of filling data gaps for official SDG monitoring. But investments in unofficial data to support SDG monitoring should be complementary and not come at the expense of strengthening official data collection.

Put NSOs in the lead and invest in national priorities, systems and institutions

NSOs should play the leading role in strengthening the NSS, including in terms of identifying priorities, harnessing and improving the quality of administrative data, and coordinating with unofficial data producers to address data gaps. Efforts to support the data revolution at country level should be grounded in national priorities and establishing statistical building blocks. This requires country leadership and coordination on resourcing to ensure that NSSs are supported with the necessary financial, human, and material resources.

Providing autonomy and legal protection to NSOs

For NSOs to play their desired roles, they have to be given statutory protection so that they can function professionally and without political interference.

Be predictable with financing and commitments

Efforts to strengthen statistical and data capacities in the past have been undermined by a lack of predictability in government and external partner funding. Commit resources, according to national plans, over the long-term. At the same time, domestic resources have to be earmarked in a regular fashion (through national budgets) for undertaking the core set of surveys (e.g. Household Income and Expenditure Survey and Labour Force Survey).

Consult with data users to improve data relevance

In most countries, there is a lack of policies and guidelines on how to regularly follow up with data users, which can weaken the relevance of data being produced. A number of steps could be taken to improve engagement with data users. In the short-term, ad hoc, periodic user consultations may be a simple way to begin improving the relevance of data collected. In the longer term, countries will need to develop policies and systems for user consultation, which may include the establishment of advisory committees or other more formalised mechanisms of user consultation. Policies and procedures should also include a system for collating ongoing feedback.

Coordinate data efforts across government more effectively

Newer goal areas suffer from a paucity of data. Significant efforts will be needed to ensure effective monitoring of goals related to energy and infrastructure, governance, and the environment. Importantly, for these goal areas, line ministries have a critical role to play. Efforts to generate good quality data will need to incorporate NSOs as well as responsible ministries for these goal areas and support better coordination across government.

Ensuring the relevance of data also requires better coordination between data producers to reduce duplication of efforts and ensure that data collection, across ministries, meets various user needs. Establishing policies and guidelines for data collection to ensure coordination between statistical programmes within the NSO and between the NSO and other data producers would work to improve the relevance of data, as well as ensure better consistency and coherence between data producers.

Integrate data quality policies and systems across government

The accuracy and reliability of data tend to be poorer for data sources outside the NSO. There is a need to ensure all data produced by the government – in particular that of line ministries – is accompanied by metadata, particularly information on sampling and non-sampling errors, preliminary and revised data, methodology, and data quality available. By making such information available in the short-term where it is not available, NSOs and other government departments can improve the quality of their data. In the longer term, there is a need to establish quality assurance guidelines with reference to international standards where they are unavailable, and conduct regular assessments of data sources, including procedures to measure and reduce errors. A number of studies also noted that policies for data revision are unavailable. Establishing such policies and providing access to them would contribute to improving data quality.

Engage with Southern research institutions

Scarce technical capacities for data generation, quality assessment and analytical use in developing countries are located in their research institutes and think tanks. These institutions should be extensively engaged by the national governments, regional entities and global community to address data challenges emanating from the operationalisation of data revolution at country level.

Adopt technologies suited to country context

The issue of technology and its use is a key factor in determining a country's ability to produce good quality data. The integration of new technologies should be understood within the context of existing physical and ICT infrastructure constraints at the country level. Many of the challenges related to accessibility relate to the need for greater use of technology and electronic formats in the collection, presentation, and dissemination of data.

Develop and integrate consistent standards for data production and dissemination

Coherence between and comparability of data is a considerable challenge, particularly for goal areas in which administrative data is used. Concepts and methodologies lack consistency across instruments, hindering the comparability of data sources. In the short-term, space could be created for greater cooperation and exchange between statistical providers and programmes to improve coherence and comparability, particularly in terms of the adoption of shared expectations, policies and procedures. NSOs could take a leading role in such discussions.

Improving dissemination of data is also a critical challenge. In the short-term and particularly in the case of low-income countries, there is a need to make greater use of electronic dissemination, including the provision of data, metadata and microdata where possible. Websites will need to be updated to enable users to easily access and download data in usable forms.

Longer term, the establishment of a data dissemination policy, including pricing and restrictions (such as those related to confidentiality and access to microdata), should be encouraged. It should be clear to users how, and under what terms, they can access data. Where these policies do not exist, units should be established for liaising with data users and providing support when questions arise. It will also be important to ensure that users have access to up-to-date methodological documents, ideally according to an established policy for consistent procedures and presentation of metadata.

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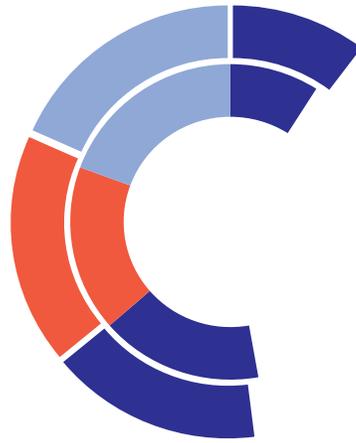
Annexes

Data Collection Methods	Research Process	Research Execution
Literature and document review Data mapping and analysis Key informant interviews Focus group discussions Peer review	**Country Selection** *Objective:* To select a diverse set of countries to include in the study.	PHASE 1 Initiative level: Conducted by CPD, NPSIA and Southern Voice
	Goal Selection *Objective:* To select the set of goals to include in the study.	
	Target and Indicator Mapping and Selection *Objective:* To compile a list of potential targets and indicators to track progress against post-2015 goals and to identify targets and indicators to be examined in all countries. Research question: • What are some of the likely challenges of implementing a universal but country-relevant framework of post-2015 goals, targets and indicators, particularly from a measurement perspective?	
	Target and Indicator Selection – Country Level *Objective:* To identify country-specific targets and indicators to be examined at the country level. Research question: • What are some of the likely challenges of implementing a universal but country-relevant framework of post-2015 goals, targets and indicators, particularly from a measurement perspective?	PHASE 2 Country level: Conducted by country research teams
	Examining Baseline and Data Adequacy *Objective:* To assess what a baseline for selected indicators could be and assess data adequacy for selected indicators. Research questions: • What is the adequacy of data, including disaggregated data, for measuring post-2015 progress across a select set of goals at the country level? Proxy indicators in the absence of required data? Implications for setting a baseline? • Where improvements in data quality, accessibility and transparency have been made in the past, what have been the drivers? Where gaps exist, why? What does this mean for improving data adequacy for post-2015?	
	Examining Target Feasibility *Objective:* To examine the feasibility of "zero" or "global minimum standard" targets, as well as identify country-specific targets (which may have already been identified through national planning processes). Research question: • How feasible and relevant are select candidate "zero" or "global minimum standard" targets in different country contexts?	
	Understanding Data Availability, Accessibility and Transparency *Objective:* To understand data accessibility and transparency at the country level. Research questions: • Where improvements in data quality, accessibility and transparency have been made, what have been the drivers? Where gaps exist, why? • How could technology-enabled and non-traditional modes of data collection support measurement of the post-2015 agenda? • What expectations do different stakeholders have for a "data revolution"? What are likely opportunities and constraints?	

ANNEX 2: GLOBAL TARGETS AND INDICATORS

Annex Table 2.1: End poverty: Targets and indicators

Target	Indicator	Definition/Note
End extreme income poverty	Proportion of population below US$1.25 (PPP) per day	Refers to the percentage of the population living on less than US$1.25 at 2005 prices (World Bank 2014c).
Reduce poverty	Proportion of population below US$2 (PPP) per day	Refers to the percentage of the population living on less than US$2 at 2005 prices (World Bank 2014d).
	Proportion of population living below national poverty line	Refers to the number of individuals living below the nationally-defined poverty line as a proportion of the total population.
	Share of employed persons living below national poverty line	The working poor or the number of employed persons living in households with incomes below the nationally-defined poverty line are based on real disposable income and refer to a nationally-defined real absolute poverty line, whenever possible. Data are presented in terms of the yearly annual average. Here, the income concept refers to the household disposable income. If a relative poverty line is used, data are expressed as the number of employed persons living in households with incomes below the nationally defined relative poverty line. The poverty line is defined as the threshold below which individuals in the population are considered poor and above which they are considered non-poor. The threshold is generally defined as the per capita monetary requirements an individual needs to afford the purchase of a basic bundle of goods and services (ILO 2014).
Reduce the proportion of people who suffer from hunger	Prevalence of child stunting in boys and girls under 5, %	Stunting: Proportion of under-fives falling below minus 2 standard deviations (moderate and severe) and minus 3 standard deviations (severe) from the median height-for-age of the reference population (UNICEF 2014).

Annex Table 2.2: Ensure quality education for all: Targets and indicators

Target	Indicator	Definition/Note
Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys receiving at least one year in pre-primary programmes	Refers to the proportion of children (girls and boys) who have at least one year of pre-primary programmes.
	% of girls and boys who complete primary school	Refers to proportion of girls and boys who complete primary school.
	% of girls and boys who complete secondary school	Refers to proportion of girls and boys who complete secondary school.
	% of girls and boys who achieve a passing grade in national learning assessments at the primary school level	Assessment of learning outcomes: Evaluation of an individual's achievement of learning objectives, using a variety of assessment methods (written, oral and practical tests/examinations, projects and portfolios) during or at the end of an education programme (UNESCO 2012).

(Annex Table 2.2 contd.)

(Annex Table 2.2 contd.)

Target	Indicator	Definition/Note
		National (or sub-national) assessment: Large-scale assessment surveys designed to describe the achievement of students in a curriculum area and to provide an estimate of the achievement level in the education system as a whole at a particular age or grade level. This normally involves administration of tests either to a sample or population of students (Ho 2013).
Increase the number of adults with skills, including technical and vocational skills	Proportion of individuals enrolled in a Technical and Vocational Education and Training institution	Technical and Vocational Education and Training is concerned with the acquisition of knowledge and skills for the world of work. Various terms have been used to describe elements of the field that are now conceived as comprising Technical and Vocational Education and Training. These include: Apprenticeship Training, Vocational Education, Technical Education, Technical-Vocational Education, Occupational Education, Vocational Education and Training, Professional and Vocational Education, Career and Technical Education, Workforce Education, Workplace Education, etc. Several of these terms are commonly used in specific geographic areas (UNEVOC 2012).

Annex Table 2.3: Create jobs, sustainable livelihoods, and inclusive growth for all: Targets and indicators

Target	Indicator	Definition/Note
Achieve full and productive employment for all, including women and young people	Labour force participation rate	The labour force participation rate is the labour force as a % of the working-age population (ILO 2014).
	Time-related underemployment (thousands)	Persons in time-related underemployment comprise all persons in employment, who satisfy the following three criteria during the reference period: (i) are willing to work additional hours; (ii) are available to work additional hours (i.e. are ready, within a specified subsequent period, to work additional hours, given opportunities for additional work); and (iii) worked less than a threshold relating to working time (i.e. persons whose hours actually worked in all jobs during the reference period were below a threshold, to be chosen according to national circumstances). For details, refer to the Resolution concerning the measurement of underemployment and inadequate employment situations (ILO 2014).
Ensure equal pay for equal work	Mean nominal monthly earnings of employees (local currency)	Data on earnings are presented, whenever possible, in nominal terms and on the basis of the mean of monthly earnings of all employees. The earnings of employees relate to the gross remuneration in cash and in kind paid to employees, as a rule at regular intervals, for time worked or work done together with remuneration for time not worked, such as annual vacation, other types of paid leave or holidays. Earnings exclude employers' contributions in respect of their employees paid to social security and pension schemes and also the benefits received by employees under these schemes. Earnings also exclude severance and termination pay. Statistics of earnings relate to the gross remuneration of employees, (i.e. the total before any deductions are made by the employer). Data

(Annex Table 2.3 contd.)

(Annex Table 2.3 contd.)

Target	Indicator	Definition/Note
		are disaggregated by economic activity according to the latest version of the International Standard Industrial Classification of All Economic Activities available for that year. Economic activity refers to the main activity of the establishment in which a person worked during the reference period and does not depend on the specific duties or functions of the person's job, but on the characteristics of the economic unit in which this person works.
Support inclusive growth and reduce inequality	Palma ratio	Refers to the ratio of the income share of the top 10% to the bottom 40%.
	Gini coefficient	The Gini coefficient is a number between zero and one that measures the relative degree of inequality in the distribution of income. The coefficient would register zero (minimum inequality) for a population in which each family (or unattached individual) received exactly the same income and it would register a coefficient of one (maximum inequality) if one family (or unattached individual) received all the income and the rest received none.
	Growth rate of income of the bottom 40%	After-tax income quintiles are used to measure the growth rate of the bottom 40 percent for all family units. All the persons of the population are ranked from lowest to highest by the value of their adjusted family after-tax income. Then, the ranked population is divided into five groups of equal numbers of units, called quintiles. The lowest income quintile represents the 20 percent of the population whose income is lowest. By the same token, the highest quintile represents the 20 percent of the population whose income is highest. After-tax income is total income less income tax.
	Gross fixed capital formation (% of GDP)	Gross fixed capital formation (formerly gross domestic fixed investment) includes land improvements (fences, ditches, drains, and so on); plant, machinery, and equipment purchases; and the construction of roads, railways, and the like, including schools, offices, hospitals, private residential dwellings, and commercial and industrial buildings (World Bank 2014b).

Annex Table 2.4: Ensure sustainable energy and develop infrastructure for all: Targets and indicators

Target	Indicator	Definition/Note
Ensure full access to developed infrastructure and communication technology	Internet users (per 1,000 people)	This indicator measures the number of people that uses the internet for every 1,000 people.
	Average bandwidth speed (megabits/second)	Measurement of the ability of an electronic communications device or system (such as a computer network) to send and receive information, measured in megabits per second (mbit/s).
	% of the population with access to an all-season road	"With access" means that the distance from a village or household to an all-season road is no more than 2 kilometres; otherwise, a walk of no more than 20 minutes or so is required to reach an all-season road. An "all-season road" is a road that is motorable by the prevailing means of rural transport (often a pick-up or a truck that does not have four-wheel-drive) all year round. Predictable interruptions of short duration during inclement weather (e.g. heavy rainfall) are permitted, particularly on low volume roads (World Bank 2005).
	% of adults with an account at a formal financial institution	Denotes the percentage of population with an account (self or together with someone else) at a bank, credit union, another financial institution (e.g. cooperative, microfinance institution), or the post office (if applicable) (modified slightly from World Bank Global Index Glossary).

(Annex Table 2.4 contd.)

(Annex Table 2.4 contd.)

Target	Indicator	Definition/Note
Ensure access to energy and improve efficiency and sustainability of energy supply, including renewable energy	# of hours per day households have access to electricity on average	This indicator measures the number of hours for which electricity is available in a household within a given day. It is not directly applicable to Canada's context and a proxy indicator has been included below to capture the number of person-days households do not have access to electricity.
	Rate of improvement in energy intensity	Energy required per unit (currency) of GDP, measured in primary energy terms and GDP. Primary energy refers to energy sources as found in their natural state (as opposed to derived or secondary energy, which is the result of the transformation of primary or secondary sources) (OECD 2011).
	Share of the population with access to modern cooking solutions (%)	Access to modern cooking solutions is defined as relying primarily on non-solid fuels for cooking. Non-solid fuels include: (i) liquid fuels (for example, kerosene, ethanol or other biofuels); (ii) gaseous fuels (such as natural gas, liquefied petroleum gas and biogas); and (iii) electricity. Solid fuels include: (i) traditional biomass (for example, wood, charcoal, agricultural residues and dung); (ii) processed biomass (such as pellets and briquettes); and (iii) other solid fuels (such as coal and lignite) (World Bank 2011; Banerjee et al. 2013).
	Share of renewable energy to total energy consumption	Energy that is derived from natural processes (e.g. sunlight and wind) that are replenished at a higher rate than they are consumed. Solar, wind, geothermal, hydro and biomass are common sources of renewable energy (IEA 2014).

Annex Table 2.5: Establish a sustainable, healthy and resilient environment for all: Targets and indicators

Target	Indicator	Definition/Note
Build resilience and reduce deaths from natural hazards	Disaster deaths per 1,000 inhabitants	Hazard: A dangerous phenomenon, substance, human activity or condition that may cause loss of life, injury or other health impacts, property damage, loss of livelihoods and services, social and economic disruption, or environmental damage. Includes: Avalanche, Cold Wave, Cyclone, Drought, Earthquake, Epidemic and Pandemic; Flood, Heat Wave, Insect Infestation; Landslide; NBC – Nuclear, Biological, Chemical; Storm Surge; Tornado; Tsunami; Volcano; Wildfire (UNISDR 2007). Disaster: A serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope using its own resources (UNISDR 2007).
Safeguard ecosystems and biodiversity	Net loss in forest area (% of land area)	Forest: Land spanning more than 0.5 hectares with trees higher than 5 meters and a canopy cover of more than 10 percent, or trees able to reach these thresholds in situ. It does not include land that is predominantly under agricultural or urban land use (FAO 2012).
	Trends in coverage of protected areas	The protected area coverage indicator measures the policy response to biodiversity loss. An increase in protected area coverage indicates increased efforts by governments and civil society to protect land and sea areas with a view to achieve the long-term conservation of biodiversity with associated ecosystem services and cultural values (BIP 2014). Note: The data provided shows how protected areas are managed based on IUCN category and includes marine areas.

(Annex Table 2.5 contd.)

(Annex Table 2.5 contd.)

Target	Indicator	Definition/Note
Publish and use economic, social and environmental accounts in all governments and companies	Share of large tax unit taxpayers using integrated reporting	Integrated reporting is a process founded on integrated thinking that results in a periodic integrated report by an organisation about value creation over time and related communications regarding aspects of value creation. An integrated report is a concise communication about how an organisation's strategy, governance, performance and prospects, in the context of its external environment, lead to the creation of value in the short-, medium- and long-term (IIRC 2013). Large taxpayers are very different from other categories of taxpayers and present certain significant risks to effective tax administration. Major characteristics of large business segment include: concentration of revenues, complexity of the business and tax dealing, withhold agent or intermediary role, uses of professional tax advisors and possession of in-house tax organisation. Businesses may be publicly listed corporations, multinational companies or private groups (OECD 2009).
	Existence of national and sub-national government publishing according to the System of Environmental-Economic Accounting	The System of Environmental-Economic Accounting contains the internationally agreed standard concepts, definitions, classifications, accounting rules and tables for producing internationally comparable statistics on the environment and its relationship with the economy. Its framework follows a similar accounting structure as the System of National Accounts and uses concepts, definitions and classifications consistent with the System of National Accounts in order to facilitate the integration of environmental and economic statistics (UNStats 2014).

Annex Table 2.6: Establish open, accountable, inclusive and effective institutions, rule of law and a peaceful and inclusive society: Targets and indicators

Target	Indicator	Definition/Note
Provide free and universal legal identity, such as birth registrations	Percentage of children under 5 who are registered with the civil authority	Refers to the number of children under 5 registered with the civil authority as a percentage of the total population of children under 5.
	Proportion of adults with a basic legal identity document	Refers to the number of adults (individuals over 18 years of age) with a basic legal identity document as a percentage of the total adult population.
Monitor and end discrimination and inequalities in public service delivery, the rule of law, access to justice and participation in political and economic life on the basis of social status	Average time between filing a case and receiving a verdict	Refers to the average number of days that elapse from the time of filing a case and receiving a verdict.
	Proportion of seats held by women and minorities in national or local level government	Refers to women and minorities in parliaments as the percentage of parliamentary seats held by women/minorities.
	% of adults with an account at a formal financial institution, disaggregated by sex	Denotes the percentage of population with an account (self or together with someone else) at a bank, credit union, another financial institution (e.g. cooperative, microfinance institution), or the post office (if applicable) including individuals who have a debit card (Demirguc-Kunt and Klapper 2012). Note: This is the same indicator as used under energy and infrastructure, disaggregated by sex.

(Annex Table 2.6 contd.)

Target	Indicator	Definition/Note
Improve personal safety	Prevalence of violence against women, including domestic violence	Violence against women is "any act of gender-based violence that results in, or is likely to result in, physical, sexual or mental harm or suffering to women, including threats of such acts, coercion or arbitrary deprivation of liberty, whether occurring in public or in private life" (UN 1993). Would likely be based on self-reporting (survey data).
	Violent death per 100,000 people	Classification of violent death includes killings in war or conflicts, non-conflict deaths and self-inflicted deaths (suicides), while non-conflict deaths include intentional homicide, killings in self-defence, killings in legal interventions and non-intentional homicide (UNODC 2014).
Reduce bribery and corruption in all forms	Survey data regarding bribes or gifts for service from a government official – "In the past year, how often (if ever) have you had to pay a bribe, give a gift, or do a favour to government officials in order to get a document or receive a service"	Refers to the proportion of people who have paid a bribe in the past year at time of being surveyed.
Improve transparency in the revenue system	Share of eligible taxpayers who submit their taxes	Refers to the proportion of eligible taxpayers who submit their taxes for a given tax year as a percentage of eligible taxpayers.

Annex Table 2.7: Establish a global partnership for sustainable development: Targets and indicators

Target	Indicator	Definition/Note
Global		
Create an enabling environment for sustainable development	Low-income country debt forgiveness or reduction (% of GDP)	Debt forgiveness or reduction shows the change in debt stock due to debt forgiveness. It is derived by subtracting debt forgiven and debt stock reduction from debt buyback (World Bank 2014a).
	Share of trade in goods and services from low-income countries under duty-free, quota-free market access	This indicator tracks the proportion of goods and services from low-income countries that enter a developed country under preferential market access.
	Existence of laws for ensuring country-by-country reporting by multinational corporations, disclosure of beneficial ownership and the prevention of money laundering	Meant to provide an indication of countries' efforts to address tax evasion and prevent money laundering.
Increase financing to productive capacity in low- and middle-income countries	Share of aid to the productive sector	Aid defined as official development assistance and other official flows. Productive sector defined as infrastructure, agriculture and manufacturing.
	Proportion of foreign direct investment to the productive sector	Productive sector defined as infrastructure, agriculture and manufacturing.
	Share of South-South cooperation to the productive sector	Productive sector defined as infrastructure, agriculture and manufacturing.

ANNEX 3: SDGs CAPTURED BY THE POST-2015 DATA TEST FRAMEWORK[21]

END POVERTY

1 NO POVERTY

End poverty in all its forms everywhere

- Target 1.1 By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than $1.25 a day
  - *Proportion of population below $1.25 (PPP) per day disaggregated by sex and age group*
- Target 1.2 By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions
  - *Proportion of population living below national poverty line, disaggregated by sex and age group*

2 ZERO HUNGER

End hunger, achieve food security and improved nutrition and promote sustainable agriculture

- Target 2.2 By 2030, end all forms of malnutrition, including achieving, by 2025, the internationally agreed targets on stunting and wasting in children under 5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women and older persons
  - *Prevalence of stunting (low height-for-age) in children under 5 years of age*

ENSURE QUALITY EDUCATION FOR ALL

4 QUALITY EDUCATION

Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

- Target 4.1 By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes
  - *Percentage of children who achieve minimum proficiency standards in reading and mathematics at end of: (i) primary (ii) lower secondary*
  - *Completion rate (primary, lower secondary, upper secondary)*
- Target 4.2 By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education
  - *Participation rate in organized learning (one year before the official primary entry age)*
- Target 4.3 By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university
  - *Enrolment ratios by level and type of education (TVET and tertiary)*

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[21]Drawn from UN (2015b) and UNStats (2015).

CREATE JOBS, SUSTAINABLE LIVELIHOODS AND INCLUSIVE GROWTH FOR ALL

8 DECENT WORK AND ECONOMIC GROWTH

Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

- Target 8.5 By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value
  - *Employment to working-age population (15 years and above) ratio by gender and age group, and people with disabilities*
  - *Unemployment rate by gender and age-group*

10 REDUCED INEQUALITIES

Reduce inequality within and among countries

- Target 10.1 By 2030, progressively achieve and sustain income growth of the bottom 40 per cent of the population at a rate higher than the national average
  - *Measure income inequality using the Gini coefficient or Palma ratio, pre- and post-social transfers/tax, at global, regional and national level disaggregated by groups as defined above*

ENSURE SUSTAINABLE ENERGY AND DEVELOP INFRASTRUCTURE FOR ALL

7 AFFORDABLE AND CLEAN ENERGY

Ensure access to affordable, reliable, sustainable and modern energy for all

- Target 7.1 By 2030, ensure universal access to affordable, reliable and modern energy services
  - *Percentage of population with electricity access (%)*
  - *Percentage of population with primary reliance on non-solid fuels (%)*
- Target 7.2 By 2030, increase substantially the share of renewable energy in the global energy mix
  - *Renewable energy share in the total final energy consumption (%)*
- Target 7.3 By 2030, double the global rate of improvement in energy efficiency
  - *Rate of improvement in energy intensity (%) measured in terms of primary energy and GDP*

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

- Target 9.1 Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all
  - *Transport by air, road and rail (millions of passengers and ton-km and % population with access to all season road)*
- Target 9.c Significantly increase access to information and communications technology and strive to provide universal and affordable access to the Internet in least developed countries by 2020
  - *Fixed and Mobile broadband quality measured by mean download speed*
  - *Subscription to mobile cellular and/or fixed broad band internet (per household/100 people)*

ESTABLISH A SUSTAINABLE, HEALTHY AND RESILIENT ENVIRONMENT FOR ALL

11 SUSTAINABLE CITIES AND COMMUNITIES

Make cities and human settlements inclusive, safe, resilient and sustainable

- Target 11.5 By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations
  - *Number of people killed, injured, displaced, evacuated, relocated or otherwise affected by disasters*

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

Ensure sustainable consumption and production patterns

- Target 12.6 Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle
  - *Number or % of companies that produce sustainability reports or include sustainability information in integrated reporting*

13 CLIMATE ACTION

Take urgent action to combat climate change and its impacts

- Target 13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries
  - *# of casualties and amount of economic losses*

15 LIFE ON LAND

Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

- Target 15.1 By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements
  - *Coverage of protected areas broken down by ecosystem type, including total area of forests in protected areas (thousands of hectares)*
  - *Forest area as a percentage of total land area*
- Target 15.9 By 2020, integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts
  - *National programme on the measurement of values of biodiversity or on the implementation of the SEEA-EEA*

ESTABLISH OPEN, ACCOUNTABLE, INCLUSIVE AND EFFECTIVE INSTITUTIONS, RULE OF LAW AND A PEACEFUL AND INCLUSIVE SOCIETY

5 GENDER EQUALITY

Achieve gender equality and empower all women and girls

- Target 5.2 Eliminate all forms of violence against all women and girls in the public and private spheres, including trafficking and sexual and other types of exploitation
  - *Proportion of ever-partnered women and girls (aged 15-49) subjected to physical and/or sexual violence by a current or former intimate partner, in the last 12 months*
  - *Proportion of women and girls (aged 15-49) subjected to sexual violence by persons other than an intimate partner, since age 15*
- Target 5.5 Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life
  - *Proportion of seats held by women in local governments*
- Target 5.a Undertake reforms to give women equal rights to economic resources, as well as access to ownership and control over land and other forms of property, financial services, inheritance and natural resources, in accordance with national laws
  - *Proportion of population with an account at a formal financial institution, by sex and age*
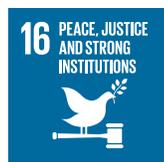
Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

- Target 16.1 Significantly reduce all forms of violence and related death rates everywhere
  - *Homicide and conflict-related deaths per 100,000 people*
- Target 16.5 Substantially reduce corruption and bribery in all their forms
  - *Percentage of population who paid a bribe to a public official, or were asked for a bribe by these public officials, during the last 12 months*
- Target 16.7 Ensure responsive, inclusive, participatory and representative decision-making at all levels
  - *Diversity in representation in key decision-making bodies (legislature, executive, and judiciary)*
- Target 16.9 By 2030, provide legal identity for all, including birth registration
  - *Percentage of children under 5 whose births have been registered with civil authority*

ESTABLISH A GLOBAL PARTNERSHIP FOR SUSTAINABLE DEVELOPMENT

End poverty in all its forms everywhere

- Target 1.a Ensure significant mobilization of resources from a variety of sources, including through enhanced development cooperation, in order to provide adequate and predictable means for developing countries, in particular least developed countries, to implement programmes and policies to end poverty in all its dimensions
  - *Resources mobilized and spent for poverty reduction, including government, private sector and development partners*

End hunger, achieve food security and improved nutrition and promote sustainable agriculture

- Target 2.b Correct and prevent trade restrictions and distortions in world agricultural markets, including through the parallel elimination of all forms of agricultural export subsidies and all export measures with equivalent effect, in accordance with the mandate of the Doha Development Round

10 REDUCED INEQUALITIES

Reduce inequality within and among countries

- Target 10.a Implement the principle of special and differential treatment for developing countries, in particular least developed countries, in accordance with World Trade Organization agreements
  - *Degree of utilization and of implementation of SDT measures in favour of LDCs*
- Target 10.b Encourage official development assistance and financial flows, including foreign direct investment, to States where the need is greatest, in particular least developed countries, African countries, small island developing States and landlocked developing countries, in accordance with their national plans and programmes
  - *FDI inflows as a share of GDP to developing countries, broken down by group (LDCs, African countries, SIDS, LLDCS) and by source country*
  - *OECD ODA data, disaggregated by recipient and donor countries*

17 PARTNERSHIPS FOR THE GOALS

Strengthen the means of implementation and revitalize the global partnership for sustainable development

- Target 17.4 Assist developing countries in attaining long-term debt sustainability through coordinated policies aimed at fostering debt financing, debt relief and debt restructuring, as appropriate, and address the external debt of highly indebted poor countries to reduce debt distress
  - *Debt relief committed under HIPC initiative*
- Target 17.12 Realize timely implementation of duty-free and quota-free market access on a lasting basis for all least developed countries, consistent with World Trade Organization decisions, including by ensuring that preferential rules of origin applicable to imports from least developed countries are transparent and simple, and contribute to facilitating market access
  - *Average tariffs faced by developing countries and LDCs by key sectors*
  - *Preferences utilization by developing and least developed countries on their export to developed countries*

ANNEX 4: DATA QUALITY ASSESSMENT FRAMEWORK

Criteria	Components (scale)	Sub-components (scale)
Relevance	Completeness *Main Question: How complete are the data?*	Policy requirements for data collection
		Guidelines for data collection
		Procedures to coordinate statistical information
		Procedures to perform regular programme reviews
		Advisory council to advise on statistical priorities
		Availability of metadata
	User needs *Main Question: Do the data correspond with user needs?*	Agreements with user about the data content and priorities
		Procedures to track user needs and uses of the statistics
		Information about the survey objectives
		Legislative requirement to consult with the user on data collection
	User satisfaction *Main Question: Do the data satisfy user needs?*	Regular follow-ups with users to ensure user satisfaction
		Periodic consultations with users to check for their feedback
		Post-collection evaluations to compare data outcomes with user needs
Accuracy and reliability	Sampling and non-sampling errors *Main Question: What procedures are in place to reduce sampling and non-sampling errors?*	Measurement, evaluation and systematic documentation of sampling and non-sampling errors
		Mechanisms to ensure survey samples closely represent the population under study
		Quality assurance plan to prevent, monitor and evaluate non-sampling errors
		Compilation of user feedback to assess the relevance of the statistical study for user purpose
	Systematic and random errors *Main Question: What procedures are in place to reduce systematic and random errors?*	Systems to assess source data, intermediate results and statistical outputs
		Procedures to measure and reduce errors
		Regular assessment of data sources
		Systematic comparison of data and results with data and results from other existing sources to ensure validity
		Assessment report of statistical discrepancies in intermediate data
		Revisions analysed to improve statistical process
	Revision measures *Main Question: What measures are in place to revise the data?*	Policies for documenting principles and procedures for data revision
		Transparent and standard procedures for revising data
		Periodic quality reporting on the accuracy of data collected
		Public access to revision policies
		Information that clearly identifies preliminary and revised data
		Information that shows timely correction of errors found in published statistics

(Annex 4 contd.)

Criteria	Components (scale)	Sub-components (scale)
Timeliness and punctuality	Timeliness *Main Question: How quickly are the data released for dissemination or further processing?*	Release policy distinguishing between statistical outputs and the corresponding release procedures and timeliness targets
		Compliance with timeliness targets like the IMF data dissemination standards
		Official calendar to announce advance release dates of major statistics
		Attainable schedule for the production process
		Maximum time allowed to elapse between the end of the reference period and the availability of the data
		Procedures to ensure timely and effective flow of data from providers
		Procedures to consult with users about the periodicity of the statistics
	Punctuality *Main Question: Whether the data are delivered according to the official due date?*	Action or contingency plans to address delays in data release date
		Procedures to regularly monitor the punctuality of every release as per the release calendar
		Notifications provided for any divergences from the advanced release time and publication of new release dates
		Formal explanations provided in the event of a delay
Accessibility and clarity	Accessibility *Main Question: How easily are the data accessible?*	Data dissemination strategy and policy, including clear pricing policy for governing the dissemination
		Policy or guideline to ensure that the data are made available to all users (including any restrictions that may apply)
		Strategies to release data, metadata and microdata
		Availability of publication catalogues for users
		Application of information and communication technology to disseminate data (in addition to hard copy publications)
		Navigable website that allows users to access data and metadata and facilitates self-tabulation in a variety of formats
		Periodic consultation with users to ensure dissemination formats satisfy user needs
		Procedures to request data that are not readily available to the public
	Clarity *Main Question: How clearly are the data presented to all users?*	Guidelines describing the appropriate content and preferred formats and style of the agency's outputs
		Presentation of statistics that facilitate proper interpretation and meaningful comparisons
		Regular production of up-to-date methodological documents and quality reports
		Staff training and development programmes for writing about statistics
		User support or information services for handling questions related to the data
		Procedure to annotate differences between international standards, guidelines or good practices
		Statistics presented in a clear and understandable manner
		Explanatory texts accompany the data
		Meaningful comparisons included in the publication

(Annex 4 contd.)

Criteria	Components (scale)	Sub-components (scale)
	Metadata and microdata *Main Question: How accessible and readable are the metadata and microdata?*	Policies to provide documentation on concepts, scope, classifications, data sources, basis of recording, compilation methods, etc. with the release of statistical results
		Procedures to ensure metadata are documented according to standardised metadata systems
		Procedures to ensure metadata are updated regularly
		Availability of microdata
		Rules and protocols for accessing microdata
Coherence and comparability	Consistency *Main Question: How consistent are the data internally or cross-sectorally?*	Policy promoting cooperation and exchange of knowledge between individual statistical programmes/domains
		Specific guidelines for individual statistical programmes/domains to ensure outputs obtained from complementary sources are properly combined
		Process-specific procedures to ensure outputs are internally coherent
		Information provided to users on the effects of changes in methodologies on final estimates
	Comparability *Main Question: How comparably are the data over time?*	Extent to which statistics derived from different sources or different periodicities are comparable
		Clear explanation and reconciliation provided for any methodological changes or differences
		Analysis of the major related statistics before designing a new individual statistical programme/domain
		Comparison provided with other statistical sources that contain the same or similar information (including identification of divergences with explanations)
	Standardisation *Main Question: Are the data produced using common standards with respect to scope, definitions, classifications and units?*	Common standards for concepts, definitions, units and classifications to promote coherence, consistency and comparability of the statistics
		Periodic assessment of compliance with international and national standards for statistical production
		Explanation provided for any deviations from international and national standards to users
		Reference made to common repository of concepts, definitions and classifications when designing a new individual statistical programme/domain
		Quality reporting includes assessment of internal consistency and comparability over time

ANNEX 5: SDG ROAD-TEST RESULTS

Goal: End poverty

Target	Target Analysis PA: Priority and Applicable NA: Not Priority, but Applicable NN: Neither Priority, nor Applicable							Indicator[a]	Indicator Analysis PA: Priority and Applicable NA: Not Priority, but Applicable NN: Neither Priority, nor Applicable						
	Bangladesh	Canada	Peru	Senegal	Sierra Leone	Tanzania	Turkey		Bangladesh	Canada	Peru	Senegal	Sierra Leone	Tanzania	Turkey
End extreme income poverty	PA	NN	PA	PA	PA	PA	NN	Proportion of population below US$1.25 (PPP) per day	PA	NN	PA	PA	PA	PA	NN
Reduce poverty	PA	PA	PA	PA	PA	PA	PA	Proportion of population below US$2 (PPP) per day	PA	NN	PA	PA	PA	PA	NN
								Proportion of population living below national poverty line	PA	PA	PA	PA	PA	PA	PA
								Share of employed persons living below national poverty line	PA	PA	PA	PA	PA	PA	PA
Reduce the proportion of people who suffer from hunger	PA	NA	PA	PA	PA	PA	PA	Prevalence of child stunting in boys and girls under 5, %	PA	NA	PA	PA	PA	PA	PA

National differentiation

Bangladesh: poverty severity and multidimensionality (MPI); hunger and caloric consumption; food security; nutritional status of mothers and babies; social protection
Canada: focus on income poverty of marginalised groups (Aboriginal people, disabled people, female-lone parents and recent immigrants); homeless population; persistence of low income
Peru: chronic malnutrition under 3; child poverty; income poverty for specific groups (indigenous and rural populations)
Senegal: social protection; food poverty; under- and unemployment; caloric intake
Sierra Leone: extreme income poverty
Tanzania: inequality; caloric consumption
Turkey: inequality; multidimensional poverty; persistent poverty; caloric intake

Global minimum standard(s)

End extreme income poverty
Proportion of population below US$1.25 (PPP) per day: Bangladesh, Peru, Senegal, Sierra Leone, Tanzania (applicable); Bangladesh, Senegal, Sierra Leone, Tanzania (relevant)

Target	Target Analysis PA: Priority and Applicable / NA: Not Priority, but Applicable / NN: Neither Priority, nor Applicable							Indicator[a]	Indicator Analysis PA: Priority and Applicable / NA: Not Priority, but Applicable / NN: Neither Priority, nor Applicable						
	Bangladesh	Canada	Peru	Senegal	Sierra Leone	Tanzania	Turkey		Bangladesh	Canada	Peru	Senegal	Sierra Leone	Tanzania	Turkey
Goal: Ensure quality education for all															
Ensure all children have access to early childhood and quality primary and secondary education	PA	PA	PA	PA	PA	PA	PA	% of girls and boys receiving at least one year in pre-primary programmes	NA	PA	PA	PA	PA	PA	PA
								% of girls and boy who complete primary school	PA	NA	PA	PA	PA	PA	NA
								% of girls and boys who complete secondary school	PA	PA	PA	PA	PA	PA	PA
								% of girls and boys who achieve a passing grade in national learning assessments at the primary school level	PA	PA	PA	PA	PA	PA	PA
Increase the number of adults[b] with the skills, including technical and vocational skills	PA	PA	PA	PA	PA	PA	PA	Proportion of individuals enrolled in a Technical and Vocational Education and Training institution	PA	PA	PA	PA	PA	PA	PA

National differentiation

Bangladesh: secondary school completion; research, innovation and training; student-teacher ratio

Canada: early childhood education; secondary school completion rates for Aboriginal people; critical thinking skills; lifelong learning; student debt

Peru: learning outcomes; education outcomes for marginalised groups (children with disabilities, indigenous children, girls in rural areas); access to higher education for individuals with lower socio-economic status; early childhood education; school safety

Senegal: school enrolment, particularly of poor and marginalised populations; education expenditure

Sierra Leone: teacher-pupil ratio; secure and safe schools; bullying

Tanzania: education access and quality in secondary and vocational education; teaching materials; public expenditure on education; access for children with disabilities; secondary school enrolment

Turkey: student and teacher absenteeism; student-teacher ratio; education of immigrant children; regional distribution of educational outcomes

(Annex 5 contd.)

Target	Target Analysis — PA: Priority and Applicable; NA: Not Priority, but Applicable; NN: Neither Priority, nor Applicable							Indicator[a]	Indicator Analysis — PA: Priority and Applicable; NA: Not Priority, but Applicable; NN: Neither Priority, nor Applicable						
	Bangladesh	Canada	Peru	Senegal	Sierra Leone	Tanzania	Turkey		Bangladesh	Canada	Peru	Senegal	Sierra Leone	Tanzania	Turkey
Global minimum standard(s)															
Ensure all children have access to early childhood and quality primary and secondary education % of girls and boys who complete primary school: All countries (applicable); Bangladesh, Peru, Senegal, Sierra Leone, Tanzania (relevant) % of girls and boys who complete secondary school: All countries (applicable); All countries (relevant) % of girls and boys who achieve a passing grade in national learning assessments at the primary school level: All countries (applicable); All countries (relevant)															
Goal: Create jobs, sustainable livelihoods and inclusive growth for all															
Achieve full and productive employment for all, including women and young people	PA	PA	PA	PA	PA	PA	PA	Labour force participation rate	PA	PA	PA	PA	PA	PA	PA
								Time-related underemployment (thousands)	PA	PA	PA	PA	PA	NA	PA
Ensure equal pay for equal work	PA	PA	PA	PA	PA	PA	PA	Mean nominal monthly earnings of employees (local currency)	PA	PA	PA	PA	PA	PA	PA
Support inclusive growth and reduce inequality	PA	PA	PA	PA	PA	PA	PA	Gini coefficient	PA	PA	PA	PA	PA	PA	PA
								Palma ratio	PA	PA	PA	NA	PA	PA	PA
								Growth rate of income of the bottom 40%	PA	PA	PA	PA	PA	PA	PA
								Gross fixed capital formation (% of GDP)	PA	NA	PA	PA	PA	PA	PA

National differentiation

Bangladesh: informal employment; child labour; workplace safety; youth employment; women and labour force participation/business ownership

Canada: workplace benefits and work-related injuries; inequality (earning of top 1% and ratio between bottom 90% and top 10%); gender wage gap; unemployment of Aboriginal population, youth and recent immigrants

Peru: child labour; informal workers; youth employment; wage gaps (women and indigenous populations)

(Annex 5 contd.)

Senegal: employment opportunities following training and university; geographic mobility for employment
Sierra Leone: decent work; inequality; youth unemployment; female unemployment; unemployment of people with disabilities
Tanzania: equal pay for equal work; productive employment; social protection; child labour
Turkey: gender parity in employment; workplace safety; child labour; youth unemployment

Global minimum standard(s)

Ensure equal pay for equal work
Mean nominal monthly earnings of employees (local currency): All countries (applicable); All countries (relevant)

Target	Target Analysis — PA: Priority and Applicable; NA: Not Priority, but Applicable; NN: Neither Priority, nor Applicable							Indicator[a]	Indicator Analysis — PA: Priority and Applicable; NA: Not Priority, but Applicable; NN: Neither Priority, nor Applicable						
	Bangladesh	Canada	Peru	Senegal	Sierra Leone	Tanzania	Turkey		Bangladesh	Canada	Peru	Senegal	Sierra Leone	Tanzania	Turkey
Goal: Ensure sustainable energy and develop infrastructure for all															
Ensure full access to developed infrastructure and communication technology	PA	PA	PA	PA	PA	PA	PA	Internet users (per 1,000 people)	PA	NA	PA	PA	PA	PA	PA
								Average bandwidth speed (megabits/second)	PA	PA	PA	PA	PA	NA	PA
								% of the population with access to an all-season road	PA	PA	PA	PA	PA	PA	PA
								% of adults with an account at a formal financial institution	PA	NA	PA	PA	PA	PA	NA
Ensure access to energy and improve efficiency and sustainability of energy supply, including renewable energy	PA	PA	PA	PA	PA	PA	PA	# of hours per day households have access to electricity on average	PA	NA	PA	PA	PA	PA	PA
								Rate of improvement in energy intensity	NA	PA	NA	PA	PA	NA	PA
								Share of the population with access to modern cooking solutions (%)	PA	NA	PA	PA	PA	PA	NA
								Share of renewable energy to total energy consumption	PA	PA	PA	PA	PA	PA	PA

(Annex 5 contd.)

(Annex 5 contd.)

Target	Target Analysis PA: Priority and Applicable NA: Not Priority, but Applicable NN: Neither Priority, nor Applicable							Indicator[a]	Indicator Analysis PA: Priority and Applicable NA: Not Priority, but Applicable NN: Neither Priority, nor Applicable						
	Bangladesh	Canada	Peru	Senegal	Sierra Leone	Tanzania	Turkey		Bangladesh	Canada	Peru	Senegal	Sierra Leone	Tanzania	Turkey
National differentiation Bangladesh: energy access and consumption (urban/rural); energy efficient transport (railway use) Canada: energy consumption for transport; transportation costs; investment in and maintenance of public infrastructure; public and shared transportation; renewable and green energy Peru: energy access; improved transport infrastructure; safe mobility; improved information and communications technology Senegal: mobile phone penetration; paved roads; electrification; modern lighting solutions Sierra Leone: Car ownership; fuel use in transportation; price of energy; electricity availability Tanzania: clean and renewable energy Turkey: power outages; investments in electricity; access to electricity/electricity tariffs **Global minimum standard(s)** *Ensure full access to developed infrastructure and communication technology* Internet users (per 1,000 people): All countries (applicable); Bangladesh, Peru, Senegal, Sierra Leone, Tanzania, Turkey (relevant) % of the population with access to an all-season road: All countries (applicable); All countries (relevant) % of adults with an account at a formal financial institutions: All countries (applicable); Bangladesh, Peru, Senegal, Sierra Leone, Tanzania, Turkey (relevant) *Ensure access to energy and improve efficiency and sustainability of energy supply, including renewable energy* # of hours per day households have access to electricity on average: All countries (applicable); Bangladesh, Peru, Senegal, Sierra Leone, Tanzania, Turkey (relevant) Share of the population with access to modern cooking solutions (%): All countries (applicable); Bangladesh, Senegal, Sierra Leone, Tanzania (relevant)															
Goal: Establish a sustainable healthy and resilient environment for all															
Build resilience and reduce deaths from natural hazards	PA	PA	PA	PA	PA	NA	PA	Disaster deaths per 1,000 inhabitants	PA	NA	PA	PA	PA	NA	PA
Safeguard ecosystems and biodiversity	PA	PA	PA	PA	PA	PA	PA	Net loss in forest area (% of land area)	PA	PA	PA	PA	PA	PA	PA
								Trends in coverage of protected areas	PA	PA	PA	PA	PA	NA	PA

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Target	Target Analysis PA: Priority and Applicable NA: Not Priority, but Applicable NN: Neither Priority, nor Applicable							Indicator[a]	Indicator Analysis PA: Priority and Applicable NA: Not Priority, but Applicable NN: Neither Priority, nor Applicable						
	Bangladesh	Canada	Peru	Senegal	Sierra Leone	Tanzania	Turkey		Bangladesh	Canada	Peru	Senegal	Sierra Leone	Tanzania	Turkey
Publish and use economic, social and environmental accounts in all governments and companies	NA	PA	PA	PA	PA	PA	NA	Share of large tax unit taxpayers using integrated reporting	NA	PA	PA	PA	PA	PA	NA
								Existence of national and sub-national government publishing according to the System of Environmental-Economic Accounting	NA	PA	PA	PA	NA	PA	NA

National differentiation

Bangladesh: disaster resilience; economic, society and environmental accounting; fish stocks; air pollution; access to drinking water and safe sanitation
Canada: climate change; resilience and vulnerability to natural disasters; safeguarding ecosystems and biodiversity; air and water pollution and waste
Peru: air and water quality; safeguarding ecosystems; waste management; resilience and vulnerability to natural disasters; natural resource management
Senegal: disaster resilience; land use; environmental management plan; CO_2 emissions
Sierra Leone: biodiversity; natural disasters; water and air quality; solid waste; benefit-sharing with indigenous and local communities from land use
Tanzania: economic, social and environmental accounting; mainstream environmental sustainability through environmental assessments; ecosystem, species and genetic diversity
Turkey: planetary boundaries and natural resource use; species and biodiversity; disaster risk reduction; air quality

Global minimum standard(s)

Publish and use economic, social and environmental accounts in all governments and companies
Share of large tax unit taxpayers using integrated reporting: All countries (applicable); Canada, Peru, Senegal, Sierra Leone, Tanzania (relevant)
Existence of national and sub-national government publishing according to the System of Environmental-Economic Accounting: All countries (applicable); Bangladesh, Canada, Peru, Senegal, Tanzania, Turkey (relevant)

Goal: Establish open, accountable, inclusive and effective institutions, rule of law and a peaceful and inclusive society															
Provide free and universal legal identity, such as birth registrations	PA	NN	PA	PA	PA	PA	NN	Percentage of children under 5 who are registered with the civil authority	PA	NN	PA	PA	PA	PA	NA
								Proportion of adults with a basic legal identity document	PA	NN	PA	PA	PA	PA	NA

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Target	Target Analysis PA: Priority and Applicable NA: Not Priority, but Applicable NN: Neither Priority, nor Applicable							Indicator[a]	Indicator Analysis PA: Priority and Applicable NA: Not Priority, but Applicable NN: Neither Priority, nor Applicable						
	Bangladesh	Canada	Peru	Senegal	Sierra Leone	Tanzania	Turkey		Bangladesh	Canada	Peru	Senegal	Sierra Leone	Tanzania	Turkey
Monitor and end discrimination and inequalities in public service delivery, the rule of law, access to justice and participation in political and economic life on the basis of social status	PA	PA	PA	PA	PA	PA	NN	Average time between filing a case and receiving a verdict	PA	PA	PA	NN	PA	PA	PA
								Proportion of seats held by women and minorities in national or local level government	PA	PA	PA	PA	PA	PA	PA
								% of adults with an account at a formal financial institution, disaggregated by sex	PA	NA	PA	PA	PA	PA	NA
Improve personal safety	PA	PA	PA	PA	PA	PA	PA	Prevalence of violence against women, including domestic violence	PA	PA	PA	PA	PA	PA	PA
								Violent death per 100,000 people	PA	NA	PA	PA	PA	PA	PA
Reduce bribery and corruption in all forms	PA	PA	PA	PA	PA	PA	PA	Survey data regarding bribes or gifts for service from government official - "In the past year, how often (if ever) have you had to pay a bribe, give a gift, or do a favour to government officials in order to get a document or receive a service"	PA	NA	PA	PA	PA	PA	PA
Improve transparency in the revenue system	PA	PA	PA	PA	PA	PA	PA	Share of eligible taxpayers who submit their taxes	PA	NA	PA	PA	PA	PA	PA

National differentiation

Bangladesh: civic engagement; right to information; transparency and accountability of public institutions; capacity of law enforcement agencies

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Target	Target Analysis PA: Priority and Applicable / NA: Not Priority, but Applicable / NN: Neither Priority, nor Applicable							Indicator[a]	Indicator Analysis PA: Priority and Applicable / NA: Not Priority, but Applicable / NN: Neither Priority, nor Applicable						
	Bangladesh	Canada	Peru	Senegal	Sierra Leone	Tanzania	Turkey		Bangladesh	Canada	Peru	Senegal	Sierra Leone	Tanzania	Turkey
Canada: realising the human rights of Aboriginal people, people with disabilities, visible minorities and women; access to justice of low income and marginalised groups; voter participation; bribery and corruption Peru: security and violence; social reintegration of the prison population; corruption; discrimination; improve relationships between the state, companies and communities; improve land management Senegal: civil registration in conflict areas; personal safety Sierra Leone: women in management; success to justice; justice and rights education; voter participation; prosecution for corruption Tanzania: protection of human rights; access to justice; legal identity Turkey: women in senior management; access to justice through legal aid; voting in elections; trust in public institutions **Global minimum standard(s)** *Provide free and universal legal identity, such as birth registrations* Percentage of children under 5 who are registered with the civil authority: Bangladesh, Peru, Senegal, Sierra Leone, Tanzania, Turkey (applicable); Bangladesh, Peru, Senegal, Sierra Leone, Tanzania (relevant) Proportion of adults with a basic legal identity document: Bangladesh, Peru, Senegal, Sierra Leone, Tanzania, Turkey (applicable); Bangladesh, Peru, Senegal, Sierra Leone, Tanzania (relevant)															

Goal: Establish a global partnership for sustainable development

Target	Bangladesh	Canada	Peru	Senegal	Sierra Leone	Tanzania	Turkey	Indicator[a]	Bangladesh	Canada	Peru	Senegal	Sierra Leone	Tanzania	Turkey
Create an enabling environment for sustainable development	PA	PA	PA	PA	PA	PA	PA	Low-income country debt forgiveness or reduction (% of GDP)	NN	NA	NA	PA	PA	PA	NN
								Share of trade in goods and services from low-income countries under duty-free, quota-free market access	PA	PA	NA	PA	PA	PA	PA
								Existence of laws for ensuring country-by-country reporting by multinational corporations, disclosure of beneficial ownership and preventing money laundering	PA	PA	PA	NA	PA	PA	PA

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Target	Target Analysis PA: Priority and Applicable NA: Not Priority, but Applicable NN: Neither Priority, nor Applicable							Indicator[a]	Indicator Analysis PA: Priority and Applicable NA: Not Priority, but Applicable NN: Neither Priority, nor Applicable						
	Bangladesh	Canada	Peru	Senegal	Sierra Leone	Tanzania	Turkey		Bangladesh	Canada	Peru	Senegal	Sierra Leone	Tanzania	Turkey
Increase financing to productive capacity in low- and middle-income countries	PA	PA	PA	PA	PA	PA	PA	Share of aid to the productive sector	PA	PA	PA	PA	PA	PA	PA
								Proportion of foreign direct investment to the productive sector	PA	PA	PA	PA	PA	PA	PA
								Share of South-South cooperation to the productive sector	PA	NN	PA	NA	PA	PA	PA

National differentiation

Bangladesh: aid; trade facilitation; illicit flows

Canada: statistical capacity for development; needs of fragile, least developed, small island and landlocked states; climate change adaptation and mitigation in developing countries; domestic resource mobilisation capacity in developing countries; official development assistance commitments; remittances; global citizenship

Peru: No national priorities identified for this goal

Senegal: resources for building statistical capacity; contribution of remittances to local development; regulatory environment

Sierra Leone: special needs of fragile, least developed, small island and land-locked states; statistical capacity; climate change mitigation and adaptation; domestic resource mobilisation; aid; trans-boundary waste

Tanzania: financial stability; financial transparency and illicit flows; rule-based and non-discriminatory international trade

Turkey: aid; open, rule-based and non-discriminatory international trade

Global minimum standard(s)

Create an enabling environment for sustainable development

Existence of laws for ensuring country-by-country reporting by multinational corporations, disclosure of beneficial ownership and the prevention of money laundering: All countries (applicable); Canada, Peru, Sierra Leone, Tanzania (relevant)

[a] Assumes disaggregation (sex, income, urban/rural, and minorities/sector if relevant).
[b] Adults refers to individuals 18 years of age or older throughout.

ANNEX 6: PRIMARY SOURCES BY COUNTRY, GLOBAL TARGETS AND INDICATORS

Goal	Target	Indicator	Source
		Bangladesh	
End poverty	Reduce poverty	Share of employed persons living below national poverty line	Household Income and Expenditure Survey, Bangladesh Bureau of Statistics
	Reduce the proportion of people who suffer from hunger	Prevalence of child stunting in boys and girls under 5, %	Bangladesh Demographic and Health Survey, National Institute of Population Research and Training, Ministry of Health and Family Welfare
	End extreme income poverty	Proportion of population below US$1.25 (PPP) per day	Household Income and Expenditure Survey, Bangladesh Bureau of Statistics
	Reduce poverty	Proportion of population below US$2 (PPP) per day	Household Income and Expenditure Survey, Bangladesh Bureau of Statistics
	Reduce poverty	Proportion of population living below national poverty line	Household Income and Expenditure Survey, Bangladesh Bureau of Statistics
Ensure quality education for all	Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys receiving at least one year in pre-primary programmes	Multiple Indicator Cluster Survey, Bangladesh Bureau of Statistics
	Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys receiving at least one year in pre-primary programmes	Annual Primary School Census, Directorate of Primary Education, Ministry of Primary and Mass Education
	Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys who achieve a passing grade in national learning assessments at the primary school level	Annual Primary School Census, Directorate of Primary Education, Ministry of Primary and Mass Education
	Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys who complete primary school	Annual Primary School Census, Directorate of Primary Education, Ministry of Primary and Mass Education
	Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys who complete primary school	Multiple Indicator Cluster Survey, Bangladesh Bureau of Statistics

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Goal	Target	Indicator	Source
	Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys who complete primary school	Sample Vital Registration System, Bangladesh Bureau of Statistics
	Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys who complete secondary school	Bangladesh Educational Statistics, Bangladesh Bureau of Educational Information and Statistics, Ministry of Education
	Increase the number of adults with skills, including technical and vocational skills	Proportion of individuals enrolled in a Technical and Vocational Education and Training institution	Bangladesh Educational Statistics, Bangladesh Bureau of Educational Information and Statistics, Ministry of Education
Create jobs, sustainable livelihoods and inclusive growth for all	Support inclusive growth and reduce inequality	Growth rate of income of the bottom 40%	Household Income and Expenditure Survey, Bangladesh Bureau of Statistics
	Ensure equal pay for equal work	Mean nominal monthly earnings of employees (local currency)	No source
	Achieve full and productive employment for all, including women and young people	Time-related underemployment (thousands)	Labour Force Survey, Bangladesh Bureau of Statistics
	Support inclusive growth and reduce inequality	Gini coefficient	Household Income and Expenditure Survey, Bangladesh Bureau of Statistics
	Support inclusive growth and reduce inequality	Gross fixed capital formation (% of GDP)	National Accounts, Bangladesh Bureau of Statistics
	Achieve full and productive employment for all, including women and young people	Labour force participation rate	Labour Force Survey, Bangladesh Bureau of Statistics
	Support inclusive growth and reduce inequality	Palma ratio	Household Income and Expenditure Survey, Bangladesh Bureau of Statistics
Ensure sustainable energy and develop infrastructure for all	Ensure access to energy and improve efficiency and sustainability of energy supply, including renewable energy	# of hours per day households have access to electricity on average	Bangladesh Bureau of Statistics and Bangladesh Power Development Board
	Ensure full access to developed infrastructure and communication technology	% of adults with an account at a formal financial institution	Bangladesh Bank, Bangladesh Bureau of Statistics and Microcredit Regulatory Authority
	Ensure full access to developed infrastructure and communication technology	% of the population with access to an all-season road	No source

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Goal	Target	Indicator	Source
	Ensure full access to developed infrastructure and communication technology	Average bandwidth speed (megabits/second)	Bangladesh Telecommunications Company Ltd.
	Ensure access to energy and improve efficiency and sustainability of energy supply, including renewable energy	Rate of improvement in energy intensity	No source
	Ensure access to energy and improve efficiency and sustainability of energy supply, including renewable energy	Share of renewable energy to total energy consumption	Bangladesh Power Development Board
	Ensure access to energy and improve efficiency and sustainability of energy supply, including renewable energy	Share of the population with access to modern cooking solutions (%)	No source
	Ensure full access to developed infrastructure and communication technology	Internet users (per 1,000 people)	Bangladesh Telecommunication Regulatory Commission
Establish a sustainable, healthy and resilient environment for all	Publish and use economic, social and environmental accounts in all governments and companies	Existence of national and sub-national government publishing according to the System of Environmental-Economic Accounting	National Accounts, Bangladesh Bureau of Statistics
	Safeguard ecosystems and biodiversity	Net loss in forest area (% of land area)	No source
	Publish and use economic, social and environmental accounts in all governments and companies	Share of large tax unit taxpayers using integrated reporting	National Board of Revenue, Ministry of Finance
	Safeguard ecosystems and biodiversity	Trends in coverage of protected areas	Ministry of Environment and Forest
	Build resilience and reduce deaths from natural hazards	Disaster deaths per 1,000 inhabitants	Disaster Management Bureau, Ministry of Disaster Management and Relief
Establish open, accountable, inclusive and effective institutions, rule of law and a peaceful and inclusive society	Improve personal safety	Violent death per 100,000 people	Ministry of Home Affairs and Bangladesh Bureau of Statistics
	Improve personal safety	Prevalence of violence against women, including domestic violence	Bangladesh Demographic and Health Survey, National Institute of Population Research and Training, Ministry of Health and Family Welfare
	Improve personal safety	Prevalence of violence against women, including domestic violence	Violence Against Women Survey 2011, Bangladesh Bureau of Statistics
	Improve transparency in the revenue system	Share of eligible taxpayers who submit their taxes	No source

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Goal	Target	Indicator	Source
	Monitor and end discrimination and inequalities in public service delivery, the rule of law, access to justice and participation in political and economic life on the basis of social status	% of adults with an account at a formal financial institution, disaggregated by sex	Bangladesh Bank, Bangladesh Bureau of Statistics and Microcredit Regulatory Authority
	Monitor and end discrimination and inequalities in public service delivery, the rule of law, access to justice and participation in political and economic life on the basis of social status	Average time between filing a case and receiving a verdict	Ministry of Law, Justice and Parliamentary Affairs
	Monitor and end discrimination and inequalities in public service delivery, the rule of law, access to justice and participation in political and economic life on the basis of social status	Proportion of seats held by women and minorities in national or local level government	Ministry of Law, Justice and Parliamentary Affairs, Local Government Division, Ministry of Local Government, Rural Development and Cooperatives, and Election Commission
	Provide free and universal legal identity, such as birth registrations	Proportion of adults with a basic legal identity document	Election Commission and Bangladesh Bureau of Statistics
	Provide free and universal legal identity, such as birth registrations	Percentage of children under 5 who are registered with the civil authority	Multiple Indicator Cluster Survey, Bangladesh Bureau of Statistics
	Reduce bribery and corruption in all forms	Survey data regarding bribes or gifts for service from government official – "In the past year, how often (if ever) have you had to pay a bribe, give a gift, or do a favour to government officials in order to get a document or receive a service"	No source
Establish a global partnership for sustainable development	Create an enabling environment for sustainable development	Low-income country debt forgiveness or reduction (% of GDP)	Economic Relations Division, Ministry of Finance
	Increase financing to productive capacity in low- and middle-income countries	Proportion of foreign direct investment to the productive sector	Bangladesh Bank
	Increase financing to productive capacity in low- and middle-income countries	Share of aid to the productive sector	Economic Relations Division, Ministry of Finance
	Increase financing to productive capacity in low- and middle-income countries	Share of South-South cooperation to the productive sector	Economic Relations Division, Ministry of Finance

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(Annex 6 contd.)

Goal	Target	Indicator	Source
	Create an enabling environment for sustainable development	Share of trade in goods and services from low-income countries under duty-free, quota-free market access	Bangladesh Bank and Ministry of Commerce
Canada			
End poverty	Reduce the proportion of people who suffer from hunger	Prevalence of child stunting in boys and girls under 5, %	No source
	End extreme income poverty	Proportion of population below US$1.25 (PPP) per day	Annual Income Estimates for Census Families and Individuals (T1 Family File), Statistics Canada
	Reduce poverty	Proportion of population below US$2 (PPP) per day	Annual Income Estimates for Census Families and Individuals (T1 Family File), Statistics Canada
	Reduce poverty	Proportion of population living below national poverty line	Annual Income Estimates for Census Families and Individuals (T1 Family File), Statistics Canada
	Reduce poverty	Proportion of population living below national poverty line	Canada Revenue Agency
	Reduce poverty	Proportion of population living below national poverty line	Census, Statistics Canada
	Reduce poverty	Proportion of population living below national poverty line	National Household Survey, Statistics Canada
	Reduce poverty	Proportion of population living below national poverty line	Survey of Labour and Income Dynamics, Statistics Canada
	Reduce poverty	Share of employed persons living below national poverty line	Survey of Labour and Income Dynamics, Statistics Canada
Ensure quality education for all	Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys receiving at least one year in pre-primary programmes	Elementary-Secondary Education Survey, Statistics Canada
	Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys receiving at least one year in pre-primary programmes	Estimates of Population by Age and Sex for Canada, Provinces and Territories, Statistics Canada
	Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys who achieve a passing grade in national learning assessments at the primary school level	Pan-Canadian Assessment Program, Council of Ministers of Education, Canada

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Goal	Target	Indicator	Source
	Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys who complete primary school	Elementary-Secondary Education Survey, Statistics Canada
	Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys who complete primary school	Labour Force Survey, Statistics Canada
	Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys who complete secondary school	Census, Statistics Canada
	Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys who complete secondary school	Elementary-Secondary Education Survey, Statistics Canada
	Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys who complete secondary school	Labour Force Survey, Statistics Canada
	Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys who complete secondary school	National Household Survey 2011, Statistics Canada
	Increase the number of adults with skills, including technical and vocational skills	Proportion of individuals enrolled in a Technical and Vocational Education and Training institution	Registered Apprenticeship Information System, Statistics Canada
Create jobs, sustainable livelihoods and inclusive growth for all	Support inclusive growth and reduce inequality	Gross fixed capital formation (% of GDP)	National Gross Domestic Product by Income and by Expenditure Accounts, Statistics Canada
	Support inclusive growth and reduce inequality	Growth rate of income of the bottom 40%	Survey of Labour and Income Dynamics, Statistics Canada
	Achieve full and productive employment for all, including women and young people	Labour force participation rate	Labour Force Survey, Statistics Canada
	Ensure equal pay for equal work	Mean nominal monthly earnings of employees (local currency)	Labour Force Survey, Statistics Canada
	Ensure equal pay for equal work	Mean nominal monthly earnings of employees (local currency)	Survey of Employment, Payrolls and Hours, Statistics Canada
	Ensure equal pay for equal work	Mean nominal monthly earnings of employees (local currency)	Survey of Labour and Income Dynamics, Statistics Canada

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Goal	Target	Indicator	Source
	Support inclusive growth and reduce inequality	Palma ratio	Longitudinal Administrative Databank, Statistics Canada
	Achieve full and productive employment for all, including women and young people	Time-related underemployment (thousands)	Labour Force Survey, Statistics Canada
Ensure sustainable energy and develop infrastructure for all	Ensure access to energy and improve efficiency and sustainability of energy supply, including renewable energy	# of hours per day households have access to electricity on average	No source
	Ensure full access to developed infrastructure and communication technology	% of adults with an account at a formal financial institution	General Survey on Consumers' Financial Awareness, Attitudes and Behaviour, Financial Consumer Agency of Canada
	Ensure full access to developed infrastructure and communication technology	Average bandwidth speed (megabits/second)	No source
	Ensure full access to developed infrastructure and communication technology	% of the population with access to an all-season road	No source
	Ensure access to energy and improve efficiency and sustainability of energy supply, including renewable energy	Rate of improvement in energy intensity	Canadian System of Environmental and Resource Accounts - Material and Energy Flow Accounts, Statistics Canada
	Ensure access to energy and improve efficiency and sustainability of energy supply, including renewable energy	Share of renewable energy to total energy consumption	Electricity Supply and Disposition - Annual, Statistics Canada
	Ensure access to energy and improve efficiency and sustainability of energy supply, including renewable energy	Share of renewable energy to total energy consumption	Energy Markets Fact Book, Natural Resources Canada
	Ensure access to energy and improve efficiency and sustainability of energy supply, including renewable energy	Share of the population with access to modern cooking solutions (%)	Survey of Household Spending, Statistics Canada
	Ensure full access to developed infrastructure and communication technology	Internet users (per 1,000 people)	Canadian Internet Use Survey, Statistics Canada
Establish a sustainable, healthy and resilient environment for all	Build resilience and reduce deaths from natural hazards	Disaster deaths per 1,000 inhabitants	Canadian Disaster Database, Public Safety Canada

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Goal	Target	Indicator	Source
	Build resilience and reduce deaths from natural hazards	Disaster deaths per 1,000 inhabitants	Vital Statistics - Death Database, Statistics Canada
	Publish and use economic, social and environmental accounts in all governments and companies	Existence of national and sub-national government publishing according to the System of Environmental-Economic Accounting	Canadian System of Environmental and Resource Accounts, Statistics Canada
	Safeguard ecosystems and biodiversity	Net loss in forest area (% of land area)	Natural Resources Canada
	Publish and use economic, social and environmental accounts in all governments and companies	Share of large tax unit taxpayers using integrated reporting	No source
	Safeguard ecosystems and biodiversity	Trends in coverage of protected areas	Canadian Environmental Sustainibility Indicators, Environment Canada
Establish open, accountable, inclusive and effective institutions, rule of law and a peaceful and inclusive society	Provide free and universal legal identity, such as birth registrations	Percentage of children under 5 who are registered with the civil authority	Vital Statistics - Birth Database, Statistics Canada
	Monitor and end discrimination and inequalities in public service delivery, the rule of law, access to justice and participation in political and economic life on the basis of social status	Average time between filing a case and receiving a verdict	Civil Court Survey, Statistics Canada
	Monitor and end discrimination and inequalities in public service delivery, the rule of law, access to justice and participation in political and economic life on the basis of social status	Average time between filing a case and receiving a verdict	Integrated Criminal Court Survey, Statistics Canada
	Improve personal safety	Prevalence of violence against women, including domestic violence	General Social Survey - Victimization, Statistics Canada
	Improve personal safety	Prevalence of violence against women, including domestic violence	Homicide Survey, Statistics Canada
	Improve personal safety	Prevalence of violence against women, including domestic violence	Transition Home Survey, Statistics Canada
	Improve personal safety	Prevalence of violence against women, including domestic violence	Victim Services Survey, Statistics Canada
	Monitor and end discrimination and inequalities in public service delivery, the rule of law, access to justice and participation in political and economic life on the basis of social status	Proportion of seats held by women and minorities in national or local level government	No source

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Goal	Target	Indicator	Source
	Improve transparency in the revenue system	Share of eligible taxpayers who submit their taxes	Canadian Revenue Agency
	Improve personal safety	Violent death per 100,000 people	Homicide Survey, Statistics Canada
	Improve personal safety	Violent death per 100,000 people	Uniform Crime Reporting Survey, Statistics Canada
	Improve personal safety	Violent death per 100,000 people	Vital Statistics - Death Database, Statistics Canada
	Monitor and end discrimination and inequalities in public service delivery, the rule of law, access to justice and participation in political and economic life on the basis of social status	% of adults with an account at a formal financial institution, disaggregated by sex	General Survey on Consumers' Financial Awareness, Attitudes and Behaviour, Financial Consumer Agency of Canada
	Provide free and universal legal identity, such as birth registrations	Proportion of adults with a basic legal identity document	No source
	Reduce bribery and corruption in all forms	Survey data regarding bribes or gifts for service from government official - "In the past year, how often (if ever) have you had to pay a bribe, give a gift, or do a favour to government officials in order to get a document or receive a service"	No source
Establish a global partnership for sustainable development	Create an enabling environment for sustainable development	Existence of laws for ensuring country-by-country reporting by multinational corporations, disclosure of beneficial ownership and prevention of money laundering	Department of Justice Canada
	Create an enabling environment for sustainable development	Low-income country debt forgiveness or reduction (% of GDP)	Finance Canada
	Create an enabling environment for sustainable development	Low-income country debt forgiveness or reduction (% of GDP)	Statistical Report on International Assistance, Statistics Canada
	Increase financing to productive capacity in low- and middle-income countries	Proportion of foreign direct investment to the productive sector	Canadian International Investment Position, Statistics Canada
	Increase financing to productive capacity in low- and middle-income countries	Share of aid to the productive sector	Historic Project Data Set, Department of Foreign Affairs, Trade and Development

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Goal	Target	Indicator	Source
	Increase financing to productive capacity in low- and middle-income countries	Share of aid to the productive sector	Statistical Report on International Assistance, Statistics Canada
	Increase financing to productive capacity in low- and middle-income countries	Share of South-South cooperation to the productive sector	No source
	Create an enabling environment for sustainable development	Share of trade in goods and services from low-income countries under duty-free, quota-free market access	Canada's International Transactions in Services, Statistics Canada
	Create an enabling environment for sustainable development	Share of trade in goods and services from low-income countries under duty-free, quota-free market access	Canadian International Merchandise Trade, Statistics Canada
	Create an enabling environment for sustainable development	Share of trade in goods and services from low-income countries under duty-free, quota-free market access	Trade Data Online, Industry Canada
Peru			
End poverty	End extreme income poverty	Proportion of population below US$1.25 (PPP) per day	National Household Survey - Summary, Instituto Nacional de Estadistica e Informatica
	Reduce poverty	Share of employed persons living below national poverty line	National Household Survey - Employment and income, Instituto Nacional de Estadistica e Informatica
	Reduce poverty	Proportion of population living below national poverty line	National Household Survey - Summary, Instituto Nacional de Estadistica e Informatica
	Reduce the proportion of people who suffer from hunger	Prevalence of child stunting in boys and girls under 5, %	Demographic and Health Survey, Instituto Nacional de Estadistica e Informatica
	End extreme income poverty	Proportion of population below US$2 (PPP) per day	National Household Survey - Summary, Instituto Nacional de Estadistica e Informatica
Ensure quality education for all	Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys receiving at least one year in pre-primary programmes	National Household Survey - Education, Instituto Nacional de Estadistica e Informatica
	Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys receiving at least one year in pre-primary programmes	National Household Survey - Education, Instituto Nacional de Estadistica e Informatica

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Goal	Target	Indicator	Source
	Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys who complete primary school	National Household Survey - Education, Instituto Nacional de Estadistica e Informatica
	Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys who complete primary school	National Household Survey - Education, Instituto Nacional de Estadistica e Informatica
	Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys who complete secondary school	National Household Survey - Education, Instituto Nacional de Estadistica e Informatica
	Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys who complete secondary school	National Household Survey - Education, Instituto Nacional de Estadistica e Informatica
	Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys receiving at least one year in pre-primary programmes	Estimates and projections of population by regions, calendar years and single ages 1995-2025, Instituto Nacional de Estadistica e Informatica
	Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys who complete primary school	Estimates and projections of population by regions, calendar years and single ages 1995-2025, Instituto Nacional de Estadistica e Informatica
	Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys who complete secondary school	Estimates and projections of population by regions, calendar years and single ages 1995-2025, Instituto Nacional de Estadistica e Informatica
	Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys who complete primary school	National Household Survey - Education, Instituto Nacional de Estadistica e Informatica, Ministerio de Educacion
	Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys who complete secondary school	National Household Survey - Education, Instituto Nacional de Estadistica e Informatica, Ministerio de Educacion
	Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys who achieve a passing grade in national learning assessments at the primary school level	Census Evaluation of Students - Main Result, Ministerio de Educacion
	Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys who achieve a passing grade in national learning assessments at the primary school level	Census Evaluation of Students - Main Result, Ministerio de Educacion

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Goal	Target	Indicator	Source
	Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys receiving at least one year in pre-primary programmes	National School Census, Ministerio de Educacion
	Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys who complete primary school	National School Census, Ministerio de Educacion
	Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys who complete secondary school	National School Census, Ministerio de Educacion
	Increase the number of adults with skills, including technical and vocational skills	Proportion of individuals enrolled in a Technical and Vocational Education and Training institution	National Household Survey - Education, Instituto Nacional de Estadistica e Informatica
Create jobs, sustainable livelihoods and inclusive growth for all	Achieve full and productive employment for all, including women and young people	Labour force participation rate	National Household Survey - Employment and income, Instituto Nacional de Estadistica e Informatica
	Achieve full and productive employment for all, including women and young people	Time-related underemployment (thousands)	National Household Survey - Employment and income, Instituto Nacional de Estadistica e Informatica
	Ensure equal pay for equal work	Mean nominal monthly earnings of employees (local currency)	National Household Survey - Employment and income, Instituto Nacional de Estadistica e Informatica
	Support inclusive growth and reduce inequality	Gini coefficient	National Household Survey - Employment and income, Instituto Nacional de Estadistica e Informatica
	Support inclusive growth and reduce inequality	Gini coefficient	National Household Survey - Employment and income, Instituto Nacional de Estadistica e Informatica
	Support inclusive growth and reduce inequality	Palma ratio	National Household Survey - Employment and income, Instituto Nacional de Estadistica e Informatica
	Support inclusive growth and reduce inequality	Growth rate of income of the bottom 40%	National Household Survey - Employment and income, Instituto Nacional de Estadistica e Informatica
	Support inclusive growth and reduce inequality	Gross fixed capital formation (% of GDP)	National Accounts, Instituto Nacional de Estadistica e Informatica

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Goal	Target	Indicator	Source
Ensure sustainable energy and develop infrastructure for all	Ensure access to energy and improve efficiency and sustainability of energy supply, including renewable energy	# of hours per day households have access to electricity on average	No source
	Ensure access to energy and improve efficiency and sustainability of energy supply, including renewable energy	Rate of improvement in energy intensity	National Energy Balance (Energy-Economic Information System - Latin American Energy Organization, United Nations Development Programme), Ministerio de Energias y Minas
	Ensure access to energy and improve efficiency and sustainability of energy supply, including renewable energy	Share of renewable energy to total energy consumption	National Energy Balance (Energy-Economic Information System - Latin American Energy Organization, United Nations Development Programme), Ministerio de Energias y Minas
	Ensure access to energy and improve efficiency and sustainability of energy supply, including renewable energy	Share of the population with access to modern cooking solutions (%)	National Household Survey - Characteristics of the Housing and Home, Instituto Nacional de Estadistica e Informatica
	Ensure full access to developed infrastructure and communication technology	Average bandwidth speed (megabits/second)	No source
	Ensure full access to developed infrastructure and communication technology	% of the population with access to an all-season road	No source
	Ensure full access to developed infrastructure and communication technology	% of adults with an account at a formal financial institution	Superintendency of Banking and Insurance Report
	Ensure full access to developed infrastructure and communication technology	Internet users (per 1,000 people)	No source
Establish a sustainable, healthy and resilient environment for all	Build resilience and reduce deaths from natural hazards	Disaster deaths per 1,000 inhabitants	Estimates and projections of population by regions, calendar years and single ages 1995-2025, Instituto Nacional de Estadistica e Informatica
	Build resilience and reduce deaths from natural hazards	Disaster deaths per 1,000 inhabitants	Statistics from the National Institute of Civil Defense
	Publish and use economic, social and environmental accounts in all governments and companies	Existence of national and sub-national government publishing according to the System of Environmental-Economic Accounting	Publications of the Ministry of Environment

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Goal	Target	Indicator	Source
	Safeguard ecosystems and biodiversity	Net loss in forest area (% of land area)	Map analysis of forest cover change to no forest caused by deforestation in the Peruvian Amazon, Ministerio del Ambiente
	Safeguard ecosystems and biodiversity	Trends in coverage of protected areas	National Service of Protected Natural Areas by the State, Sistema Nacional de Áreas Naturales Protegidas por el Estado
	Publish and use economic, social and environmental accounts in all governments and companies	Share of large tax unit taxpayers using integrated reporting	No source
Establish open, accountable, inclusive and effective institutions, rule of law and a peaceful and inclusive society	Improve personal safety	Prevalence of violence against women, including domestic violence	Demographic and Health Survey, Instituto Nacional de Estadistica e Informatica
	Improve personal safety	Violent death per 100,000 people	Register of crime by type, Instituto Nacional de Estadistica e Informatica
	Improve personal safety	Prevalence of violence against women, including domestic violence	Statistical Summary of People Affected by Domestic and Sexual Violence attended by CEM, Ministerio de la Mujer y la Poblaciones Vulnerables
	Improve personal safety	Prevalence of violence against women, including domestic violence	Yearbook of the National Police of Peru
	Improve transparency in the revenue system	Share of eligible taxpayers who submit their taxes	Statistics, Tax Base, National Superintendency of Customs and Tax Administration
	Monitor and end discrimination and inequalities in public service delivery, the rule of law, access to justice and participation in political and economic life on the basis of social status	Proportion of seats held by women and minorities in national or local level government	Parliament web page
	Monitor and end discrimination and inequalities in public service delivery, the rule of law, access to justice and participation in political and economic life on the basis of social status	% of adults with an account at a formal financial institution, disaggregated by sex	Superintendency of Banking and Insurance Report
	Provide free and universal legal identity, such as birth registrations	Proportion of adults with a basic legal identity document	Demographic and Health Survey, Instituto Nacional de Estadistica e Informatica
	Provide free and universal legal identity, such as birth registrations	Percentage of children under 5 who are registered with the civil authority	National Household Survey - Health, Instituto Nacional de Estadistica e Informatica

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Goal	Target	Indicator	Source
	Provide free and universal legal identity, such as birth registrations	Proportion of adults with a basic legal identity document	National Household Survey - Health, Instituto Nacional de Estadistica e Informatica
	Reduce bribery and corruption in all forms	Survey data regarding bribes or gifts for service from government official - "In the past year, how often (if ever) have you had to pay a bribe, give a gift, or do a favour to government officials in order to get a document or receive a service"	No source
	Monitor and end discrimination and inequalities in public service delivery, the rule of law, access to justice and participation in political and economic life on the basis of social status	Average time between filing a case and receiving a verdict	No source
	Provide free and universal legal identity, such as birth registrations	Percentage of children under 5 who are registered with the civil authority	Demographic and Health Survey, Instituto Nacional de Estadistica e Informatica
Establish a global partnership for sustainable development	Create an enabling environment for sustainable development	Existence of laws for ensuring country-by-country reporting by multinational corporations, disclosure of beneficial ownership and prevention of money laundering	Law No. 27765 (money laundering)
	Increase financing to productive capacity in low- and middle-income countries	Proportion of foreign direct investment to the productive sector	National Series, Instituto Nacional de Estadistica e Informatica
	Increase financing to productive capacity in low- and middle-income countries	Proportion of foreign direct investment to the productive sector	Private Investment Statistics, Ministerio de Economia y Finanzas
	Increase financing to productive capacity in low- and middle-income countries	Proportion of foreign direct investment to the productive sector	Statistical series, Central Reserve Bank of Peru
	Increase financing to productive capacity in low- and middle-income countries	Share of aid to the productive sector	Cooperation Projects, Peruvian Agency of International Cooperation
	Increase financing to productive capacity in low- and middle-income countries	Share of South-South cooperation to the productive sector	Cooperation Projects, Peruvian Agency of International Cooperation
	Create an enabling environment for sustainable development	Share of trade in goods and services from low-income countries under duty-free, quota-free market access	No source

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Goal	Target	Indicator	Source
	Create an enabling environment for sustainable development	Low-income country debt forgiveness or reduction (% of GDP)	No source
Senegal			
End poverty	End extreme income poverty	Proportion of population below US$1.25 (PPP) per day	Senegal Poverty Monitoring Survey, Agence Nationale de Statistique et de la Démographie
	End extreme income poverty	Proportion of population below US$1.25 (PPP) per day	Senegalese Household Survey, Agence Nationale de Statistique et de la Démographie
	Reduce poverty	Proportion of population living below national poverty line	Senegal Poverty Monitoring Survey, Agence Nationale de Statistique et de la Démographie
	Reduce poverty	Share of employed persons living below national poverty line	Senegal Poverty Monitoring Survey, Agence Nationale de Statistique et de la Démographie
	Reduce the proportion of people who suffer from hunger	Prevalence of child stunting in boys and girls under 5, %	Demographic and Health Survey of Senegal/ Multiple Indicator Cluster Survey
	Reduce poverty	Proportion of population living below national poverty line	Senegalese Household Survey, Agence Nationale de Statistique et de la Démographie
	Reduce poverty	Share of employed persons living below national poverty line	Senegalese Household Survey, Agence Nationale de Statistique et de la Démographie
	Reduce poverty	Proportion of population below US$2 (PPP) per day	Senegal Poverty Monitoring Survey, Agence Nationale de Statistique et de la Démographie
	Reduce poverty	Proportion of population below US$2 (PPP) per day	Senegalese Household Survey, Agence Nationale de Statistique et de la Démographie
Ensure quality education for all	Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys who complete secondary school	National Statistical Yearbook, Ministère de l'Education Nationale
	Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys receiving at least one year in pre-primary programmes	Senegal Poverty Monitoring Survey, Agence Nationale de Statistique et de la Démographie
	Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys receiving at least one year in pre-primary programmes	National Report on the State of Education, Ministère de l'Education Nationale
	Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys who complete primary school	National Report on the State of Education, Ministère de l'Education Nationale

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Goal	Target	Indicator	Source
	Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys who achieve a passing grade in national learning assessments at the primary school level	National Report on the State of Education, Ministère de l'Education Nationale
	Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys who achieve a passing grade in national learning assessments at the primary school level	Assessment of the Economic and Social Situation in Senegal, Agence Nationale de Statistique et de la Démographie
	Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys receiving at least one year in pre-primary programmes	Assessment of the Economic and Social Situation in Senegal, Agence Nationale de Statistique et de la Démographie
	Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys who complete primary school	Assessment of the Economic and Social Situation in Senegal, Agence Nationale de Statistique et de la Démographie
	Increase the number of adults with skills, including technical and vocational skills	Proportion of individuals enrolled in a Technical and Vocational Education and Training institution	Statistical Yearbook, Ministère de la Formation professionnelle, de l'Apprentissage et de l'Artisanat du Sénégal
Create jobs, sustainable livelihoods and inclusive growth for all	Support inclusive growth and reduce inequality	Gross fixed capital formation (% of GDP)	Agence Nationale de la Statistique et de la Démographie
	Achieve full and productive employment for all, including women and young people	Labour force participation rate	Senegal Poverty Monitoring Survey, Agence Nationale de Statistique et de la Démographie
	Achieve full and productive employment for all, including women and young people	Time-related underemployment (thousands)	Senegal Poverty Monitoring Survey, Agence Nationale de Statistique et de la Démographie
	Ensure equal pay for equal work	Mean nominal monthly earnings of employees (local currency)	Senegal Poverty Monitoring Survey, Agence Nationale de Statistique et de la Démographie
	Support inclusive growth and reduce inequality	Gini coefficient	Senegal Poverty Monitoring Survey, Agence Nationale de Statistique et de la Démographie
	Support inclusive growth and reduce inequality	Palma ratio	Senegal Poverty Monitoring Survey, Agence Nationale de Statistique et de la Démographie
	Support inclusive growth and reduce inequality	Growth rate of income of the bottom 40%	Senegal Poverty Monitoring Survey, Agence Nationale de Statistique et de la Démographie
Ensure sustainable energy and develop infrastructure for all	Ensure access to energy and improve efficiency and sustainability of energy supply, including renewable energy	# of hours per day households have access to electricity on average	National Energy Information System

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Goal	Target	Indicator	Source
	Ensure full access to developed infrastructure and communication technology	% of the population with access to an all-season road	Agence des Travaux et de Gestion des Routes
	Ensure full access to developed infrastructure and communication technology	Internet users (per 1,000 people)	Autorité de Régulation des Télécommunications et des Postes
	Ensure access to energy and improve efficiency and sustainability of energy supply, including renewable energy	Share of the population with access to modern cooking solutions (%)	Senegal Poverty Monitoring Survey, Agence Nationale de Statistique et de la Démographie
	Ensure full access to developed infrastructure and communication technology	% of adults with an account at a formal financial institution	Banque Centrale des Etats de l'Afrique de l'Ouest, Direction Nationale pour le Sénégal
	Ensure access to energy and improve efficiency and sustainability of energy supply, including renewable energy	Rate of improvement in energy intensity	National Energy Information System
	Ensure access to energy and improve efficiency and sustainability of energy supply, including renewable energy	Share of renewable energy to total energy consumption	National Energy Information System
	Ensure full access to developed infrastructure and communication technology	Average bandwidth speed (megabits/second)	Autorité de Régulation des Télécommunications et des Postes
	Ensure full access to developed infrastructure and communication technology	Internet users (per 1,000 people)	National Survey on Information and Communication Technology Usage in Senegal, Agence Nationale de la Statistique et de la Démographie and Agence de Régulation des Télécommunications et des Postes
Establish a sustainable, healthy and resilient environment for all	Build resilience and reduce deaths from natural hazards	Disaster deaths per 1,000 inhabitants	Brigade Nationale des Sapeurs Pompiers du Sénégal, Etat Major, Ministry of the Interior
	Build resilience and reduce deaths from natural hazards	Disaster deaths per 1,000 inhabitants	Direction de la Protection Civile, Ministry of the Interior
	Safeguard ecosystems and biodiversity	Net loss in forest area (% of land area)	Direction des Eaux et Forêts, Chasse et Conservation des Sols, Ministry of the Environment and Sustainable Development
	Safeguard ecosystems and biodiversity	Trends in coverage of protected areas	Direction des Parcs Nationaux, Ministry of the Environment and Sustainable Development

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Goal	Target	Indicator	Source
	Publish and use economic, social and environmental accounts in all governments and companies	Existence of national and sub-national government publishing according to the System of Environmental-Economic Accounting	National Accounts, Agence Nationale de Statistique et de la Démographie
	Publish and use economic, social and environmental accounts in all governments and companies	Share of large tax unit taxpayers using integrated reporting	No source
Establish open, accountable, inclusive and effective institutions, rule of law and a peaceful and inclusive society	Monitor and end discrimination and inequalities in public service delivery, the rule of law, access to justice and participation in political and economic life on the basis of social status	Proportion of seats held by women and minorities in national or local level government	Assemblée Nationale de la République du Sénégal
	Monitor and end discrimination and inequalities in public service delivery, the rule of law, access to justice and participation in political and economic life on the basis of social status	% of adults with an account at a formal financial institution, disaggregated by sex	Banque Centrale des Etats de l'Afrique de l'Ouest, Direction Nationale pour le Sénégal
	Improve personal safety	Violent death per 100,000 people	Brigade Nationale des Sapeurs Pompiers du Sénégal, Etat Major, Ministère de l'Intérieur
	Monitor and end discrimination and inequalities in public service delivery, the rule of law, access to justice and participation in political and economic life on the basis of social status	Proportion of seats held by women and minorities in national or local level government	Conseil Economique Social et Environnemental for the national level government
	Provide free and universal legal identity, such as birth registrations	Percentage of children under 5 who are registered with the civil authority	Demographic and Health Survey of Senegal/ Multiple Indicator Cluster Survey
	Provide free and universal legal identity, such as birth registrations	Percentage of children under 5 who are registered with the civil authority	Demographic and Health Survey of Senegal/ Multiple Indicator Cluster Survey
	Provide free and universal legal identity, such as birth registrations	Proportion of adults with a basic legal identity document	Direction de l'automatisation des fichiers, Ministère de l'Intérieur
	Monitor and end discrimination and inequalities in public service delivery, the rule of law, access to justice and participation in political and economic life on the basis of social status	Proportion of seats held by women and minorities in national or local level government	Suivi des OMD 2013 et Cadre d'Accélération au Sénégal (2014), Groupe Consultatif Sénégal

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Goal	Target	Indicator	Source
	Monitor and end discrimination and inequalities in public service delivery, the rule of law, access to justice and participation in political and economic life on the basis of social status	Proportion of seats held by women and minorities in national or local level government	L'Union des Associations d'Elus Locaux/Cellule d'Appui des Elus Locaux
	Monitor and end discrimination and inequalities in public service delivery, the rule of law, access to justice and participation in political and economic life on the basis of social status	Average time between filing a case and receiving a verdict	No source
	Improve personal safety	Prevalence of violence against women, including domestic violence	No source
	Reduce bribery and corruption in all forms	Survey data regarding bribes or gifts for service from government official - "In the past year, how often (if ever) have you had to pay a bribe, give a gift, or do a favour to government officials in order to get a document or receive a service"	No source
	Improve transparency in the revenue system	Share of eligible taxpayers who submit their taxes	Direction Générale des Impots et Domaines, Ministere de l'Economie et des Finances
Establish a global partnership for sustainable development	Create an enabling environment for sustainable development	Low-income country debt forgiveness or reduction (% of GDP)	Agence Nationale de la Statistique et de la Démographie
	Create an enabling environment for sustainable development	Share of trade in goods and services from low-income countries under duty-free, quota-free market access	Agence Nationale de la Statistique et de la Démographie
	Increase financing to productive capacity in low- and middle-income countries	Share of aid to the productive sector	Agence Nationale de la Statistique et de la Démographie
	Create an enabling environment for sustainable development	Share of trade in goods and services from low-income countries under duty-free, quota-free market access	Banque Centrale des Etats de l'Afrique de l'Ouest
	Increase financing to productive capacity in low- and middle-income countries	Proportion of foreign direct investment to the productive sector	Banque Centrale des Etats de l'Afrique de l'Ouest

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Goal	Target	Indicator	Source
	Increase financing to productive capacity in low- and middle-income countries	Proportion of foreign direct investment to the productive sector	APIX, Promotion des Investissements et Grands Travaux, Direction du Service aux Investisseurs
	Create an enabling environment for sustainable development	Existence of laws for ensuring country-by-country reporting by multinational corporations, disclosure of beneficial ownership and prevention of money laundering	Cellule Nationale de Traitement des Informations Financières, Ministère de l'Economie et des Finances
	Increase financing to productive capacity in low- and middle-income countries	Share of aid to the productive sector	Direction de la Coopération Economique et Financière, Ministère de l'Economie des Finances et du Plan
	Increase financing to productive capacity in low- and middle-income countries	Share of South-South cooperation to the productive sector	Direction de la Coopération Economique et Financière, Ministère de l'Economie des Finances et du Plan
	Create an enabling environment for sustainable development	Low-income country debt forgiveness or reduction (% of GDP)	Direction de la Dette Publique, Ministère de l'Economie des Finances et du Plan
	Create an enabling environment for sustainable development	Low-income country debt forgiveness or reduction (% of GDP)	Direction de la Prévision et des Etudes Economiques, Ministère de l'Economie et des Finances
	Create an enabling environment for sustainable development	Existence of laws for ensuring country-by-country reporting by multinational corporations, disclosure of beneficial ownership and prevention of money laundering	Journal Officiel
	Create an enabling environment for sustainable development	Share of trade in goods and services from low-income countries under duty-free, quota-free market access	Ministère de l'Economie et des Finances
	Create an enabling environment for sustainable development	Share of trade in goods and services from low-income countries under duty-free, quota-free market access	Ministère du Commerce, du Secteur Informel, de la Consommation, de la Promotion des produits locaux et des PME
		Sierra Leone	
End poverty	Reduce the proportion of people who suffer from hunger	Prevalence of child stunting in boys and girls under 5, %	Multiple Indicator Cluster Survey, Statistics Sierra Leone and United Nations Children's Fund
	End extreme income poverty	Proportion of population below US$1.25 (PPP) per day	Sierra Leone Integrated Household Survey, Statistics Sierra Leone
	Reduce poverty	Proportion of population below US$2 (PPP) per day	Sierra Leone Integrated Household Survey, Statistics Sierra Leone

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Goal	Target	Indicator	Source
	Reduce poverty	Proportion of population living below national poverty line	Sierra Leone Integrated Household Survey, Statistics Sierra Leone
	Reduce poverty	Share of employed persons living below national poverty line	Sierra Leone Integrated Household Survey, Statistics Sierra Leone
Ensure quality education for all	Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys receiving at least one year in pre-primary programmes	Multiple Indicator cluster Survey, Statistics Sierra Leone and United Nations Children's Fund
	Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys who complete primary school	Multiple Indicator cluster Survey, Statistics Sierra Leone and United Nations Children's Fund
	Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys who complete secondary school	Multiple Indicator cluster Survey, Statistics Sierra Leone and United Nations Children's Fund
	Increase the number of adults with skills, including technical and vocational skills	Proportion of individuals enrolled in a Technical and Vocational Education and Training institution	No source
	Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys who achieve a passing grade in national learning assessments at the primary school level	West African Examinations Council
Create jobs, sustainable livelihoods and inclusive growth for all	Achieve full and productive employment for all, including women and young people	Labour force participation rate	Census Statistics Sierra Leone
	Support inclusive growth and reduce inequality	Gross fixed capital formation (% of GDP)	National Gross Domestic Product by Income and by Expenditure Accounts, Statistics Sierra Leone
	Support inclusive growth and reduce inequality	Gini coefficient	Sierra Leone Integrated Household Survey, Statistics Sierra Leone
	Support inclusive growth and reduce inequality	Growth rate of income of the bottom 40%	Sierra Leone Integrated Household Survey, Statistics Sierra Leone
	Support inclusive growth and reduce inequality	Palma ratio	Sierra Leone Integrated Household Survey, Statistics Sierra Leone
	Achieve full and productive employment for all, including women and young people	Time-related underemployment (thousands)	Sierra Leone Integrated Household Survey, Statistics Sierra Leone

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Goal	Target	Indicator	Source
	Achieve full and productive employment for all, including women and young people	Labour force participation rate	Sierra Leone Integrated Household Survey, Statistics Sierra Leone
	Ensure equal pay for equal work	Mean nominal monthly earnings of employees (local currency)	No source
Ensure sustainable energy and develop infrastructure for all	Ensure access to energy and improve efficiency and sustainability of energy supply, including renewable energy	# of hours per day households have access to electricity on average	Ministry of Energy and Water Resources
	Ensure full access to developed infrastructure and communication technology	% of adults with an account at a formal financial institution	No source
	Ensure full access to developed infrastructure and communication technology	% of the population with access to an all-season road	No source
	Ensure full access to developed infrastructure and communication technology	Average bandwidth speed (megabits/second)	No source
	Ensure access to energy and improve efficiency and sustainability of energy supply, including renewable energy	Rate of improvement in energy intensity	No source
	Ensure access to energy and improve efficiency and sustainability of energy supply, including renewable energy	Share of renewable energy to total energy consumption	No source
	Ensure access to energy and improve efficiency and sustainability of energy supply, including renewable energy	Share of the population with access to modern cooking solutions (%)	Demographic and Health Survey, Statistics Sierra Leone
	Ensure full access to developed infrastructure and communication technology	Internet users (per 1,000 people)	No source
Establish a sustainable, healthy and resilient environment for all	Publish and use economic, social and environmental accounts in all governments and companies	Existence of national and sub-national government publishing according to the System of Environmental-Economic Accounting	National Accounts, Statistics Sierra Leone
	Safeguard ecosystems and biodiversity	Net loss in forest area (% of land area)	No source
	Publish and use economic, social and environmental accounts in all governments and companies	Share of large tax unit taxpayers using integrated reporting	No source

(Annex 6 contd.)

Goal	Target	Indicator	Source
	Build resilience and reduce deaths from natural hazards	Disaster deaths per 1,000 inhabitants	Office of National Security
	Safeguard ecosystems and biodiversity	Trends in coverage of protected areas	Protected Areas Resilient to Climate Change West Africa
Establish open, accountable, inclusive and effective institutions, rule of law and a peaceful and inclusive society	Provide free and universal legal identity, such as birth registrations	Percentage of children under 5 who are registered with the civil authority	Multiple Indicator cluster Survey, Statistics Sierra Leone and United Nations Children's Fund
	Monitor and end discrimination and inequalities in public service delivery, the rule of law, access to justice and participation in political and economic life on the basis of social status	% of adults with an account at a formal financial institution, disaggregated by sex	No source
	Monitor and end discrimination and inequalities in public service delivery, the rule of law, access to justice and participation in political and economic life on the basis of social status	Average time between filing a case and receiving a verdict	No source
	Improve personal safety	Prevalence of violence against women, including domestic violence	Demographic and Health Survey, Statistics Sierra Leone
	Provide free and universal legal identity, such as birth registrations	Proportion of adults with a basic legal identity document	No source
	Monitor and end discrimination and inequalities in public service delivery, the rule of law, access to justice and participation in political and economic life on the basis of social status	Proportion of seats held by women and minorities in national or local level government	No source
	Improve transparency in the revenue system	Share of eligible taxpayers who submit their taxes	No source
	Reduce bribery and corruption in all forms	Survey data regarding bribes or gifts for service from government official - "In the past year, how often (if ever) have you had to pay a bribe, give a gift, or do a favour to government officials in order to get a document or receive a service"	No source
	Improve personal safety	Violent death per 100,000 people	No source

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Goal	Target	Indicator	Source
Establish a global partnership for sustainable development	Increase financing to productive capacity in low- and middle-income countries	Share of aid to the productive sector	Development Assistance Database, Development Assistance Coordination Office, Ministry of Finance and Economic Development
	Create an enabling environment for sustainable development	Existence of laws for ensuring country-by-country reporting by multinational corporations, disclosure of beneficial ownership and prevention of money laundering	Legal statutes
	Create an enabling environment for sustainable development	Low-income country debt forgiveness or reduction (% of GDP)	No source
	Increase financing to productive capacity in low- and middle-income countries	Proportion of foreign direct investment to the productive sector	No source
	Increase financing to productive capacity in low- and middle-income countries	Share of South-South cooperation to the productive sector	No source
	Create an enabling environment for sustainable development	Share of trade in goods and services from low-income countries under duty-free, quota-free market access	No source
Tanzania			
End poverty	End extreme income poverty	Proportion of population below US$1.25 (PPP) per day	Household Budget Survey, National Bureau of Statistics
	Reduce poverty	Proportion of population living below national poverty line	Household Budget Survey, National Bureau of Statistics
	Reduce poverty	Share of employed persons living below national poverty line	Household Budget Survey, National Bureau of Statistics
	Reduce poverty	Proportion of population below US$2 (PPP) per day	Household Budget Survey, National Bureau of Statistics
	Reduce the proportion of people who suffer from hunger	Prevalence of child stunting in boys and girls under 5, %	Tanzania Demographic and Health Survey, National Bureau of Statistics
Ensure quality education for all	Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys who complete primary school	Basic Education Statistics in Tanzania, Ministry of Education and Vocational Training
	Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys who complete secondary school	Basic Education Statistics in Tanzania, Ministry of Education and Vocational Training

(Annex 6 contd.)

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Goal	Target	Indicator	Source
	Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys who achieve a passing grade in national learning assessments at the primary school level	Basic Education Statistics in Tanzania, Ministry of Education and Vocational Training
	Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys who complete primary school	Population Census, National Bureau of Statistics
	Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys who complete secondary school	Population Census, National Bureau of Statistics
	Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys receiving at least one year in pre-primary programmes	Basic Education Statistics in Tanzania, Ministry of Education and Vocational Training
	Increase the number of adults with skills, including technical and vocational skills	Proportion of individuals enrolled in a Technical and Vocational Education and Training institution	Basic Education Statistics in Tanzania, Ministry of Education and Vocational Training
Create jobs, sustainable livelihoods and inclusive growth for all	Ensure equal pay for equal work	Mean nominal monthly earnings of employees (local currency)	Employment and Earnings Survey, National Bureau of Statistics
	Ensure equal pay for equal work	Mean nominal monthly earnings of employees (local currency)	Integrated Labour Force Survey, National Bureau of Statistics
	Achieve full and productive employment for all, including women and young people	Labour force participation rate	Integrated Labour Force Survey, National Bureau of Statistics
	Achieve full and productive employment for all, including women and young people	Time-related underemployment (thousands)	Integrated Labour Force Survey, National Bureau of Statistics
	Support inclusive growth and reduce inequality	Gini coefficient	Household Budget Survey, National Bureau of Statistics
	Support inclusive growth and reduce inequality	Palma ratio	Household Budget Survey, National Bureau of Statistics
	Support inclusive growth and reduce inequality	Growth rate of income of the bottom 40%	Household Budget Survey, National Bureau of Statistics
	Support inclusive growth and reduce inequality	Gross fixed capital formation (% of GDP)	National Accounts, National Bureau of Statistics
	Ensure equal pay for equal work	Mean nominal monthly earnings of employees (local currency)	Tanzania Demographic and Health Survey, National Bureau of Statistics

(Annex 6 contd.)

(Annex 6 contd.)

Goal	Target	Indicator	Source
Ensure sustainable energy and develop infrastructure for all	Ensure access to energy and improve efficiency and sustainability of energy supply, including renewable energy	# of hours per day households have access to electricity on average	Household Budget Survey, National Bureau of Statistics
	Ensure access to energy and improve efficiency and sustainability of energy supply, including renewable energy	Share of the population with access to modern cooking solutions (%)	Household Budget Survey, National Bureau of Statistics
	Ensure full access to developed infrastructure and communication technology	% of the population with access to an all-season road	Household Budget Survey, National Bureau of Statistics
	Ensure full access to developed infrastructure and communication technology	% of adults with an account at a formal financial institution	FinScope
	Ensure access to energy and improve efficiency and sustainability of energy supply, including renewable energy	Share of renewable energy to total energy consumption	No source
	Ensure full access to developed infrastructure and communication technology	Average bandwidth speed (megabits/second)	Quarterly Statistics Reports, Tanzania Communications Regulatory Authority
	Ensure access to energy and improve efficiency and sustainability of energy supply, including renewable energy	Rate of improvement in energy intensity	No source
	Ensure full access to developed infrastructure and communication technology	Internet users (per 1,000 people)	Quarterly Statistics Reports, Tanzania Communications Regulatory Authority
Establish a sustainable, healthy and resilient environment for all	Publish and use economic, social and environmental accounts in all governments and companies	Existence of national and sub-national government publishing according to the System of Environmental-Economic Accounting	National Environment Management Council
	Publish and use economic, social and environmental accounts in all governments and companies	Share of large tax unit taxpayers using integrated reporting	Annual Reports, Tanzania Revenue Authority
	Build resilience and reduce deaths from natural hazards	Disaster deaths per 1,000 inhabitants	No source
	Safeguard ecosystems and biodiversity	Net loss in forest area (% of land area)	No source
	Safeguard ecosystems and biodiversity	Trends in coverage of protected areas	No source

(Annex 6 contd.)

Goal	Target	Indicator	Source
Establish open, accountable, inclusive and effective institutions, rule of law and a peaceful and inclusive society	Provide free and universal legal identity, such as birth registrations	Percentage of children under 5 who are registered with the civil authority	Registration, Insolvency and Trusteeship Agency (RITA)
	Provide free and universal legal identity, such as birth registrations	Percentage of children under 5 who are registered with the civil authority	Population Census, National Bureau of Statistics
	Provide free and universal legal identity, such as birth registrations	Percentage of children under 5 who are registered with the civil authority	National Panel Survey, National Bureau of Statistics
	Improve personal safety	Prevalence of violence against women, including domestic violence	Dawati wa Jinsia
	Improve personal safety	Violent death per 100,000 people	Crime Statistics, Tanzania Police Force and National Bureau of Statistics
	Improve transparency in the revenue system	Share of eligible taxpayers who submit their taxes	Tanzania Revenue Authority
	Monitor and end discrimination and inequalities in public service delivery, the rule of law, access to justice and participation in political and economic life on the basis of social status	Average time between filing a case and receiving a verdict	No source
	Monitor and end discrimination and inequalities in public service delivery, the rule of law, access to justice and participation in political and economic life on the basis of social status	Proportion of seats held by women and minorities in national or local level government	No source
	Monitor and end discrimination and inequalities in public service delivery, the rule of law, access to justice and participation in political and economic life on the basis of social status	% of adults with an account at a formal financial institution, disaggregated by sex	FinScope
	Reduce bribery and corruption in all forms	Survey data regarding bribes or gifts for service from government official - "In the past year, how often (if ever) have you had to pay a bribe, give a gift, or do a favour to government officials in order to get a document or receive a service"	No source
	Provide free and universal legal identity, such as birth registrations	Proportion of adults with a basic legal identity document	No source

(Annex 6 contd.)

Goal	Target	Indicator	Source
Establish a global partnership for sustainable development	Create an enabling environment for sustainable development	Existence of laws for ensuring country-by-country reporting by multinational corporations, disclosure of beneficial ownership and prevention of money laundering	Parliamentary Report, Parliament of the United Republic of Tanzania
	Create an enabling environment for sustainable development	Low-income country debt forgiveness or reduction (% of GDP)	Ministry of Finance
	Create an enabling environment for sustainable development	Share of trade in goods and services from low-income countries under duty-free, quota-free market access	Ministry of Industry and Trade and National Bureau of Statistics
	Increase financing to productive capacity in low- and middle-income countries	Share of aid to the productive sector	Ministry of Finance
	Increase financing to productive capacity in low- and middle-income countries	Proportion of foreign direct investment to the productive sector	Ministry of Finance, Tanzania Investment Centre
	Increase financing to productive capacity in low- and middle-income countries	Share of South-South cooperation to the productive sector	Ministry of Finance, Tanzania Investment Centre
Turkey			
End Poverty	End extreme income poverty	Proportion of population below US$1.25 (PPP) per day	Household Budget Survey, TurkStat
	Reduce poverty	Proportion of population living below national poverty line	Survey of Income and Living Conditions, TurkStat
	Reduce poverty	Proportion of population living below national poverty line	Household Budget Survey, TurkStat
	Reduce poverty	Share of employed persons living below national poverty line	Household Budget Survey and Survey of Income and Living Conditions, TurkStat
	Reduce poverty	Proportion of population below US$2 (PPP) per day	Survey of Income and Living Conditions, TurkStat
	Reduce the proportion of people who suffer from hunger	Prevalence of child stunting in boys and girls under 5, %	Turkish Demographic and Health Survey, TurkStat

(Annex 6 contd.)

(Annex 6 contd.)

Goal	Target	Indicator	Source
Ensure quality education for all	Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys who complete primary school	Household Labor Force Survey, TurkStat
	Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys who complete secondary school	Household Labor Force Survey, TurkStat
	Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys who complete secondary school	Household Labor Force Survey, TurkStat
	Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys who complete primary school	TurkStat
	Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys who achieve a passing grade in national learning assessments at the primary school level	Trends in International Mathematics and Science Study
	Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys who achieve a passing grade in national learning assessments at the primary school level	Trends in International Mathematics and Science Study
	Increase the number of adults with skills, including technical and vocational skills	Proportion of individuals enrolled in a Technical and Vocational Education and Training institution	National Education Statistics, Formal Education, Ministry of National Education
	Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys receiving at least one year in pre-primary programmes	e-School database, Ministry of National Education
	Ensure all children have access to early childhood and quality primary and secondary education	% of girls and boys who achieve a passing grade in national learning assessments at the primary school level	e-School database, Ministry of National Education
Create jobs, sustainable livelihoods and inclusive growth for all	Support inclusive growth and reduce inequality	Gross fixed capital formation (% of GDP)	National Accounts, TurkStat
	Achieve full and productive employment for all, including women and young people	Labour force participation rate	Survey of Income and Living Conditions, TurkStat
	Ensure equal pay for equal work	Mean nominal monthly earnings of employees (local currency)	Survey of Income and Living Conditions, TurkStat

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(Annex 6 contd.)

Goal	Target	Indicator	Source
	Ensure equal pay for equal work	Mean nominal monthly earnings of employees (local currency)	Household Labor Force Survey, TurkStat
	Achieve full and productive employment for all, including women and young people	Labour force participation rate	Household Labor Force Survey, TurkStat
	Achieve full and productive employment for all, including women and young people	Time-related underemployment (thousands)	Household Labor Force Survey, TurkStat
	Support inclusive growth and reduce inequality	Growth rate of income of the bottom 40%	Household Budget Survey and Survey of Income and Living Conditions, TurkStat
	Support inclusive growth and reduce inequality	Gini coefficient	Household Budget Survey and Survey of Income and Living Conditions, TurkStat
	Support inclusive growth and reduce inequality	Palma ratio	Household Budget Survey and Survey of Income and Living Conditions, TurkStat
Ensure sustainable energy and develop infrastructure for all	Ensure access to energy and improve efficiency and sustainability of energy supply, including renewable energy	# of hours per day households have access to electricity on average	No source
	Ensure access to energy and improve efficiency and sustainability of energy supply, including renewable energy	Share of renewable energy to total energy consumption	Sustainable Development Indicators, Turkstat
	Ensure access to energy and improve efficiency and sustainability of energy supply, including renewable energy	Share of renewable energy to total energy consumption	Electricity Generation and Shares by Energy Resources, TurkStat
	Ensure access to energy and improve efficiency and sustainability of energy supply, including renewable energy	Share of renewable energy to total energy consumption	Electricity Generation and Transmisson Statistics of Turkey
	Ensure full access to developed infrastructure and communication technology	% of the population with access to an all-season road	Transportation Statistics, TurkStat
	Ensure full access to developed infrastructure and communication technology	% of adults with an account at a formal financial institution	Bankacılıkta yapısal gelişmeler (BDDK), Banking Regulation and Supervision Agency
	Ensure full access to developed infrastructure and communication technology	Internet users (per 1,000 people)	TurkStat via Information and Communication Technologies Authority

(Annex 6 contd.)

(Annex 6 contd.)

Goal	Target	Indicator	Source
	Ensure access to energy and improve efficiency and sustainability of energy supply, including renewable energy	Rate of improvement in energy intensity	No source
	Ensure access to energy and improve efficiency and sustainability of energy supply, including renewable energy	Share of the population with access to modern cooking solutions (%)	No source
	Ensure full access to developed infrastructure and communication technology	Average bandwidth speed (megabits/second)	No source
Establish a sustainable, healthy and resilient environment for all	Publish and use economic, social and environmental accounts in all governments and companies	Share of large tax unit taxpayers using integrated reporting	Sabanci University Corporate Governance Forum
	Build resilience and reduce deaths from natural hazards	Disaster deaths per 1,000 inhabitants	Prime Ministry, Disaster and Emergency Management Presidency (AFAD)
	Publish and use economic, social and environmental accounts in all governments and companies	Existence of national and sub-national government publishing according to the System of Environmental-Economic Accounting	National Accounts, TurkStat
	Safeguard ecosystems and biodiversity	Trends in coverage of protected areas	General Directorate of Nature Conservation and National Parks, Ministry of Forestry and Water Works
	Safeguard ecosystems and biodiversity	Net loss in forest area (% of land area)	General Directorate of Forestry, Ministry of Forestry and Water Works
Establish open, accountable, inclusive and effective institutions, rule of law and a peaceful and inclusive society	Improve personal safety	Prevalence of violence against women, including domestic violence	Women in Statistics, TurkStat
	Improve personal safety	Prevalence of violence against women, including domestic violence	Violence Against Women Survey, TurkStat
	Improve transparency in the revenue system	Share of eligible taxpayers who submit their taxes	Turkey Revenue Agency
	Monitor and end discrimination and inequalities in public service delivery, the rule of law, access to justice and participation in political and economic life on the basis of social status	Proportion of seats held by women and minorities in national or local level government	The Association for the Support and Training of Women Candidates (KA.DER)
	Improve personal safety	Prevalence of violence against women, including domestic violence	The Association for the Support and Training of Women Candidates (KA.DER)

(Annex 6 contd.)

(Annex 6 contd.)

Goal	Target	Indicator	Source
	Provide free and universal legal identity, such as birth registrations	Percentage of children under 5 who are registered with the civil authority	Address Based Population Statistics by Age and Sex for Turkey, Provinces and Territories
	Monitor and end discrimination and inequalities in public service delivery, the rule of law, access to justice and participation in political and economic life on the basis of social status	Proportion of seats held by women and minorities in national or local level government	National Assembly Deputy Profile
	Improve personal safety	Prevalence of violence against women, including domestic violence	Judiciary Statistics, Ministry of Justice
	Improve personal safety	Violent death per 100,000 people	Turkish National Police Directorate, Ministry of Interior
	Monitor and end discrimination and inequalities in public service delivery, the rule of law, access to justice and participation in political and economic life on the basis of social status	Proportion of seats held by women and minorities in national or local level government	Local Government and Deputy Profiles
	Monitor and end discrimination and inequalities in public service delivery, the rule of law, access to justice and participation in political and economic life on the basis of social status	Average time between filing a case and receiving a verdict	Criminal Court Records
	Monitor and end discrimination and inequalities in public service delivery, the rule of law, access to justice and participation in political and economic life on the basis of social status	% of adults with an account at a formal financial institution, disaggregated by sex	Bankacılıkta yapısal gelişmeler (BDDK), Banking Regulation and Supervision Agency
	Provide free and universal legal identity, such as birth registrations	Percentage of children under 5 who are registered with the civil authority	Address Based Population Statistics by Age and Sex for Turkey, Provinces and Territories
	Provide free and universal legal identity, such as birth registrations	Proportion of adults with a basic legal identity document	No source
	Reduce bribery and corruption in all forms	Survey data regarding bribes or gifts for service from government official – "In the past year, how often (if ever) have you had to pay a bribe, give a gift, or do a favour to government officials in order to get a document or receive a service"	No source

(Annex 6 contd.)

Goal	Target	Indicator	Source
Establish a Global Partnership for Sustainable Development	Create an enabling environment for sustainable development	Share of trade in goods and services from low-income countries under duty-free, quota-free market access	Trade data, TurkStat
	Increase financing to productive capacity in low- and middle-income countries	Share of aid to the productive sector	Development Assistance Reports, Turkish Cooperation and Coordination Agency
	Create an enabling environment for sustainable development	Existence of laws for ensuring country-by-country reporting by multinational corporations, disclosure of beneficial ownership and prevention of money laundering	Official legislative information
	Create an enabling environment for sustainable development	Share of trade in goods and services from low-income countries under duty-free, quota-free market access	Turkey's Import Regime, Ministry of Economy
	Create an enabling environment for sustainable development	Existence of laws for ensuring country-by-country reporting by multinational corporations, disclosure of beneficial ownership and prevention of money laundering	Financial Crimes Investigation Board (MASAK), Official legislative information
	Increase financing to productive capacity in low- and middle-income countries	Proportion of foreign direct investment to the productive sector	Central Bank of Turkey
	Create an enabling environment for sustainable development	Low-income country debt forgiveness or reduction (% of GDP)	No source
	Increase financing to productive capacity in low- and middle-income countries	Share of South-South cooperation to the productive sector	No source

Implementing Agenda 2030: Unpacking the Data Revolution at Country Level is a unique report that examines data availability and quality for tracking progress against the Sustainable Development Goals (SDGs). The countries examined in this report, spanning four continents, are Bangladesh, Canada, Peru, Senegal, Sierra Leone, Tanzania and Turkey. The report examines data used to track progress in poverty, education, employment and inclusive growth, energy and infrastructure, environmental sustainability and disaster resilience, governance and global partnership.

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